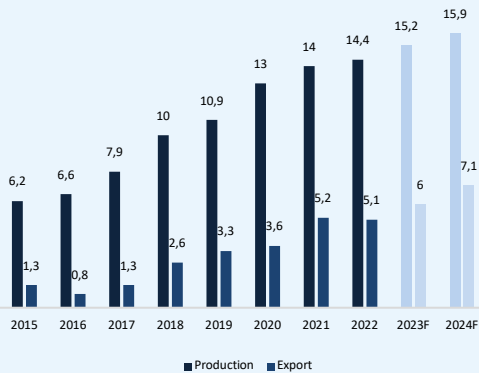


STEEL

Steel Sector | Indonesia | October, 2024

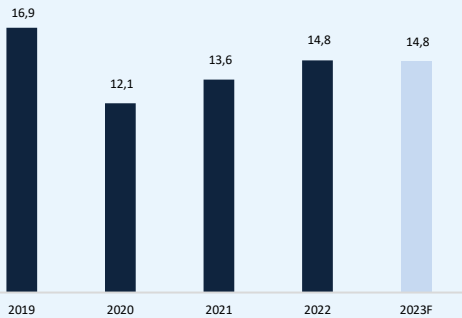
KEY INDEX

Chart 1: Indonesian Steel Production and Export (in million tons)



Source: Indonesian Iron & Steel Industry Association (IISIA)

Chart 2: Indonesian Steel Import (in million tons)



Source: Indonesian Iron & Steel Industry Association (IISIA)

Chart 3: Indonesian Steel Consumption (in million tons)



Source: Indonesian Iron & Steel Industry Association (IISIA)

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Experiencing Growth, yet Facing Challenges

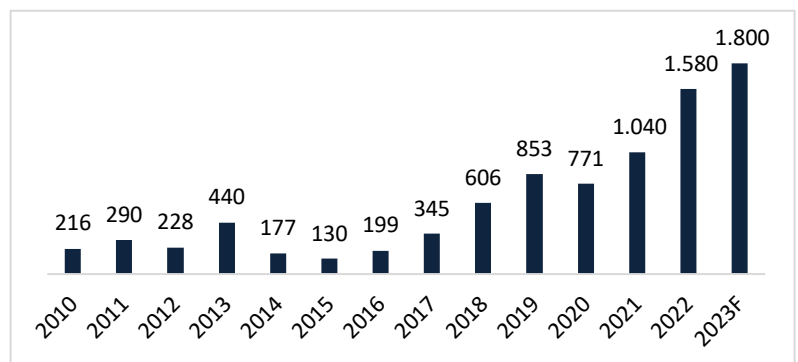
- Electric vehicle boost steel demand.
- Indonesia’s steel consumption has risen consistently and still projected increasing.
- Challenges from International Regulation, Carbon Border Adjustment Mechanism (CBAM).

• Growth and Stability of the Industry

The Rising Demand of Nickel as Base Metal

Metals are the strongest, most resilient and most resistant to everyday wear, therefore metals have been used since ancient times for several purposes. Aluminum, bauxite, copper, lead, nickel, tin and zinc are base metals or non-ferrous metal that are mostly used in the industry accordingly traded on the London Metal Exchange (LME). Metals are often used in automotive, construction, manufacturing and other industries. With the abundant mineral deposits, Indonesia is a major global supplier of metal products. According to S&P Global Commodity Insights, Indonesia produced an estimated 40.2% of the world’s nickel in 2023. Nickel production in Indonesia has shown a steady growth trend from 2010 to 2022. In 2014 and 2015, there was a downtrend nickel production due to low nickel prices, global economic condition and other constraints. However, the nickel industry has rebounded from 2018 as nickel production has shown a significant increase. The highest recorded nickel production occurred in 2022 approximately 1,580 thousand metric tons and this suggests a strong demand for nickel. Indonesian nickel production is estimated amounted to 1,800 million metric tons in 2023.

Chart 1: Global Nickel Production (in thousand metric tons)



Source: Statista

Growth in Indonesian Steel Production and Export

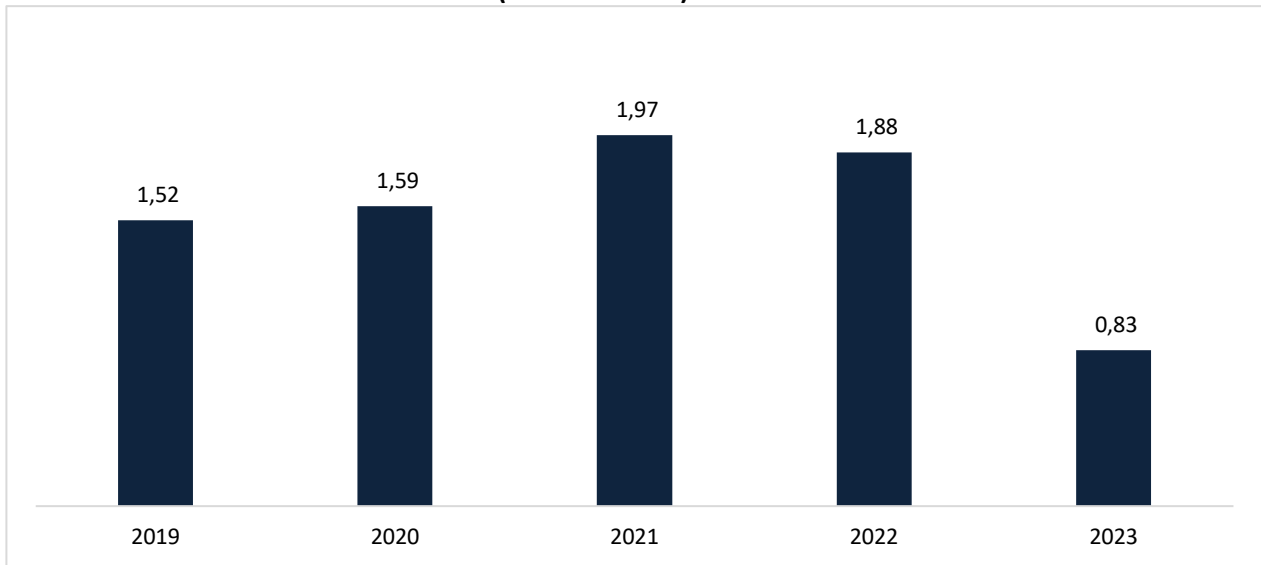
Metals don't have to be produced by humans as it occurs naturally in Earth's crust. On the other hand, steel is an alloy comprised of iron metal, therefore steel would not exist without metal. This implies that steel is not technically a metal, but rather a variation of metal instead. Indonesian Iron & Steel Industry Association (IISIA) noted that Indonesian steel production has shown a consistent upward trend. While Indonesian steel production has increased, exports also experienced growth. The growth of steel export will rely on the development of Chinese steel consumption which amounted more than 50% of global steel consumption. World Steel Association (WSA) stated that China steel consumption will record slight positive growth. During 2015 to 2022 periods, there has always been a gap between production and exports indicating that most of Indonesian steel production is consumed domestically. In 2022, Indonesian steel production was around 14.4 million tons and Indonesian steel export was around 5.1 million tons. During 2021 to 2022 periods, the average growth of Indonesian steel production is 5.3% and steel export is 5.2%. Hence, Indonesian steel production and export are projected relatively at the same growth level or around 15.2 million tons and 6 million tons in 2023. The forecast for 2024 suggests continued growth in both production and export.

Chart 2: Indonesian Steel Production and Export (in million tons)


Source: Indonesian Iron & Steel Industry Association (IISIA)

PT Krakatau Steel (Persero) Tbk) Steel Production

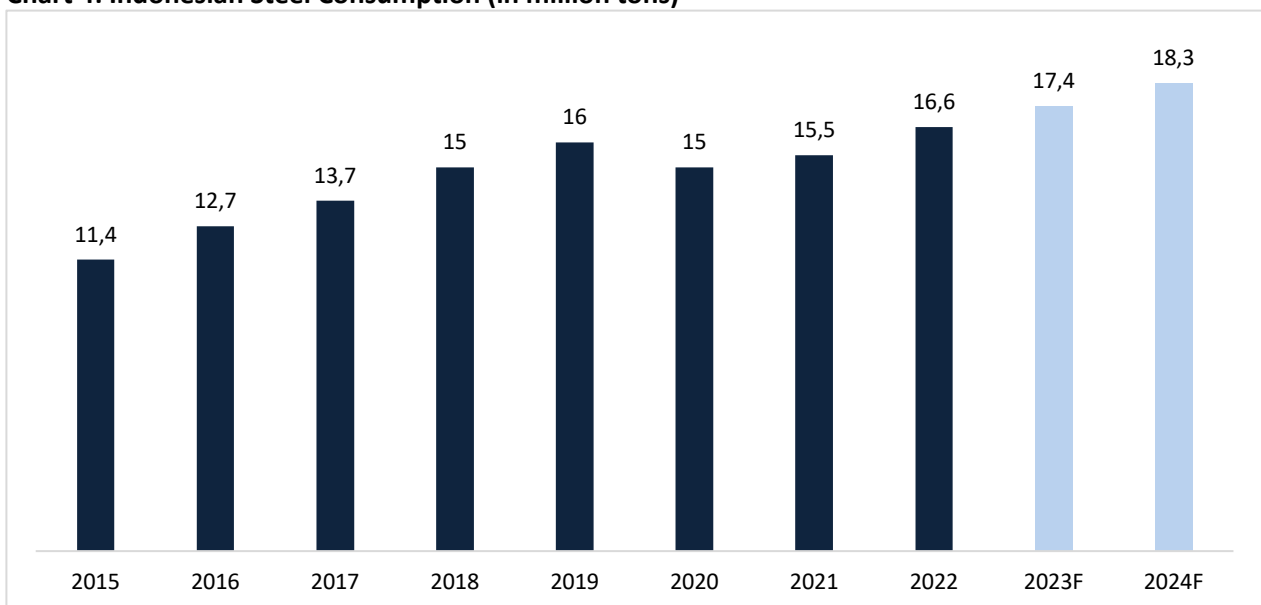
PT Krakatau Steel (Persero) Tbk (KRAS) accounted for approximately 23% of Indonesian steel production in average during 2019 to 2022 periods. KRAS' steel production volume has generally increased during 2019 to 2021 periods which is in line with Indonesian steel production volume trend. However, there was a decline in KRAS' steel production during 2022 to 2023 periods. In 2022, the decrease in KRAS' steel production volume was caused by lower production of Hot Sheet Steel and Steel Profiles and the non-operation of Wire Rod and Reinforcing Steel. Meanwhile in 2023, KRAS experienced a force majeure where KRAS' factory (HSM1) had a fire incident that hampered production to meet demand since May 2023. The new HSM1 factory is planned to operate in the end of 2024 and KRAS targets its sales to reach 90% of the realization sales in 2023.

Chart 3: KRAS' Steel Production Volume (in million tons)


Source: PT Krakatau Steel (Persero) Tbk (KRAS)

Consistent Upward Trend in Indonesian Steel Consumption

In line with increasing production, there had been a consistent upward trend in Indonesian steel consumption from 2015 to 2022 and this suggests a growing domestic demand for steel. Indonesian steel consumption has increased from 11.4 million tons in 2015 to 16.6 million tons in 2022. In 2024, Indonesian steel consumption is projected increasing at 18.3 million tons or grow by 5.2% following the consumption growth trend during 2020 to 2023 periods. This growth is supported by various conditions that drive steel demand including global steel demand, national economic growth, government infrastructure spending, growth in the automotive, electronics and household industry. Global steel consumption is projected at 1.81 billion tons or an increase of 1.8% based on data from WSA. The demand in infrastructure sector is also high as government projects in Ibu Kota Nusantara (IKN) is accelerated and it requires a fast delivery time.

Chart 4: Indonesian Steel Consumption (in million tons)


Source: Indonesian Iron & Steel Industry Association (IISIA)

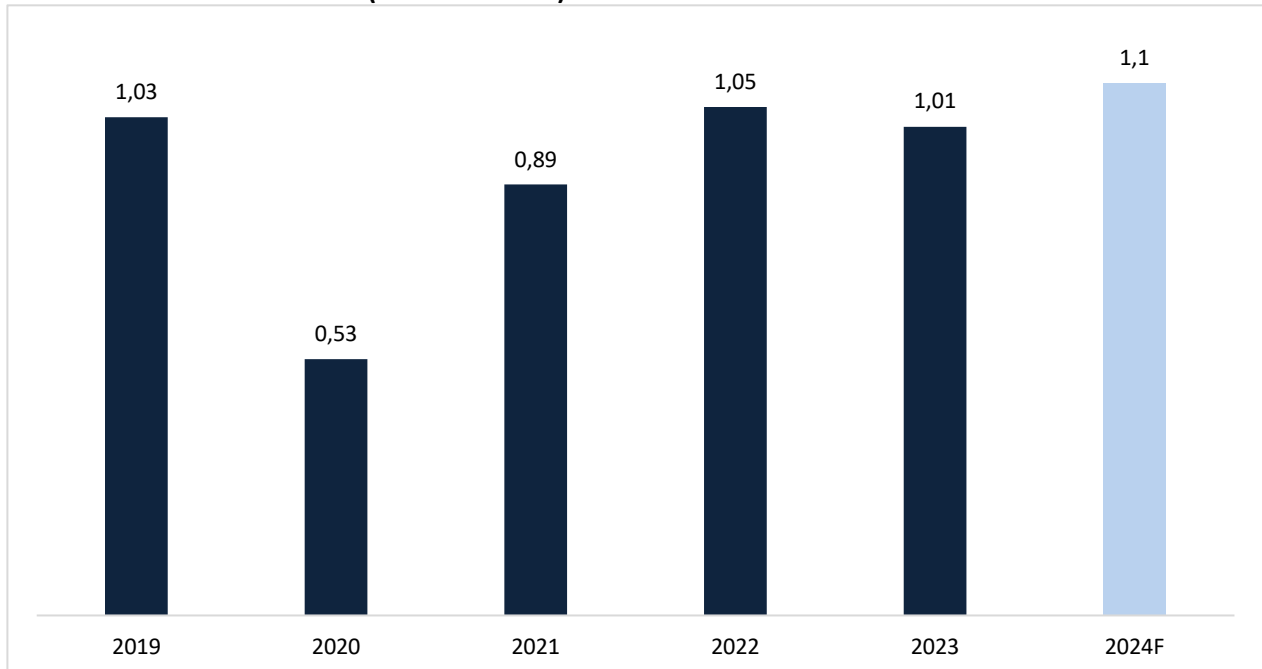
Electric Vehicle Drives Metal and Steel Demand

The demand for metal and steel is also rising from electric vehicle (EV) manufacturers. As metals such as copper and lithium used in batteries, its demand has surged due to the rising popularity of EV. Furthermore, steel is also used in the casing for batteries and play important role in the design of EV. International Energy Agency (IEA) predicted that EV sales will rise around 21% in 2024, from 14 million unit to 17 million unit. Gaikindo (Gabungan Industri Kendaraan Bermotor Indonesia) stated that EV's consumers are still dominated by upper class society and tend to be purchased not as first vehicle In Indonesian market. There are still a number of negative stigmas attached to electric vehicles such as relatively expensive price, resale value, range capability, availability of charging stations and battery charging duration. Based on Gaikindo data, market share of electric car is around 2.7% of domestic car sales and market share of electric motorcycles is around 1.5% of domestic motorcycle sales.

Challenges Impact Car Sales in Indonesia

Gabungan Industri Kendaraan Bermotor Indonesia (Gaikindo) reported that domestic car sales reached to 1.01 million units in 2023, decreasing 4.04% from 2022 which amounted to 1.05 million units. Gaikindo chairman, I Jongkie D. Sugiarto, stated that the below achievement target in 2023 was caused by a slowdown in the automotive industry during second half of 2023 as well as increase in Bank Indonesia (BI) interest rates. Gaikindo estimated that new car sales target in 2024 are around 1.1 million units. However, the automotive industry in Indonesia experienced quite heavy pressure due to presidential election. High interest rates also affect the financing sector and consumer's ability to buy cars. Gaikindo was reviewing option to revise its new car sales target in 2024, yet it is still discussed with Gaikindo members or ATPM (Agen Tunggal Pemegang Merek). Some of ATPM had prepared several strategies to overcome challenges in order to achieve the target such as providing programs that simplify things for customers and launching new product.

Chart 5: Indonesian Car Sales (in million units)



Source: Gabungan Industri Kendaraan Bermotor Indonesia (Gaikindo)

- **Regulation of the Industry**

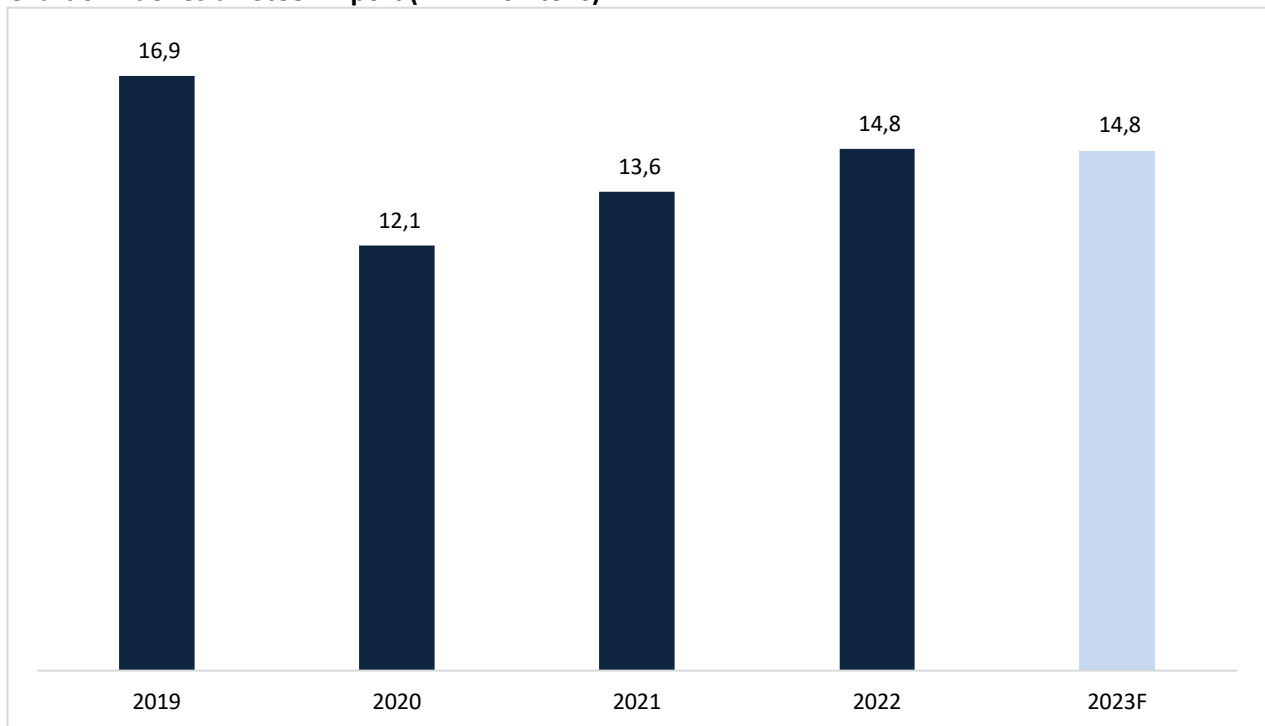
Pressure Mounts on Indonesian Steel Companies

Carbon Border Adjustment Mechanism (CBAM) by United Europe (UE) has a major impact on domestic steel industry. Although Indonesian steel export to UE is relatively small compared to total Indonesian steel export, Indonesian steel industry is still under pressure. Steel companies are under pressure to reduce their environmental footprints as investors’ attention shifts to environmental, social and governance concerns. Therefore, Senior Economist Institute for Development of Economics and Finance (INDEF), Tauhid Ahmad, stated that support from the government is necessary including policy that allows the transition to net zero emission technology, so that Indonesian steel industry is able to face global challenges by maintaining its competitiveness and profitability. Green financing approach is one of the options that the government could provide for steel industry as we see that currently the government provides tax incentives for EV to stimulate EV’s production and purchase in Indonesia.

Improve Import Performance

As Indonesian steel production is still unable to meet its consumption, Indonesia still imports steel. The highest Indonesian steel import was recorded before COVID-19 amounted to 16.9 million tons in 2019. Since then, Indonesian steel import has steadily risen and relatively at the same level in 2022 and 2023. The numbers have never reached pre COVID-19 level despite continued growth in Indonesian steel demand. It indicated an increase in import performance that led to improving utilization of Indonesian steel capacity. The import of alloy steel is regulated by the Government as only companies with specific recognition or determination from the Minister can import this product. Every business entity engaged in importing steel must obtain an import approval called “Persetujuan Impor” (PI) through technical consideration. This technical consideration can be granted if accompanied by several data such as production plan, import plan, realization of import in the previous year, raw material absorption plan, realization of absorption and other business license documents.

Chart 6: Indonesian Steel Import (in million tons)



Source: Indonesian Iron & Steel Industry Association (IISIA)

A Shield for Indonesian Steel Consumers

Ministry of Trade protects consumers and national industry through Indonesian national standard or Standar Nasional Indonesia (SNI). Consumers' protection is assured with SNI as clear standard ensure that products on the market are safe to use and meet consumers' needs. SNI is also an effective instrument to protect Indonesian steel industry from unfair competition, encourage the improvement of local product quality and support the competitiveness of Indonesian steel industry to meet both domestic and international markets. SNI also acts as a technical barrier for imported products that do not meet standards. There are SNI for concrete reinforcement steel which is assessed from its raw material, size, diameter, length, weight and other factors. The assessment is conducted using samples and the assessment guideline is provided. Minister of Trade, Zulkifli Hasan, led the destruction of concrete reinforcement steel that did not comply with SNI regulation on April, 2024. This action is a concrete step in enforcing SNI standard and a clear signal that Ministry of Trade will not tolerate products that do not meet SNI standard. This action is also a warning for other companies to follow the rules and not only prioritize profit.

Indonesian Competitive Steel Market

Indonesian steel market is highly competitive as there are few dominant players such as KRAS, yet the market is characterized by a mix of larger companies, smaller regional producers and international competitors. The major players other than KRAS are PT Betonjaya Manunggal Tbk, PT Gunawan Dianjaya Steel Tbk, PT Bakrie Pipe Industries (a subsidiary of PT Bakrie Brothers Tbk), PT Gunung Raja Paksi Tbk, PT Steel Pipe Industry of Indonesia Tbk and PT Saranacentral Bajatama Tbk. IISIA's organization continues to increase its member and has reached 193 iron and steel companies. Other than major players, there are also smaller regional steel producers located near raw material sources that have lower production costs resulting more competitive price. Indonesian steel industry faces significant competition from both domestic and also international sources. China, a major global steel producer, has been a significant source of imports to Indonesia, offers competitive prices. This has led to concerns about dumping and unfair trade practices.

- **Revenue and Cost Structure**

Exposure to Exchange Rate Risk

Indonesian steel industry is significantly exposed to exchange rate risk due the country's heavy reliance on imported raw materials, such as iron ore and coal, which are often priced in US Dollars. When Indonesian Rupiah weakens against US Dollar, the cost of import increases in local currency impacting the profitability of steel producers. To mitigate exchange rate risk, Indonesian steel companies can apply some strategies such as hedging, sourcing raw materials from multiple countries and structuring financial obligation in the same currency as revenue. While these strategies can help manage exchange rate risk, it remains a significant challenge for Indonesian steel industry. Import tariffs, subsidies and government policies can affect the competitiveness in Indonesian steel industry.

- **Financial Profile**

Declining Revenue in Indonesian Steel Companies

KRAS' revenues consistently maintain the largest market size reflecting its dominant position in Indonesian steel industry. While most companies experienced growth from 2021 to 2022, there was a general declining revenue in 2023. This is primarily due to declining sales price of steel that could be attributed to various factors such as economic slowdown, global steel market fluctuations or company-specific challenges.

Table 1: Revenue of Indonesian Steel Companies

| Company | Ticker | Revenue (IDR, Bn) | | | |
|-----------------------------------------|--------|-------------------|----------|----------|---------|
| | | 2021 | 2022 | 2023 | 6M2024 |
| PT Krakatau Steel Tbk | KRAS | 30,157.4 | 34,762.2 | 22,411.5 | 3,480.4 |
| PT Gunung Raja Paksi Tbk | GGRP | 10,283.6 | 14,682.6 | 10,941.5 | n.a |
| PT Steel Pipe Industry of Indonesia Tbk | ISSP | 5,378.8 | 6,255.9 | 6,455.3 | 1,423.5 |
| PT Gunawan Dianjaya Steel Tbk | GDST | 1,672.3 | 2,594.5 | 2,525.0 | 675.1 |
| PT Saranacentral Bajatama Tbk | BAJA | 1,374.5 | 1,061.8 | 950.5 | n.a |
| PT Betonjaya Manunggal Tbk | BTON | 112.7 | 152.2 | 139.5 | 31.6 |
| TOTAL | | 48,979.3 | 59,509.2 | 43,423.3 | 5,610.6 |

Source: Capital IQ

As we see that KRAS and BTON has a significant higher debt to equity ratio compared to other companies suggesting a more leveraged capital structure. The steel industry generally requires significant capital investment due to capital-intensive production process, raw material costs, and environmental compliance. However, most companies (GGRP, ISSP and GDST) has less leveraged capital structure shown by debt to equity ratio below 1x and this means most companies relies more on equity financing.

Table 2: Capital Structure of Indonesian Steel Companies

| Company | Ticker | Debt-to-Equity Ratio (x) | | | |
|-----------------------------------------|--------|--------------------------|------|------|--------|
| | | 2021 | 2022 | 2023 | 6M2024 |
| PT Krakatau Steel Tbk | KRAS | 3.86 | 3.34 | 3.13 | 3.71 |
| PT Gunung Raja Paksi Tbk | GGRP | 0.20 | 0.24 | 0.14 | n.a |
| PT Steel Pipe Industry of Indonesia Tbk | ISSP | 0.64 | 0.64 | 0.58 | 0.40 |
| PT Gunawan Dianjaya Steel Tbk | GDST | 0.24 | 0.37 | 0.44 | 0.48 |
| PT Saranacentral Bajatama Tbk | BAJA | 1.49 | 3.84 | 3.34 | n.a |
| PT Betonjaya Manunggal Tbk | BTON | 13.80 | n.a | n.a | n.a |
| AVERAGE | | 3.37 | 1.69 | 1.53 | 1.53 |

Source: Capital IQ

While total revenues decrease in 2023, average EBITDA margin ratio has shown better performance. There is significant variation in EBITDA margin ratio across companies indicating different levels of operational efficiency and cost management. KRAS and GDST have experienced fluctuations in their EBITDA margin ratios over the past few years. While GGRP, ISSP and BAJA has the same profitability margin trend, drop in 2022 yet rise in 2023. A better profitability margin in 2023 indicating more efficiency in operational activities.

Table 3: Profitability of Indonesian Steel Companies

| Company | Ticker | EBITDA Margin (%) | | | |
|-----------------------------------------|--------|-------------------|-------|-------|--------|
| | | 2021 | 2022 | 2023 | 6M2024 |
| PT Krakatau Steel Tbk | KRAS | 5.39 | 4.14 | 0.93 | -1.73 |
| PT Gunung Raja Paksi Tbk | GGRP | 16.20 | 10.50 | 12.17 | n.a |
| PT Steel Pipe Industry of Indonesia Tbk | ISSP | 15.17 | 9.13 | 13.38 | 12.87 |
| PT Gunawan Dianjaya Steel Tbk | GDST | -1.13 | 14.46 | 12.99 | 2.93 |
| PT Saranacentral Bajatama Tbk | BAJA | 14.98 | -3.77 | 4.04 | n.a |
| PT Betonjaya Manunggal Tbk | BTON | 10.02 | 7.32 | 5.83 | 4.23 |
| AVERAGE | | 10.11 | 6.96 | 8.22 | 4.58 |

Source: Capital IQ

There is significant variation in EBITDA to interest expense ratios across the companies reflecting different levels of financial leverage and profitability. Some companies have experienced fluctuations of EBITDA to interest ratios such as KRAS, GGRP and GDST has a decline, while ISSP showed better performance in 2023. On average, most companies have relatively high ability to pay its interest expenses, while KRAS consistently recorded EBITDA to interest ratios below 1x.

Table 4: Interest Coverage Ratio of Indonesian Steel Companies

| Company | Ticker | EBITDA/Interest Expense (x) | | | |
|-----------------------------------------|--------|-----------------------------|-------|-------|--------|
| | | 2021 | 2022 | 2023 | 6M2024 |
| PT Krakatau Steel Tbk | KRAS | 0.93 | 0.60 | 0.13 | n.m |
| PT Gunung Raja Paksi Tbk | GGRP | 14.86 | 9.19 | 7.03 | n.a |
| PT Steel Pipe Industry of Indonesia Tbk | ISSP | 10.43 | 9.72 | 13.32 | 4.54 |
| PT Gunawan Dianjaya Steel Tbk | GDST | n.m | 10.19 | 6.12 | 1.49 |
| PT Saranacentral Bajatama Tbk | BAJA | 15.61 | n.m | 2.23 | n.a |
| PT Betonjaya Manunggal Tbk | BTON | 17.06 | 18.09 | n.a | n.a |
| AVERAGE | | 11.78 | 9.56 | 5.77 | 3.02 |

Source: Capital IQ

- **Outlook 2024 - 2026**

Carbon Border Adjustment Mechanism (CBAM) as a Protection for Steel Industry

The Government supports Indonesian steel industry primarily in protecting this industry from imported products. Indonesia has applied trade remedies in the form of anti-dumping and safeguards, but the number is still limited. Since 1995 to 2023 periods, Indonesia has only implemented 34 anti-dumping and 11 safeguards, far behind other countries such as Thailand, ASEAN countries, has implemented 64 anti-dumping and 3 safeguards. The Government also protects concrete reinforcement steel through Indonesian national standard or Standar Nasional Indonesia (SNI). Going forward, carbon border adjustment mechanism indicates that protection in this industry will continue to grow. The government is essential to keep Indonesian steel industry competitive with imported products.

Improving Utilization of Steel Production Capacity

In 2024, Indonesian steel consumption is projected increasing at 18.3 million tons or grow by 5.2%. However, we see that Indonesian steel import had never reached its pre-COVID-19 level. Furthermore, the import level in 2023 of 14.77 million tons is slightly declining from import level in 2023 of 14.82 million tons. Indonesia is expected to still continue importing steel yet based on data from 2023, the import has shown slightly better performance indicating improving the utilization of Indonesian steel production capacity. Indonesian steel production capacity installed was recorded at 19.6 million tons in 2020 and the production is at 14.4 million tons in 2022 or utilization rate around 73%. In 2024, Indonesian steel production is projected at 15.9 million tons or utilization rate around 81%.

Volatile Steel Market Outlook

Based on IISIA data, according to prices announced in global steel market, the price of scrap reached \$370 per ton, up \$6 compared to last week of August 2024, while the price of iron ore was \$92 per ton, down \$9 compared to last week of August 2024. The projection for steel prices is likely to be volatile as it will depend on combination of factors including global economic conditions, supply and demand dynamics, government policies and technological advancements.

- **Industry Risk Profile: Moderate – to – High**

Infrastructure and Electric Vehicle Boost Steel Demand

Domestic demand for steel products driven by factors such as infrastructure development and construction as well as electric vehicle (EV) manufacturers. Indonesia possesses significant mineral deposits, which is a key component in steel production, and this provides a competitive advantage.

Volatile Steel Prices

The steel industry is highly competitive with major player like China, Indonesian producers must constantly adapt to global market dynamics. The government has been actively supporting steel industry through Indonesian national standard or Standar Nasional Indonesia (SNI), regulation of the alloy steel import and trade remedies. However, as steel industry is associated with environmental concerns, stricter regulation such as Carbon Border Adjustment Mechanism (CBAM) can increase cost and limit growth. Steel prices also have been historically volatile due to several factors and this can impact the profitability of steel companies.