

# THE REAL ECONOMY BULLETIN

TRENDS, DEVELOPMENTS AND DATA

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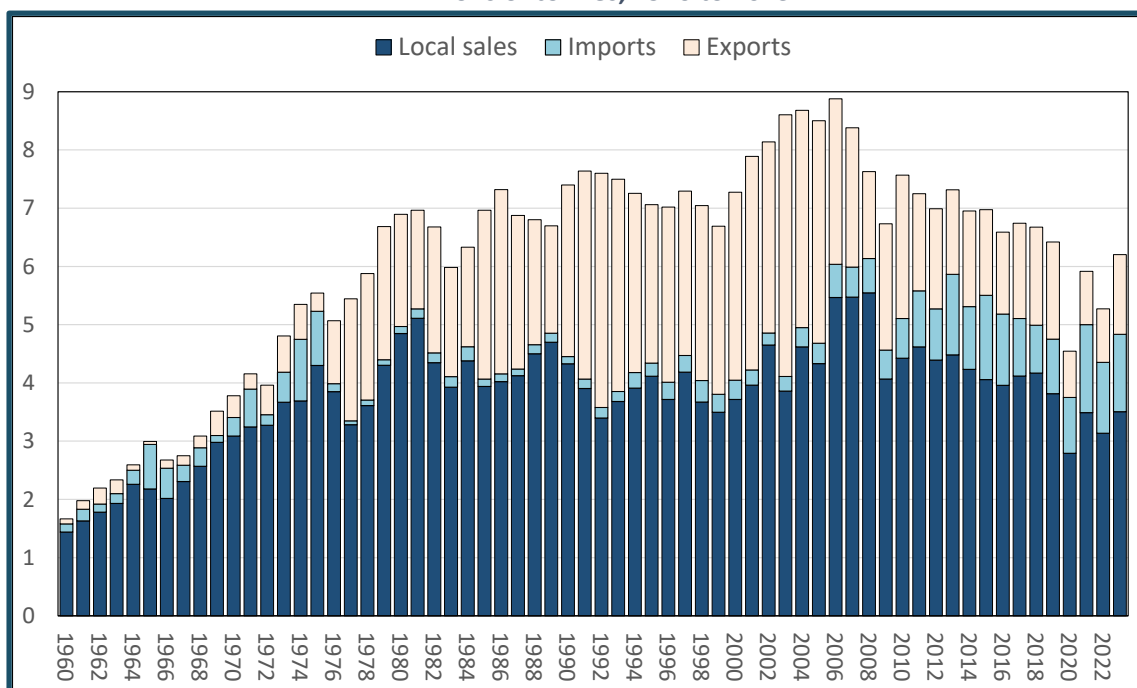
## Briefing Note 1: The structural crisis in steel

*Neva Makgetla*

ArcelorMittal South Africa's (AMSA) threatened closure of its Newcastle plant underscores the long-term structural crisis in the South African steel industry. For three decades, domestic demand for steel has been essentially stagnant as the steel-intensity of economic growth dropped steadily. Meanwhile, exports declined from 2006 while low-cost mini-mill producers and, to a lesser extent, imports took a growing market share.

In volume terms, domestic sales of crude steel (including imports) fell, on average, 0.2% a year from 1976 to 2023. In the same period, the GDP expanded 2% annually. From 1976 to 2006, domestic sales climbed 1.6% a year, but from 2006 to 2023 they dropped 2.6% a year. Exports expanded from 1976 to 2006 but then fell. After 2011, exports were below 1977 levels. (Graph 22)

**Graph 22. South African crude steel production for domestic sale and export, and imports, in millions of tonnes, 1976 to 2023**

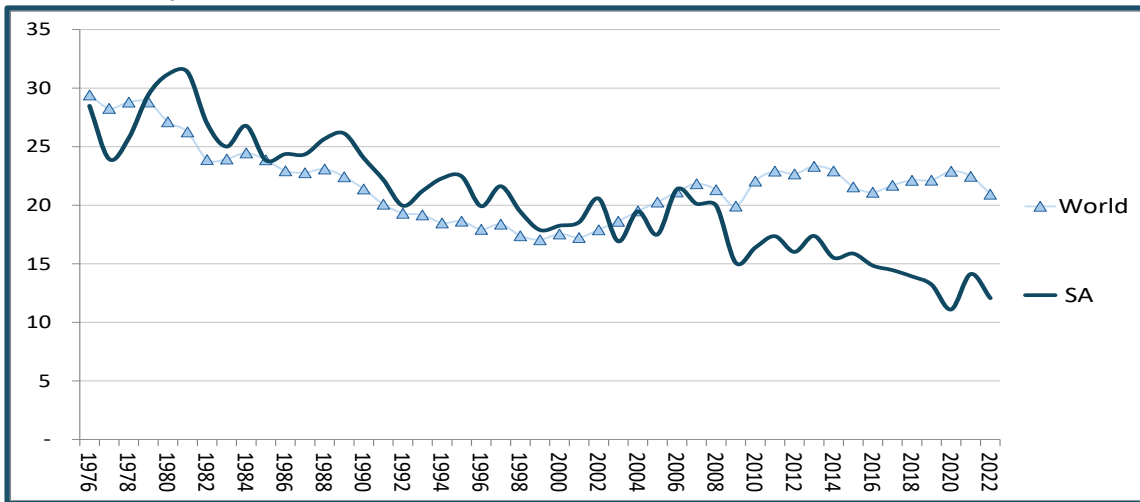


Source: Calculated from South African Iron and Steel Institute. Historical time series. Spreadsheet. Downloaded from <https://www.saisi.org/historical-time-series/> in May 2024.

The long-run stagnation in crude steel sales in South Africa ultimately reflected a persistent decline in the steel intensity of the GDP. In 1976, South Africa used 38 million tonnes of steel per trillion rands of GDP, in constant 2022 terms. By 2022, that figure had fallen over two thirds, to 12 million tonnes per trillion rands of GDP. (Graph 23) In the late 1970s, steel output climbed around 1.7% for each 1% increase in the South African GDP. In the late 2010s, in contrast, steel sales dropped over 2% a year despite an average of 1% GDP growth annually. Moreover, steel consumption lagged the overall GDP recovery that followed the extraordinary downturn at the

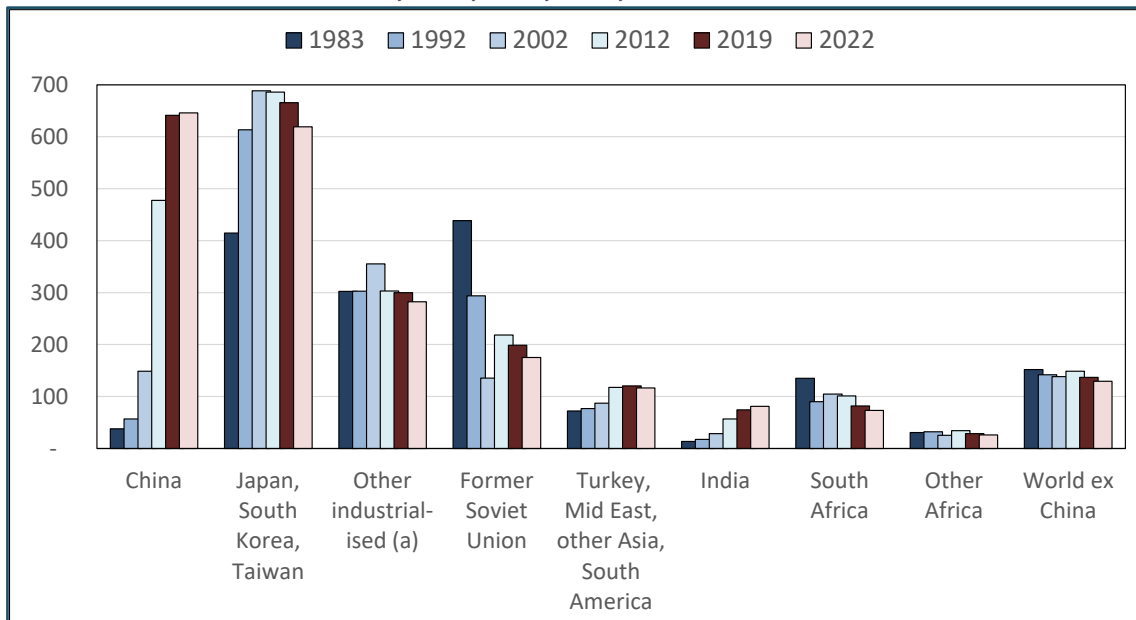
start of the COVID-19 pandemic in 2020. The steel intensity of growth in South Africa generally fell more sharply than the international norm, as shown in Graph 23.

**Graph 23. Million tonnes of steel produced internationally and used in South Africa per trillion US dollars of GDP, in constant 2015 terms, 1976 to 2022**



Source: Data on global steel production from WorldSteel Association. World Steel in Figures. Relevant years. Downloaded from <https://worldsteel.org/data/world-steel-in-figures/> in May 2024. Data on South African steel apparent domestic consumption (local sales including imports) from South African Iron and Steel Institute. Historical time series. Spreadsheet. Downloaded from <https://www.saisi.org/historical-time-series/> in May 2024. GDP data from World Bank. World Development Indicators. GDP in constant 2015 US dollars. Accessed at [www.worldbank.org](http://www.worldbank.org) in May 2024.

**Graph 24. Apparent finished steel consumption per person by region, 1983, 1992, 2002, 2012, 2019 and 2022**

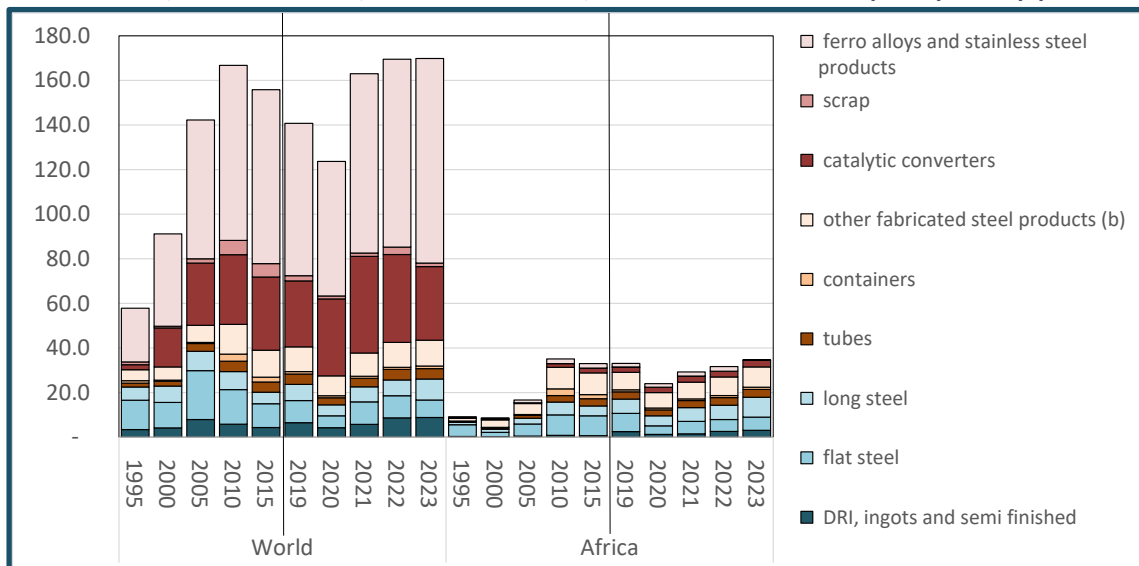


Source: Calculated from WorldSteel. World Steel in Figures. Relevant years. (For 2002 and 2012, published by International Iron and Steel Institute.) Tables on apparent consumption of finished steel per capita. Accessed at <https://worldsteel.org/data/world-steel-in-figures/> in May 2024.

The decline in steel intensity over the past half century had deep roots. In South Africa and the Global North, it stemmed principally from the shrinking share of goods industries; surging reliance on new plastics and metal alloys in production and construction; and the continual downsizing of machinery and appliances. Internationally, the trend was partially offset in the 2000s by rapid growth in manufacturing and construction in lower-income countries, especially China and more recently India. As the following graph shows, outside of China, consumption of steel per person declined over the past 40 years, despite some increases in parts of the Global South. Steel consumption in Africa outside of South Africa declined after 2012 from an already low base.

In terms of South Africa’s exports, ferroalloys remain strong, but other crude steel products struggled. Flat steel exports saw a particularly precipitous decline. In part, that reflected the extraordinary growth in Chinese steel production, which accounted for virtually all the increase in steel output in the past 25 years. In part, it resulted from a decision at AMSA from 2006 to shift away from European and Asian markets to other African countries. This strategy aligned with the global policy of its parent, ArcelorMittal. It led to a sharp fall in AMSA exports, however.

**Graph 25. South African steel exports internationally and to African countries, 1995, 2000, 2005, 2010 and 2015, and 2019 to 2023, in billions of constant (2022) rand (a)**



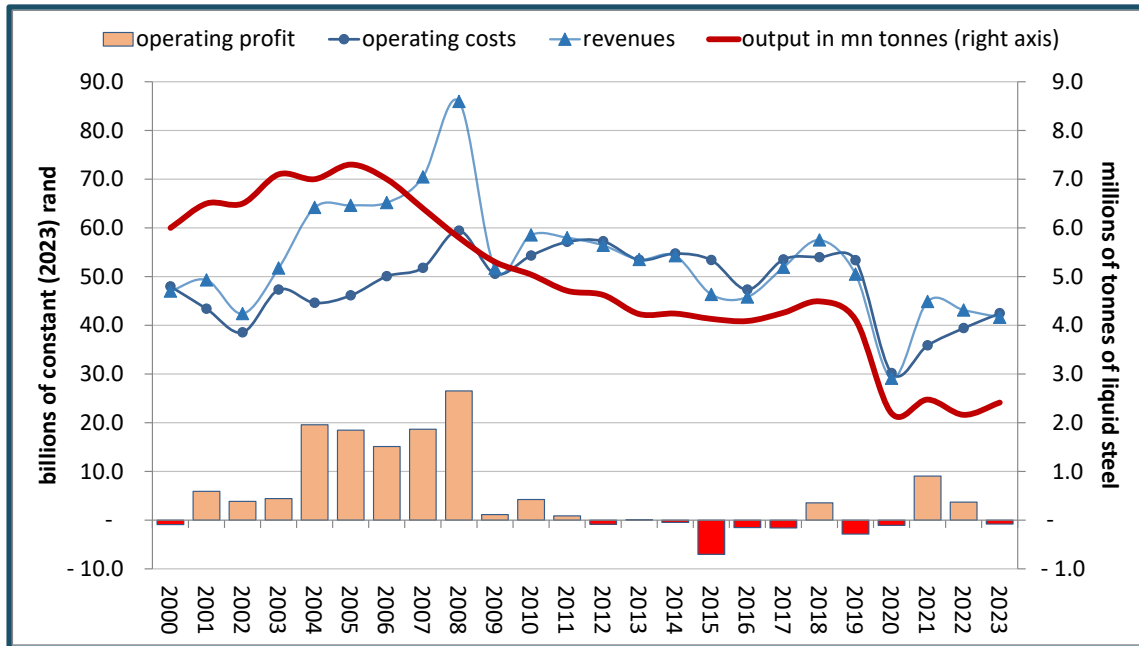
*Note: (a) Refflated with average annual CPI rebased to 2022. For ferroalloys and stainless steel products, figures for Africa are mirror data. (b) Includes rail, structural steel, cutlery and other basic manufactures; excludes machinery including locomotives and rolling stock. Source: Except for ferroalloys, calculated from Quantec. EasyData. HS 8 series. Interactive dataset. Accessed at [www.quantec.co.za](http://www.quantec.co.za) in May 2024. Figures for African imports of ferro alloys from South Africa are calculated from ITC. Trade Map. Interactive dataset. Accessed at [www.trademap.org](http://www.trademap.org) in May 2024.*

While domestic and export markets for steel (excluding ferroalloys) were at best flat, competition intensified for the South African market. The share of local steel consumption from producers other than AMSA climbed from 25% in the mid-2010s to 30% at the end of the decade and 50% in 2023. Most of the competition came from new mini mills that produce a smaller range of products than AMSA but have lower costs. They benefited from significant state support, especially from measures to shift rents on scrap from exporters to local beneficiation and from

financing by the Industrial Development Corporation. Meanwhile, imports climbed from a tenth of domestic steel consumption in 2006 to a seventh in the late 2010s and over a quarter in 2023.

As Graph 24 shows, the combination of flat demand and rising competition has increasingly squeezed AMSA. It made losses in seven of the past 10 years; its production has dropped by more than half despite substantial success in cutting costs; and it is operating at under 60% capacity.

**Graph 26. AMSA profits, operating costs and revenue in billions of constant (2023) rand (a), and its output in millions of tonnes of steel, 2000 to 2023**



Notes: (a) Refflated with CPI rebased to 2023. Source: AMSA annual reports for relevant years.

All of these factors contributed to South Africa being the worst performer of major steel producers globally in the 2010s. South Africa's share in world steel production excluding China dropped from 1.3% in 2002 to 0.8% in 2012 and 0.5% in 2022. If we include China, South Africa's share in 2022 was just 0,2%.<sup>1</sup> A strategy on steel has to take the underlying structural changes into account, rather than simply trying to turn back the clock.

<sup>1</sup> Calculated from WorldSteel. World Steel in Figures. Relevant years. (For 2002 and 2012, published by International Iron and Steel Institute) Tables on production by process. Accessed at: <https://worldsteel.org/data/world-steel-in-figures/> in May 2024.