CHEMICAL SECTOR REPORT

Special Focus on the Coke, Petroleum & Nuclear Sector & Product Trade

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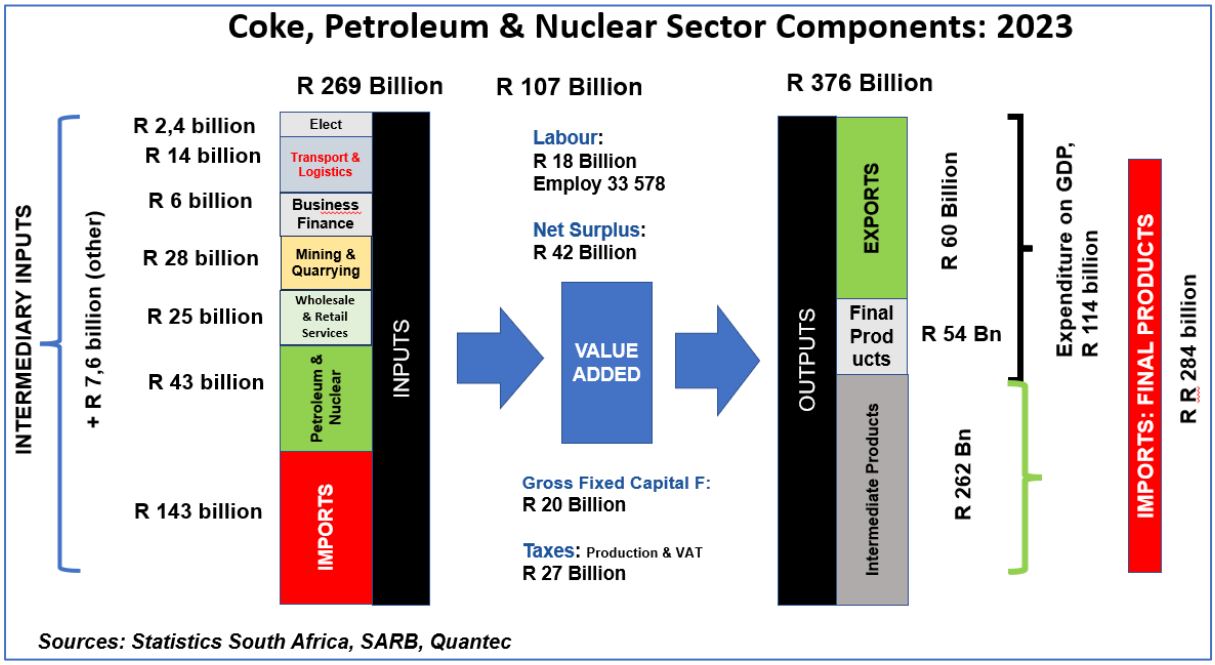
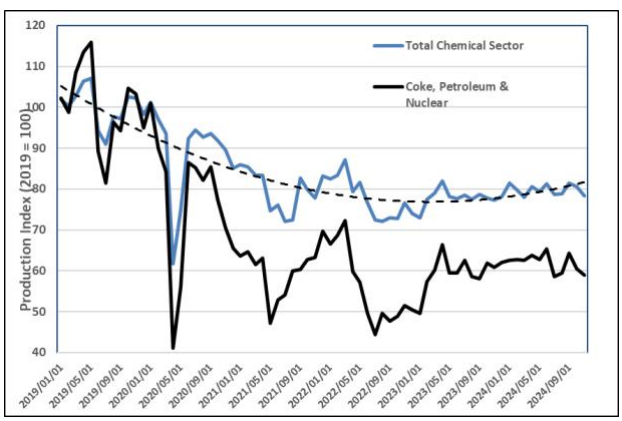
This section consists of an abbreviated summary of salient trends, relationships and ratios for the Petroleum Sub-sector.

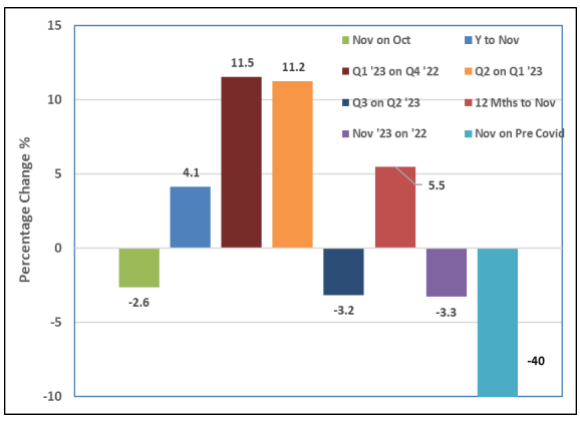
A further objective is to show some of the detail data available and potential for more disaggregated analysis. International trade data is classified according to the harmonised system (HS) of tariffs. To enable linkages to domestic industrial data, the former/trade data is reclassified according to the standard industrial classification (SIC) for SA.



The schematic above shows the 2023 input, value added (sub sector gross domestic production) and output (sales) as well as international trade (in red) in intermediary and final products, for petroleum products, according to the SIC classification.

The **petroleum sub-sector production** has literally declined by 50% since the middle of 2019 to the end of 2024; on a 12-month basis, 2024 production was 40% lower than the average during pre-Covid 2019. The graph on the left shows the variation in production trends between the overall chemical sector and petroleum products, as well as the strong influence of the latter on the overall sector production pattern. The petroleum sub-sector's share in the overall sector, declined from 55% in 2019 to 44% in 2023, measured by value-add contribution.

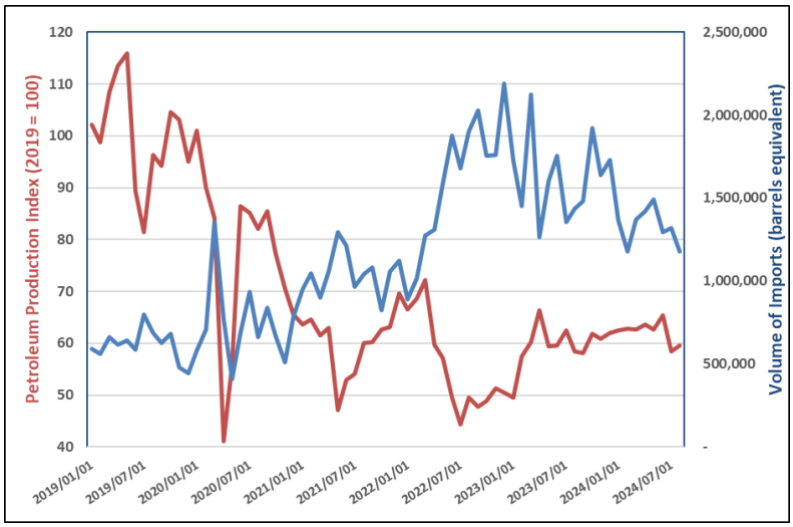




Source: Statistics SA, Manufacturing Production & Sales, p3041.2, Quantec

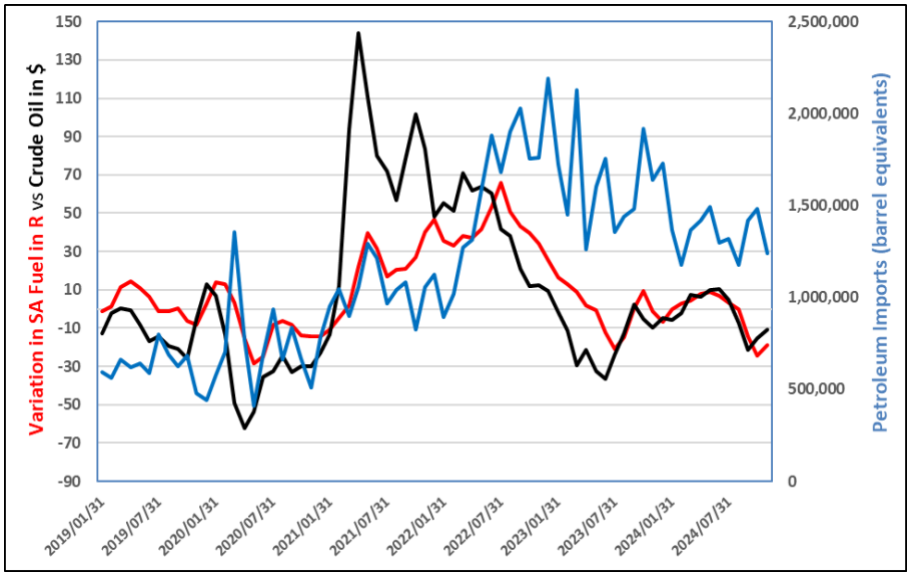
The petroleum sub-sector production trend shows wide fluctuations since 2019, resulting in an average weighted monthly decline of 5%, while the non-petroleum sub-sectors grew by 1,1% on the same basis.

The most dramatic shift in the production structure of the petroleum sector commenced between 2019 and 2020, when refining capacity deteriorated sharply, (red line) with a concomitant drop in crude oil imports and rise in final product imports. The blue line shows total petroleum product imports ('barrel equivalent' of crude, final and minor 'other' products).



Sources: Statistics SA, Manufacturing Production & Sales, p3041.2, SARS Trade data, SARB

The result was that the 'import leakage' (imports/total domestic demand (imports + domestic output)) of the petroleum sub-sector rose from 23% (2019) to 68% (2023), or nearly 200%. For the whole chemical sector, the import leakage rose by 60% as a result.

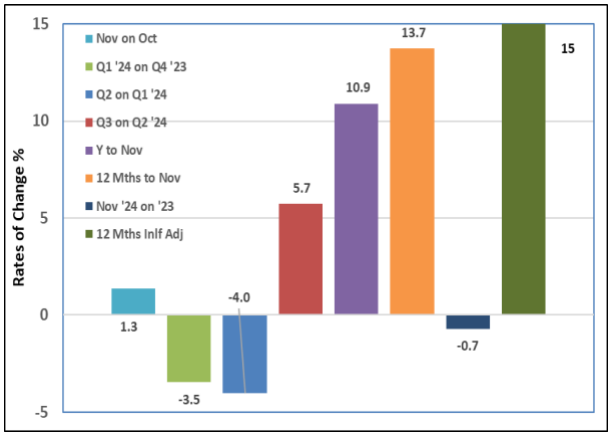


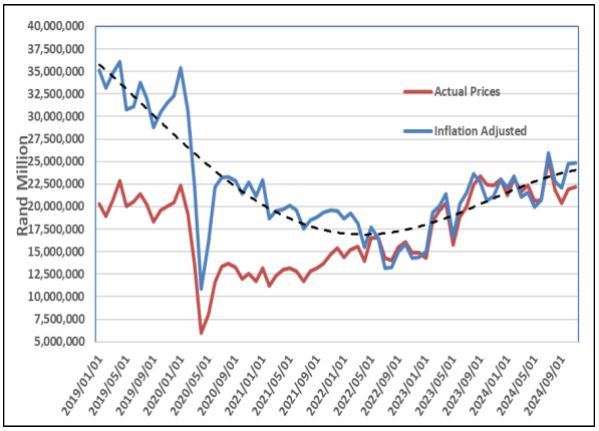
This marked higher dependency on imported petroleum products in turn increased the correlation between international crude oil prices and domestic fuel prices. The influence of the Rand Dollar exchange rate therefor weakened.

Sources: Statistics SA, Manufacturing Production & Sales, p3041.2, SARS Trade data, SARB, Quantec

It is known that byproducts from the petroleum sub-sector are important inputs into the rest of the chemical sector. One would have expected intermediate imports to have risen for the other sub-sectors due to its unavailability domestically, but counter intuitively, this was not the case. Since 2019, only intermediate imports for the rubber sub-sector rose (+16%), while all the others declined, and instead, final product imports rose in response to refining capacity shutting down. The 'logical' conclusion is that local production of final chemical products could not keep up with local demand, and/or the importation of intermediate products is uneconomical.

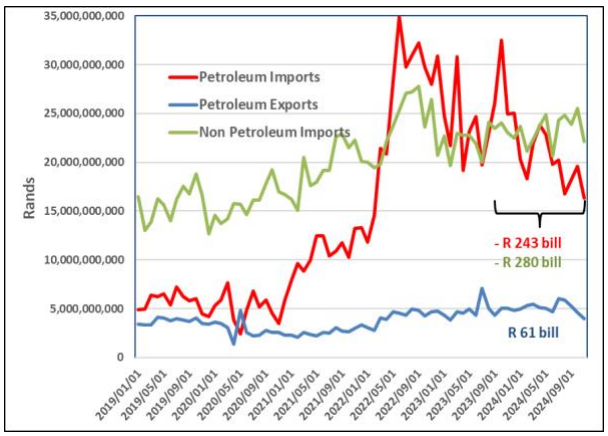
Petroleum product sales showed a turning point around the middle of 2022. The sales trend is in contrast to domestic production and accelerated import patterns. It seems to be an anomaly for November 2024 sales to have been lower than a year ago, but might be the result of some volatility in sales since the middle of 2023.

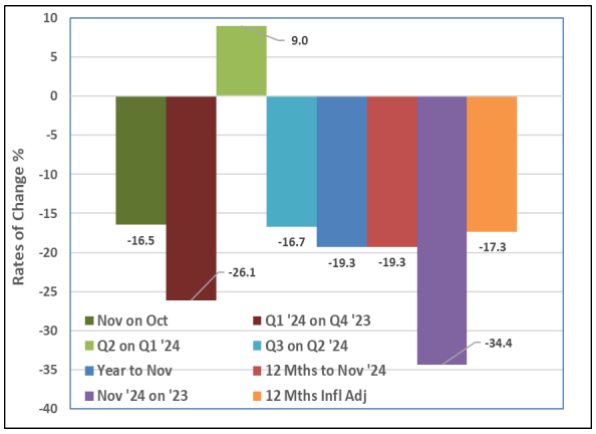




Source: Statistics SA, Manufacturing Production & Sales, p3041.2, Production Price Indices, P0142.1, Quantec

SARS's **international trade data** (values) for petroleum products is shown below. The left-hand graph shows the surge in imports post Covid, and especially since the beginning of 2022, surpassing non-petroleum imports. It also indicates that around 25% of the quantum of imports have been re-exported, most of which to southern African countries over the last 12 months (near 60% of all exports during 2023). It shows the decline in imports (initially due to declining crude oil imports, but later also final product imports declining, due to slower economic growth/lower domestic demand). The graph to the right depicts these declines over different time horizons.





Sources: SARS trade data & Quantec

The four tables below show the imports and exports of petroleum products, as well as countries of origin and/or destination for 2023.

Imports of specific goods (Top 10 import goods)

Imports of specific product	HS Code	R million	%
Petroleum oils and oils obtain [HST2710]	HST2710	282,072.55	99.31
Petroleum gases & other gaseou [HST2711]	HST2711	6,704.54	2.36
Coke and semi-coke of coal, of [HST2704]	HST2704	6,149.70	2.17
Petroleum coke, petroleum bitu [HST2713]	HST2713	6,098.80	2.15
Petroleum jelly; paraffin wax, [HST2712]	HST2712	1,256.64	0.44
Nuclear reactors; fuel elem (n [HST8401]	HST8401	1,131.96	0.4
Radioactive chemical elements [HST2844]	HST2844	307.9	0.11
Tar distilled from coal, from [HST2706]	HST2706	36.63	0.01

Origin of goods imports (Top 10 import regions)

Imports origin by region	R million	%
Western Asia	175,184.59	61.68
South Asia	74,284.72	26.15
European Union	22,994.76	8.1
NAFTA	9,886.25	3.48
Eastern Asia	9,533.72	3.36
Americas Rest	3,342.02	1.18
Northern Africa	2,635.20	0.93
SADC	2,452.28	0.86
Europe Rest	2,105.19	0.74
Not allocated	690.11	0.24

Exports of specific goods (Top 10 export goods)

Product	HS Code	R million	%
Petroleum oils and oils obtain [HST2710]	HST2710	53,226.64	87.91
Petroleum gases & other gaseou [HST2711]	HST2711	2,538.11	4.19
Petroleum jelly; paraffin wax, [HST2712]	HST2712	2,509.21	4.14
Radioactive chemical elements [HST2844]	HST2844	1,476.99	2.44
Coke and semi-coke of coal, of [HST2704]	HST2704	1,011.69	1.67
Petroleum coke, petroleum bitu [HST2713]	HST2713	586.86	0.97
Tar distilled from coal, from [HST2706]	HST2706	5.76	0.01
Nuclear reactors; fuel elem (n [HST8401]	HST8401	1.08	0

Destination of goods exports (Top 10 export regions)

Export destination by region	R million	%
SADC	38,693.90	63.91
Not allocated	12,203.57	20.16
European Union	2,405.40	3.97
NAFTA	2,351.44	3.88
South Asia	1,400.37	2.31
Northern Africa	1,046.65	1.73
Americas Rest	1,029.54	1.7
Eastern Asia	932.05	1.54
Europe Rest	492.58	0.81
Sub-Saharan Africa excluding SADC	403.42	0.67