CHEMICAL SECTOR QUARTERLY REPORT

DATA: FIRST QUARTER 2024

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INTRODUCTION

Herewith the first Quarterly report for the chemical sector 2024. It is intended to publish these 'quarterly reports', one month after the successive 'normal 3 months quarters' of the year so as not to allow too much time lost. (Monthly updates will follow on the 15th of a subsequent month, e.g. every available datapoint up to April on the 15th of May).

EXECUTIVE SUMMARY

The final number for value add/chemical sector gross domestic product for 2023 has been released and will be the subject of a separate note, shortly. Sector output (turnover) grew from R643 billion to R766 billion, which is 3,6% growth (inflation adjusted). Its gross domestic product grew from R211 billion to R252 billion or 2,5% (inflation adjusted).

Confidence indices from the Bureau for Economic Research for Q1 2024 have been published. There seems to be greater optimism about the state of business as orders have been increasing (export & domestic). 'Politics' and 'policy uncertainties' seem to have an overwhelming impact on the sector.

Production grew by 0,5% in 2023, with 'basic' and 'other chemicals' still declining. The 2023 positive performance followed after 3 years of substantial declines. The degree of capacity underutilization has a direct impact on business confidence.

Sales grew by over 10% (nominally) during 2023 and by 6% when inflation is taken into account. The good news is that there was clearly a 'bottoming out' of the (inflation adjusted) trend towards the end of 2022. The sales numbers in the report show the value and share of each subsector.

International trade is an overwhelming feature of the sector, with massive and growing trade deficits. It imported R565 billion of products of which R295 billion was petroleum products. It exported R216 billion of final products and had an overall trade deficit of R348 billion.

Double digit **price escalation** has been a feature of the sector between May 2021 and May 2023, going as high as 40% for final products (July 2022) and over 60% (July 2022) for fuel. These trends have subsided substantially. For the full year 2023, intermediary products deflation was 1,4%, for final products inflation 3,7% and for fuel, deflation of 1,7%. High correlations are prevalent between expected prices and actual final product selling prices.

Employment numbers decreased slightly during Quarter 4 of 2023, compared to Q3. However, Q4 2023 numbers remained slightly higher than Q4 2022. Total employment numbers (average of 2023 on 2022) increased by over 2% for the year.

SECTOR OUTPUT
(turnover)

Grew from R643 billion to

R766 billion

3,6% growth (inflation adjusted)

GROSS DOMESTIC PROFIT

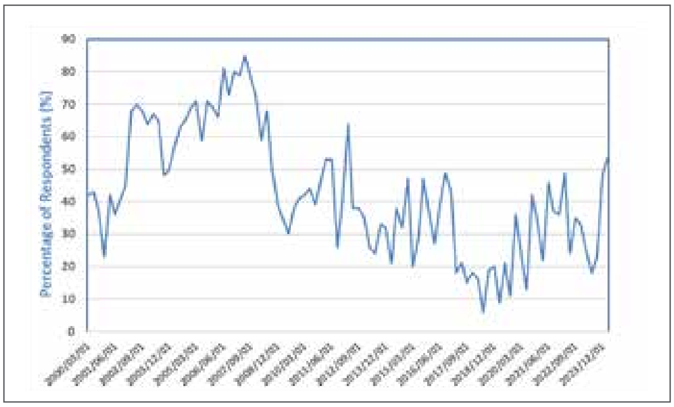
Grew from R211 billion to

R252 billion

2,5% growth (inflation adjusted)

CONFIDENCE INDICES: Q1 2024

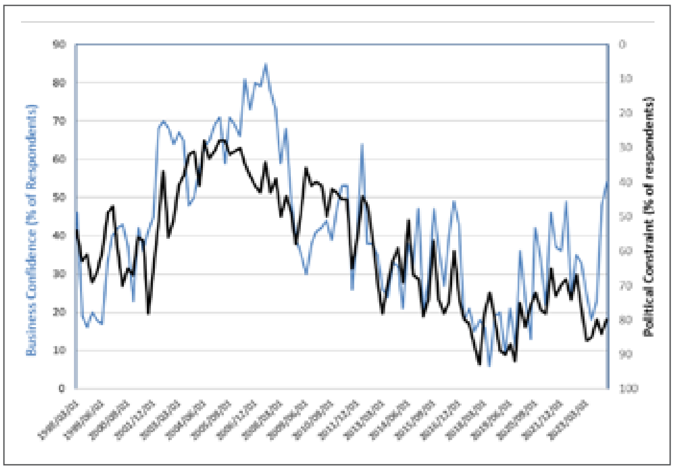
General Business Confidence



Source: BER: Manufacturing Survey: Chemical sub-sector

For the first time since brief periods between Q1, 2011 to Q1, 2012, more than 50% of respondents said they were optimistic. Confidence has been declining virtually continuously since the global financial crisis in 2007/8.

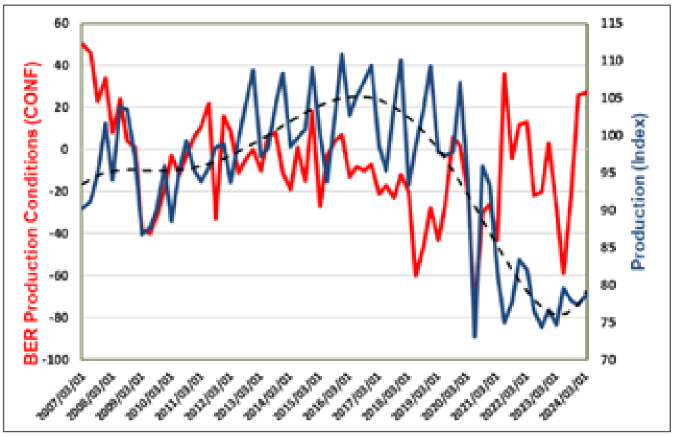
Political Climate as constraint vs Chemical Sector Business Confidence



Source: BER: Manufacturing Survey: Chemical sub-sector

Of great concern is the impact of the current fluidity of political views due to the pending election and the potential impact of the election process itself on activities in the sector. 'Electioneering' already has an impact via announcements like the Competition Commission enquiry into portions of the sector. The potential impact of the outcome of the election on the direction of future policies also weighs heavily on respondents. (The graph shows confidence dropping (left hand scale) with higher percentages of respondents saying politics is a constraint (right hand scale, inverted)).

Chemical Sector Production Trends



Source: BER: Manufacturing Survey: Chemical sub-sector

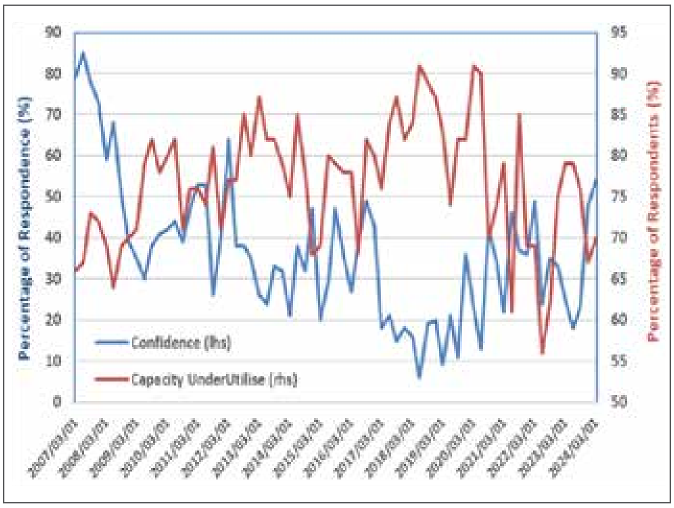
Confidence levels about production conditions show a peculiar 'structural shift' since the Covid restrictions, not reflected in the actual production performance.

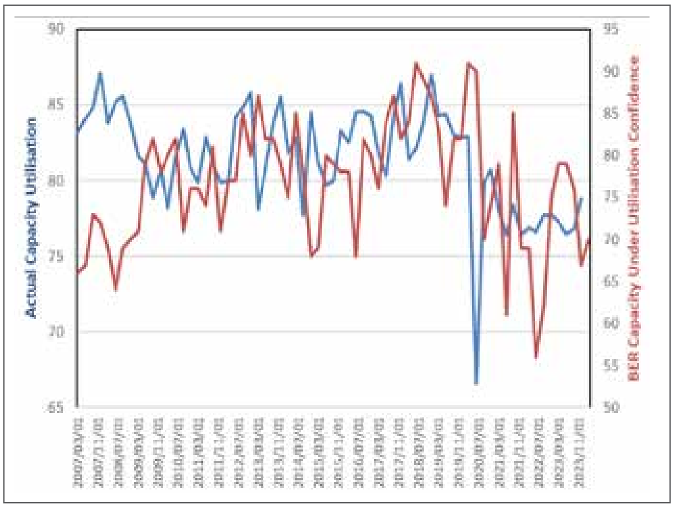
However, when the trend pattern at the new level of the confidence indicator is compared to the historical correlation of the two (actual production and confidence) a very similar angle emerges.

This tendency is observed amongst other indicators (sales, orders etc.; see below) too, and may reflect 'over optimism/relief' after the severity of the restrictions. Of concern is that the 'reality' does not seem to relate to the 'optimism'.

Capacity Utilisation

usiness Confidence seems to be inversely correlated with capacity underutilisation. The latter is receding, i.e. capacity utilisation improving and confidence started to recover.





Sources: BER: Manufacturing Survey: Chemical sub-sector; StatsSA: Manufacturing Utilisation of Production Capacity, p3043

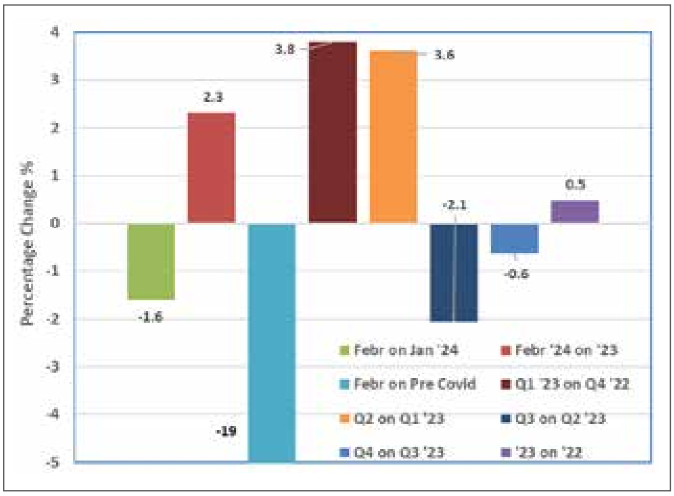
It is noteworthy that the confidence indicator has been below 50 (negative) for a long while and has only reached above the neutral level in Q1, 2024. Roughly 70% of respondents still believe that there is a lot of underutilisation of capacity.

Production Index Seasonally Adjusted	Feb on Jan '24	Year to Feb '24	'23 to '24	Q1 '23 on Q4 '24	Q2 on Q1 '24	Q3 on Q2 '24	Q4 on Q3 '24
Total	-1.6	6.5	0.5	3.8	3.6	-2.1	-0.6
Coke, petrol & nucl	1.3	15.6	7.4	13.4	10.6	-5.8	3.5
Basic chemicals	-1.2	4.0	-2.9	1.4	-0.4	0.4	2.5
Other chemicals	-6.8	1.1	-5.1	-3.2	0.3	0.1	-7.2
Rubber	1.4	-4.0	0.5	5.7	-7.3	3.4	-2.6
Plastic	2.8	2.2	1.6	1.3	0.9	-0.5	0.1

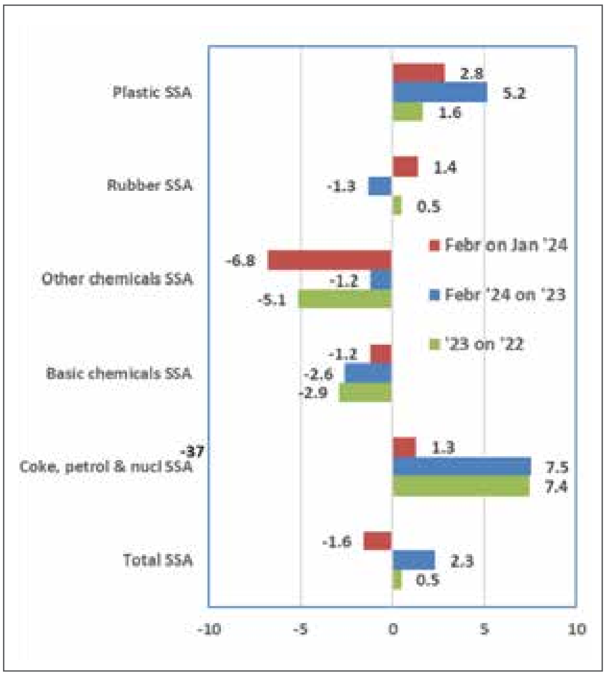
Source: Manufacturing Production and Sales Statistics press release 3041.2 (all data and graphics on this page)

The table above and graphs to the right and below show the rates of change in production over different time horizons.

- February 2024 production declined (1,6%) but was slightly (+2,3%) better than February 2023, although still lower than pre Covid (19%).
- However, quarterly improvements (from +3,8% and +3,6%) during the first half of 2023, subsided with some impetus lost during the second half (2,1% and 0,6%).



- The overall performance was enough to end the sector's performance for 2023 at +0,5% higher than 2022. This gives some reason for hope as the lower turning point in the trend line (graph below right) seems to indicate. February's decline was a disappointment therefore.

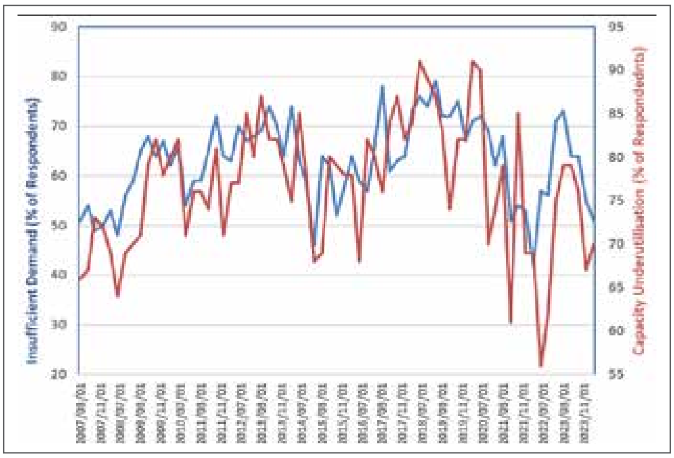


The graph to the left depicts the total and sub- sector production performances over different time horizons.

CHEMICAL SECTOR SALES TRENDS

Production Capacity Utilisation and Demand

The link between demand for chemical sector products and production is how much production capacity is utilised to supply the market. The graph shows how these perception trends correlate. More than 50% of respondents indicated 'insufficient demand' as a constraint with the result that roughly 70% of respondents reported 'underutilization' of production capacity.

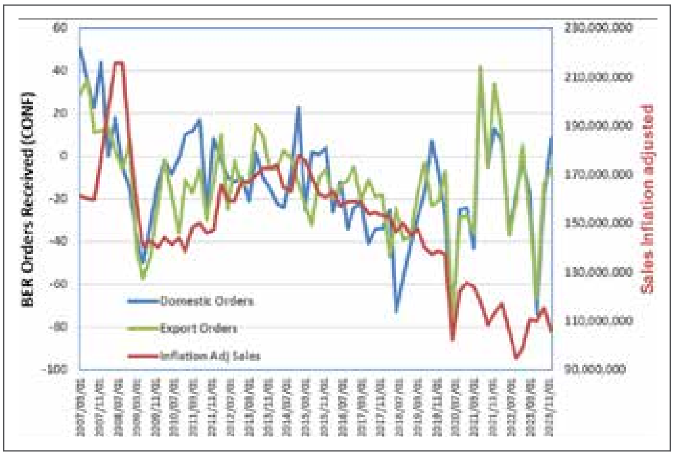


Realized & expected Domestic Sales vs inflation adjusted Sales

Here the same 'structural shift', is observed (as mentioned earlier) after the Covid restrictions were lifted. The 'confidence' trend pattern at the new level is similar to the historical correlation between 'confidence' and actual sales. Of concern is that 'reality' (inflation adjusted sales) is not reflected in the 'optimism'. (The 'confidence' indicator reflects a 'net % of respondents', i.e. positives minus negatives.)

Domestic and Export Orders vs inflation adjusted Sales

Domestic and export orders should be good indicators of future sales and/or production trends. It follows virtually the same 'paths' as with sales above. And the same 'structural' phenomenon is evident (in relation to 'confidence') after Covid restrictions were lifted.

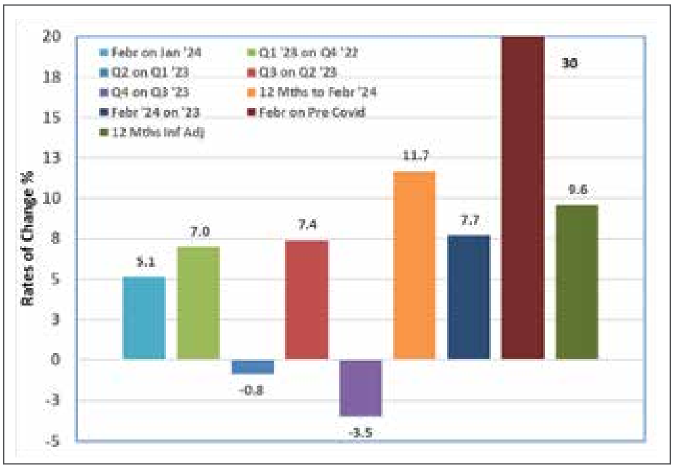


Sources: Manufacturing Production and Sales Statistics press release 3041.2, BER Manufacturing Survey

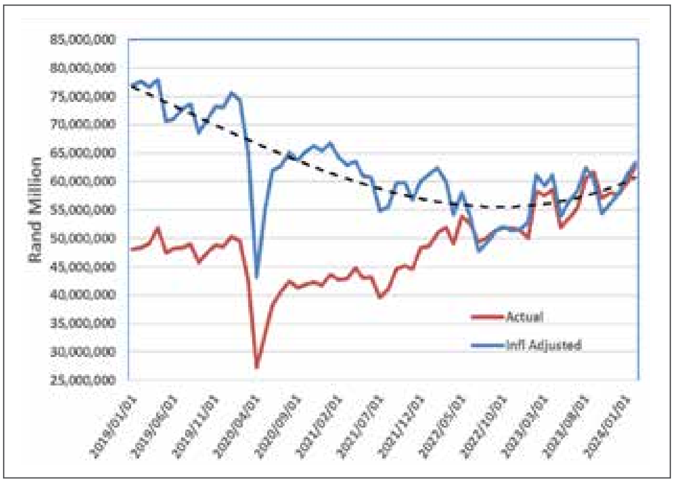
Sales Values Seasonally Adjusted	Feb on Jan 2024	Feb '24 on 2023	'24 on 2023	Q3 on Q2 2023	Q4 on Q3 2023	Q4 on Q3 2023
Total	5.2	7.7	10.6	16.6	8.1	19.7
Coke, petrol & nucl	7.9	15.6	32.7	2.5	-15.4	20.0
Basic chemicals	7.0	7.2	-0.8	4.3	-13.5	17.4
Other chemicals	-0.7	2.6	3.4	4.0	-8.5	12.7
Rubber	-6.1	3.5	9.8	-0.2	3.3	21.5
Plastic	7.5	8.4	-2.9	-0.3	-3.5	35.1
Plastic	3.5	3.6	6.6	4.9	-8.1	22.8

Source: Manufacturing Production and Sales Statistics press release 3041.2 (table & graphics on this page)

Sales performances during February were positive except for the Rubber sub-sector. The annual performances (2023 on 2022) differ widely between the different subsectors. Actual sales were near 11% higher for the sector in 2023 than 2022. When inflation is taken into account, the improvement was 6%, which is very good news.

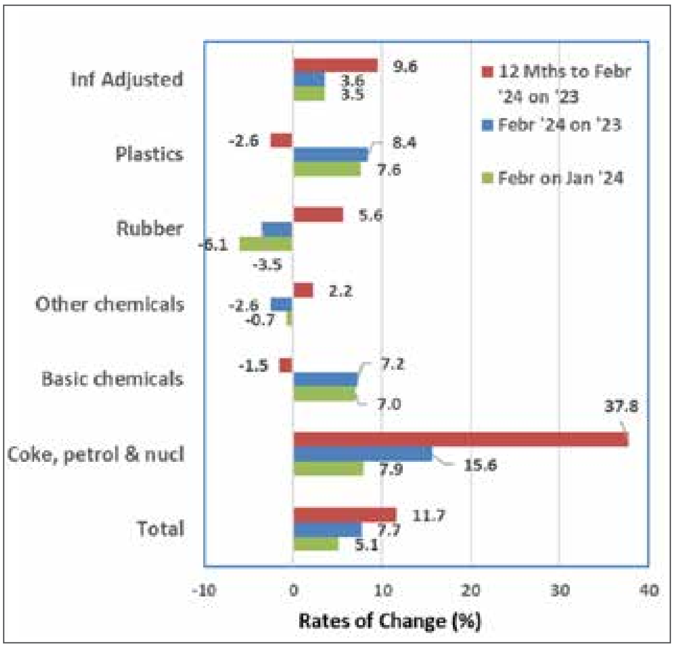


- The 12 months to February 2024, saw growth of near 12% in sales; February's 5% improvement is therefore slightly lower that the 12 months.
- Quarterly sales were volatile during 2023; but the year nevertheless cumulatively ended at 11% better than during 2023.
- The 12 months inflation adjusted sales performance (ending February 2024) recorded a near 10% gain on the previous 12 months.



The graph to the left shows the actual sales trend (red) which has been quite positive since the Covid restrictions. The inflation adjusted numbers over the same period, show quite a different pattern though, although 2022 seems to indicate a turning point in the trend.

Production price inflation, which is discussed further in report, had a big impact on the real value of sales, but the good news is that there was clearly a 'bottoming out' of the escalation in final product prices towards the end of 2022 (note: Statistics SA adjusted the 'base year' of the PPI from 2019 to December 2023, hence the different pattern for inflation adjusted sales numbers compared to the previous report. This only influences the 'levels' of inflation adjusted sales but had no effect on actual numbers or rates of change trends.)



This graph shows the variations over different time horizons for the total and sub-sector sales.

- Only Plastics and Basic chemicals recorded declines over the last 12 months (ending February 2024). However, in the short term, both sub- sectors recorded growth from January to February as well as compared to February 2023.
- Note that the other subsectors seemed to record slightly slower growth in the immediate short term, versus the 12-month performances.

INTERNATIONAL TRADE

Export Orders received vs Actual (inflation adjusted) Export Values

The graph shows the correlation between the export orders received (confidence reflected by the BER Survey) versus actual exports realized (inflation adjusted) numbers from SARS.

These trends show high correlations and not the 'structural break' observed earlier between confidence and actual values.

Sources: BER Manufacturing Survey, SARS Export data set

About 30% of all exports (last 12 months) were petroleum related products of which more than 60% went to Africa. Of non-petroleum exports, Africa represents over 53% of the market, with roughly 15% each by the Americas, Asia and Europe. Purchasing Managers' Indices reflecting prospects in the latter markets, may therefore be fruitful areas of research to understand future prospects for exports.

International Trade performance up to February 2024

Exports	Feb on Jan 2024 (%)	Feb 2024 on Feb 2023 YTD(%)	12 Mths to Feb 2024 (%)	Feb 2024 on 2023	Trade Balance 12 Mths (billions)
Total	9.6	2.6	-1.0	3.9	-342,916
Coke, petrol & nucl	-14.2	-14.5	4.9	-43.0	-4,455
Petroleum ref	13.8	30.9	15.1	49.3	-227, 038
Nuclear Fuel	10.7	-31.4	18.5	-47.6	-38
Basic chemicals	-1.8	-17.4	-17.6	-19.5	-20,479
Other chemicals	11.5	3.1	6.3	-0.5	-61,626
Man-made Fib	20.8	29.5	14.6	18.7	-1,547
Rubber	31.9	-3.3	2.9	-6.7	-14,556
Plastic	33.7	17.0	3.0	18.6	-13,178

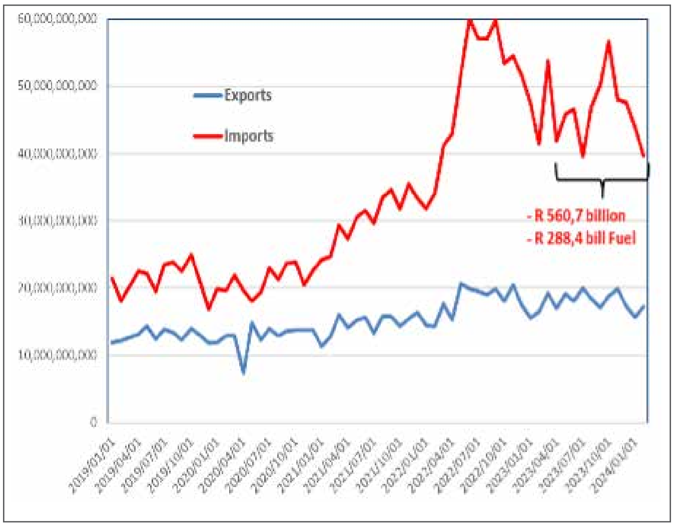
Imports	Feb on Jan 2024 (%)	Feb 2024 on Feb 2023 YTD(%)	12 Mths to Feb 2024 (%)	Feb 2024 on 2023	Trade Balance 12 Mths (billions)
Total	-9.4	-5.9	-9.3	-4.1	
Coke, petrol & nucl	-36.5	-54.4	-11.2	-74.5	
Petroleum ref	-7.8	-16.5	-13.3	-14.4	
Nuclear Fuel	-1.7	-12.0	37.2	-8.6	
Basic chemicals	-11.2	7.1	-18.7	-0.6	
Other chemicals	-8.9	6.0	2.5	18.0	
Man-made Fib	-38.6	9.6	18.2	-9.2	
Rubber	-6.2	21.0	13.3	22.6	
Plastic	-15.1	7.6	6.4	18.8	

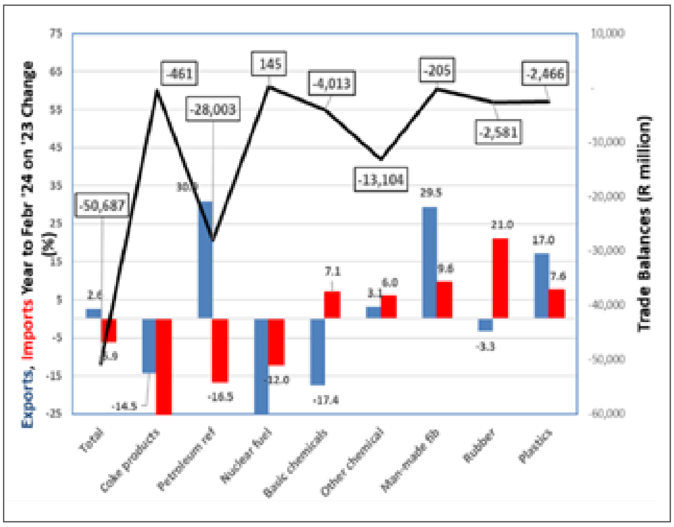
Source: SA Revenue Service Exports/Imports data base (shaded areas = declines or a trade deficit).

The importance of international trade (imports and exports) remains an overwhelming feature of the SA chemical sector, as the latest 12-month data to February 2024 illustrates.

- It is estimated that the sector imported near R200 billion worth of intermediary products (or over 40% of inputs) and the country more than R560 billion worth of final chemical sector products over the last 12 months
- Of its final products, the sector exported over R217 billion and sold an estimated R142 billion domestically. Final chemical sector products sold were thus about R360 billion.
- The sector produced about R318 billion worth of intermediary products as inputs to other sectors in the domestic economy.
- The country imported R560 billion of final chemical products of which R288 billion were petroleum products (last 12 months).
- The country had a chemical product trade deficit of R343 billion over this period.

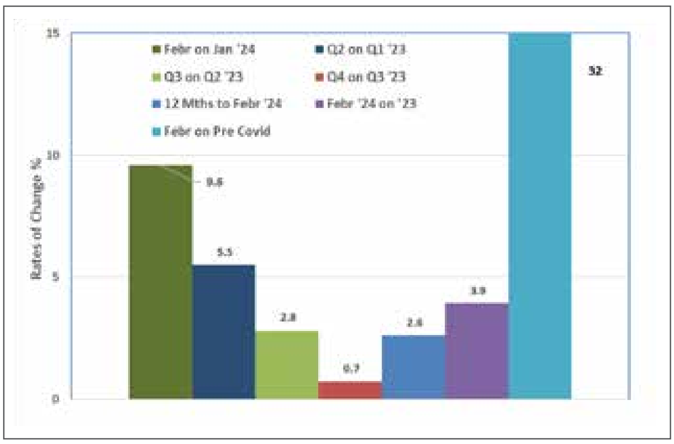
The graphs below put this in perspective; on the left it shows imports and exports.





- Import values have been fluctuating and is probably due to the poor performance of the economy resulting in poor domestic demand for chemicals, amongst it, petroleum products. Logistical issues might have played a role as well.
- Exports have been below R20 billion per month over the same period.
- On the right it shows rates of change for each sub-sector (for imports and exports) as well as the trade balance for each for the first 2 months of 2024.

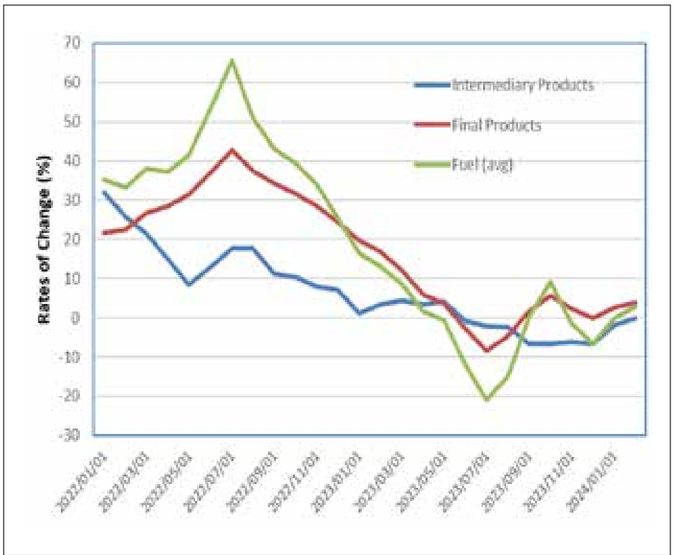
Export performance of the chemical sector over different time horizons.

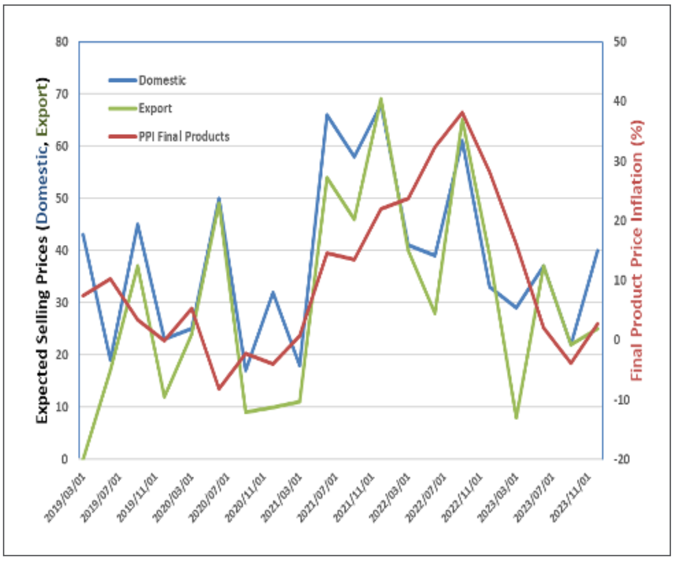


Price Escalation trends

Exports	Feb 2024 (Index)	Jan 2024 (Index)	Change (%)	Feb 2023 (Index)	Feb 2024 on 2023 (%)	12 Mths to Feb 2024 (Index)	12 Mths to Feb 2023 (Index)	Change (%)
Production Price	Intermediary products							
Total	102.0	100.3	1.7	102.2	-0.2	101/2	102.2	-0.1
Basic & Other Chem	102.6	100.1	2.5	102.9	-0.3	101.4	102.8	-1.4
Plastics	100.9	101.0	-0.1	100.1	0.8	101.0	100.1	0.8
Rubber	97.9	100.0	-2.1	102.7	-4.7	99.0	102.7	-3.7
Production Price	Final products							
Total	99.1	97.6	1.5	95.3	4.0	98.4	95.2	3.4
Coal & Petroleum	98.7	96.0	2.8	95.1	3.8	97.4	95.1	2.4
Petrol	100.3	96.5	3.9	94.8	5.8	98.4	94.1	4.6
Diesel	97.6	94.3	3.5	97.7	-0.1	96.0	97.6	-1.7
Other	97.9	97.5	0.4	92.7	5.6	97.7	93.5	4.5
Chemical Products	99.2	99.7	-0.5	95.4	4.0	99.5	95.3	4.4
Rubber & Plastics	100.6	98.6	2.0	96.9	4.1	99.6	95.2	4.7

The price movements of intermediary and final products sold by the sector is shown below.

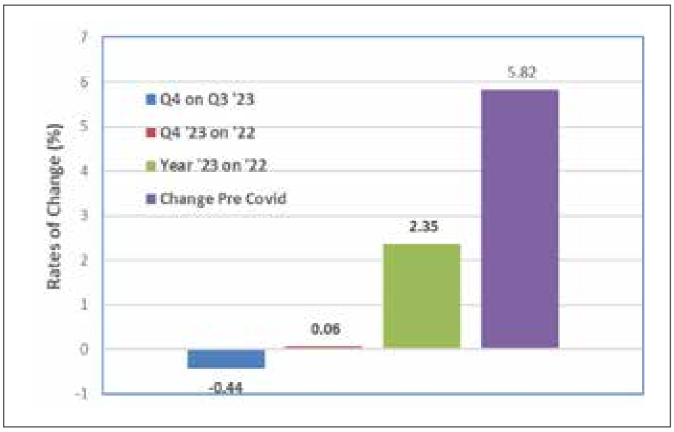




Sources: Statistics SA, production price indices for chemicals, and BER Manufacturing Survey

The 'expected domestic and export prices' (BER Survey) correlate very well with the actual realized production prices for final products.

The impact of fuel prices (administered) on the price movements of final products, is obvious. This represents a direct 'transmission mechanism' from international developments in crude oil prices and the rand dollar exchange rate into the chemical sector, and has had an important impact on general inflation in the economy due to the importance of transport and logistics. This phenomenon further underscores the strategic nature of the chemical sector in the SA economy.



Employment Numbers for full year 2023

Employment numbers decreased slightly during Quarter 4, compared to Q3 of 2023 but was still slightly higher than Q4 2022. Total employment numbers (average of 2023 on 2022) increased by over 2% for the year.

Quarter 4, 2023 has been nearly 6% higher than the average for the pre Covid period (4 quarters Q3, 2019 to Q1, 2020).

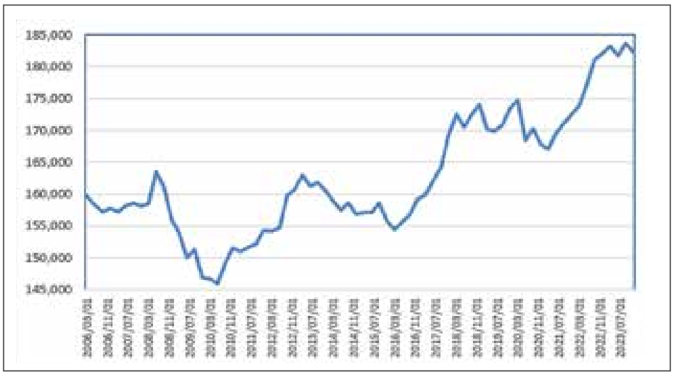
The graph to the left shows the gains/losses from one quarter to the next since 2019.

It also shows some kind of plateau, albeit unstable setting in during 2023.

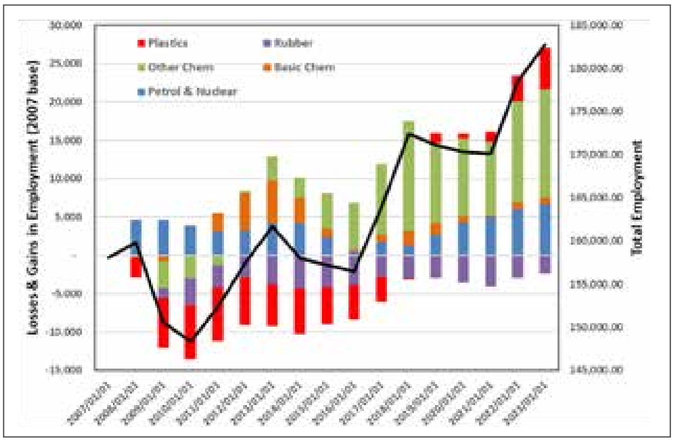
The slide below shows a very interesting 'rhythm' to employment trends (still quarterly) looking back to the financial crisis of 2007/8.

Source: Statistics SA; Quarterly Employment Surveys, p0277

Inflection Points	Quarters (duration	Employment (Numbers)	High/Lows	Employment (variation)
Q3 2006		157,241	low	
Middle 2008	6 up	163,579	high	6,338
Middle 2010	8 down	145,898	low	-17,681
Q1 2013	12 up	163,031	high	17,113
Q1 2016	12 down	154,470	low	-8,561
Q4 2018	11 up	174,114	high	19,644
Q1 2021	9 down	167,087	low	-7,027
Q1 2023	8 up	183,246	high	16,159



Source: Statistics SA; Quarterly Employment Surveys, p0277



The gains/losses per sub-sector over 20 years are shown in the graph above.

As was mentioned earlier (presentation of full year 2023 data) there seems to be good correlations between employment patterns on the one hand and output, value added and expenditure on chemical production, but puzzling diverting trends between employment and physical production, as well as inflation adjusted sales. This will be researched further.