



KWAZULU-NATAL PROVINCE

TREASURY
REPUBLIC OF SOUTH AFRICA

**Province of KwaZulu-Natal
Provincial Treasury
Infrastructure Management and Economic Service (IMES)
Unit (June 2022)**

Analysis of the fuel price

1. Introduction

The geopolitical landscape tension that erupted between Russia and Ukraine early in March 2022 has shaken the global economy. Russia cited possible threats to the country's security as the primary rationale for invading Ukraine. In addition, the conflict between these countries has had a notable humanitarian crisis as many people continue to lose their lives.

On the economic front, the war has weighed heavily on the socio-economic activities for both countries, with a high possibility of substantial contractions. As a result, there have been various negative worldwide spillovers through commodity markets, trade, and financial channels.

The economic damage caused by this war could further delay the economic recovery worldwide. In this regard the International Monetary Fund (IMF) has already revised downward its world outlook to 3.6% in 2022. Moreover, the significant impact of the Russia-Ukraine conflict has been visible in the high volatility of international Brent crude oil prices. As a result, Brent crude oil

prices spiked to around US\$130 per barrel in early March 2022, and are expected to remain elevated over the short to medium term.

The notable increase in international oil price reflects the supply-demand imbalances caused by supply bottlenecks amid sanctions imposed by other regions on Russia, which is among the largest oil net exporters globally. This has contributed to a significant rise in inflation rate in many countries, including the United States (US), which recorded the highest rate of 8.3% in April. Thus, the IMF expects the global inflation rate to average 7.4% in 2022.

As the oil net importer, South Africa (SA) has not been spared from the negative implications of a significant rise in international oil prices. The country has experienced a historic increase in fuel prices since the war started, which contributes to accelerating costs of petrol, illuminating paraffin, and diesel, among others. This article unpacks the determinants of fuel prices.

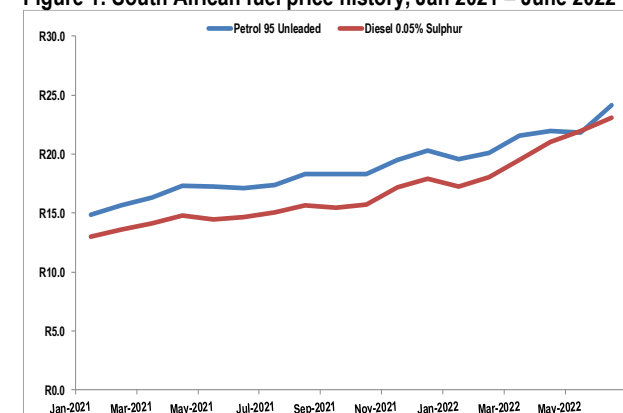
2. South African fuel prices

The petrol and diesel prices have stirred a notable public outcry, with concerns, particularly that it would trigger an increase in the cost of living, thereby negatively impacting ordinary citizens, especially low-income households. Figure 1 presents the historical prices of petrol 95 unleaded and diesel 0.005% sulphur for inland regions between January 2021 and June 2022. It is evident from the figure that fuel prices have been on the rise over the period, with a steep increase, particularly at the beginning of 2022.

The price of petrol 95 unleaded for the inland regions is estimated to have increased sharply by 40%, from R17.13 in June 2021 to R24.17 in June 2022. Over the same period, diesel 0.05% sulphur dramatically jumped by about 57% from R14.66 to R23.09.

The prices have massively increased further in July 2022 for petrol (R26.74) and diesel (R24.75). These prices include an additional 75 cents per litre, which is added back to the general fuel levy as the government tapers off its interventions introduced in May this year.

Figure 1: South African fuel price history, Jan 2021 – June 2022



Source: Own calculation using data DoMRE

The persistent rise in fuel prices has various social and economic cost implications as it negatively impacts transport costs, implying an increase in input costs for economic activities. Furthermore, the rise in input costs would mean businesses should adjust their retail prices upward, which affects the general households.

3. Fuel price composition in South Africa

The general fuel price consists of about 13 factors contributing to the final price. The largest contributory factors include, among others, the Basic Fuel Price (BFP), Taxes and levies, Retail and wholesale margins, and Storage and distribution costs¹.

Table 1 depicts fuel price composition for petrol 95 unleaded and diesel 0.05% sulphur as of 1 June 2022. It is evident from the figure that BFP is the largest contributor to both prices, followed by general fuel, road accident fund (RAF) levies, retail and wholesale, and secondary storage costs.

Basic Fuel Price: In June 2022, the BFP was estimated at R15.07 for petrol 95 unleaded and R16.08 for diesel 0.05% sulphur. It is reasonable to attribute the recent climb in fuel prices to this component, given its significant contribution of above 60% to the final price.

Fuel levies: Other components of fuel price determination include numerous fuel levies and taxes. As highlighted above, these fuel price components are less volatile than the BFP. It should also be noted that the government wholly controls some levies. As observed in the table, Fuel and the RAF are generally the two biggest levies, followed by petroleum products², slate³;

and other levies⁴. Furthermore, fuel levies also include transport to inland provinces, thus explaining the difference in the fuel price between coastal and inland regions.

Table 1: Levies, taxes and margins - Petrol - 95 ULP and diesel (0.05% sulphur) – June 2022

Jun-22	Petrol 95 ULP	Diesel (0.05% Sulphur)
	Inland regions	
BFP	R15.07	R16.08
Fuel tax	R2.44	R2.30
Retail margin	R2.29	R0.00
Road accident fund	R2.18	R2.18
Transport cost	R0.68	R0.68
Slate levy	R0.53	R0.53
Wholesale margin	R0.46	R0.80
Secondary Storage	R0.31	R0.31
Secondary Distribution	R0.18	R0.18
Customs & excise	R0.04	R0.04
DSML	R0.00	R0.00
Equalization fund levy	R0.00	R0.00
Petroleum Products levy	R0.00	R0.00
Pipeline levy	R0.00	R0.00
IP tracer levy	R0.00	R0.00
Total price	R24.17	R23.09

Source: Own calculation using data DoMRE

Fuel levy: is a tax on each litre of fuel levied by the government as pronounced annually by the Minister of Finance in the national Budget speech. For the 2022/23 financial year, the fuel levy was set as R2.44 and R2.30 on the petrol 95 unleaded and diesel

0.05% sulphur prices, respectively. This translates to approximately 10% of petrol and diesel prices as of 1 June 2022.

Road Accident Fund (RAF) levy: is a source of revenue for the RAF responsible for compensating victims of road accidents. RAF levy currently stands at R2.18, which translates to a 9% share of the total petrol and diesel prices.

Though these levies are less volatile, they have increased significantly over the past 14 years. Stats SA (2021)⁵ estimates that the RAF rose by 425% since January 2008, followed by fuel levy with 225%.

Retail and wholesale margin levy: these levies relate to cost recoveries for service station operational expenses and a built-in return on investment for equipment. Collectively, retail⁶ and wholesale margins are estimated at R2.74, constituting 11.4% of the petrol price (Table 1). Meanwhile, the price of diesel 0.05% sulphur does not incorporate the retail margin but only includes the wholesale margin of R0.80.

4. Determinants of the Basic Fuel Price (BFP)

¹ Other factors contributing to fuel prices are Customs & excise duty, petroleum products levy, slate levy, zone differential and demand-side management levy (DSML).

² The Ministers of Energy determine petroleum products levy and of Finance in line with the expenditure budget of National Energy Regulator South Africa

(NERSA) to reimburse the pipeline users for the applicable NERSA tariff on transporting fuel through the pipeline

³ Slate levy: the slate levy is charged to finance the cumulative under-recovery of the industry. Only applicable when the cumulative Slate balance exceeds R250 million (under-recovery)

⁴ Other levies include the custom and Exercise levy collected in terms of the Customs Union Agreement; and Demand Side Management levy (DSML) introduced in 2006 to curtail the use of ULP 95 in the inland market.

⁵ Stats SA (2021). A deep dive into the fuel price. December 2021. <https://www.statssa.gov.za/?p=14933>

⁶ The retail levy includes the remuneration of pump attendants and other administrative staff members at filling stations.

The BFP⁷ model is based on the import parity pricing (IPP)⁸ principle. IPP reflects the cost at which a South African importer of fuel would purchase the petrol from an international refinery. It includes fuel transport from the refinery and insurance costs against losses at sea until it lands on the South African shores.

Therefore, fuel price in SA is directly linked to the price quoted in US dollars at refined petroleum export-orientated refining centres in the Mediterranean area, the Arab Gulf and Singapore. This means that the domestic prices of fuels are influenced by **(a) international crude oil prices, (b) international product supply and demand balances, (c) the Rand/US Dollar exchange rate, (d) international refining margins, and (e) Global geopolitics.**

Table 2 illustrates the BFP and its components from January to June 2022. The table shows that BFP for petrol 95 unleaded has increased enormously by 67% over this period, from R9.03 to R15.07. A similar upward trend is also evident for diesel 0.05% sulphur, which nearly increased by more than doubled, up from R8.86 to R16.08. As indicated earlier, the final BFP reflects changes in different factors. The table summarises three factors that contribute significantly to the BFP: maximum refinery gate price, exchange rate and Brent crude oil price.

Table 2: Basic fuel price, January 2022 – June 2022

Basic Fuel Price					
	Petrol 95 Unleaded	Diesel 0.05% Sulphur	Maximum Refinery gate price (MRGP)	Exchange Rate Rand/US\$	Average Dated Brent Crude (US\$)
January	R9.03	R8.86	R149.28	R15.92	\$76
February	R9.70	R9.79	R139.86	R15.51	\$87
March	R11.00	R11.08	R145.19	R15.23	\$96.47
April	R12.79	R14.03	R164.08	R15.02	\$109.37
May	R12.64	R14.98	R169.31	R14.90	\$104.78
June	R15.07	R16.08	R165.12	R15.95	\$115

Source: Own calculations using data DoMRE

Brent crude oil price and exchange rate

Inherently, the BFP is influenced mainly by higher than expected international Brent crude oil prices coupled with a weaker Rand/US dollar exchange rate. The table shows that the average global oil price breached the US\$100 mark in April 2022, reaching US\$109.37. It has remained elevated over the period and stood at US\$115 in June 2022.

The notable rise in international Brent crude oil prices could be attributed to supply-demand imbalances caused by sanctions imposed by different countries against Russia. As one of the largest oil producers, sanctions on Russia caused supply bottlenecks, thereby forcing the market to manage the excess demand through price increases. While the war between Russia

and Ukraine remains unresolved, the oil price could remain higher for the unforeseeable future.

On the other hand, the rand depreciated strongly during this period, reaching R15.95 against the US dollar in June 2022. However, the Rand/US dollar exchange rate depreciation could be attributed to the interest rate hiking cycle by Advanced Economies (AE), which diverts investors' attention to safer currencies.

External forces determine the extent to which these factors impact fuel prices and thus remain beyond the control of any country. These factors are also highly volatile in nature, which explains the variation over time in fuel prices.

Maximum refinery gate price

The MRGP means the maximum price (excluding any inland transport cost values) at which a refinery⁹ shall be permitted to market those quantities of its production of Liquefied Petroleum Gas (LPGas). It must, however, be noted that these sold quantities are intended for consumption within SA. The table shows that MRGP also increased moderately by about 10.6%, from approximately R149.28 in January to R165.12 in June 2022.

5. The economic impact of rising fuel prices

⁷ The BFP was implemented in 2003 by the then Department of Minerals and Energy (DME) to replace the IBL formula, which was previously in place.

⁸ Parity price refers to a price level that sets two assets or securities equal in value to one another.

⁹ Refinery means crude oil, or natural gas processing, or the production of a synthetic fuel facility of companies such as BP Southern Africa Pty (Ltd) (at SAPREF, Durban).

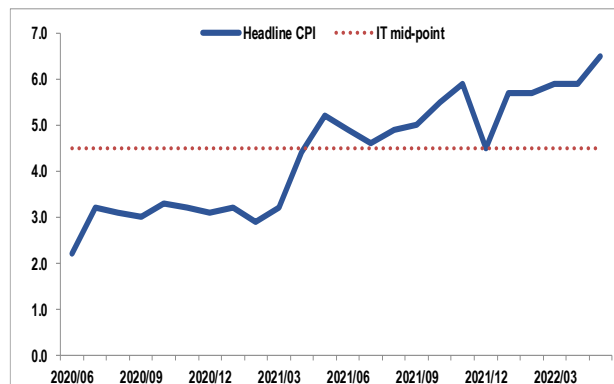
An increase in the fuel price, whether from rising taxes or an increase in the BFP, impacts the economy. The primary transmission mechanism with which the changes in fuel prices get transferred to the main economy is transport costs, inflation and interest rate.

Inflation and interest rate

Higher fuel prices place upward pressure on consumer inflation. Figure 2 illustrates the overall headline consumer inflation from June 2020 to May 2022. Following a significant drop in headline inflation at the height of Coronavirus (COVID-19) due to constrained consumer demand associated with restrictions on the consumption of certain goods.

The figure shows that the headline inflation rate increased as the economic activities re-opened. Notably, consumer prices accelerated at the beginning of 2022 amid higher-than-expected international oil prices, which put pressure on fuel costs. According to Stats SA (2022)¹⁰, headline inflation rate climbed to 6.5% in May 2022, up from 5.9% in the previous month. As a result, the headline inflation rate has surpassed the upper band of inflation targeted range of 3% to 6% and could remain elevated for the remainder of the year.

Figure 2: Headline consumer price inflation, June 2020 – May 2022



Source: Stats SA, 2022

The CPI excluding fuel was relatively lower at 5.1% in May 2022. Transport was the most significant contributor to the 6.5% inflation rate with 2.1 percentage points, following a year-on-year change of 15.7%. The transport component was primarily driven by fuel costs which increased by 32.5% in May 2022 compared to the same period in 2021.

The persistent rise in inflation rate is among the factors that triggered the recent monetary policy tightening cycle by the South African Reserve Bank (SARB), where repo rates have been increased by a cumulative 125 basis points to 4.75% from November 2021 to May 2022¹¹. There is a high likelihood for a further rate hike by a significant basis point as the inflation has breached the upper band of the target. SARB would consider a

further increase in the repo rate as it aims to anchor inflation around the mid-point of the target (4.5%).

Impact on transport services

Households

The fuel price increase, through its correlation with transport services, contributes to a rise in the general cost of living. With regards to private motorists, as they pay more for petrol or diesel, it causes a trade-off with other household expenses. Regarding public transport, taxi owners generally transfer the costs to commuters by increasing the fares, thus negatively impacting ordinary citizens, including those at the low-income level. Therefore, there would be pressure for wage increases to cushion ordinary citizens from the steep rise in the cost of living.

Government services

From the government's perspective, rising transport costs imply that some transportation services need to be adjusted upward. This places pressure on public finances for Departments as some of those upward adjustments were not budgeted for. In order to demonstrate the effect on government finances, the analysis is made about government subsidies for bus services in the province. For example, the Department of Transport (DoT) began to show over-spending on the allocation for *Transfers to*

¹⁰ Stats SA (2022). Consumer Price Index. May 2022. <https://www.statssa.gov.za/publications/P0141/P0141May2022.pdf>

¹¹ Statement of the Monetary Policy Committee. May 2022. <https://www.resbank.co.za/content/dam/sarb/publications/statements/monetary-policy-statements/2022/statement-of-the-monetary-policy-committee-may-2022-->

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subsidies to: Public corporations and private enterprises in the third quarter. The grant allocation increased by 5.5% between 2020/21 and 2021/22. The over-spending is related mainly to the escalation clauses, including the fuel indices.

This reflected the fuel price increase of 43.1% between September 2021 to March 2022. Consequently, the escalation increased by 10.6% for old contracts and 13.3% for newly negotiated contracts between April 2021 and March 2022. Other services that fuel price increases could negatively impact include scholar transport, as the service providers would incorporate new fuel prices in their invoices. This would also lead to over-spending by the DoT against the allocation for scholar transport.

Similarly, Department of Health may experience the same pressure as petrol and diesel prices for patient ambulances and back-up generators in health facilities escalates.

6. Government intervention and revenue

As highlighted above, the BFP is influenced by factors beyond government control. However, fuel levies are determined by the national government and, as such, could be directly controlled. It should be noted that fuel levies contribute to national tax revenue. Therefore, as argued by several commentators and civil

¹² On 31 March 2022, the Minister of Finance and the Minister of Mineral Resources and Energy jointly announced a temporary reduction in the general fuel levy of R1.50 per litre from Wednesday 6 April 2022 until 31 May 2022 to provide limited short-term relief to households.

organisations, reducing any of the levies would mean a loss in the already budgeted tax revenue of R89.9 billion (5.8% of gross national revenue). For instance, the extension of a two-month temporary relief¹² until 5 July 2022 would result in about R4.5 billion tax revenue foregone¹³. This would negatively impact the fiscal framework. However, this may be an avenue that government can use to assist in alleviating the pressure on the rise in fuel prices.

7. Conclusion

It is evident from the analysis presented above that the ongoing spat of rising fuel prices emanates mainly from idiosyncratic factors beyond government control. However, as highlighted in section four of this newsletter, one of the determinants of BFP, the rand/dollar exchange rate, coupled with rising international crude oil prices, is the main driving force behind the increasing basic fuel price.

Notably, the US Fed announced a significant rate hike of 0.75% in June 2022. This decision has led to a further depreciation of the rand/dollar exchange rate, thereby continuing to exert pressure on fuel prices.

¹³ National Treasury. Extension of the temporary reduction in the general fuel LEVY http://www.treasury.gov.za/comm_media/press/2022/2022053101%20Joint%20statement-

Given the ongoing depreciation of the rand against other major currencies, including the US dollar, SA is likely to continue to realise an increase in fuel prices. In addition, the persistent inflationary pressure coupled with the continuous tightening of the monetary policy stance will continue to harm SA's economy, particularly as the Russia-Ukraine war remains unresolved.

The second-round effect will continue on the consumers as retailers pass through the impact of inflation through upward adjustment of retail prices. Therefore, the extent to which government can intervene in reducing fuel levies depends on how much the country can tolerate revenue losses. The loss in revenue would compromise government commitment to a stable fiscal framework, especially the government debt stock.

Province of KwaZulu-Natal

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