

OVERVIEW

Yemen's dependence on imported food and fuel to meet local demand exposes its citizens to sudden and prolonged changes in international market dynamics, including price hikes and supply disruptions. Local market dynamics, including exchange rate variation, access to local and foreign currency, and specific internal cost drivers (such as price capping), directly affect local food prices. These factors affect household purchasing power and access to food based on affordability. This affordability can fluctuate following local price hikes and reductions. In 2020, ACAPS analysed the respective food supply chains and cost drivers for essential food commodities imported into Yemen. Given the high consumption levels of wheat-based food items in the country, this analysis focused on wheat. The 2020 report highlighted the significance of many key challenges that traders faced, of which financial challenges, such as exchange rate instability and access to credit, were primary. Other challenges included the competition between the de-facto authority (DFA) in the north of Yemen (also known as the Houthis) and the Internationally Recognized Government of Yemen (IRG) over import financing and increases in overland transportation costs (ACAPS 16/12/2020).

This report provides an update on the main food supply chains and cost drivers in the country, noting any changes that occurred at the international and local levels between January 2021 and June 2023. The most significant changes to international food and fuel price and supply chain dynamics followed the Russian invasion of Ukraine in February 2022. The war in Ukraine and the disruption caused to international fuel and wheat supply and price dynamics had a notable impact on Yemen's food and fuel supply chains. Yemeni wheat importers experienced reduced access to wheat produced in India, Russia, and Ukraine. Although other sources for bulk wheat were available, international wheat prices rose substantially owing to the disruption to wheat export and crop cycles in Russia and Ukraine and other factors that included a disruptive heatwave in India in March 2022.

International supply disruption often translates to local price increases (ACAPS 25/08/2022; Markets Insider accessed 18/05/2023 a). Yemeni importers often initially absorb increased costs, but if international food prices remain high for an extended period, the added costs are reflected along the supply chain to the consumer. These costs put additional strain on Yemeni households, many of which have experienced a significant reduction in their purchasing power during the conflict. Reduced purchasing power limits Yemeni households' access to essential imported food commodities available in the market. Sustained higher international and local food prices then carry the potential to trigger a drop in local demand following

increased unaffordability. To tilt the balance back in favour of the consumer, coupled with other suspected political and market-focused motivations, the DFA-run Ministry of Industry and Trade (MOIT) introduced and implemented food price caps in December 2022. The DFA-run MOIT then applied and enforced further price reductions in 2023 (MOIT 10/12/2022).

About this report

Aim

This analysis aims to provide an update on the nature and structure of Yemen's food market since 2020 and the role of different factors (responders, policies, global dynamics, etc.) in determining food prices.

Methodology

- The analysis is based on secondary data review.
- The report also uses data analysis and modelling of wheat and fuel cost drivers using ACAPS' cost driver monitoring tool (CDMT). The CDMT analyses the costs of bulk wheat imports to Yemen from loading ports in major exporting countries to Yemen. It covers costs in two main categories: shipping costs from the port of loading to the port of discharge and subsequent internal costs up to the point of sale in Yemen (ACAPS accessed 01/06/2023).
- The report also uses data from 19 key informant interviews.

Limitations

- There is limited ability to obtain more details on the DFA import financing mechanism.
- There are challenges in obtaining more detailed insights from wholesalers.
- There is limited ability to capture the number and types of responders in the food supply chain.

The project benefited from support by the IMEDA programme, which is supported by UK aid from the UK government.

KEY MESSAGES

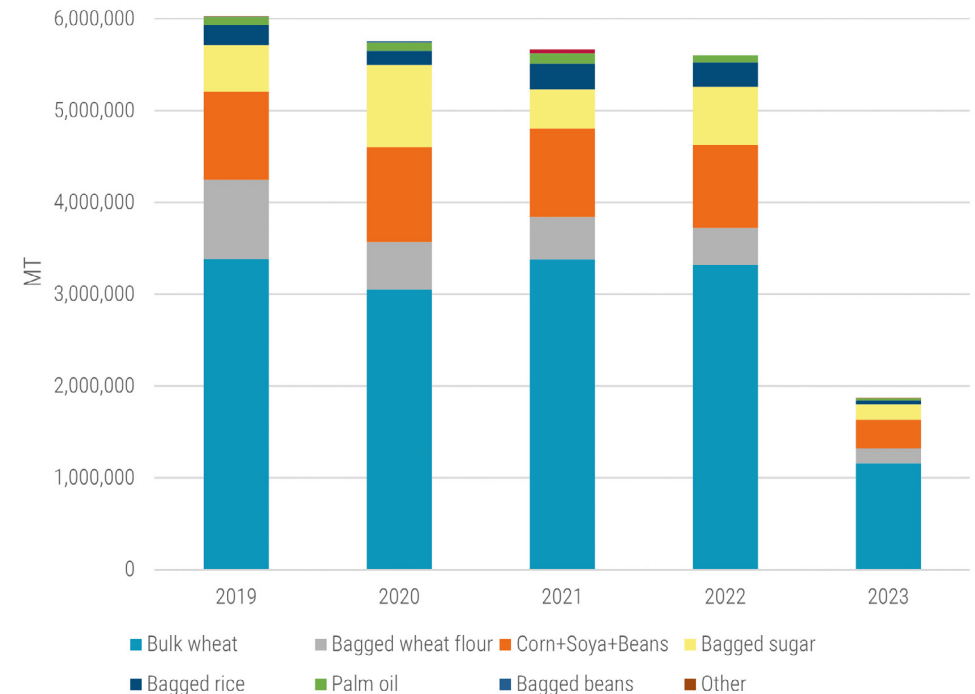
- Overall import tonnages of major food commodities through Yemen's seaports decreased by about 7% between 2019–2022. The tonnages of the most widely consumed commodity, bulk wheat, have largely remained stable.
- From April–December 2022, no wheat was imported from Ukraine after the 2022 Russian invasion disrupted wheat exports. Before the Ukraine war, wheat imports from Ukraine constituted around 20% of wheat unloaded at Yemeni ports. Wheat imports from Russia halted in April 2022 before resuming in October 2022.
- The 2022 Russian invasion of Ukraine disrupted international wheat and fuel prices, pushing numerous countries into recession and prompting India to introduce a wheat export ban in May 2022. Until June 2022, India was a primary source of wheat for Yemeni wheat importers, who had to look elsewhere as India, Russia, and Ukraine were no longer viable options. Imports from Australia, France, Romania, and the US offset the discontinuation of wheat imports from these countries.
- After the sharp price hikes in the first half of 2022, wheat prices on the global markets started falling. On the other hand, global prices for palm oil, sugar, and rice have been increasing, with the impact on price hikes likely to be seen in IRG-controlled areas but not in DFA-controlled areas, where the price cap limits the impact of price hikes.
- External factors largely drive commodity prices in Yemen, including international crude oil and fuel prices. These external factors significantly affect consumer prices, as increased fuel costs have an impact throughout the supply chain.
- The IRG and the Central Bank of Yemen in Aden (CBY-Aden) have been grappling with a significant loss of revenue since April 2022 following two events. First is the shift in fuel imports via Aden to Al Hodeidah, resulting in the loss of import and tax revenue. The second is the suspension of crude oil exports since October 2022 following DFA threats against export terminals. CBY-Aden and the IRG rely on international financial aid to maintain macroeconomic stability, cover expenditure (including public sector salaries), and finance basic commodity imports. The difficulties could lead to food shortages or price increases.

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SOURCES OF FOOD IN YEMEN

Food imports to Yemen



Source: ACAPS' discussions with key stakeholders

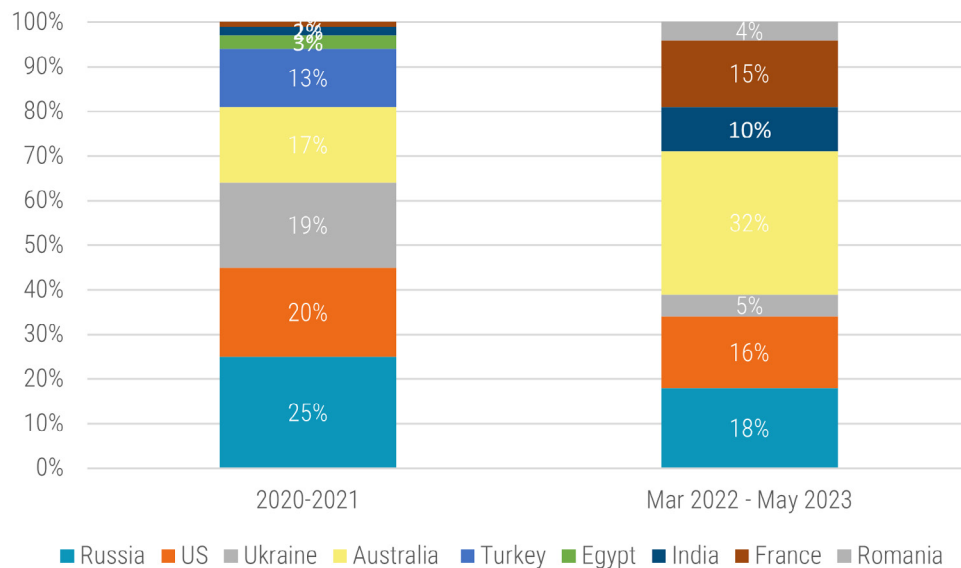
Overall, food imports through Yemen's seaports have slightly decreased over time. In 2022, imports were at 93% of 2019 volumes (5,606,524 MT versus 6,033,880 MT). Import volumes in the first four months of 2023 have been healthy and, if they continue at the rate seen from January–April, would reach similar import levels to 2022. The annual volumes of bulk wheat imported to Yemen remained almost the same from 2019–2022; in the first five months of 2023, imports continued at very strong levels. Average bulk wheat import tonnage was just over 320,000 MT/month or 3.6 million MT/year between August 2017 and April 2023.

Bagged wheat flour imports through seaports noticeably declined over the past four years. In 2022, they were less than half (47%) of 2019 imports (407,147 MT versus 863,456 MT). In 2016, 40% of wheat flour was imported through Oman; the current rate is unknown (WB 01/01/2018). High shipping and insurance costs on the maritime route to Al Hodeidah port

incentivise traders to import flour via the land route (KII 16/05/2023). Palm oil, sugar, and rice have seen lower import volumes in 2023 than the annual average in previous years, likely because of price rises in the global market in 2022. This situation is examined in further detail per commodity in the text below.

Countries of origin of wheat imports

Figure 2. Countries of origin of wheat imports to Yemen

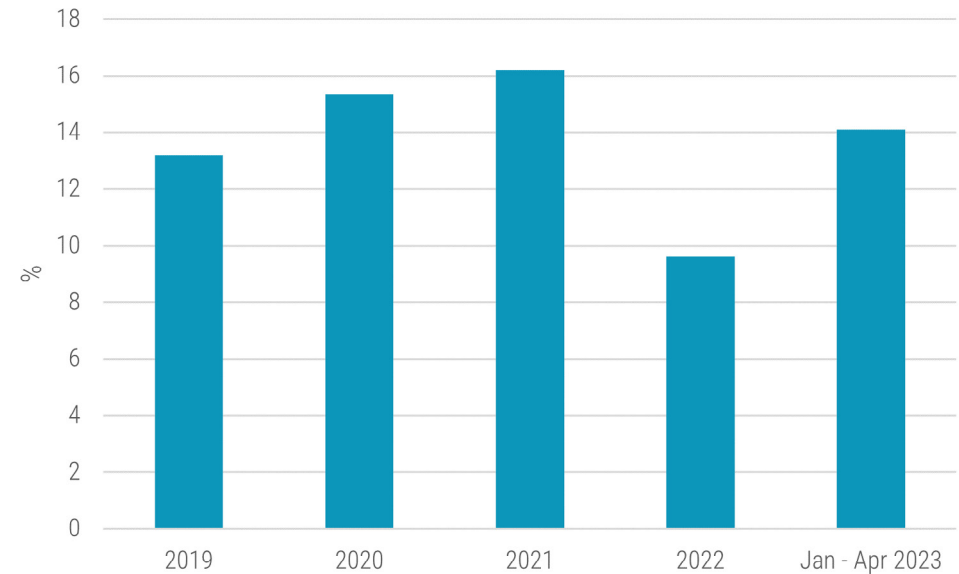


Source: ACAPS' discussions with key stakeholders

In 2020 and 2021, Yemen imported around 44% of its wheat from Russia and Ukraine (ACAPS 25/08/2022). With the start of the war in Ukraine and the halt of wheat exports, no wheat arrived from Ukraine after March 2022. Wheat imports from Russia halted in April 2022 but started again in October 2022 (ACAPS' discussions with key stakeholders). India discontinued wheat imports as part of the May 2022 export ban. This ban aimed to control rising domestic prices following a heatwave in March that curtailed India's wheat production (Al Jazeera 14/05/2022). From March 2022 to May 2023, imports from Australia, France, Romania, and the US offset the lack of imports from India, Russia, and Ukraine, although grain imported from Romania was possibly of Ukrainian origin (ACAPS 25/08/2022).

Humanitarian food imports

Figure 3. Percentage of humanitarian imports in overall imports



Source: ACAPS' discussions with key stakeholders

Humanitarian food imports through Yemeni seaports also decreased between 2019–2022. Between 2019–2022, aid imports decreased by 9%. The share of humanitarian food aid in total food imports in 2022 was nearly 10%, against 16% in 2021. Following funding constraints and global grain price increases, the WFP was forced to reduce the amount of food distributed. In September 2022, humanitarian food imports comprised 65% of the standard food basket (WFP 31/12/2022). As of April 2023, the share of humanitarian food imports made up 14% of total imports.



Local food production

Overview of local food production trends during the conflict

During the conflict, local wheat production and fisheries experienced a higher rate of decline in output compared to local fruit and vegetable production. Fruit and vegetable crops collectively represent Yemen's largest food product, and cultivators have increasingly turned to commercial crops over the past decades. Yemen's most lucrative cash crop is qat, a green-leafed shrub with psychoactive agents commonly grown and chewed among much of the population. Other commercial crops include animal feed, of which Yemen's biggest single crop in terms of volume is sorghum, a rain-fed cereal cultivated to feed livestock. According to figures from 2015 up to and including 2019, production levels remained stable during the conflict for the abovementioned commercial crops, as well as for meat, dairy, and poultry (ODI/ACAPS 08/03/2022 a).

Yemeni coffee and honey are two of Yemen's most regionally and internationally renowned products. The coffee trade was revitalised during the conflict, with some farmers focusing on expanding their coffee plantations (particularly in Ta'iz governorate) instead of qat cultivation. A surge in demand for premium coffee in Western countries, among other factors, motivated this shift (MEI 28/02/2018; CEIP 16/05/2023). While the production and export of honey or coffee represents a lucrative trade, both value chains face challenges that are currently preventing additional growth (SCSS 28/03/2023).

Local food production developments in 2022 and 2023

Local food production in Yemen in 2022 and 2023 remained constrained. As at May 2023, Yemen's agricultural sector supplied an estimated 15–20% of its staple food needs despite much of the population depending on the sector for their livelihoods (WB 02/05/2023).

In 2022 and 2023, several developments had direct implications for local food production.

- In December 2022, the World Bank approved a USD 150 million grant for the second phase of its Yemen Food Security and Resilience Project, specifically focusing on agricultural and household food production (WB 01/12/2022; WB accessed 18/05/2023).
- A USAID-funded economic and livelihood project supports local producers of various agricultural products, including tomato, watermelon, coffee, honey, and livestock, by providing training in modern methods of minimising inputs and increasing productivity (KII 17/05/2023).
- In February 2023, the IRG banned the export of fresh fish and marine life products following the rapid rise in local fish prices across southern Yemen (Al Mashhad Al Yemeni 19/02/2023). The ban was likely difficult to enforce, and after complaints from exporters about the ban affecting their trade, the IRG started permitting exports again (KII 20/06/2023).

- In April 2023, Saudi Arabia ended its ban on prohibited items deemed dual-use, such as certain fertilisers and solar cells (KII 09/04/2023; Reuters 07/04/2023). This means all goods can be imported again unless prohibited by Yemeni law. Permission to import these goods has largely reverted to the pre-conflict situation, where line ministries have to approve certain goods, such as fertilisers and medicine, and reputable traders must import them. Lifting the ban on fertilisers and solar cells could stimulate the agricultural sector and local food production.

THE FOOD SUPPLY CHAIN IN YEMEN

Consumer demand

The food supply chain in Yemen operates in an environment of weakening consumer demand. Consumers are less able to purchase sufficient food supplies to meet their basic food needs, which is one of several growing and serious challenges to the food supply chain. The reduction in or loss of income, unemployment, and other factors reduce individual and household purchasing power. This reduction is one of the main reasons that available food items are unaffordable in the market, making them inaccessible for many people in Yemen.

Another potential factor contributing to the drop in demand for food purchases in the local market is the alleged decline in Yemeni migrants' remittances (KIIs 04/2023). Remittances are the primary source of foreign currency for trade financing in Yemen and are a major income source for most families in the country. Reduced migrant working incomes and a narrowed employment space for migrants in Saudi Arabia reduce remittances. An overvalued exchange rate in DFA-controlled areas compared to high and still increasing living costs is also reducing household net gains from remittances. There is also a growing trend of migrants relocating their dependents to Saudi Arabia when possible (KIIs 04/2023).

Responders in the food supply chain

The private sector: private sector companies are the main importers of food. In 2020, the private sector provided up to 90% of Yemen's imported food (YETI accessed 26/07/2023; ACAPS' discussions with key stakeholders). A few powerful trading houses with longstanding elite and political connections dominate the food import and processing sector, including storage, milling, and packaging in DFA and IRG areas. These two areas differ regarding currency exchange rates and taxation systems (EU/UNDP 19/12/2022; IFPRI 21/11/2022).



Smaller traders: a vast network of smaller traders, including agents, wholesalers, small traders, and vendors (i.e. shopkeepers), handles the distribution and sale of products to end users in Yemen. Wholesalers purchase food commodities from importers via agents that represent the importers. The wholesalers then distribute and sell food commodities to retailers. Wholesalers may also deliver wheat grain and wheat flour to either a miller or a bakery. Retailers, millers, and bakeries then sell to consumers. Major wheat importers have their own milling and food distribution capacity and can deliver directly from their silos and mills to end users (KII 20/06/2023).

Smaller traders play a pivotal role in Yemen's local economy, creating service sector jobs while also functioning as lenders of everyday essentials, including food. As at July 2022, 64% of food market vendors sold on credit to trusted customers in their communities, and most rural households were dependent on these credits for food purchases (JMMI 07/2022). Some traders have left the market because of conflict-related damage to their facilities, the multiple taxes and levies imposed, and their business generally becoming unprofitable (ODI/ACAPS 08/03/2022 b).

Money exchangers and financing mechanisms: money exchange companies play an important role in the trade financial cycle in Yemeni rial and import financing. Large importers use money exchange companies to manage dual currencies and cash flows within the small and medium food trader's distribution networks (ODI/ACAPS 08/03/2022 b). The money exchange sector also handles significant amounts of migrant foreign currency remittances, allowing Yemeni food (and non-food) importers to process their import funding transactions via Yemeni and regional hawalah networks and pay for goods and services, such as chartering vessels (ACAPS 26/07/2022). Food importers may also protect their trade finance from instability in Yemen by holding accounts abroad – for example, in the United Arab Emirates (UAE) and Turkey – or basing the company's financial arm in a foreign country, such as the UAE.

Factors that affect price setting in Yemen

Position of large food importers

Food importers in the first segment of the supply chain are normally in the prime position to set prices and arrange the terms of trade. This advantage is largely because importers source and conduct procurement deals in the global food supply market, allocate and transfer foreign exchange to exporters, and handle cross-border shipping, insurance, and loading and discharging costs (KIIs 05/2023). Price-setting is not transparent, making it difficult for supply chain members operating below the importer to identify cost distribution along respective food supply chains and the cost share of each food package unit sold.

Exchange rate fluctuations

Traders below the importer apply the market exchange rate on the purchase day when calculating their sales price. For any sales made on credit between different supply chain members, a ten-day monitoring interval of the exchange rate is applied as a protection measure to ensure sale price stability. For instance, if the exchange rate remains stable until credit repayment, the debtor pays the agreed price, but if the rate appreciates or depreciates after the trade agreement is done and the new exchange rate level has been sustained for ten days, the debt repayment value would be adjusted according to the new exchange rate (KIIs 05/2023).

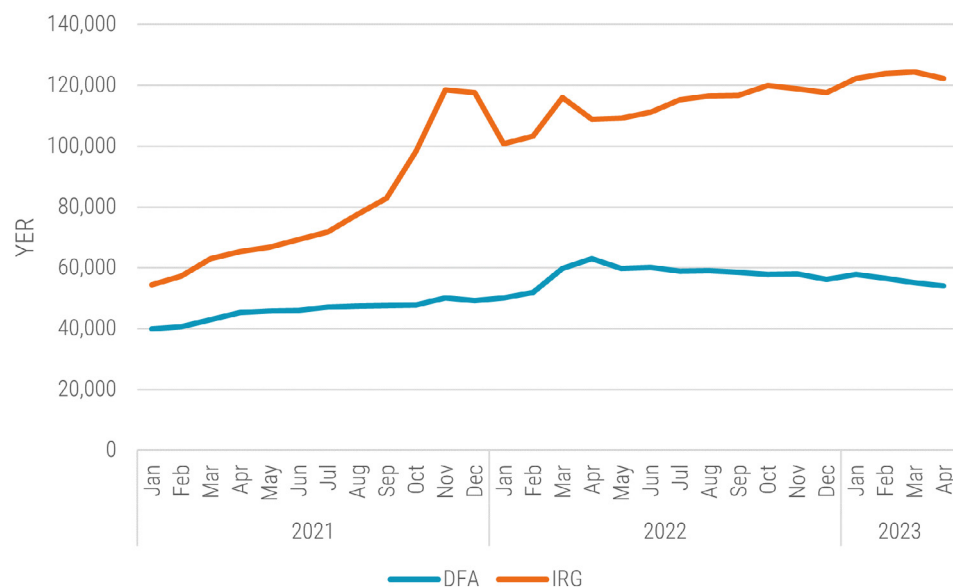
Use of food price caps in DFA-controlled areas

Food price caps were first introduced during the 2007–2008 global financial crisis to protect the Yemeni population from rapidly increasing global food prices. In December 2022, the DFA-run MOIT announced mandatory maximum prices on basic food commodities in governorates under DFA control to ensure household affordability (MOIT 10/12/2022). Further price reductions followed in May and June 2023 (see Annex II). Like many market interventionist strategies, the DFA price caps are likely an attempt to appeal to public opinion and prevent increased public discontent and potential civil unrest in connection with the economic struggles of Yemeni citizens and households that lead to high food insecurity levels. The MOIT approach pressures vendors and traders, as there is often a mismatch between official prices and market realities. Many businesses risk insolvency by absorbing continued losses or are forced to reduce their business activities (Yemen Future 17/10/2021).

The Sana'a-based Chamber of Commerce and Industry issued a statement criticising the DFA price caps and other arbitrary measures the DFA has taken against private sector groups (Yemen Eco 26/05/2023). This statement also declared that the private sector would not be responsible for any shortages of imported goods in local markets. The Chamber of Commerce's opposition to price caps prompted the DFA to storm the Sana'a headquarters and forcibly install new personnel. The DFA installed Ali al-Hadi as the new president of the Chamber of Commerce and Industry in Sana'a, with Mohammed Mohammed Salah as al-Hadi's deputy.

Minimum food basket prices in DFA-controlled areas have decreased slightly after January 2023.

Figure 4. Minimum food basket prices



Source: ACAPS using data from FAO (accessed 01/06/2023)

If maintained, the price cap policy could make food import and distribution unprofitable for certain food traders, especially those who lack resilience to operational or financial disruptions and have limited political support.

Increase of IRG customs exchange rate and DFA promotion of Al Hodeidah port

Since January 2023, shipping lines and traders have been able to import construction materials and commercial goods via Al Hodeidah instead of Aden. Several factors have contributed to this development, including:

- the IRG's January 2023 decision to raise the customs exchange rate for non-essential food items, such as those imported on commercial containers, from YER 500 to YER 750 per USD (Reuters 26/07/2021)
- the DFA's promotion campaign of the Red Sea ports (Al Hodeidah, Ras Issa, and Saleef), which aimed to capitalise on trader frustration towards the IRG customs exchange rate increase and incentivise traders to use the Red Sea ports

- permission from the Saudi-led coalition for traders to import construction materials through Al Hodeidah and Saleef, which importers interpreted as a strong indication that the coalition was prepared for all types of cargoes to be imported via the Red Sea ports.

Wheat, rice wheat, and infant milk are exempt from import tax and customs in IRG-controlled areas (KII 15/05/2023). The IRG cited the loss of crude oil export revenues from October 2022 as a major contributing factor to the rise in the customs exchange rate. Private sector groups opposed the increases (Boqash 09/02/2023 a and 09/02/2023 b).

The DFA sought to capitalise on private sector frustration by promoting the Red Sea ports to import fuel, food, and other types of cargo (Boqash 09/02/2023 b). The DFA sought to further financially incentivise Yemeni importers to use the Red Sea ports by allowing them to pay up to half the customs fees using cheques or delayed payments, with the other 50% paid upfront in cash (in Yemeni rial) (Hodeidah Governor's Information Office Twitter 25/01/2023; 26Sep.net 16/02/2023).

Between February–June 2023, there was a significant shift in non-food and construction material imports, with higher tonnages discharged at Al Hodeidah and Saleef instead of Aden. Contrary to reports that there had been a general increase in commercial imports through Al Hodeidah, since February, the shift has initially been limited to non-food and construction materials. Import tonnages of bulk food into Aden, Al Hodeidah, and Saleef in the first five months of 2023 were not significantly different from 2022 figures. Bulk food imports into Saleef between January–June 2023, at 136,000 MT/month, were similar to the tonnages imported between July–December 2022 (127,500 MT/month). At Al Hodeidah, bulk food imports for the same two periods were also similar (248,500 MT/month in the first six months of 2023 and 230,500 MT/month in the last six months of 2022). For Aden, bulk food imports between January–June 2023 were 97,000 MT/month compared to 82,000 MT/month in the last six months of 2022. Figures for Mukalla were 6,500 MT/month over the first six months of 2023 and 4,500 MT/month over the last six months of 2022.

The shift in construction and container imports from Aden to Al Hodeidah and Saleef ports has affected food imports through increased waiting times at Al Hodeidah and Saleef. All vessels attempting to import goods to these ports are experiencing increased waiting times, including those carrying food items. The increased traffic attempting to use the limited unloading capacity is increasing these waiting times. For example, the average time at anchor in Saleef increased from 2.4 days in January and February 2023 to 11.8 days in March, 10.4 days in April, 10.3 days in May, and 12.0 days in June (as at 26 June).

For a significant shift in commercial container traffic, including food in containers, from Aden to Al Hodeidah, the latter would need to significantly increase its current unloading capacity. This increase would require repairing or replacing two container handling cranes that Saudi-led coalition air strikes damaged in 2015. DFA officials are actively calling for the



repair or replacement of these cranes. Since March 2023, several shipping companies have indicated their willingness to use the port for containers. The dialogue between the DFA and Saudi Arabia has enabled these developments. Import restrictions through Al Hodeidah were eased before a Saudi and Omani delegation visit to Sana'a, where they met with DFA officials during the second week of April 2023. The Saudi delegation was willing to allow container vessels to sail directly from Jeddah to Al Hodeidah port (KII 02/04/2023; KII 04/04/2023). Traders will still need to file their respective documentation with UNVIM. The implementation of this procedural shift began on 3 April 2023 (KII 04/04/2023).

Linkages between export revenues and access to foreign currency

Loss of crude oil export revenues

Since October 2022, the IRG and CBY-Aden have been contending with the loss of crude oil export revenues. The DFA successfully disrupted exports at Ash Shihr (Hadramawt) and Nushayma (Shabwah) export terminals by targeting oil facilities with drone and missile attacks (ICG 29/12/2022). The attacks led to export terminals remaining closed to commercial traffic, with no vessels calling at either terminal since November 2022.

The disruption that the DFA drone attacks caused to crude oil exports has increased the economic and political vulnerability of the IRG and CBY-Aden, depriving them of Yemen's primary revenue source and major foreign currency source. The disruption to oil exports leaves the IRG more dependent on external financial support to maintain currency stability and the ability to supply foreign currency.

In May 2023, ACAPS assessed that the potential loss of revenue for the IRG between October 2022 and the end of April 2023 ranged between USD 683 million and USD 725 million (ACAPS' internal assessment 05/2023).¹ A prolonged loss of oil revenues would have a dire impact on economic conditions, including the ability to pay salaries and provide public services, and would lead to the depreciation of the rial in IRG-controlled areas (SCSS 16/12/2022; FEWS NET 03/02/2023).

Sources of foreign currency for the IRG

CBY-Aden and the IRG rely on international financial aid to finance basic commodity imports. The lack of export revenue constrains CBY-Aden's ability to continue running the weekly auctions and supply foreign currency to importers, including food importers. The IRG and CBY-Aden remain dependent on external funding, including:

- USD 300 million worth of IMF Special Drawing Rights converted in November 2022
- UAE financial support worth USD 300 million in November 2022
- the USD 1 billion financial support package that Saudi Arabia pledged in April 2022 and finalised in February 2023.

These have provided the IRG and CBY-Aden with a degree of respite amid crude oil export revenue loss since October 2022.

Supply of foreign currency to underwrite food imports to DFA areas

The Payments and Foreign Currency Committee coordinates the supply and sale of foreign currency in DFA-controlled areas. Indicators suggest that a decreased amount of foreign currency has been circulating in the general market in DFA areas since early 2022, but that food imports remain stable indicates that importers continue to access sufficient foreign currency (KII 05/05/2023).² The committee coordinates access to and the sale of foreign currency closely with select money exchangers. According to key informants and other private information sources, restrictions in 2022 and 2023 significantly reduced the availability of physical foreign currency in the market in DFA areas. The amount of foreign currency circulating in the local market in DFA areas is thought to be tightly controlled, with priority perhaps given to ensuring the supply and sale of foreign currency to fuel and food importers, among other traders. The price cap policy and the extended supply of imported food from DFA-based importers mean no major impacts are expected on the price and availability of staple imported food in the DFA domestic market.

A DFA ban on foreign exchange funding and the flow of food imports from IRG to DFA areas, coupled with the DFA policy of not allowing the flow of food imports to DFA areas through Al Hodeidah port if not financed through the DFA-run Payments and Foreign Currency Committee, has resulted in economic division between IRG and DFA areas. Importers and banks in IRG areas can only import for the IRG market, and importers and banks within DFA areas can only import to the DFA market. Major importers of wheat flour to DFA areas whose facilities are established in the IRG capital of Aden would lose their share in DFA areas if they imported via Aden and transported the flour to DFA areas, replaced by new importers that import wheat flour through Al Hodeidah or Oman. The large food market in DFA areas boosts the role of the informal foreign exchange financial service providers for food imports at the expense of banks in the DFA economy. Regardless, there are no major impacts in terms of the price and availability of staple imported food in the DFA domestic market given the price caps policy imposed on DFA-controlled areas and the extended supply of imported food from DFA-based importers.

¹ These calculations are based on previous export data and the average price of crude oil (Brent) between October 2022 and April 2023.

² The DFA established the Payments and Foreign Currency Committee in November 2017. The committee quickly became one of the DFA's primary economic regulatory bodies. Its main responsibilities include managing the supply of and demand for foreign and local currency in DFA areas. It is instrumental to managing exchange rate stability, including the enforced exchange rate in DFA areas. The Committee's other responsibilities include collecting regular fees from banks, businesses, and money exchangers and the enforcement of CBY-Sana'a policies.

COST DRIVERS FOR FOOD

External import factors largely drive Yemen's commodity prices in both IRG and DFA areas; these include international commodity prices and, to a lesser extent, shipping costs from the loading port to the discharge port (see Annex I for an example of shipping and voyage cost variables). There are many critical internal costs once food arrives in the country and up to the point of sale in Yemen, such as overland transport costs (ACAPS accessed 01/06/2023).

In the first half of 2022, international prices for essential food commodities and oil derivatives continued to rise, affecting wheat, sugar, rice, and cooking oil prices. This upward trend continued the overall trajectory in the second half of 2021 (Markets Insider accessed 18/05/2023 a). The Russian invasion of Ukraine that started in February 2022 has destabilised, among others, international fuel, grain, and fertiliser prices and contributed to increased shipping costs (UNCTAD 28/06/2022).

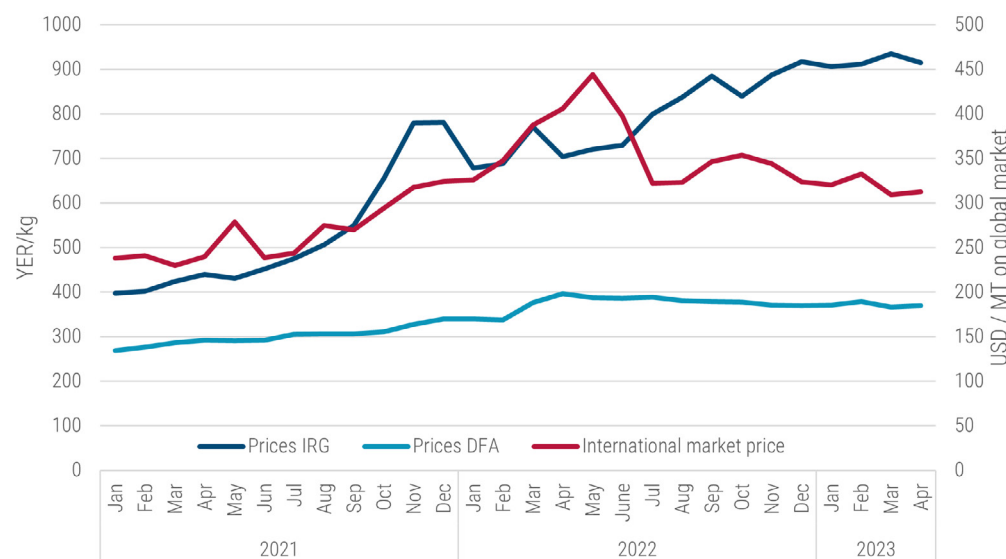
In the second half of 2022, international fuel and wheat prices levelled and started to decrease, with further price reductions occurring in 2023 (Markets Insider accessed 18/05/2023 b; Markets Insider accessed 18/05/2023 c). The international price of cooking oil decreased in mid-2022 and then levelled out during the third quarter. The international price of rice fluctuated, and sugar prices continued to climb, reaching ten-year highs in 2023 (Markets Insider accessed 18/05/2023 d; Markets Insider accessed 18/05/2023 e; Markets Insider accessed 18/05/2023 f). Looking further ahead, international food prices are expected to remain high throughout 2023, while grain and fuel prices may retain some stability (IMF 09/12/2022).

These price fluctuations in the international market are mirrored in the prices consumers in IRG and DFA areas have to pay, which the exchange rate volatility in IRG areas and price caps in DFA areas moderate. While prices in local markets in IRG areas fell again after February 2022, they increased in June 2022 and have remained high since, likely because of the exchange rate changes that continue to affect IRG areas.

Bulk wheat

Between May 2022 and April 2023, the major trend affecting international market dynamics concerned the reduction of international wheat prices after they peaked in May 2022 following the Russian invasion of Ukraine in February 2022 (Markets Insider accessed 18/05/2023 c). Wheat prices fell from USD 522/MT in May 2022 to USD 260/MT in May 2023.

Figure 5. International wheat prices on the global market and prices for red/brown wheat grains in DFA and IRG areas



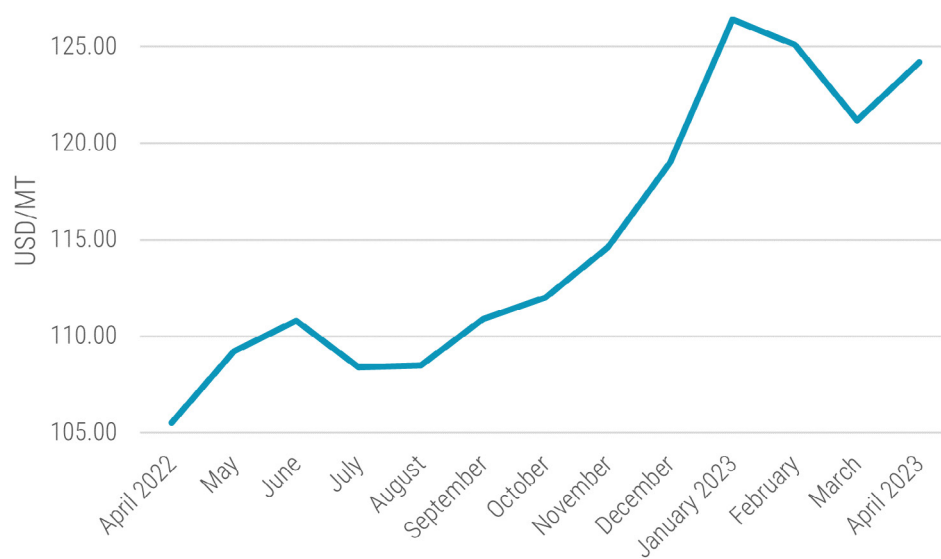
Sources: ACAPS using data from FAO (accessed 01/06/2023); FRED (accessed 18/03/2023)

The impact of the rise of wheat prices in the international market is noticeable in IRG and DFA areas, following international price hikes between February–May 2022, although importers had already previously purchased the wheat sold at the local markets in February. Local wheat prices in DFA areas remained stable throughout 2022–2023, but local wheat prices in IRG areas increased in June 2022 and have remained at a higher level since, despite the decrease of prices in the international market.

Rice

In May 2023, the FAO All Rice Price Index showed a 2.5% increase from March–April 2023 and a 17.8% increase in April 2023 compared to the figure recorded in April 2022. The All Rice Price Index measures global rice export prices expressed in US dollars. The FAO reported that indica and japonica, two major rice types traded in the global market, were largely responsible for this increase (OECD 09/04/2021; FAO accessed 18/05/2023).

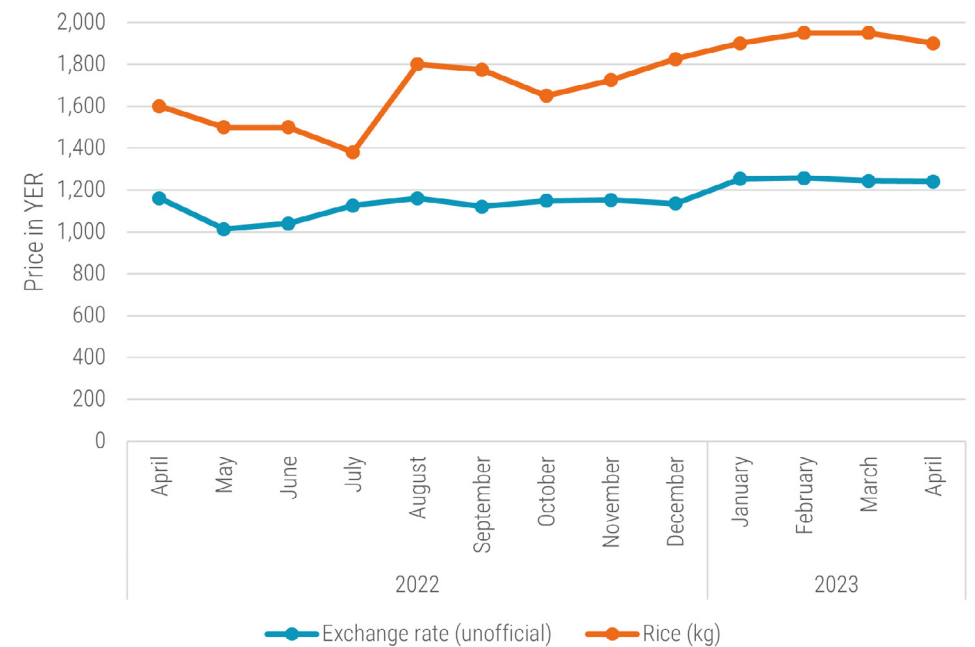
Figure 6. FAO All Rice Price Index



Source: ACAPS using data from FAO (accessed 18/05/2023)

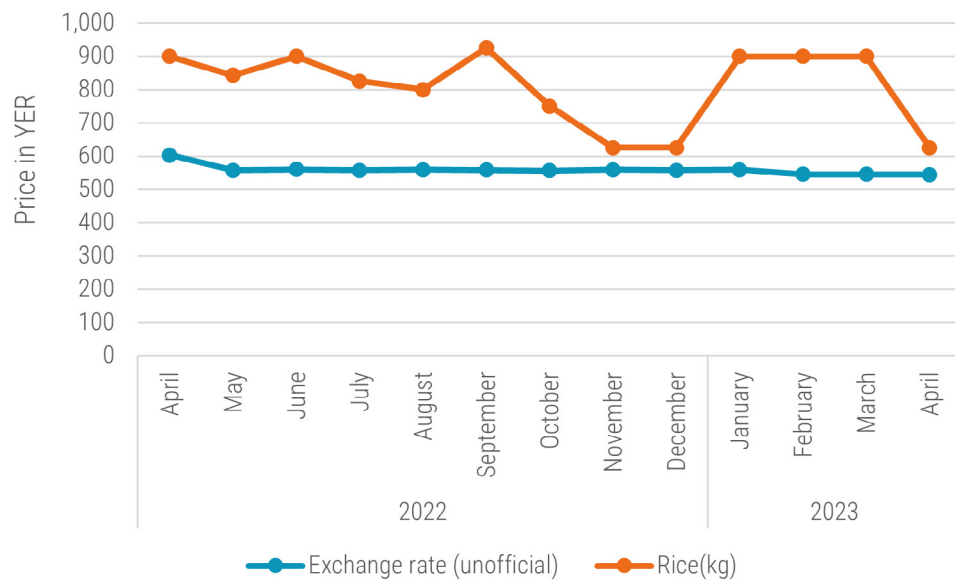
The local price of rice in IRG areas appears to be more directly linked to international market prices and the local market exchange rate. The price of rice in DFA areas started to decrease in January 2023, presumably largely because of the application of the DFA price caps.

Figure 7. Local price of rice (per kg) in Aden, April 2022 to April 2023



Source: ACAPS using data from REACH (01/06/2023)

Figure 8. Local price of rice (per kg) in Sana'a city, April 2022 to April 2023

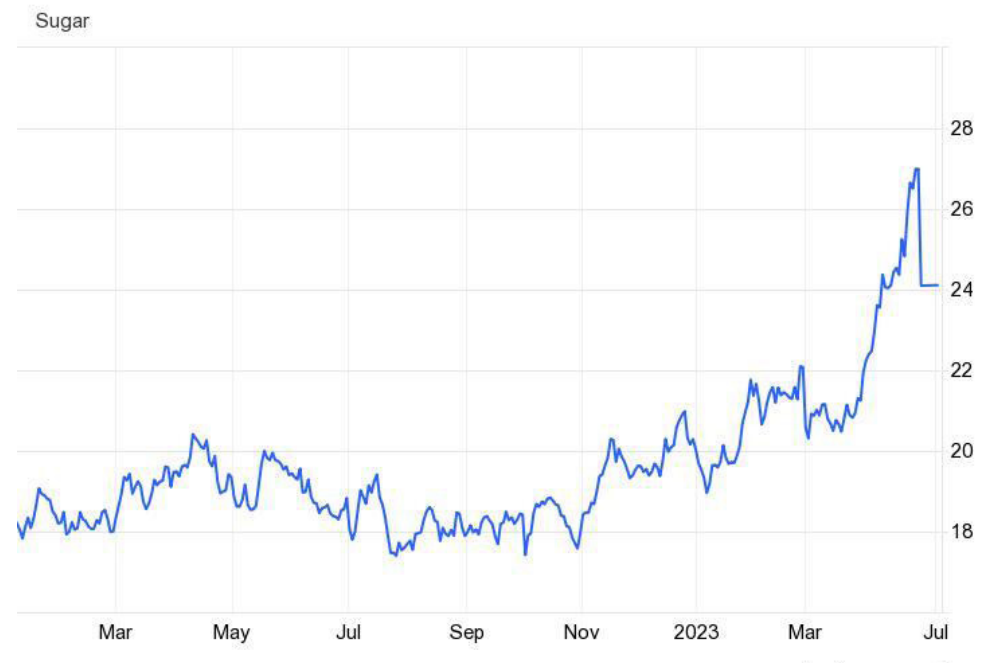


Sources: ACAPS using data from REACH (01/06/2023)

Sugar

From October 2022 to May 2023, the international price of sugar rose, reaching the highest price since October 2016. The price of sugar increased in IRG areas but not in DFA areas.

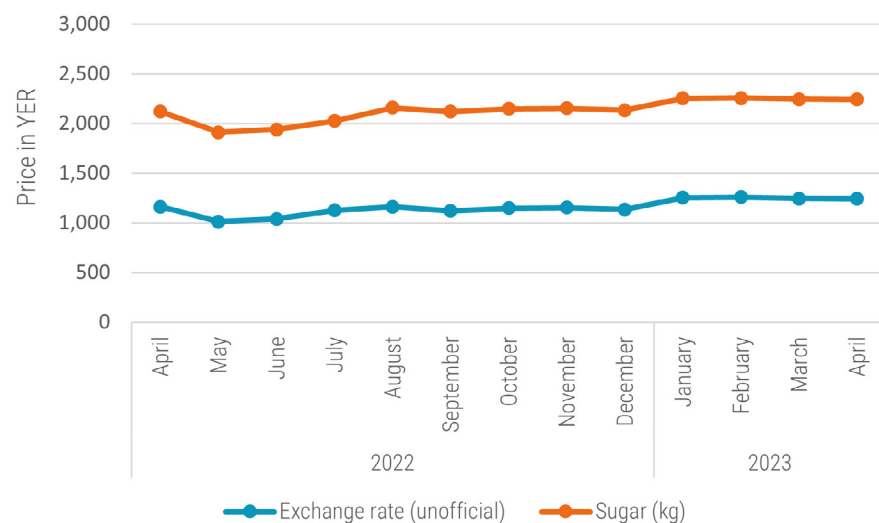
Figure 9. Global sugar prices, 1 January 2021 to 30 April 2023



Source: TE (accessed 26/05/2023)

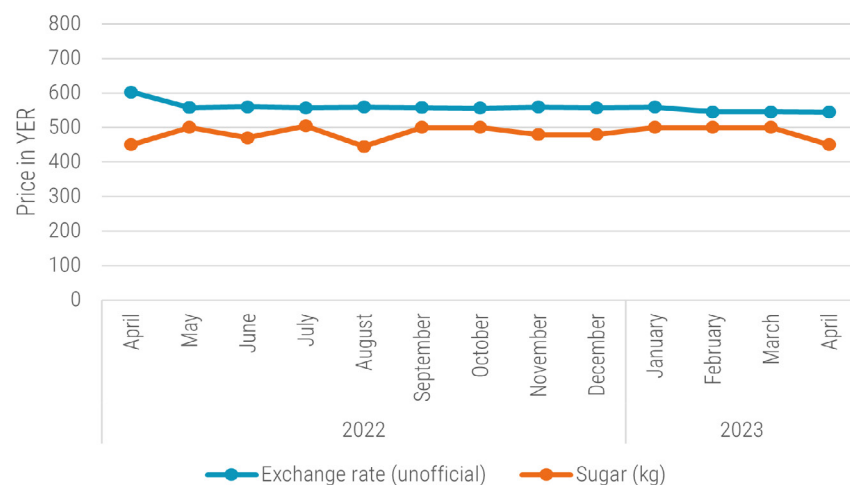
These continued international sugar price hikes and the reduction in sugar production among several countries are creating uncertainty in the market (KII 09/05/2023). A potential Indian sugar export ban would worsen the uncertainty. On 29 April 2023, Indian news channel WION reported that the Indian Government is considering a ban on sugar exports "due to a decline in output and to prevent inflationary pressures before the Lok Sabha elections next year" (WION 29/04/2023). The potential sugar export ban could affect Yemen, which imports bulk and bagged sugar to meet national demand. Bulk sugar predominantly comes from Brazil for refining, but India is also an important source (KII 03/05/2023).

Figure 10. Local price of sugar (per kg) in Aden, April 2022 to April 2023



Sources: ACAPS using data from REACH (01/06/2023)

Figure 11. Local price of sugar (per kg) in Sana'a city, April 2022 to April 2023



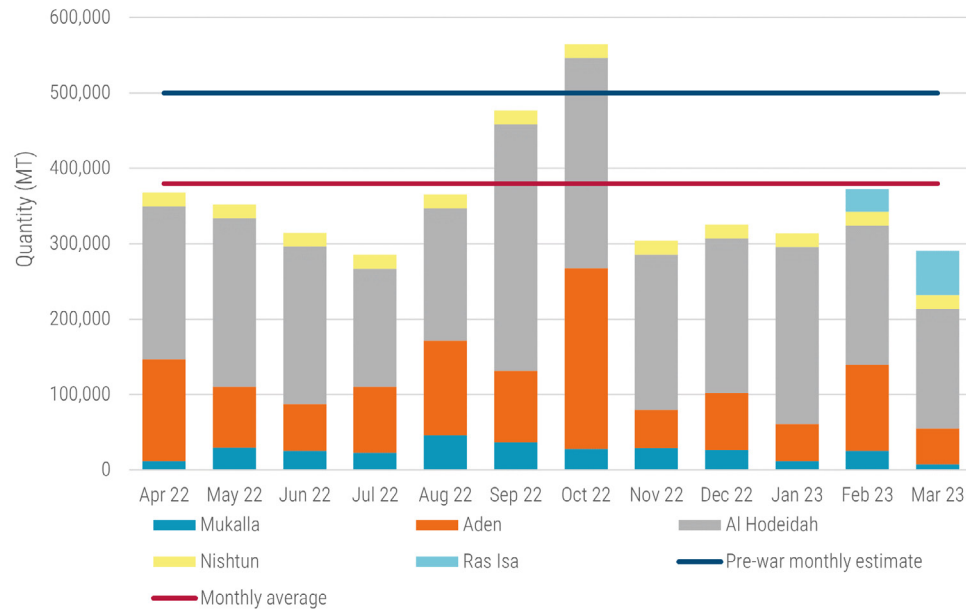
Sources: ACAPS using data from REACH (01/06/2023)

Fuel and transport costs

Internal fuel prices are a cost driver for food prices in Yemen, as higher international and local fuel prices lead to higher overland transportation costs and higher food prices in the absence of market interventionist policies, such as price caps. Although the official prices of petrol and diesel in DFA areas decreased between April 2022 and June 2023, prices as at June 2023 remained higher than in January 2021, when international fuel prices were comparatively low. Fuel and associated food transportation costs would be higher if the fuel import costs had not shifted since April 2022. After April 2022, fuel import, distribution, and price dynamics in Yemen have shifted dramatically following the establishment of the UN-brokered truce between the DFA, the IRG, and the Saudi-led coalition (Reuters 01/04/2022). The truce included an agreement to allow 18 fuel shipments to unload at Al Hodeidah port (OSESGY accessed 02/04/2023). Since April 2022, most fuel imported to Yemen has been entering via the DFA-run Al Hodeidah port (YETI accessed 15/06/2023) With the easing of disruptions and subsequent sustained commercial fuel imports via Al Hodeidah, the need for fuel being trucked overland from south to north has decreased significantly. Consequently, fuel prices in DFA areas have fallen.³ Reducing fuel prices in DFA areas has positive implications for food distribution costs. The UN-sponsored truce and the resumption of commercial fuel imports via Al Hodeidah port in April 2022 also helped mitigate the impact of the increase in international oil prices that followed the Russian invasion of Ukraine in February 2022 (ACAPS 12/09/2022).

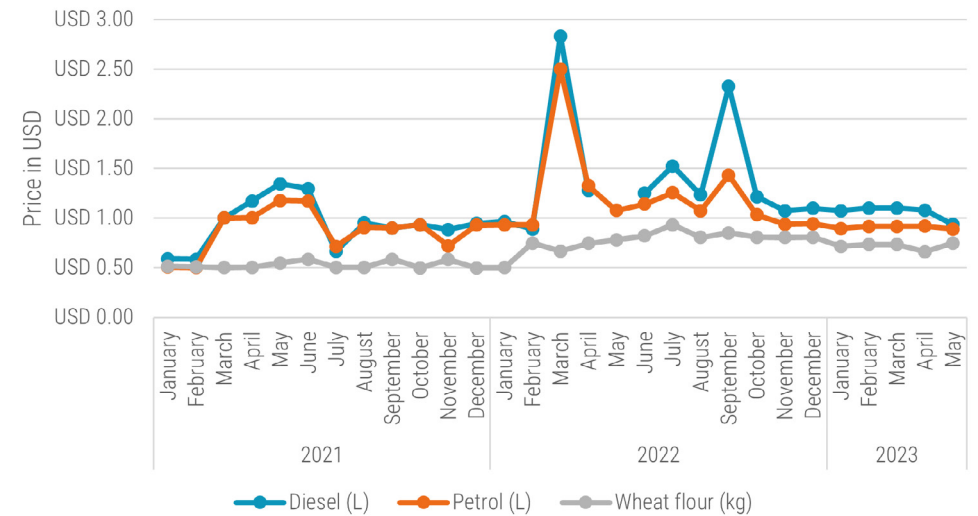
³ The 12-month average fuel tonnage imported via Al Hodeidah (and, since February 2023, the Ras Issa import terminal) was 221,000 MT/month between June 2022 and May 2023. Before the conflict, the average was 195,000 MT/month via Al Hodeidah, indicating that fuel demands in the north are being fully met via Al Hodeidah and Ras Issa.

Figure 12. Fuel import trends from April 2022 to May 2023



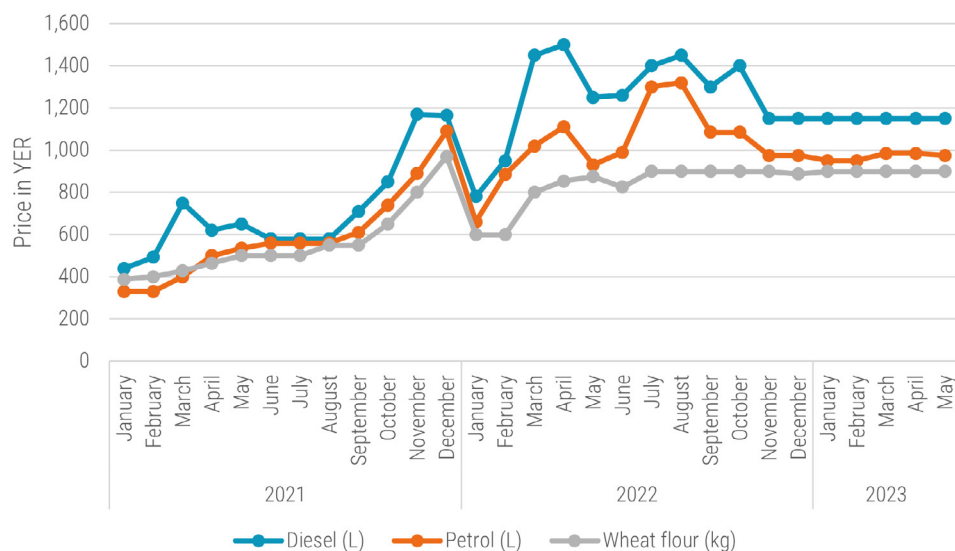
Source: ACAPS' discussions with key stakeholders

Figure 13. Petrol, diesel, and wheat flour costs in Sana'a city in USD and YER (January 2021 to May 2023)



Source: ACAPS using data from REACH (01/06/2023)

Figure 14. Petrol, diesel, and wheat flour costs in Aden in USD and YER (January 2021 to May 2023)



Source: ACAPS using data from REACH (01/06/2023)

Although the official prices of petrol and diesel in DFA areas have decreased between April 2022 and June 2023, prices in June 2023 remained higher than in January 2021, when international fuel prices were lower. Official petrol and diesel prices in DFA-controlled Sana'a were, as at 19 June 2023, YER 450 (USD 0.85) per litre (Boqash accessed 19/06/2023). In January 2021, official petrol and diesel prices in Sana'a were YER 433 (USD 0.73) per litre of petrol and YER 480 (USD 0.81) per litre of diesel.

The table below illustrates the direct impact of fuel price fluctuations on the transport prices for wheat delivered overland by truck. It provides a breakdown of the estimated fuel running costs for a wheat truck travelling from Al Hodeidah to Sana'a. The comparative cost analysis calculates the cost of fuel per vehicle and per kilogram of wheat based on the distance from Al Hodeidah to Sana'a, truck weight (before and after wheat is added), fuel efficiency, and fuel cost (based on the local fuel prices applied at the time in question).

Table 1. Estimated fuel costs for wheat transported from Al Hodeidah to Sana'a

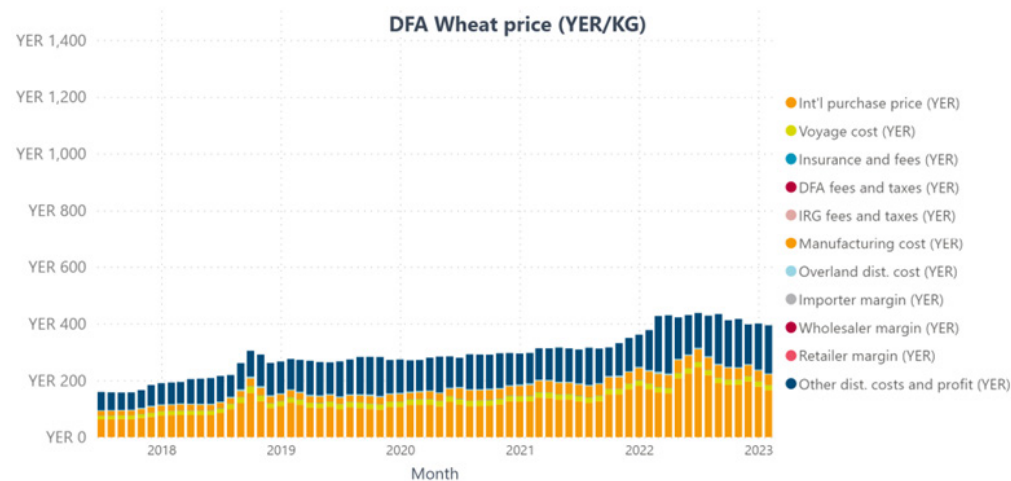
	TRAVEL DISTANCE (KM)	TRUCK CAPACITY (KG)	TRUCK WEIGHT (KG)	FUEL EFFICIENCY (KM/L)	FUEL COST (USD/ L)	FUEL COST (USD PER VEHICLE)	FUEL COST (USD/KG OF WHEAT)
Jan 2021	225	20,412	36,287	1.34	0.81	272	0.0133
Jan 2023	225	20,412	36,287	1.34	1.31	440	0.0216
Jun 2023	235	20,412	36,287	1.34	0.79	265	0.0130

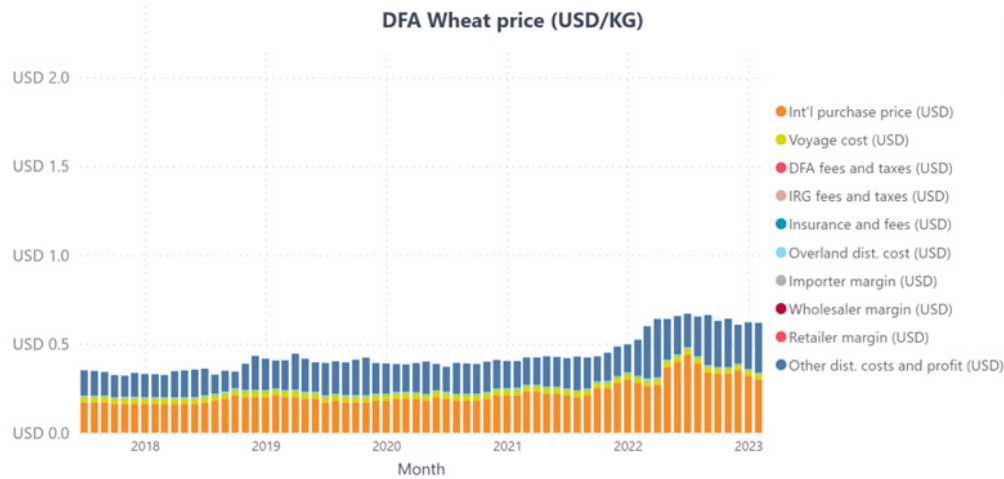
Source: ACAPS' discussions with key stakeholders

Cost driver analysis for imported bulk wheat

Looking at the various cost drivers for bulk wheat price changes, the main differences that mirror the economic variables in DFA and IRG areas are given in the charts below.

Figure 15. Consumer wheat price changes in DFA areas between January 2018 and January 2023 (a) in YER per kilogram and (b) in USD per kilogram



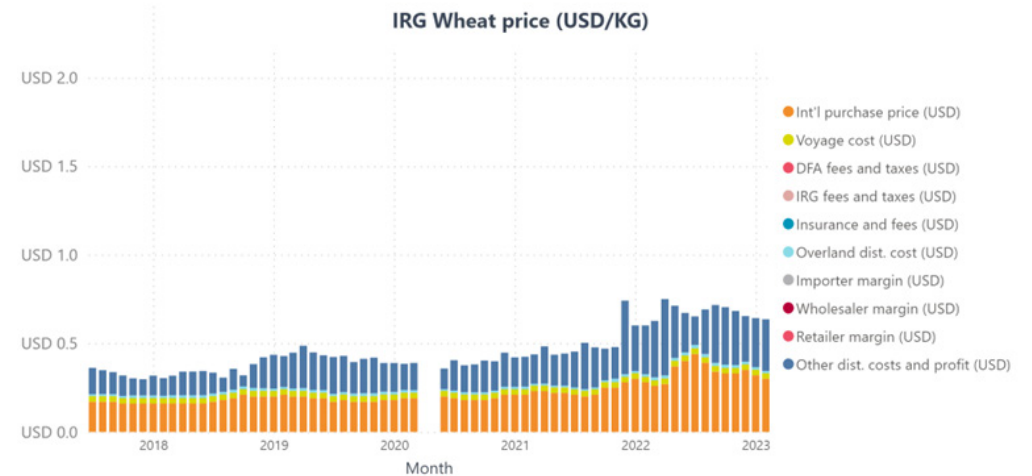
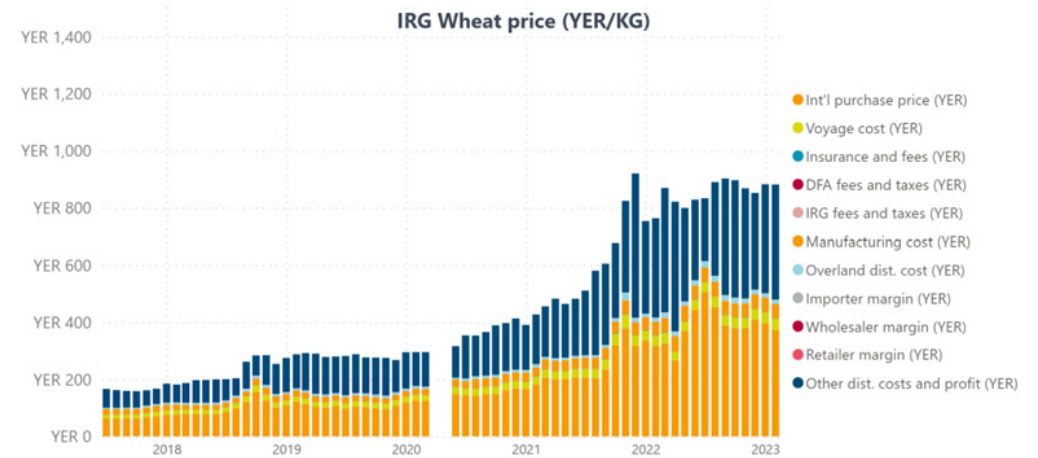


Source: (ACAPS et al.22/06/2023)

YEAR	AVERAGE CONSUMER PRICE (YEAR)	AVERAGE INTERNATIONAL PRICE (YEAR)
2018	YER 213	YER 96
2023	YER 448	YER 178
Change 2018-2023	YER 235 (+195%)	YER 82 (+174%)
YEAR	AVERAGE CONSUMER PRICE (USD)	AVERAGE INTERNATIONAL PRICE (USD)
2018	USD 0.39	USD 0.18
2023	USD 0.81	USD 0.32
Change 2018-2023	USD 0.42 (+113%)	USD 0.14 (+78%)

As shown in Figure 15, in DFA areas, the YER price for a kilogram of wheat has increased by 195% from YER 213 to YER 448. The USD pricing of wheat has increased by 113% from USD 0.39 to USD 0.81 in DFA areas over the same period (ACAPS et al. 22/06/2023).

Figure 16. Consumer wheat price changes in IRG areas between January 2018 and January 2023 (a) in YER per kilogram and (b) in USD per kilogram



Source: (ACAPS et al.22/06/2023)

YEAR	AVERAGE CONSUMER PRICE	AVERAGE INTERNATIONAL PRICE
2018	YER 202	YER 96
2023	YER 923	YER 396
Change 2018-2023	YER 721 (+357%)	YER 300 (+312%)
YEAR	AVERAGE CONSUMER PRICE	AVERAGE INTERNATIONAL PRICE
2018	USD 0.38	USD 0.18
2023	USD 0.75	USD 0.32
Change 2018-2023	USD 0.37 (+97%)	(+78%)

In IRG areas, the YER price for a kilogram of wheat has increased by 357% from YER 202 to YER 923. The USD pricing of wheat has increased by 97% from USD 0.38 to USD 0.75 in IRG areas over the same period (ACAPS et al. 22/06/2023).

The high depreciation of the Yemeni rial in CBY-Aden is the main cause of this significant wheat cost increase in IRG areas. The value of the rial in CBY-Aden dropped by 133% between 2018–2023 (ACAPS accessed 26/07/2023). Additional costs to final consumer prices in IRG areas result from the divergent import financing mechanisms (ACAPS et al. 22/06/2023).

ANNEX I: COST DRIVER MONITORING TOOL - SHIPPING/VOYAGE COST VARIABLES

This report used the CDMT to compare the shipping and voyaging costs of bulk wheat imports to Yemen. The table below contains the results of a specific calculation, which analysed the costs of a 52,000MT wheat cargo purchased and exported from Australia and then shipped and imported via Saleef port in Yemen in May 2022 and April 2023.

The different cost drivers and their calculations are explained in more detail below the table.

ANNEX II: DFA PRICE CAPS

On 23 May 2023, the DFA-run MOIT introduced new, lower retail price caps for different basic food commodities. Among the different price reductions were:

- wheat grains (50kg), with a 3.8% reduction from YER 13,200 to YER 12,700 (USD 24.86 to USD 23.92)
- milled wheat (50kg), with a 3.5% reduction from YER 14,200 to YER 13,700 (USD 26.74 to USD 25.80)

- wheat flour (50kg), with a 7.5% reduction from YER 15,900 to YER 14,700 (USD 29.94 to USD 27.68) (Boqash 23/05/2023).⁴

The latest price reductions followed earlier DFA price reductions in April 2023 and December 2022.

Figure 17. DFA-run MOIT new price list for basic food commodities



Source: Boqash (xx/xx/xx); DFA-run MOIT (23/05/2023)

⁴ Conversions were calculated using an exchange rate of YER 531 per USD 1, in accordance with the YER/USD exchange rate used in DFA areas on 23 May 2023.



Table 2: Cost breakdown of bulk wheat import from Australia to Saleef in May 2022 and April 2023

	MAY 2022				APRIL 2023			
Yemen (all costs per MT)	USD/MT	Voyage/total costs	Allocated cost/MT	% of the total cost	USD/MT	Voyage/total costs	Allocated cost/MT	% of the total cost
Purchase price of bulk wheat	428.0				254.0			
Transport, storage, and loading to ship	13.0				13.0			
Free On Board (FOB) price of wheat	441.0	22,932,000	441.0	100.0%	267.0	13,884,000	267.0	100.0%
52,000MT cargo - charter rate/day		1,139,369	21.9	5.0%		718,849	13.8	5.2%
Fuel cost @ USD 970/MT, 28 MT/day		1,075,736	20.7	4.7%		770,397	14.8	5.5%
Suez Canal charges		-	-	0.0%		-	-	0.0%
Insurance cost (war risk - 14 days)		124,000	2.4	0.5%		105,400	2.0	0.8%
Demurrage for five days (charter rate + hotel fuel cost)		122,125	2.3	0.5%	15,175.0	75,875	1.5	0.5%
Customs clearance/phyto-sanitary/MT	-	-	-	0.0%	-	-	-	0.0%
Discharging to truck (direct delivery)	2.8	145,600	2.8	0.6%	2.8	145,600	2.8	1.0%
Unloading to warehouse	-	-	-	0.0%	-	-	-	0.0%
Land transport cost to trader's warehouse (USD/MT)	17.7	920,400	17.7	4.0%	17.7	920,400	17.7	6.6%
Delivered cost/MT		26,459,230	508.8	115.4%		16,620,521	319.6	119.7%
Cost addition to FOB cost		3,527,230		115.4%		2,736,521		119.7%

The Sana'a-based Chamber of Commerce and Industry issued a statement criticising the DFA-run MOIT for the price caps introduced since December 2022 and other arbitrary measures that the MOIT has taken against private sector groups (Yemen Eco 26/05/2023). On 9 June 2023, the DFA-run MOIT in Sana'a issued price reductions for wheat grain, milled wheat, and white flour sold in DFA areas (Boqash 10/06/2023). The price of wheat grain was set at YER 12,500 (USD 23.58), milled wheat was set at YER 13,400 (USD 25.28), and wheat flour was set at 14,200 (USD 26.79) per 50kg. The Chamber of Commerce and Industry's statement prompted the DFA to storm the chamber's Sana'a headquarters and forcibly install new personnel. The DFA installed Ali al-Hadi as the new president of the Chamber of Commerce and Industry in Sana'a and Mohammed Mohammed Salah as al-Hadi's deputy (Aden al-Ghad 01/06/2023).