

KEY MESSAGES

- Import data and anecdotal evidence from sources in Yemen monitoring local market dynamics indicate that there are sufficient wheat supplies in the country. Wheat is readily available for purchase. The problem is affordability.
- International wheat prices started decreasing at the end of June 2022 and decreased further after the signing of a grain export agreement between Russia and Ukraine on 22 July. The reduction in international wheat prices is expected to result in increased imports to Yemen in the coming months, as traders look to take advantage. Wheat imports to the ports of Aden and Mukalla (Southern ports) controlled by the Internationally Recognized Government of Yemen (IRG) had already increased in July compared to the previous two months. Overall, the monthly average between March–July 2022 was 5% above average for the Red Sea ports (Al Hodeidah and Saleef) and 16% lower for the Southern ports.
- Global wheat production for 2022–2023 is expected to be at 771.6 million MT (down from 779 million MT in 2021–2022) as increased production in Canada, Russia, and the US would only partially offset the reduced Argentina, EU, and Ukraine production estimates. As at July, projected exports for 2022–2023 were at 206.6 million MT.
- The time and cost of the wheat supply chain from different source countries to Yemen seem to vary based on a number of factors. Currently, India offers the most affordable wheat, with an estimated landed cost of USD 381 per MT, followed by Ukraine (USD 421/MT), Russia (USD 423/MT), the US (USD 447/MT), and Australia (USD 456/MT). The delivery time from the loading port to the entry port in Yemen ranges between six weeks and three months (depending on the country of export).
- Given increased global competition over wheat imports and the challenges that Yemeni importers have been facing even before the war in Ukraine (including financial and logistical constraints), the international community needs to provide additional support to Yemen to prevent the food security situation in the country from deteriorating further.

TABLE OF CONTENTS

Yemen's wheat supply chain	2
Current global wheat supply and price trends	7
Impact of global wheat prices on consumer prices in Yemen	9
Implications for food security and other humanitarian needs	12
Annex 1: Wheat imports and distribution	13

Methodology

- Secondary data review.
- Import data analysis – before and after Russian offensive in Ukraine.
- Wheat and fuel prices monitoring and analysis.
- Key informant interviews – food supply chain actors (importers, distributors, wholesalers).

About this report

This report describes how the Ukraine war has impacted global wheat supply dynamics and presents what challenges Yemeni traders are facing. It also provides an overview of wheat import volumes to Yemen and changes to countries of origin for wheat imports before and after the onset of the war in Ukraine. It finally describes the impact on wheat consumer prices in Yemen and the implications for food security and the overall humanitarian situation in Yemen.

YEMEN'S WHEAT SUPPLY CHAIN

Yemen imports 90% of its staple food, of which bulk wheat makes up an average of 57% of all food imports monthly. Wheat from Russia and Ukraine made up 45% of all imported wheat to Yemen in 2021 (FAO 10/06/2022). According to ACAPS discussions with key informants and based on data on the volume of wheat imports to Yemen since Russia's invasion of Ukraine in February, there is currently no concern over the availability of wheat and wheat stocks in Yemen. This lack of concern is despite a decrease in June–July imports following higher-than-usual imports in March–April, which can be partly explained by preparation for Ramadan (which began on 1 April) and Eid al-Fitr (which began on 1 May). Similarly, according to wholesale traders in two central markets in the areas controlled by the de-facto authority (DFA) in the north of Yemen (also known as the Houthis), as at July, wheat supply was available without any indications of shortage.

Import volumes and pipeline

Overall wheat imports between January–July 2022 amounted to two million MT, a 16% decrease from 2.4 million MT during the same period in 2021. That said, the monthly average after the Russian invasion of Ukraine, between March–July (295,000MT), was only 0.7% lower than the monthly average between March 2021 and February 2022 (297,000MT).

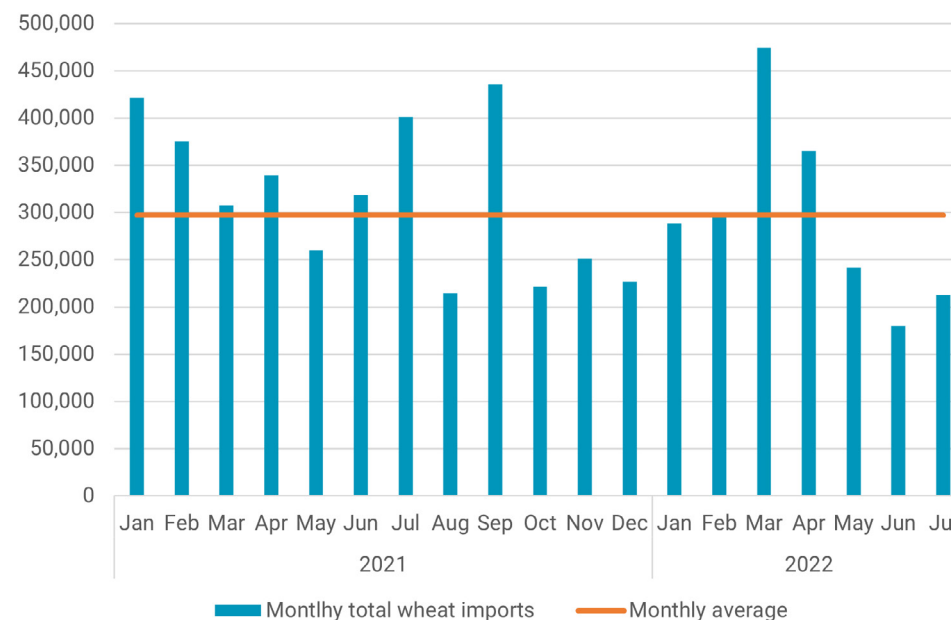
March and April 2022 saw higher-than-average wheat imports of 423,000MT and 315,000MT, respectively, likely resulting from:

- the usual increase in demand before the beginning of the month of Ramadan (which started in April)
- traders stocking up following the beginning of the war in Ukraine and the initial market uncertainty over the impact of the Ukraine conflict on future international wheat price and supply dynamics.

This increase offset the reduced wheat imports in May–June when importers adjusted to the drop in demand in Yemen because of reduced purchasing power (hence the decreased affordability of wheat) and high wheat prices on the international market.

With global wheat prices starting to decrease at the end of June, slightly higher imports are expected in the coming months. Contingency factors include Yemeni importers' ability to secure deals amid increased global competition (e.g. competition over a reduced number of international wheat suppliers and export countries to purchase wheat from) and foreign currency availability in Yemen.

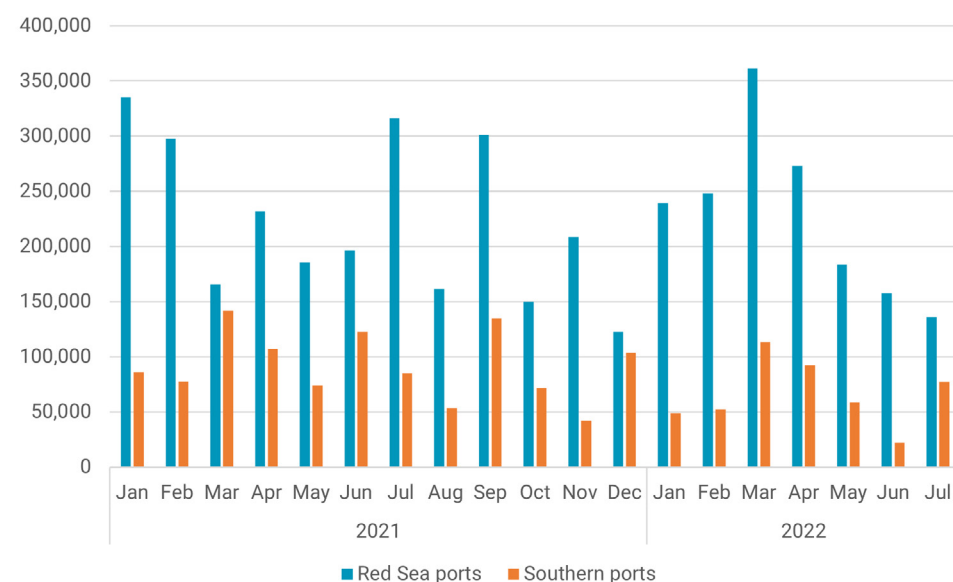
Figure 1. Bulk wheat imports to Yemen (January 2021 to July 2022).



Source: ACAPS' discussions with key stakeholders

Wheat imports through the Red Sea ports accounted for 73% of all wheat imports to Yemen between January 2021 and July 2022. Until June, wheat imports were decreasing for all ports, but in July, the Southern ports saw a significant increase on a month-to-month basis, with 77,000MT discharged compared to 58,000MT and 22,000MT in May and June, respectively. Wheat imports continued to decline on a month-to-month basis for the Red Sea ports, from 183,000MT in May to 136,000MT in July. When looking at the monthly average of wheat imports between March–July, however, the Southern ports saw a 16% decrease compared to the monthly average between March 2021 and February 2022, while the Red Sea ports saw a 5% increase. As at 2 August, there were 43,500MT of bulk wheat and flour in the pipeline to Al Hodeidah and none to Aden.

Figure 2. Wheat imports through the Red Sea and Southern ports (January 2021 to July 2022).



Source: ACAPS' discussions with key stakeholders

Changes in the country of origin of wheat imports

Before the beginning of the war in Ukraine in February 2022, Yemen was importing wheat from:

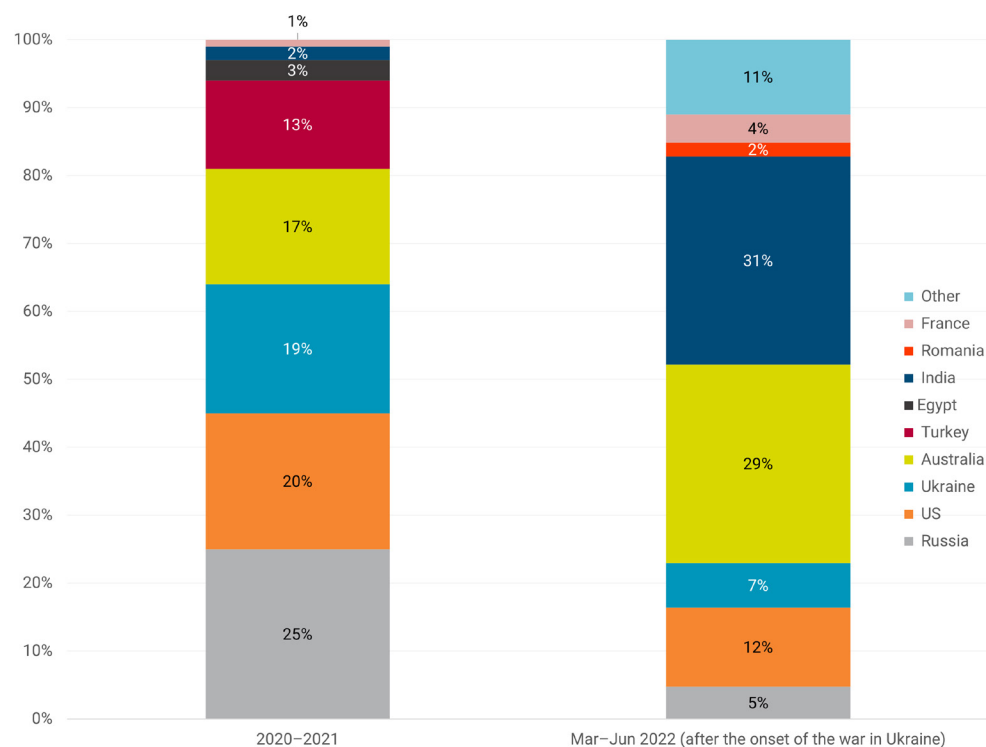
- Russia (25%)
- USA (20%)
- Ukraine (19%)
- Australia (17%)
- Turkey (13%)
- Egypt (3%)
- India (2%)
- France (1%)

Following the halt to Ukrainian exports in February and the increased cost of Russian wheat, Yemeni wheat importers looked to other export countries. Ukraine and Russia were among the three major global exporters of different types of grain (wheat, barley, and maize) in 2021. The disruption to and significant reduction of wheat exports from the Black Sea following the Russian invasion increased the competition among wheat importers for alternative wheat sources on the international market (FAO 10/06/2022).

Ukrainian wheat exports ceased entirely until the end of July when Russia and Ukraine reached a grain export agreement (except for some shipments in March likely secured before the beginning of the war). Wheat imports from Russia to Yemen continued, although in much smaller amounts than before the war (down to 5% of total wheat imports between March–June). Increased wheat imports from India and Australia covered the share of Ukrainian and Russian wheat imports to Yemen. Yemen imported 500,000MT of wheat flour from Turkey in 2020–2021 and likely continued to import in 2022 at a reduced scale, but the exact amount is not clear owing to limitations on currently available import data. In March, Egypt's Ministry of Trade and Industry issued a decree banning the export of wheat grains and all kinds of flours for a period of three months which was later extended for additional three months in June (USDA 22/06/2022).

Yemeni traders initially adjusted to developments in Ukraine by importing higher volumes of wheat from India, a provider of affordable wheat for many low-income importing countries. Between March–June 2022, Yemen imported a total of 390,000MT of wheat from India (31% of all wheat imports in that period). The country obtained a letter of credit and procured the wheat imported during this period before the Indian ban on exports announced on 13 May. In the marketing year 2020–2021 (from July–June), wheat from India only accounted for 2% of wheat imports to Yemen. Wheat imports from Australia also increased, reaching up to 72,000MT or 29% of the total wheat imported to Yemen between March–June 2022. In March–April, Yemen imported 12% of the total or 148,000MT of wheat from the US. In April, Yemen also imported 53,000MT or 4% of the total from France. In June, 26,000MT of wheat came from Romania, with the possibility that the grain was actually from Ukraine.

Figure 3. Percentage of wheat imports by country.



Source: ACAPS' discussions with stakeholders, ACAPS using data from MarineTraffic

Note: for 2022, 'other' is likely to include wheat from Turkey but there's no available disaggregated data.

Comparison of wheat costs between different countries and delivery times to Yemen

Based on ACAPS' discussions with marine traffic experts, the time taken to deliver a food cargo to a Yemeni port after making the decision to buy, provided that financing is readily available, comprises:

- three weeks between ordering the cargo and starting to load
- one week to load (rate depends on loading port facilities)
- between 15–46 days of shipping time, depending on the country of origin.

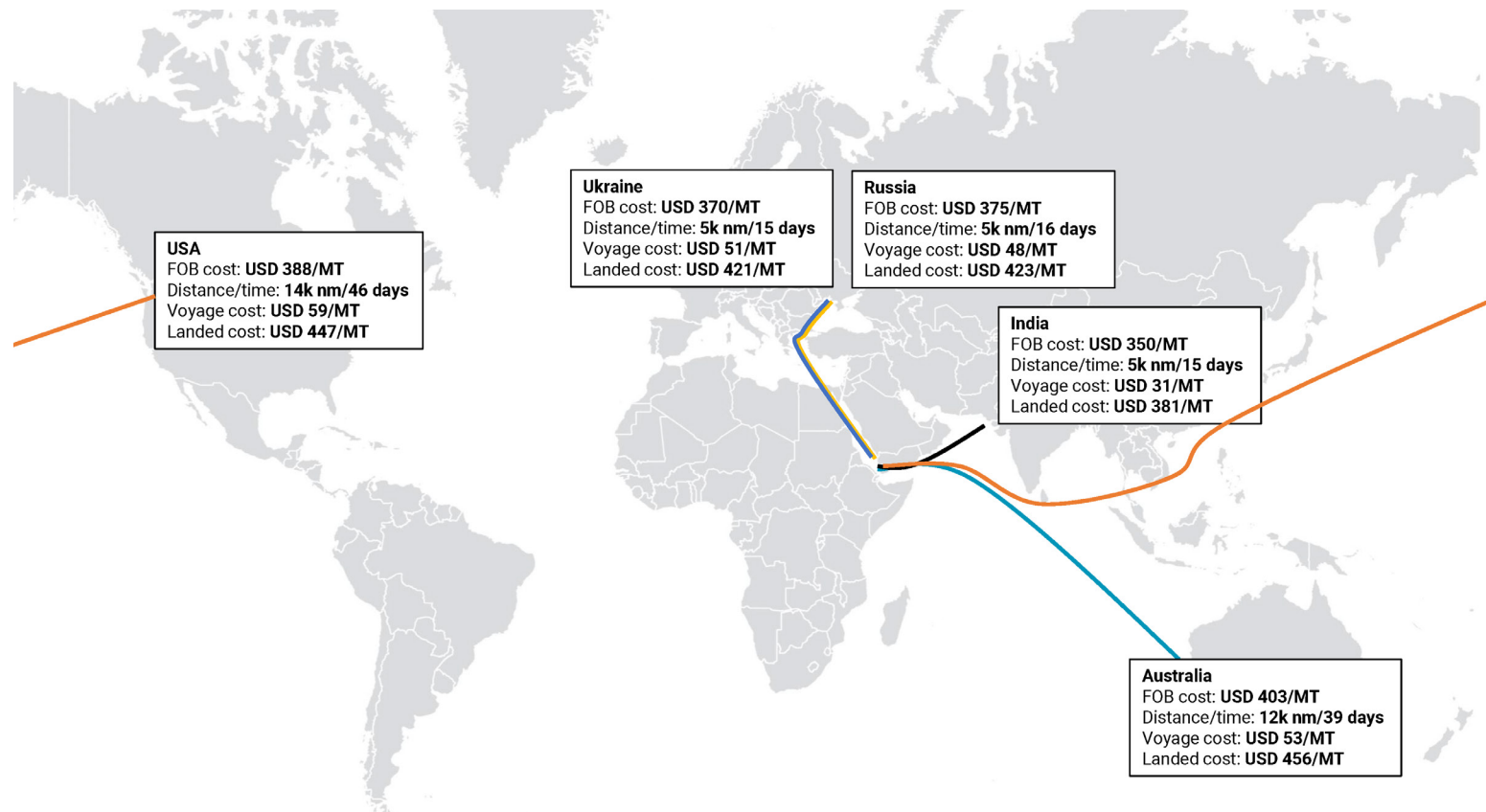
It can be inferred that cargo delivery to a Yemeni port from the loading port takes six to ten weeks.

When factoring into the equation the financial constraints that Yemeni wheat importers are facing, the total time becomes an estimated three months from the signing of contracts between exporter and importer to the delivery of goods (although, as shown, this figure is subject to change slightly).

The map below provides an overview of current major exporting countries of wheat to Yemen, including the free on board (FOB) price of wheat, the distance from the country of origin to Yemen, shipping costs, and the final estimated cost at arrival. This comparison is useful in understanding from which country Yemen could import more affordable wheat, provided each country sustained the production and exports. The FOB price included in the calculation refers to the most recent price in July.

Currently, India offers the most affordable wheat, with an estimated landed cost of USD 381/MT, followed by Ukraine (USD 421/MT), Russia (USD 423/MT), the US (USD 447/MT), and Australia (USD 456/MT). **See Annex 1 for a full cost breakdown.**

Figure 4. Comparison of wheat prices based on country of origin (FOB as at July 2022).



Source: ACAPS' discussions with key stakeholders.

Date created: 03/08/2022.

Challenges for wheat importers in Yemen

The Russian invasion of Ukraine that started on 24 February 2022 worsened existing challenges for wheat importers in Yemen. The conflict led to rising international wheat prices and shipping costs, aggravating the financial constraints brought by the requirement for Yemen to pay international wheat suppliers 80–100% of the costs in advance. With international wheat prices remaining volatile, the ability of Yemeni wheat importers to enter the international market and procure wheat quickly when market dynamics (in terms of price and supply) are favourable is limited.

The invasion and continuation of the conflict in Ukraine led to an initial spike and sustained high global wheat prices between March–June 2022. The supply of Ukrainian and Russian wheat was cut off or became no longer cost-effective because of the conflict and the subsequent high insurance premiums placed on ships carrying wheat exported from the Black Sea. The high demand and international competition among global importers to secure wheat from other countries and suppliers on the international market have become some of the main challenges for importers. The level of competition has been particularly concerning for countries such as Egypt, Lebanon, and Yemen, that heavily relied on wheat and imported large percentages of the grains from Russia and Ukraine. The risk of wheat-exporting countries implementing a ban to protect domestic supplies and stabilise prices (akin to the actions of the Indian Government) also adds to the constraints for traders.

Financial constraints

Wheat importers in Yemen must pay 80–100% of fees owed to international suppliers before the wheat enters and is then sold on the local market in the country. During the conflict in Yemen, additional de-risking measures were applied against Yemeni banks. These measures left the formal banking system more isolated from regional and international financial networks. The increased isolation has had direct implications on trade finance and the level of confidence of external suppliers and service providers (such as shipping companies) in Yemeni traders, including wheat importers. The knock-on effect is that international wheat suppliers have made it conditional for Yemeni wheat importers to pay 80–100% of the costs agreed between supplier and importer in advance – 30–50% to open a letter of credit and the remaining fee upon delivery at the port of discharge as opposed to post-sale on the local market. The need to make sizeable payments in advance to procure future wheat supplies reduces the flexibility of Yemeni importers. For some traders, long cash cycles in Yemen further worsen the situation.

Long cash cycles reduce some Yemeni wheat importers' manoeuvrability or their ability to respond to a shift in international market dynamics (i.e. procure wheat from international suppliers when supply and price dynamics are favourable). The long cash cycles result from a combination of having to make advance payments to international suppliers and exporters and the challenges of cash collection from the domestic supply chain. Yemeni wheat importers that sell their products on the local market deal with different entities along the supply chain (e.g. wholesalers, distributors, agents, and retailers). They need to collect cash from all these entities before being able to procure more wheat from the international market. This process can take time, reducing the liquidity of the importer and their ability to pay the international supplier the fees demanded in advance.

The introduction and imposition of price caps from governing authorities in Yemen add difficulties for wheat importers. Governing authorities in Yemen tend to be reluctant to adjust domestic wheat and bread prices when the price of wheat on the international market remains exceptionally high, as has been the case between March and June 2022 following the onset of the war in Ukraine. This reluctance can prompt them to introduce and impose what are, in effect, price caps. The reluctance results from several factors. One involves concerns that price hikes will result in added political pressure if the population pushes for more action from the governing authority to prevent or respond to price hikes. Another is an overestimation of how quickly Yemeni wheat importers can respond when international market supply and price dynamics are favourable to the importer, as well as the ability of the importer to absorb the cost of higher international prices over an extended period.¹

¹ Wheat importers may look to initially absorb some additional costs incurred (e.g. increased international wheat prices or any other cost along the wheat supply chain, such as increased shipping costs). If these increased costs remain in place for an extended period, however, they may need to increase wheat prices for wholesalers, distributors, and retailers. They will need to negotiate these increases with governing authorities.

Logistical challenges

The amount of wheat storage capacity in Yemen reduces importers' ability to buy larger quantities of wheat when international supply and prices are favourable. Current storage capacity versus consumption rates in Yemen restricts the amount of wheat importers can import and store. An increase in storage capacity would allow Yemen to become more robust in its ability to deal with any disruption to international wheat supplies and international price increases. Although there are development plans looking to increase Yemen's wheat storage capacity, the current political context and business operating environment make the execution much more difficult.

Internal transport costs and challenges drive up the price of wheat on the local market. Fuel prices and road closures are two primary examples of logistical and operational challenges for wheat importers and others engaged in distribution across Yemen. These added costs and challenges result in increased wheat transportation times and costs.

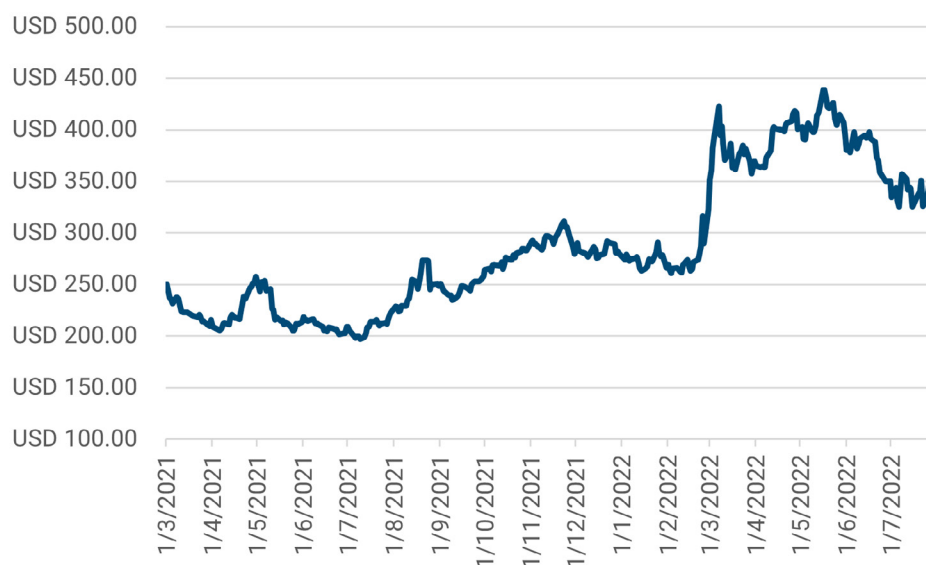
Consumer-related challenges

A further decrease in consumer purchasing power leads to a drop in demand. Following the Russian invasion of Ukraine, the subsequent global price hikes for key commodities that include wheat, oil, fertilisers, and different types of cooking oil had an inflationary impact on domestic economies around the world, including Yemen. As a net fuel importer and a country importing up to 90% of its food, Yemen and its domestic population are vulnerable to such global price hikes. The knock-on effect is a reduction of purchasing power and increased budgeting in Yemen. For a country already experiencing low levels of purchasing power, not least because of the significant depreciation of the Yemeni rial during its own conflict, any further reduction of purchasing power has a notable impact on consumer demand and a negative ripple effect on already extremely high levels of poverty and food insecurity.

CURRENT GLOBAL WHEAT SUPPLY AND PRICE TRENDS

Over the last few years, Russia and Ukraine exported 34% of globally traded wheat (Abay et al. 18/05/2022). Prices spiked as importers raced to secure wheat following the initial uncertainty resulting from the Russian invasion of Ukraine and the consequent halt to wheat exports from Ukraine. International suppliers also likely adjusted prices based on the level of concern over supply among import countries. Consequently, average monthly international wheat prices increased by 58%, from a 12-month average of USD 248/MT before the beginning of the invasion to USD 393/MT during the peak months of March–May 2022 (Markets Insider accessed 31/07/2022). Notably, wheat prices were already on an upward trend even before 24 February.

Figure 5. International wheat prices (February 2021 to July 2022).

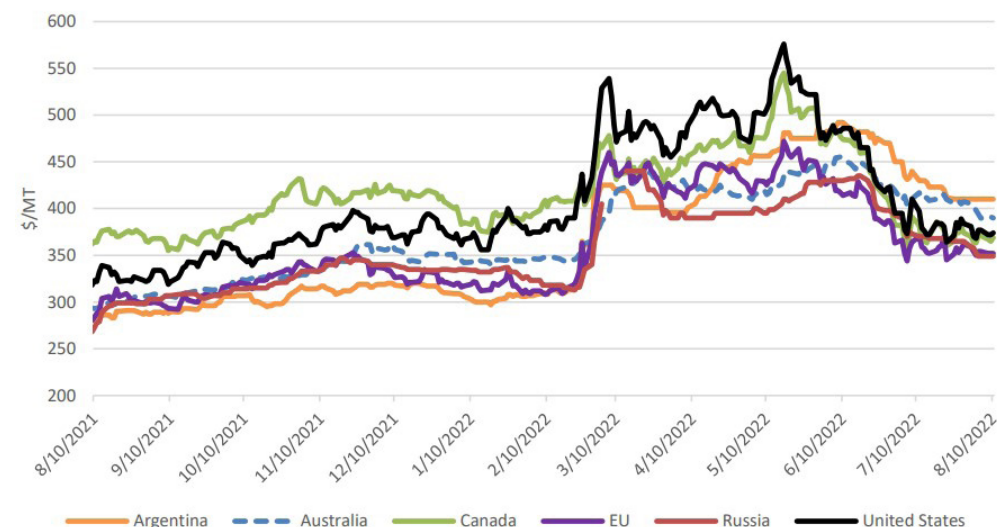


Source: Markets Insider (accessed 31/07/2022)

Global wheat prices fluctuated greatly in May–June as the market reacted to announcements about the Indian wheat export ban and the Turkish and UN-led negotiations over Ukrainian and Russian grain exports. From mid-June, global wheat prices started decreasing, reaching an average of USD 360/MT in July (Markets Insider accessed 31/07/2022). One of the push factors behind the decrease is the winter wheat harvests from the Northern Hemisphere, which resulted in downward pressure. Markets also responded to discussions about ensuring a safe passage for Ukrainian grain through the Black Sea, culminating in an export agreement on 22 July (USDA 12/08/2022; Quartz 28/06/2022).

- EU quotes remained the most competitive in July, amid winter wheat harvest and the declining value of the euro.
- Canadian quotes saw the largest drop with the near completion of spring wheat plantings.
- US quotes also decreased from exceptionally high levels as the winter wheat harvest advanced.
- Argentina, the most competitive exporter only in April, became the most expensive origin as large exports diminished available supplies, although quotes in July decreased compared to the previous month as new crop planting was over half complete.
- Russian quotes decreased as production forecasts remained favourable and exports looked likely to increase.
- Australian quotes also decreased as exports started to slow towards the end of the trade year (USDA 12/08/2022).

Figure 6. International daily FOB export bids.



Source: USDA 12/08/2022.

Looking forward: global production and export estimates

Global wheat production for 2022–2023 is expected to be down to 771.6 million MT, which is 1.8 million MT less than previously estimated. This prediction comes as increases in Canada, Russia, and the US would only partially offset the reduced Argentina, EU, and Ukraine production estimates. The estimate is a decrease compared to 2021–2022 total wheat production, which amounted to 779 million MT. As at July, projected exports for 2022–2023 were at 206.6 million MT, a positive increase from 201.6 million MT in 2021–2022 (USDA 14/07/2022 and 12/07/2022).

	2021–2022	2022–2023	Percentage increase/decrease
WHEAT PRODUCTION	779 million MT	771.6 million MT	- 0.95%
WHEAT EXPORTS	201.6 million MT	206.6 million MT	+ 2.5%

Ukraine

On 22 July, Russia and Ukraine signed a deal with the UN and Turkey, valid for 120 days and renewable, to guarantee the safe passage of grain shipments from the ports of Chernomorske, Odesa, and Yuzhne. These ports were blockaded and forced to suspend exports since the Russian invasion of Ukraine in February 2022 (TWP 22/07/2022). The deal allowed for the import of about 20 million MT of Ukrainian grain (including 6 million MT of wheat, corn, and other cereals) (GRID 27/07/2022). Before the agreement, some grain exports continued via the Danube River towards the Romanian Black Sea ports of Constanta and Sulina, at an average of two million MT of grain per month, a third compared to previous years (Reuters 26/04/2022). While the agreement has been a positive development, wheat prices have remained higher than before 24 February. Any shift in the Ukraine conflict dynamics could lead to renewed disruption to wheat exports from the Black Sea. Ukraine's harvest also takes place between July–September. While reports say that harvests are taking place in some areas, the consequences of the conflict are very likely to still be felt in 2023 since access to land and damage to infrastructure could affect the planting of winter wheat between September–November. Winter wheat accounts for about 97% of Ukraine's total wheat production. The reduced harvested area because of the current conflict has already lowered Ukraine wheat production estimates to 19.5 million MT, a decrease of two million MT (USDA 04/2022). The agreement is also essential to freeing storage capacity for the new harvest, and more so to provide Ukrainian farmers economic incentives to be able to plant in the fall and next spring (Glauber and Laborde 27/07/2022; TWP 07/07/2022).

In August, efforts to clear the build-up of Ukrainian grain and seed in storage facilities continued as the Turkish and UN-brokered agreement between Ukraine and Russia held. Reports indicate increased confidence among insurers in London over grain exports from the Black Sea, with vessels having so far exited Ukrainian ports and travelled through the ten-nautical-mile-wide buffer zone without issue (Splash 09/08/2022; ICG 03/08/2022). This development is in sharp contrast to the immediate concern insurers, wheat vessel owners, and importers would have felt following the Russian missile attack targeting Odesa a day after the signing of the grain export deal (CNN 24/07/2022). Ukraine has started requiring larger wheat vessels to help clear the millions of metric tons of wheat it hopes to clear from the 2021–2022 harvest before exporting 2022 crops (Splash 09/08/2022).

Russia

Wheat production in Russia for 2022–2023 is projected to amount to 81.5 million MT, according to USDA, and 85.2 million MT, according to the International Grain Council. In both cases, the forecast sits well above the 75 million MT production from 2021–2022 (IGC accessed 01/08/2022). On 22 July, Russia also signed an agreement with the UN and Turkey to ensure that sanctions will not affect its exports of food and fertilisers (Carnegie 26/07/2022).

Australia

For the marketing year 2022–2023, Australia is expected to produce 31 million MT of wheat – lower than the record-high wheat crop in 2021–2022 (36.3 million MT). Regardless, the projection still makes it the fourth largest on record for Australia. Exports are estimated to be lower than in 2021–2022 but still well above average at 24 million MT. Australia is well positioned to supply wheat globally, and demands have been high, but a high global demand and the record production of three different cereals in 2021–2022 are causing some logistical constraints (e.g. bottlenecks transporting grains from the production regions to the grain ports). These constraints are limiting even higher exports. Yemen has already increased wheat imports from Australia in March 2022. Given Australia's high production and exports, the country is expected to continue to be a reliable option for Yemen in the coming months (USDA/GAIN 27/07/2022).

India

Despite the current wheat export ban, the wheat export estimate for India for 2022–2023 still stands at six million MT (USDA/GAIN 21/07/2022). On 13 May, the Indian Government implemented a ban on wheat exports following a heat wave in spring that led to lower-than-expected crop outputs, increasing concerns regarding a sufficient supply of wheat for domestic use and higher domestic prices (The Guardian 14/05/2022). Following the ban were media reports that the Indian Government had agreed to make an exemption for five

countries, including Yemen. There have also been official declarations that existing deals between Indian suppliers and foreign wheat importers before 13 May and backed by letters of credit will be allowed to proceed (The Economic Times 10/06/2022; USDA/GAIN 19/05/2022; GOI 14/05/2022 and 17/05/2022). Discussions between the IRG and the Indian Government took place in mid-July to discuss the terms of the exemption (Reuters 07/07/2022). The Indian Government is yet to provide greater clarity over this exemption and the implications on wheat shipments procured before the ban (that is, if a letter of credit had been opened before the ban came into effect) and on future shipments.

United States

Wheat production estimates in the US are over 1.2 million MT higher than June estimates at 48.5 million MT, while the exports forecast remains similar to the 2021–2022 amount at 22 million MT (USDA 14/07/2022; IGC accessed 01/08/2022).

European Union

Wheat yield potential in the EU is expected to be limited as a result of dry and hot conditions across France, Germany, Hungary, Italy, and Spain. Despite favourable weather conditions in Latvia, Lithuania, and Sweden leading to upward projections, overall wheat production for 2022–2023 is expected to be at 134 million MT, two million MT less than forecasted in June. Other sources forecast it to be even lower at 131 million MT. On the other hand, exports are projected to be significantly higher at 39.4 million MT compared to a ten-year average of 31 million MT (IGC accessed 01/08/2022; World Grain 04/06/2022).

Turkey

For 2022–2023, Turkey is expected to export 6.7 million MT of wheat and wheat products, assuming that the Government does not adopt any wheat export limitation policy to regulate domestic prices (USDA/GAIN 28/07/2022). Turkey is one of the largest exporters of wheat flour, with 85% of the grain coming from Ukraine and Russia (Hürriyet Daily News 26/02/2022).

Argentina

Argentina is unlikely to become an option for Yemen in the coming months, considering that a strong demand in March led to a steep increase in the Argentinian FOB wheat price. The wheat sown area is also smaller than projected earlier because of very dry weather conditions. As a consequence, production is expected to be smaller. Wheat exports for 2022–2023 are forecasted to be 3.85 million MT lower than in 2021–2022 at 12.35 million MT (USDA/GAIN 25/07/2022).

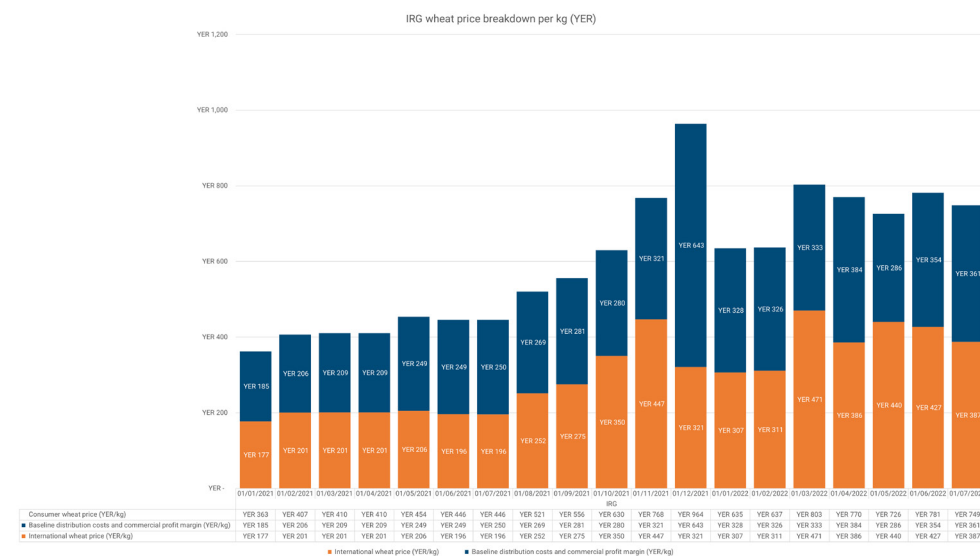
IMPACT OF GLOBAL WHEAT PRICES ON CONSUMER PRICES IN YEMEN

International price and global dynamics largely influence prices in Yemen given the country’s heavy reliance on imports. As consumer prices increase, people’s purchasing power continues to decline. While food markets are generally functional and food commodities remain available, affordability remains to be the main challenge for Yemenis (Kurdi et al. 23/03/2022).

IRG

Aside from international prices, the exchange rate also strongly influences consumer wheat prices in IRG areas. These prices increased by 40%, from an average of YER 546/kg during the period before the invasion (between January 2021 and February 2022) to YER 765/kg after (between March–July 2022). When converted through the IRG exchange rate with the Central Bank of Yemen (CBY) in Aden, the values equate to a 33% increase from USD 0.52/kg to USD 0.69/kg.

Figure 7. Consumer wheat price breakdown in IRG areas in YER and USD.



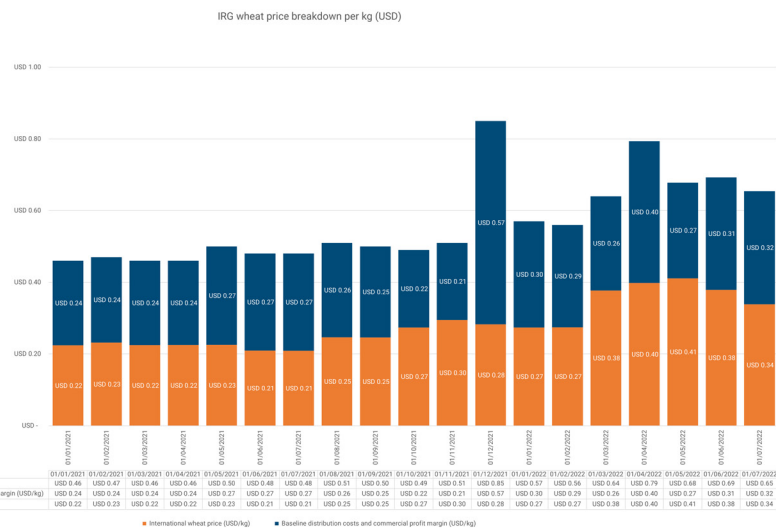
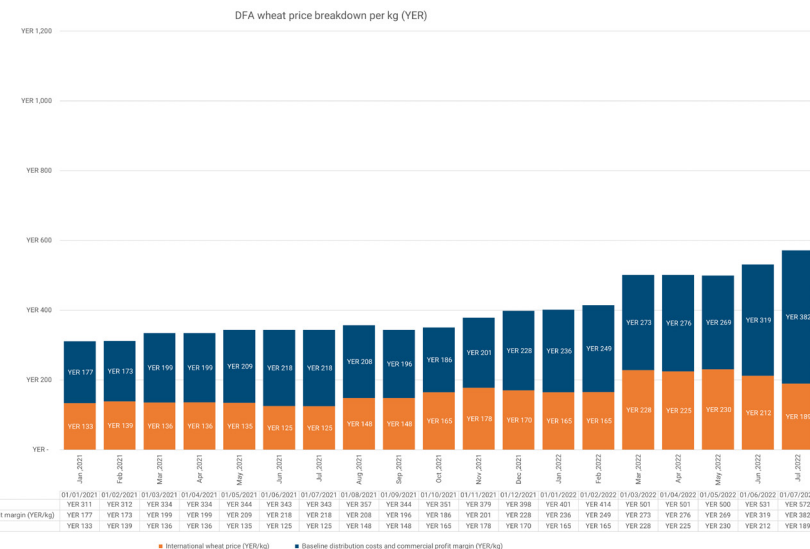


Figure 8. Consumer wheat price breakdown in DFA areas in YER and USD.

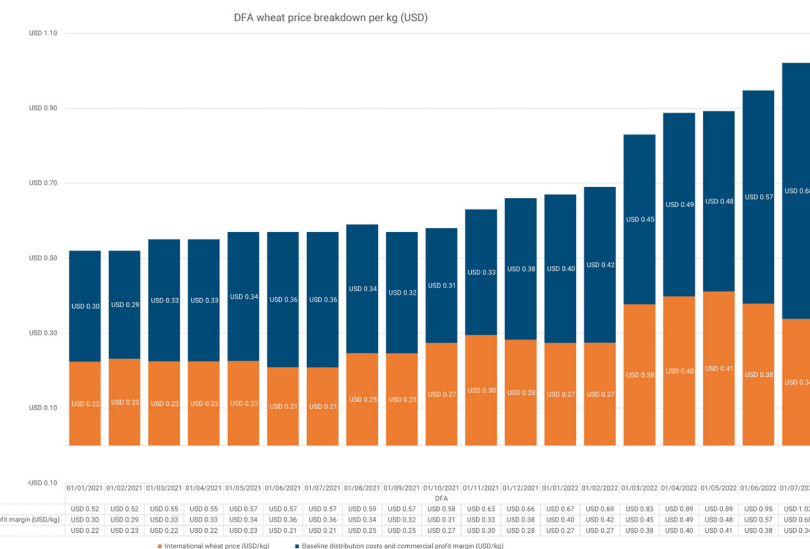


Sources: ACAPS using data from ACAPS YETI, REACH JMMI 07/2022, Business Insider, ACAPS key informant interviews

See graphs in full size on page 15 and 16.

DFA

The relative stability of the Yemeni rial in DFA areas means that international wheat prices strongly influence consumer wheat prices. Average consumer wheat prices in DFA areas increased by 47%, from YER 355/kg during the period before the Russian invasion (January 2021 to February 2022) to YER 521/kg after (March–July 2022). When converted through the CBY-Sana’a DFA exchange rate, the values equate to a 54% increase from USD 0.59/kg to USD 0.91/kg.



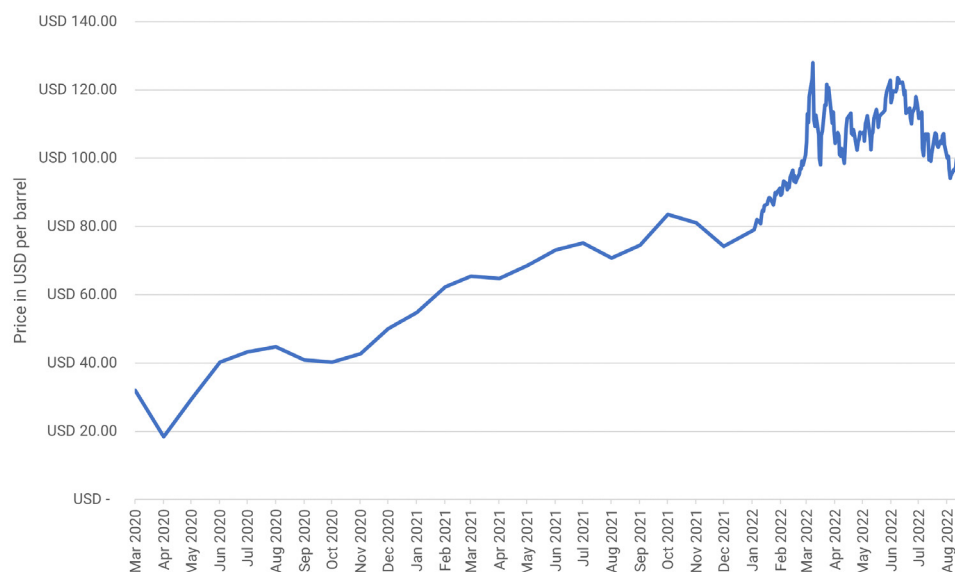
Sources: ACAPS using data from ACAPS YETI, REACH JMMI 07/2022, Business Insider, ACAPS key informant interviews

See graphs in full size on page 17 and 18.

Fuel dynamics (international prices and truce)

The conflict in Ukraine has also led to increased global oil prices. Since Yemen is a net fuel importer, global dynamics have a direct impact on fuel prices in the country. The international price of oil increased by 30% between January–March 2022, increasing fuel prices in IRG areas by 55% and in DFA areas by 95%. The IRG and the DFA signing a truce on 2 April changed domestic fuel dynamics, significantly affecting fuel prices on the domestic market. The truce included allowing 18 fuel vessels to unload at Al Hodeidah port, which had seen fuel import disruptions since June 2020.

Figure 9. International Brent crude oil price (March 2020 to August 2022).



Source: Trading Economics (accessed 11/08/2022)

Monthly fuel imports into Al Hodeidah have returned to pre-disruption fuel import volumes, with 187,000MT of fuel imported between April–June 2022. On the other hand, Aden port's average fuel import figures dropped by 67%, from 284,000MT per month in January–March 2022 to 93,000MT per month in April–June 2022 (ACAPS unpublished).

The truce has resulted in a slight appreciation and improved stabilisation of the Yemeni rial in IRG areas. Until then, support had been coming from the Kingdom of Saudi Arabia and the United Arab Emirates (UAE) pledge of a USD 2 billion import financing and currency stability package to the IRG-controlled CBY-Aden. The potential reduction in consumer prices has not materialised, however, with fuel prices increasing by 67%, from YER 672 (USD 0.65) per litre between January 2021 and February 2022 to YER 1,121 (USD 1.10) per litre between May–June 2022.

Figure 10. Exchange rate for old and new YER notes to the US dollar.



Source: ACAPS YETI (accessed 11/08/2022)

In DFA areas, the shift in fuel dynamics has reduced distribution costs by 39%, from YER 296 (USD 0.49) per litre between January 2021 and February 2022 to YER 181 (USD 0.32) per litre between May–June 2022. That said, a 30% increase in international oil prices has resulted in an 8% increase in the consumer price of fuel in DFA areas, from YER 619 (USD 1.02) to YER 671 (USD 1.19) per litre over the same period (ACAPS unpublished).

IMPLICATIONS FOR FOOD SECURITY AND OTHER HUMANITARIAN NEEDS

The increased unaffordability of wheat and other products, particularly fuel, threatens to worsen the already dire food security situation in Yemen and increase overall humanitarian needs and reliance on external assistance. High fuel prices are already increasing production and transport costs, affecting people's mobility and access to water (for domestic and agricultural purposes) and the consumer prices of other primary goods.

Amid increased operating costs and limited funding, WFP general food assistance in Yemen decreased from 84,800MT worth of in-kind food distribution in January 2022 to 41,500MT in June 2022. As at June, of the 13 million people targeted by WFP, five million people experiencing Emergency (IPC Phase 4) to Catastrophe (IPC Phase 5) food insecurity levels were set to only receive less than half of their daily caloric requirements, while eight million people facing Crisis (IPC Phase 3) food insecurity would receive just one-third (WFP 21/07/2022). Overall limited humanitarian funding is likely to affect the response to other sectors as well. As at July, only 29% of the 2022 Humanitarian Response Plan had been funded, with only USD 1.2 billion received against the required total of USD 4.2 billion (OCHA accessed 29/07/2022).

The combination of decreased purchasing power and reduced humanitarian funding and assistance is likely to drive more people into Crisis (IPC Phase 3) or worse levels of food insecurity, resulting in the adoption of more negative coping strategies. Reduced food portions, skipping meals, and a lack of nutrient diversification are expected to further deteriorate acute and chronic malnutrition in the country, with consequences for health. Nevertheless, the demand for wheat and other staple cereals is likely to remain strong despite high prices since reports suggest that Yemenis tend to cut out more expensive food (like meat and fish) and rely more on cheaper calorie sources, like imported wheat (ACAPS 22/05/2022; Kurdi et al. 23/03/3022).

Possible alternatives to wheat

A large portion of the Yemeni population's caloric intake is based on wheat products. A nationwide household survey from 2014 revealed that the poorest households relied on wheat and other grains for 71% of their total caloric intake (Kurdi et al. 23/03/3022). Alternative staple commodities to wheat in Yemen could differ based on the economic and cultural variations within Yemeni society.

In central and northern areas, where the economy originated on cereal cultivation, bread is the daily staple food for breakfast, lunch, and dinner in both rural and urban areas, as many urban residents are migrants from rural agricultural communities. In the past, when domestic

cereal production was an essential part of rural households' food consumption, bread was made from barley alone or mixed with other cereals and wheat flours. Some bakeries would also produce bread from a mix of cereals, including red wheat, barley, sorghum, and corn, which Yemeni officers and soldiers would consume and use to feed their households. While bread remains essential for Yemenis' consumption, it could be made from other cereals should a wheat shortage occur. Yemenis could also opt for other food commodities. In the coastal areas in the south, east, and west of Yemen, rice could be a preferable food option as it is already commonly consumed.

An analysis of the availability and prices of global rice and other cereals, along with a deeper understanding of food consumption patterns in Yemen, is needed to understand other viable options for wheat in Yemen and the impact on the overall food security situation.

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

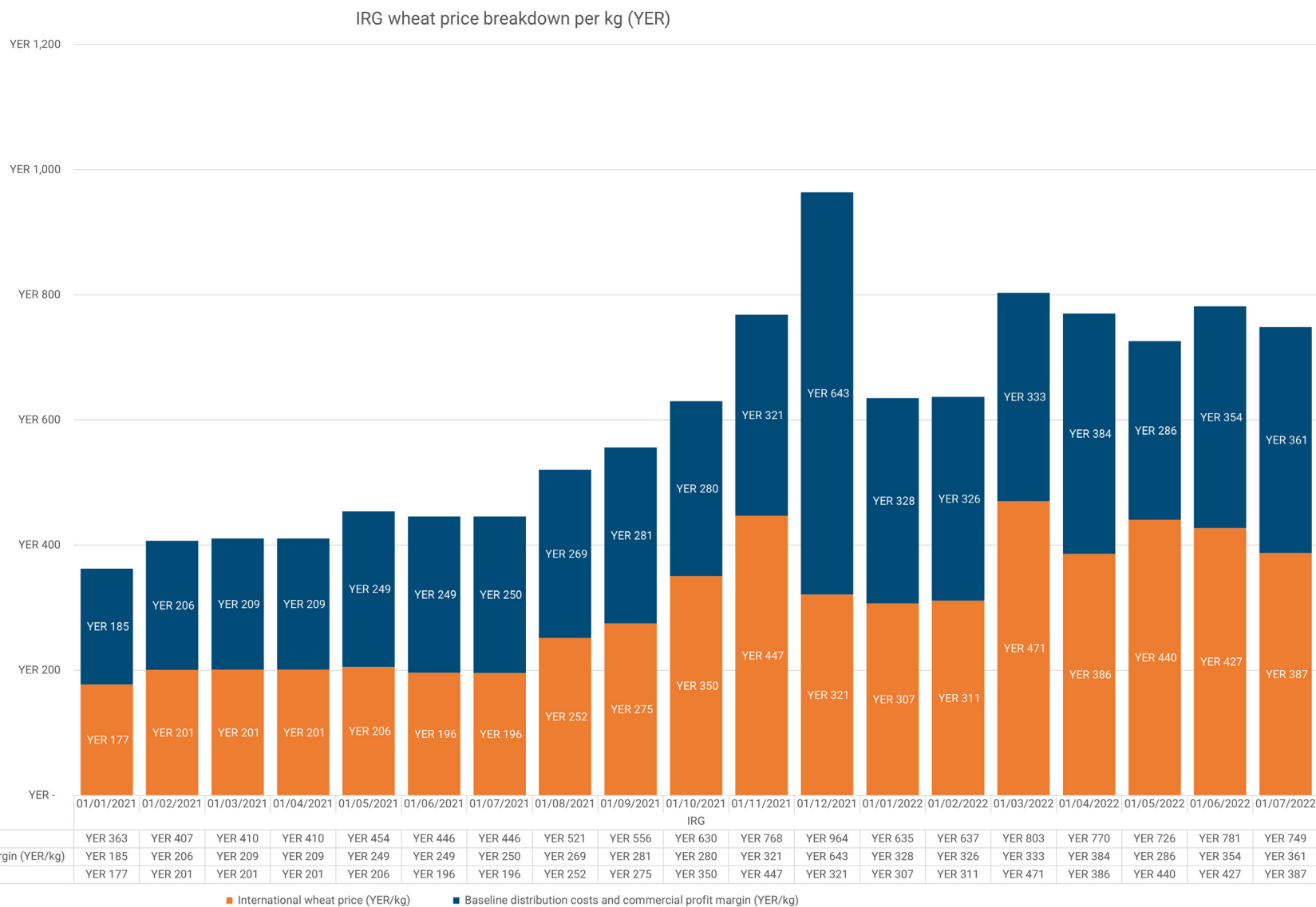


ANNEX 1: WHEAT IMPORTS AND DISTRIBUTION

	AUSTRALIA, KWINANA	INDIA, KANDLA	UKRAINE, ODESA	RUSSIA. NOVOROSIYSK	US, WC LONGVIEW, WASHINGTON
Type of wheat	Standard white	Milling wheat	Milling wheat	Milling wheat	Hard winter
FOB cost (in USD)	403	350	370	375	388
Cargo costs (per 55,000MT)	22,165,000	19,250,000	20,350,000	20,625,000	21,340,000
Distance (in nautical miles)	12,287	4,808	4,771	4,875	14,259
Time (at 13 knots - days)	39.4	15.4	15.3	15.6	45.7
Load/discharge/demurrage days	21.75	21.75	23.75	23.75	21.75
Charter rate/day	22,500	22,500	30,000	25,000	22,500
Total time on charter (days)	61.1	37.2	39.0	39.4	67.5
Total charter costs	1,375,457	836,106	1,171,250	984,375	1,517,668
Fuel consumption/day at sea	30.5	30.5	30.5	30.5	30.5
Fuel consumption/port/anchor	2.5	2.5	2.5	2.5	2.5
Fuel cost (in USD/MT)	900	900	900	900	900
Total fuel cost at sea	1,081,020	423,012	419,756	428,906	1,254,518
Total fuel cost (from port to anchor)	48,938	48,938	53,438	53,438	48,938
War risk insurance (Black Sea)	0	0	375,000	375,000	0
Suez Canal southbound	0	0	202,453	202,453	0
Suez Canal northbound	0	0	173,794	173,794	0
War risk insurance (Red Sea)	155,000	155,000	155,000	155,000	155,000
Total voyage cost	2,660,414	1,463,055	2,550,691	2,372,966	2,976,124
Shipping cost (in USD/MT of cargo)	48.4	26.6	46.4	43.1	54.1
Discharge cost (in USD/MT)	4.5	4.5	4.5	4.5	4.5
Total landed cost (in USD/MT)	456	381	421	423	447

Source: KII 07/2022

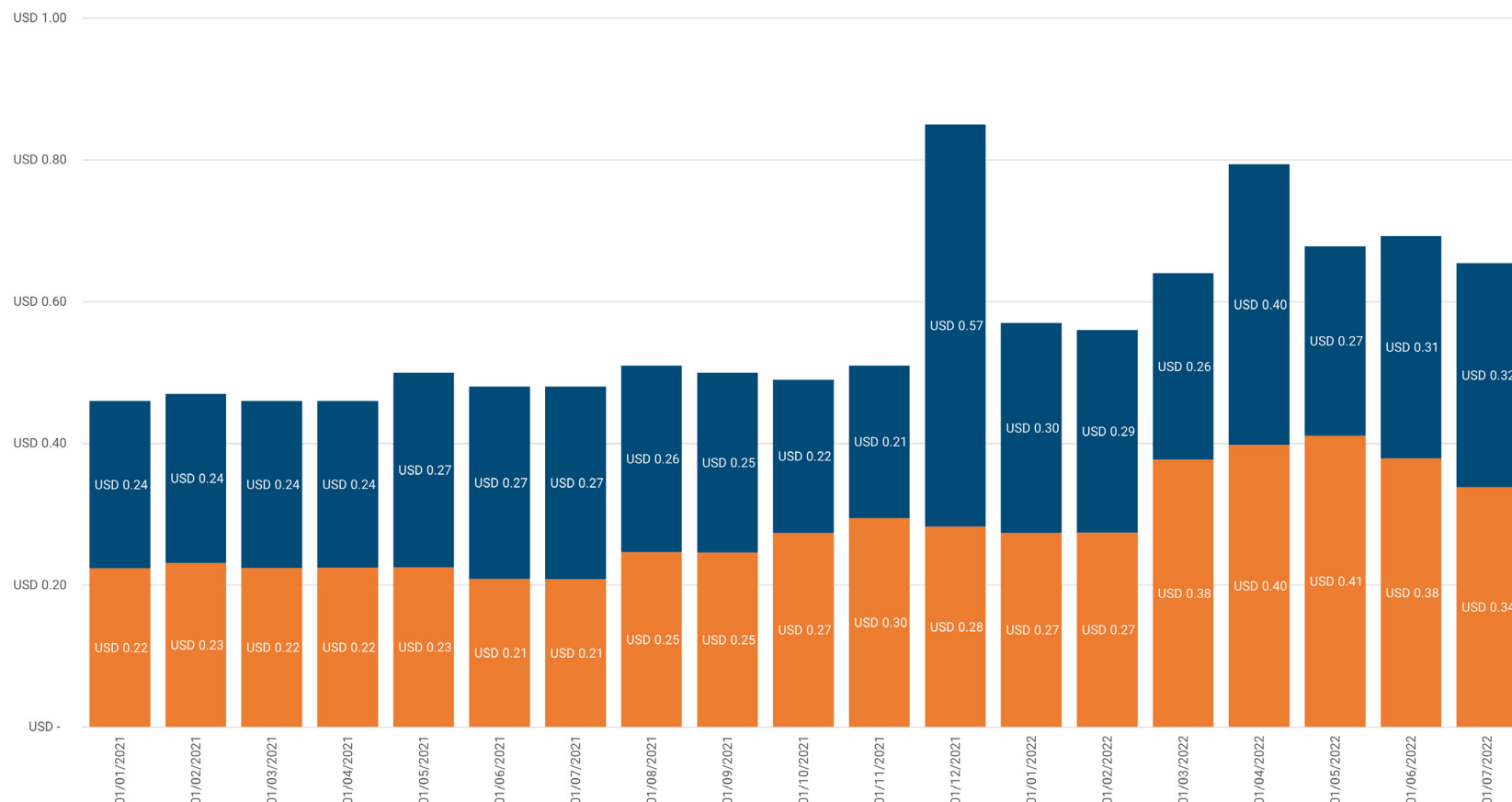
Figure 7. Consumer wheat price breakdown in IRG areas in YER



Sources: ACAPS using data from ACAPS YETI, REACH JMMI 07/2022, Business Insider, ACAPS key informant interviews

Figure 7. Consumer wheat price breakdown in IRG areas in USD.

IRG wheat price breakdown per kg (USD)

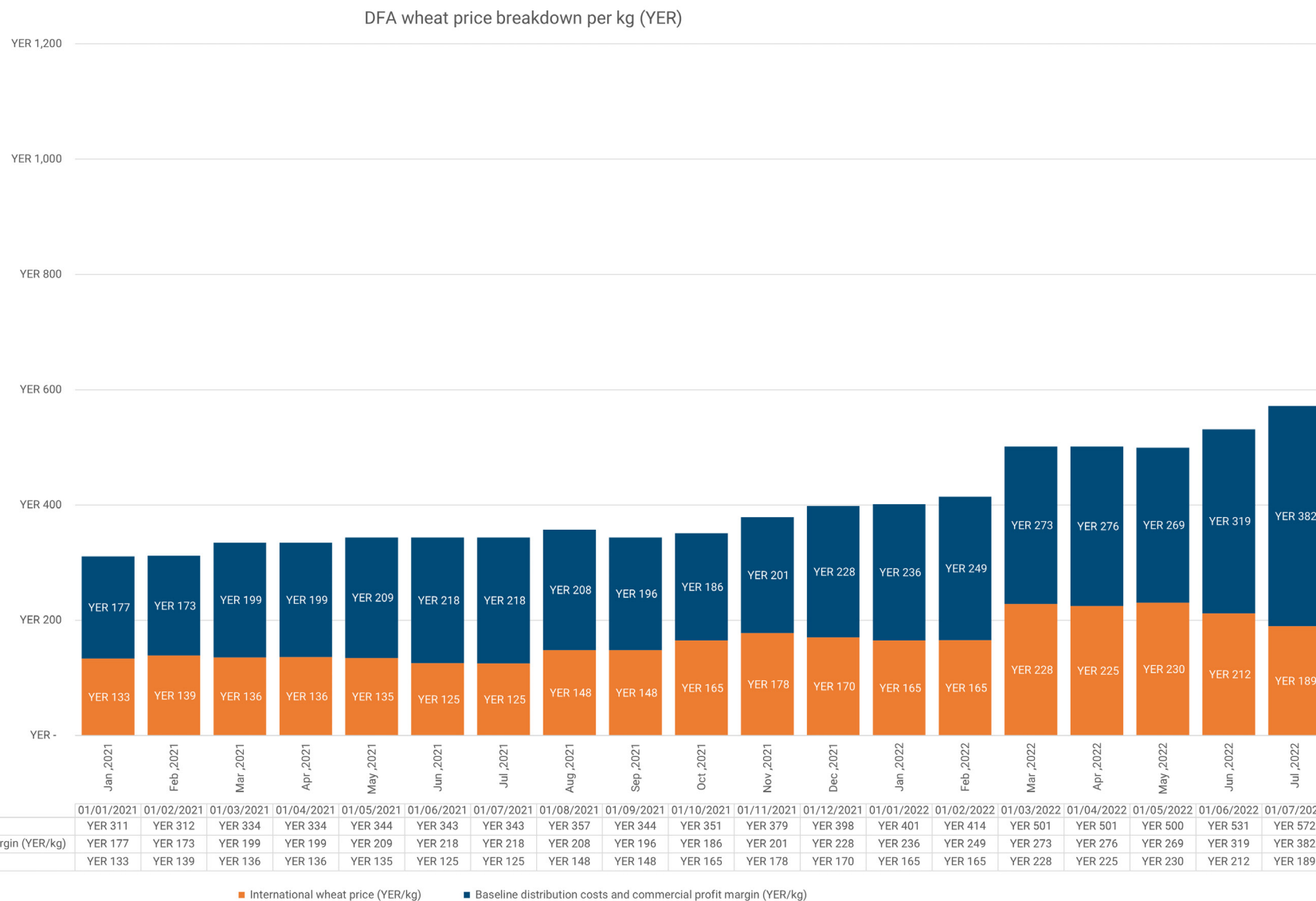


	01/01/2021	01/02/2021	01/03/2021	01/04/2021	01/05/2021	01/06/2021	01/07/2021	01/08/2021	01/09/2021	01/10/2021	01/11/2021	01/12/2021	01/01/2022	01/02/2022	01/03/2022	01/04/2022	01/05/2022	01/06/2022	01/07/2022
Consumer wheat price (USD/kg)	USD 0.46	USD 0.47	USD 0.46	USD 0.46	USD 0.50	USD 0.48	USD 0.48	USD 0.51	USD 0.50	USD 0.49	USD 0.51	USD 0.85	USD 0.57	USD 0.56	USD 0.64	USD 0.79	USD 0.68	USD 0.69	USD 0.65
Baseline distribution costs and commercial profit margin (USD/kg)	USD 0.24	USD 0.24	USD 0.24	USD 0.24	USD 0.27	USD 0.27	USD 0.27	USD 0.26	USD 0.25	USD 0.22	USD 0.21	USD 0.57	USD 0.30	USD 0.29	USD 0.26	USD 0.40	USD 0.27	USD 0.31	USD 0.32
International wheat price (USD/kg)	USD 0.22	USD 0.23	USD 0.22	USD 0.22	USD 0.23	USD 0.21	USD 0.21	USD 0.25	USD 0.25	USD 0.27	USD 0.30	USD 0.28	USD 0.27	USD 0.27	USD 0.38	USD 0.40	USD 0.41	USD 0.38	USD 0.34

■ International wheat price (USD/kg) ■ Baseline distribution costs and commercial profit margin (USD/kg)

Sources: ACAPS using data from ACAPS YETI, REACH JMMI 07/2022, Business Insider, ACAPS key informant interviews

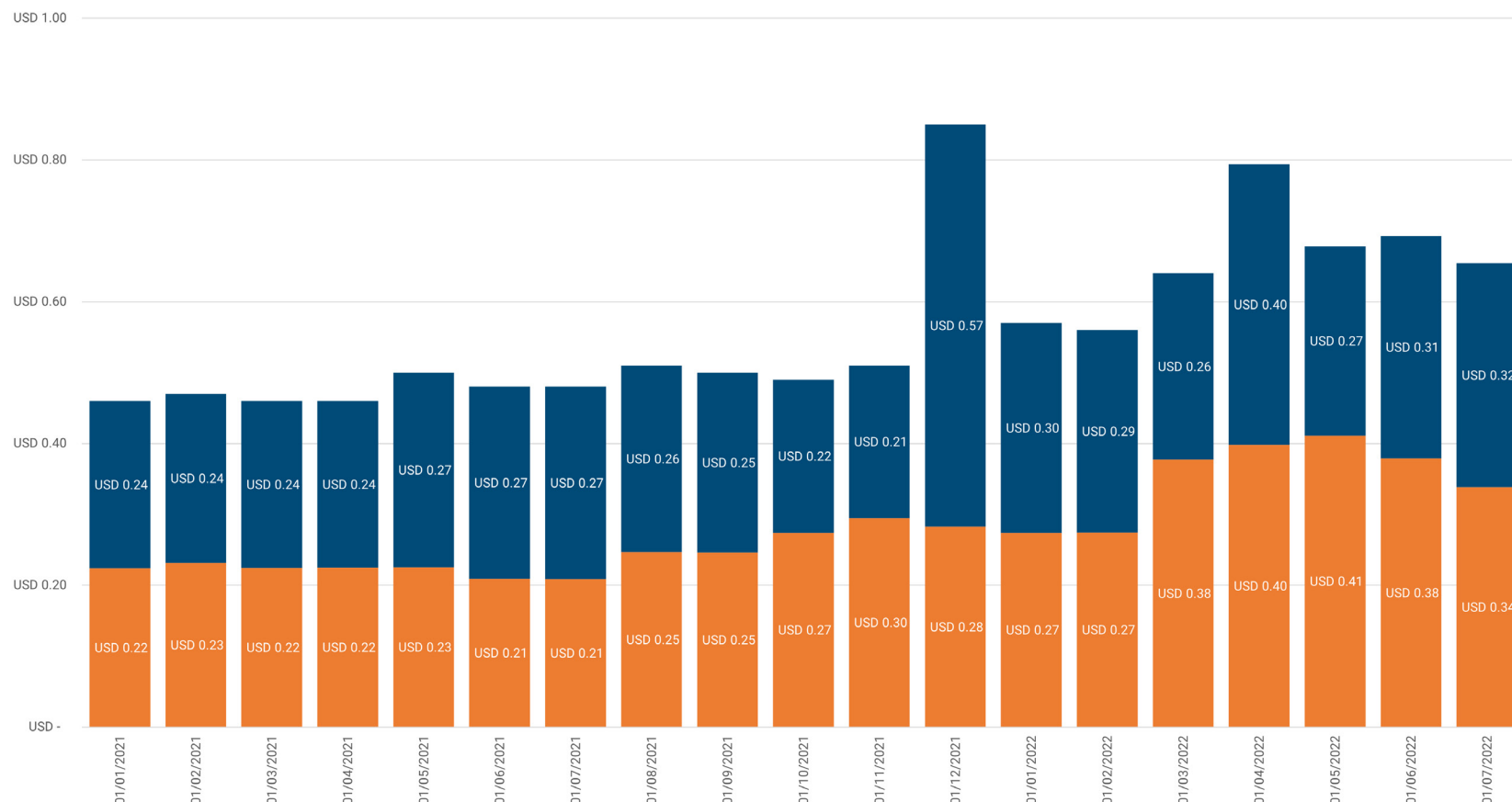
Figure 8. Consumer wheat price breakdown in DFA areas in YER.



Sources: ACAPS using data from ACAPS YETI, REACH JMMI 07/2022, Business Insider, ACAPS key informant interviews.

Figure 8. Consumer wheat price breakdown in DFA areas in USD.

IRG wheat price breakdown per kg (USD)



	01/01/2021	01/02/2021	01/03/2021	01/04/2021	01/05/2021	01/06/2021	01/07/2021	01/08/2021	01/09/2021	01/10/2021	01/11/2021	01/12/2021	01/01/2022	01/02/2022	01/03/2022	01/04/2022	01/05/2022	01/06/2022	01/07/2022
Consumer wheat price (USD/kg)	USD 0.46	USD 0.47	USD 0.46	USD 0.46	USD 0.50	USD 0.48	USD 0.48	USD 0.51	USD 0.50	USD 0.49	USD 0.51	USD 0.85	USD 0.57	USD 0.56	USD 0.64	USD 0.79	USD 0.68	USD 0.69	USD 0.65
Baseline distribution costs and commercial profit margin (USD/kg)	USD 0.24	USD 0.24	USD 0.24	USD 0.24	USD 0.27	USD 0.27	USD 0.27	USD 0.26	USD 0.25	USD 0.22	USD 0.21	USD 0.57	USD 0.30	USD 0.29	USD 0.26	USD 0.40	USD 0.27	USD 0.31	USD 0.32
International wheat price (USD/kg)	USD 0.22	USD 0.23	USD 0.22	USD 0.22	USD 0.23	USD 0.21	USD 0.21	USD 0.25	USD 0.25	USD 0.27	USD 0.30	USD 0.28	USD 0.27	USD 0.27	USD 0.38	USD 0.40	USD 0.41	USD 0.38	USD 0.34

■ International wheat price (USD/kg) ■ Baseline distribution costs and commercial profit margin (USD/kg)

Sources: ACAPS using data from ACAPS YETI, REACH JMMI 07/2022, Business Insider, ACAPS key informant interviews.