

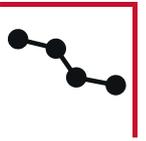
Thematic Report

Effects of the **Ukraine conflict** on **Lebanon's** economic and humanitarian crisis - **one year on**

February 2023 ■ ■

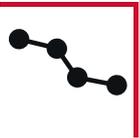


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The Lebanon Crisis Analytics Team (LCAT) provides reactive and in-depth context analysis to inform the aid community in Lebanon. The information and analysis contained in this report is therefore strictly to inform humanitarian and development actors and associated policymaking on Lebanon.

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Executive Summary:

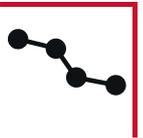
The Ukraine conflict had a significant ripple effect on economies around the world, driving a spike in commodity prices in the months following the invasion and exacerbating existing economic challenges in the wake of the Covid-19 pandemic. The impact of commodity price hikes in the wake of the conflict has been well documented, as has the relative rebound since. This unexpected rebound in global prices has drawn some to conclude that the impact of the Ukraine conflict was short term and less severe than initially expected.¹ While true to some extent, understanding the full impact of the conflict requires a more nuanced analysis.

One year after the initial invasion, it is possible to examine the many ways in which the Ukraine conflict has affected Lebanon, a country which was already contending with - and continues to face - complex and multilayered crises. Lebanon is profoundly vulnerable to the broader impact that the Ukraine conflict has had on commodity prices, as well as losing access to proximately located markets upon which it was previously dependent.

The events, data, and factors described in this paper suggest that pre-existing deficiencies in Lebanon's import-dependent economy were a key factor driving up costs in Lebanon in 2022, as well as its vulnerability to factors linked to the Ukraine conflict. This is especially the case regarding fuel. Moreover, the commodity price "rebound" in no way addresses these deficiencies and market forces did not spur fundamental changes in Lebanon's productive economy - toward more efficient and sustainable practices - leaving it highly vulnerable to future commodity price shocks.

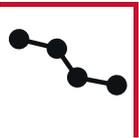
The Ukraine conflict exacerbated ongoing challenges facing Lebanon's beleaguered manufacturing sector, compounding the effects of financial, economic, and political crises and external factors such as the global supply chain supply crunch following the COVID-19 pandemic and global inflation. The range of KIs conducted in the production of this report make clear that the negative impacts of the Ukraine conflict on Lebanese manufacturing have been pervasive, and interact with and exacerbate the complex set of additional challenges already being faced in the context of Lebanon's other crises.

¹ crisisinsight.acaps.org/ripple-effects-of-conflict-in-ukraine-truths-myths



Key Findings:

- Commodity price hikes in 2022 presented challenges to Lebanese businesses across multiple import-dependent sectors. While global commodity prices rebounded in 2022, the effects on the Lebanese economy were stark and suggest that future global commodity market shocks could have an even greater, sustained impact.
- The Ukraine conflict added difficult-to-measure burdens on businesses who were less confident in market stability, made smaller and more frequent orders - or conversely stockpiled in anticipation of price rises - and generally made decisions based on a desire to hedge against a high-risk market, some of which were very costly.
- Electricity and the cost of fuel continues to be the largest - by far - cost input and productivity barrier for the manufacturing sector in Lebanon.
- Lebanon's import-dependent sectors were already hard hit by the economic and monetary crisis, which began in late 2019. There are some indications that this made Lebanese import-dependent sectors more "resilient" and better able to adapt to the shocks of 2022. However, the already degraded state of these sectors leave them more vulnerable to price shocks.
- Many hoped that the economic collapse would foster a situation whereby lower staffing costs could increase the competitiveness of the sector, supporting increased local productivity and working towards reducing significant trade imbalance. However, structural obstacles faced during the crisis, and exacerbated by the impact of the conflict in Ukraine, have resulted in the opposite.
- Following the shock to supply chains caused by the Ukraine conflict, import-dependent businesses were able to find and secure alternative sources, though this entailed additional cost and time, in addition to changes in quality.



Introduction:

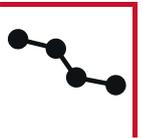
Lebanon faces a range of challenges stemming from global commodity price increases and domestic economic, financial, and monetary collapse. According to the first Lebanon Integrated Food Security Phase Classification (IPC), almost 2 million Lebanon residents are currently experiencing high levels of acute food insecurity.² Amid the negative effects of the COVID-19 pandemic, strained supply chains, and the conflict in Ukraine, the Lebanese state has yet to formulate and promulgate a coherent food security plan, institute a comprehensive package of reforms needed to secure an International Monetary Fund deal, or make a concerted effort to revitalize the country's inadequate national infrastructure. Compounding this, a range of subsidies were lifted throughout 2022, which exacerbated the impact of currency depreciation on household purchasing power.

In light of these developments, LCAT is publishing this report, which examines how higher commodity prices - at least in part stemming from the conflict in Ukraine - have affected grain supplies, fuel prices, industry, and agriculture in Lebanon. This report follows up on a similar report published by LCAT in early 2022,³ which highlighted Lebanon's inadequate wheat stock, food and fuel import cost hikes and local market price increases, the practice of hoarding essential goods and commodities, and the degradation of critical services. This report closely examines how the Ukraine conflict has affected Lebanon using a range of interviews across the industrial, manufacturing, and agricultural sectors in order to identify the many impacts it has had - beyond the immediate effects of higher commodity prices - such as the costs of broken supply chains and higher transportation costs.

Lebanon's economic and monetary collapse, which began in force in late 2019, left the country in a particularly poor position heading into 2022. Households and businesses were forced to cut costs, workforces reduced in size, commercial banking services all but halted, a range of subsidies on essential imports were lifted, and emigration accelerated. Despite the raft of challenges which faced Lebanon's productive sectors heading into 2022, businesses which had weathered the storm following October 2019 were beginning to adapt to higher prices and sourcing challenges, notably as staffing costs declined. However, this resiliency is not indicative of a well-functioning economy. Despite a subsequent rebound in global commodity prices, 2022 also demonstrated that future commodity price shocks could exacerbate Lebanon endemic economic deficiencies, with sustained and possibly devastating consequences. Chief among these is the absence of adequate state electricity production and provision, and consequent widespread reliance on diesel-power "backup" generators. Access to affordable grain supplies in the context of supply disruption and higher prices has been supported by a World Bank loan, which should provide stability through late 2023, and not beyond. More broadly, manufacturers faced complications seeking out and securing alternative sources of raw materials, in addition to time and material costs associated with these changes, all of which present immeasurable and likely longer lasting additional costs for businesses increasingly unable to afford them.

² [Lebanon: Acute Food Insecurity Situation September - December 2022 and Projection for January - April 2023](#)

³ "Humanitarian Impact of Ukraine Conflict on Lebanon", Mercy Corps Lebanon LCAT Report. March 2022. [Humanitarian Impact of Ukraine Conflict on Lebanon](#).



One year on from Russia's invasion of Ukraine, and with the benefit of time, this report attempts to assess the impact of the conflict on Lebanon. Section 1 looks at the broader impact of the conflict on essential commodities, and delves into specific issues facing Lebanon, including the country's reliance on grain imports and the government's management of grain and bread production, as well as the broader effects of the country's economic and financial crisis and inflation on the economy. Section 2 examines the state of the Lebanese manufacturing sector, and how it has been affected by the fallout of the conflict. Section 3 analyzes the impact of the Ukraine conflict on the agricultural sector, specifically imported agricultural inputs.

Methodology:

This report was compiled using desktop research, primarily examination and analysis of Lebanese customs data from 2022, WFP food price data, and other relevant data sets on the Lebanese economy. Additionally, the team conducted key informant interviews (KII), mainly with agriculture and manufacturing actors in the private and public sectors. Those interviews were helpful in understanding practices and challenges faced by actors in their respective sectors. For the purposes of this report and in order to facilitate an evidence-based and candid exchange, the names, titles, and positions of KIIs have been anonymised.

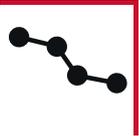


Photo by Hasan Shaaban/Bloomberg

Impact on Global Commodity Prices and Lebanese Essential Imports

Prior to the Russia-Ukraine conflict, emerging and developing economies faced inflationary pressures due to (a) commodity demand surpassing supply as economies relaunched post-Covid-19; (b) bottlenecks and supply difficulties related to industrial inputs logistics; and (c) currency depreciation due to international monetary policy and a reduction in foreign reserves. By February 2022, food security was threatened in North Africa and the Middle East due to high import dependency on foodstuffs and hydrocarbons from Ukraine and Russia. On account of their proximity, Ukraine and Russia are important suppliers of grains and edible oils, especially to Tunisia, Egypt, Lebanon, and Turkey.⁴ Moreover, countries across these regions are also dependent on other sectors for influxes of foreign currency, mainly tourism. For example, prior to the Ukraine conflict, 40% of "coastal" (beachgoing) tourists in Egypt came from Ukraine and Russia.⁵

Food, energy, and transport costs occupy a significant share of the consumer basket in emerging and developing economies, where food accounts for more than half of the consumption basket of poor households, compared to one-third for wealthier households.⁶ Across the Middle East and North Africa, basic products have long been subsidized and the rise in international prices led to greater budgetary and balance of payment burdens, particularly as governments are prone to resisting subsidy reductions and price increases. Regionally, the capacity among MENA countries to implement such measures is uneven, as this depends on the wealth of countries to cope with inflationary pressures - in part dictated by oil rents and foreign currency reserves.⁷

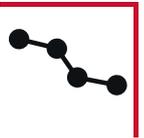
⁴ In 2021, Russia alone accounted for one-quarter of global natural gas world exports, 18% of coal and wheat, and 11% of global crude oil exports. Ukraine and Russia play a major role in the global food markets as major producers of seed oils, wheat, barley, and maize accounting together, respectively, 64%, 23%, 19%, and 18% of world exports. [How could the war in Ukraine impact global food supplies? - Our World in Data](#)

⁵ [Tourism makes a comeback in North Africa - DW - 05/28/2022](#)

⁶ Kpodar, K. R., & Liu, B. (2021). The Distributional Implications of the Impact of Fuel Price Increases on Inflation. IMF Working Papers, 2021(271).

⁷ Information Note - The importance of Ukraine and the Russian Federation for global agricultural markets and the risks associated with the war in Ukraine, June 2022.

[Information Note - The importance of Ukraine and the Russian Federation for global agricultural markets and the risks associated](#)



Since the global food crisis of 2008, actual prices of all major foodstuffs recorded unprecedented spikes in 2022. According to the FAO food price index, actual prices are even higher than during the 1973 oil crisis (see Figure 1). Another prominent repercussion of the Russian-Ukrainian war in 2022 was energy price hikes, especially crude oil and natural gas. Global prices increased in the first half of 2022 and dropped in the second half. In November and December 2022, the FAO Food Price Index reached similar levels to the same period in 2021, with prices generally returning to levels observed before the outset of the Ukraine conflict.

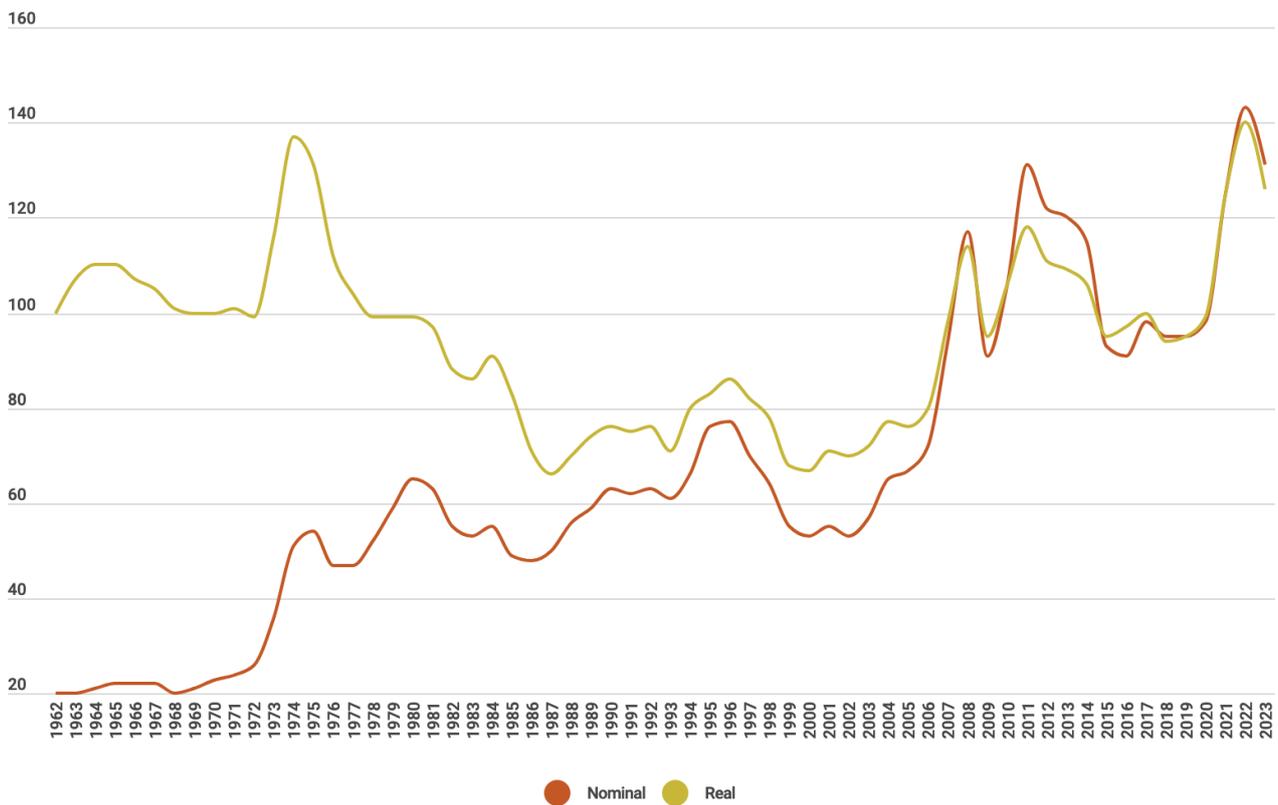


Figure 1: FAO Food Price Index (2014-2016=100)

Food Price Inflation and Supply Constraints in Lebanon

According to Lebanon's customs data, Ukraine accounted for 77% of Lebanon's total wheat imports in 2022, making it the country most dependent on Ukrainian wheat globally.⁸ Russia accounted for 9%, followed by Romania and Moldova (5%), and Bulgaria 3%, demonstrating the extent to which Lebanon relies on Black Sea countries for its wheat supply (See Figure 2). Lebanon imported 552,000 metric tons (MTs) of wheat in 2022, valued at USD 227 million, compared to 754,000 MTs valued at USD 235 million in 2021. Of note, Lebanon's strategic grain reserve was destroyed in the August 4, 2020 Beirut Port blast, severely straining Lebanese wheat storage capacity, which prior to the blast covered a four-month period.

⁸ Russia benefited in 2022 from very favorable weather and its next cereals harvest should break production records and share in global exported wheat, while countries in Europe, North America, and India faced drought and declining yields. In the early stages of its military operation in Ukraine, Russia imposed a maritime blockade on Ukrainian trade, attacking main ports along the Black Sea, preventing its cereal exports. Under the support of the United Nations and Turkey, and with the aim of avoiding more international food insecurity due to the war, Russia and Ukraine signed the Black Sea Grain Initiative, on July 22 to facilitate grain exports from Black Sea ports and ease the international food crisis. Originally set to expire on November 19, an agreement was reached to extend it 120 days. On October 30, Russia suspended its participation in the agreement, but reversed their decision three days later.

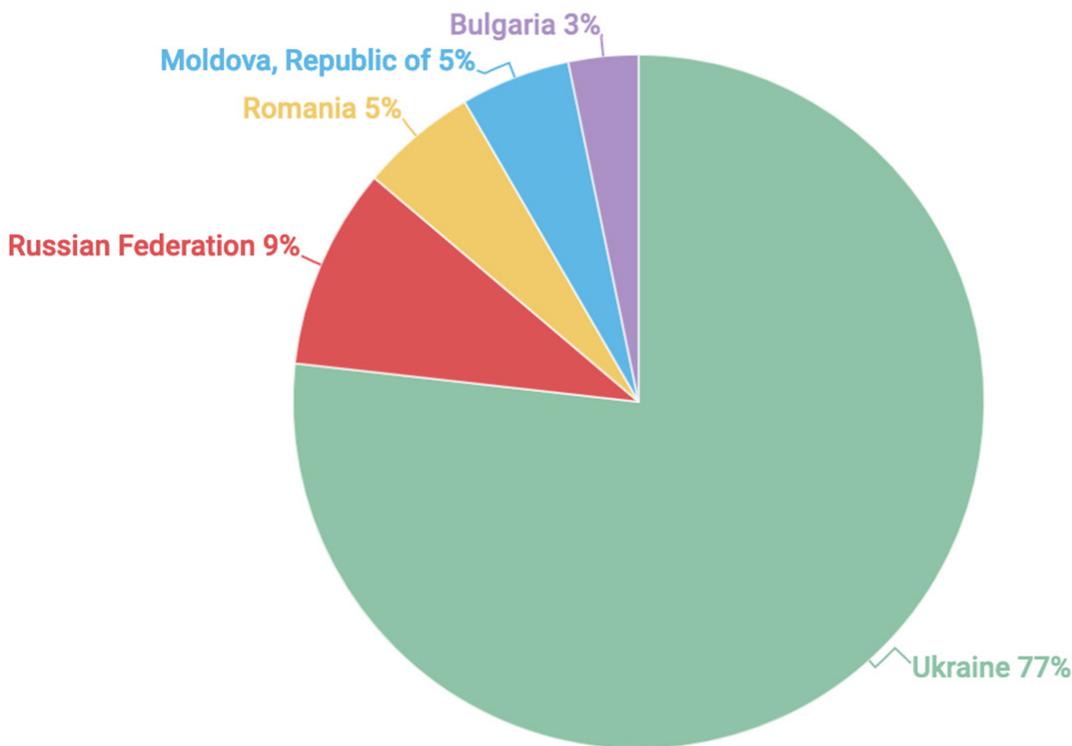
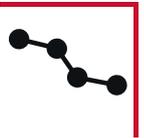


Figure 2: Lebanon's wheat import by country in 2022
Source: LCAT compilation based on Customs data

Perhaps more damaging in the medium term is price inflation, which affects Lebanon in two ways: direct price increases stemming from higher international commodity prices and a worsening trade deficit driving further depletion in foreign exchange reserves, and in turn, furthering Lebanese pound (LBP) depreciation and higher local prices on imported goods.⁹ Consequently, the Food Survival Minimum Expenditure Basket (SMEB) increased significantly, from about LBP 454,000 in June 2020 to almost LBP 6 million in December 2022.¹⁰

According to the United Nations Office for the Coordination of Humanitarian Affairs (UN OCHA) PIN report, 2.23 million people throughout the country required urgent support to improve access to food and other basic needs in 2022, a 46% increase compared to 2021.¹¹ According to the World Bank, Lebanon had the highest year-on-year food inflation rate in the world in 2022 (See Figure 3 and 4). Notably, it ranked first from March to June, and second, after Zimbabwe, from July to October 2022. Current indications are that this trend will continue and worsen in 2023.

⁹ On the eve of the Ukrainian conflict, on February 23, the Lebanese Central Bank failed to secure the funds necessary for purchasing wheat shipments.

¹⁰ d4it4d.shinyapps.io/Lebanon_Analytics_Hub/

¹¹ [Increasing Humanitarian Needs in Lebanon, April 2022](#)



Country	Nominal food inflation (%YoY)	Country	Real Food Inflation (%YoY)
Lebanon	332	Lebanon	122
Zimbabwe	255	Zimbabwe	23
Venezuela	155	Iran	33
Turkey	94	Sri Lanka	26
Iran	86	Turkey	16
Sri Lanka	80	Colombia	14
Argentina	66	Hungary	10
Suriname	55	Rwanda	10
Ethiopia	38	Burkina Faso	10
Moldova	34	Somalia	10

Source: International Monetary Fund, Haver Analytics, and Trading Economics.

Note: Food inflation for each country is based on the latest month from March to June 2022 for which the food component of the Consumer Price Index (CPI) and overall CPI data are available. Real food inflation is defined as food inflation minus overall inflation.

Figure 3: Top 10 List : Food price inflation from March to June 2022¹²

Country	Nominal food inflation (%YoY)	Country	Real Food Inflation (%YoY)
Zimbabwe	321	Zimbabwe	52
Lebanon	208	Lebanon	46
Venezuela	158	Iran	32
Türkiye	99	Sri Lanka	20
Argentina	87	Rwanda	17
Sri Lanka	86	Hungary	15
Iran	84	Colombia	15
Rwanda	41	Uganda	15
Suriname	40	Türkiye	13
Lao PDR	39	North Macedonia	13

Source: International Monetary Fund, Haver Analytics, and Trading Economics.

Note: Food inflation for each country is based on the latest month from July to October 2022 for which the food component of the Consumer Price Index (CPI) and overall CPI data are available. Real food inflation is defined as food inflation minus overall inflation.

Figure 4: Top 10 List : Food price inflation from July to October 2022¹³

Lebanese Government Policy and Policymaking on Wheat and Bread in 2022

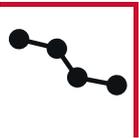
In July 2022, the Minister of Economy and Trade (MoET) announced that credit lines from the Central Bank and subsidies to wheat importers would be lifted.¹⁴ The World Bank approved an emergency loan of USD 150 million on May 6, 2022, to assist Lebanon in overcoming global supply chain challenges and sustain one of the few remaining subsidies on essential foodstuffs. The loan, which was later approved by parliament in October 2022, covers a nine-month period,¹⁵ aims to finance immediate wheat imports to the Port of Beirut and Tripoli, and should provide some stability to supply chains and contribute to securing bread production.

¹² [AT A GLANCE GLOBAL MARKET OUTLOOK \(As of July 26, 2022\)](#)

¹³ [AT A GLANCE GLOBAL MARKET OUTLOOK \(As of July 26, 2022\)](#)

¹⁴ Lebanon's Ministry of Economy and Trade is responsible for controlling wheat prices through the Office of Cereals and Sugar Beets authority. Originally formed to assist local wheat growers, since 2011, the ministry has been tasked with negotiating trade agreements, monitoring silos and mills, and setting bread prices.

¹⁵ [L'orient Today Report](#)



The first shipment of 33,000 MTs of wheat from the Lebanon Wheat Supply Emergency Project arrived at Beirut port in February 2023.¹⁶ While shipments covered under the loan should secure sufficient supply in the short-term, once the loan is exhausted in Autumn 2023, the risk of shortages and major price hikes could return. Notably, through Autumn 2023, the risk of bread shortages will persist, due to the possibility that bakeries could go on strike in response to bread price fixing and changes to the subsidy mechanism.¹⁷ If the Ministry of Economy and Trade, through its Office of Cereals and Sugar Beets, is able to maintain a supply of subsidized imported wheat to millers - which in turn sells it as subsidized flour to bakeries (See Figure 5) - another problem could arise if other production costs increase, namely diesel and cooking gas for baking.

Overall, Lebanon was able to successfully adapt supply chains in 2022, though prices of some essential goods, such as bread, increased. Bread prices alone increased from LBP 1,500 before the crisis, to about LBP 20,000 in late 2022, although this was primarily driven by currency depreciation. According to a Deputy General Manager at a Chamber of Commerce interviewed by LCAT:

"The Lebanese Government realized early on the importance of imported wheat volumes from Ukraine. It moved quickly to think of alternative suppliers. Shifting suppliers has been quite tricky, but Lebanon was relatively lucky to be able to shift suppliers for some main alternatives. As a result, there has not been direct shortages, per se. Nonetheless, there have been price increases due to global market fears. Relatively expected supply chain disruptions, mainly logistical and transportation costs, are also major drivers."

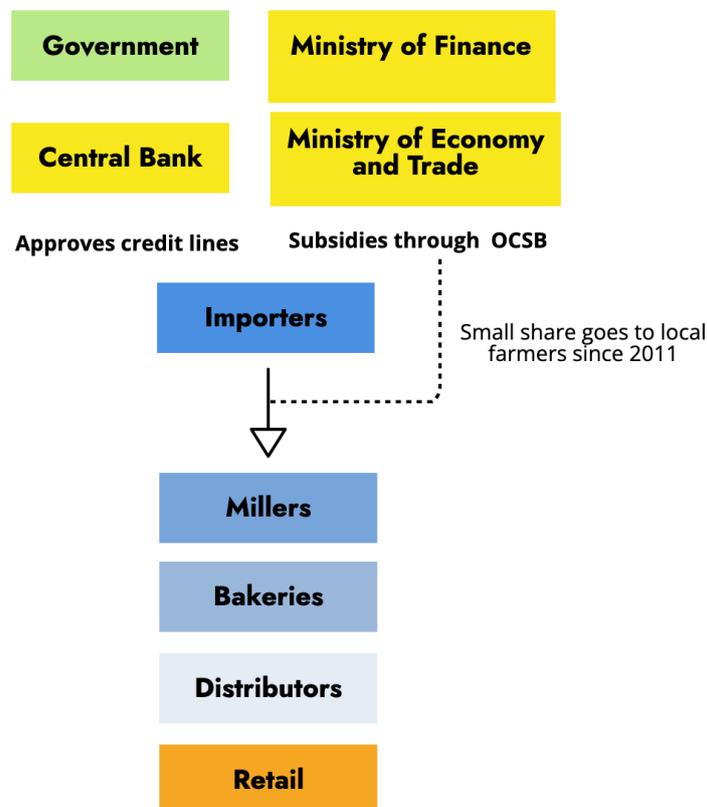
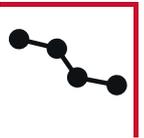


Figure 5: Structure of wheat import, distribution and subsidy system

¹⁶ [World Bank, Press Release](#)

¹⁷ In mid-February 2023, a one kilo bundle of bread was priced at LBP 33,000 (USD .40 at market rate) by the ministry, almost three times cheaper than the pre-crisis subsidized price in USD terms. Of note, the vast majority of bakeries charge in LBP, meaning that in the event the bread subsidy regime is changed (on a dollarized basis), it could negatively affect the financial viability of their businesses.



Energy Dependency and Prices Amidst the War

Amid the Ukraine conflict and major disruptions to supply chains, global oil prices rose to a seven-year high, though after reaching a peak in summer 2022, world energy prices resettled to pre-war levels in early 2023. Hardest hit during the period of peak oil prices were countries dependent on spot purchases of fuel rather than locked contracts, such as Lebanon. However, structural inefficiencies regarding transportation and energy infrastructure make Lebanon uniquely vulnerable to fuel price increases. Since public electricity provision is limited to a few hours per day, most of the country depends on private diesel-run “backup” generators, which entail a high operating cost that many Lebanese households are unable to afford (See Figure 6).

In September 12, 2022, the Central Bank announced that fuel importers could no longer use the Sayrafa exchange platform¹⁸ and must access all USD for petroleum payments at the parallel market rate. This change in policy, in conjunction with LBP depreciation, led to all-time high prices for diesel, 95-octane, and 98-octane in January 2023, despite global petroleum prices reaching their lowest point since the start of the Ukraine conflict.

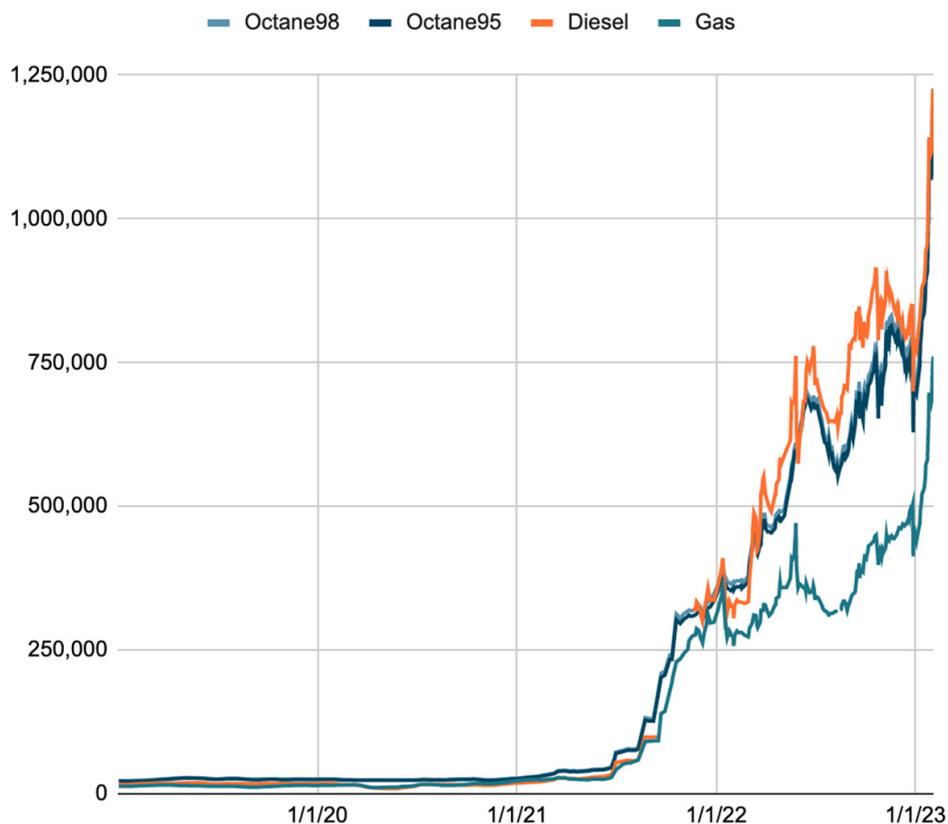
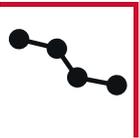


Figure 6: Fuel prices in Lebanon from January 2019 to January 2023 in Lebanese Lira - compiled using IPT data

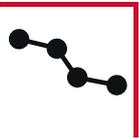
¹⁸ Sayrafa is the “official” Central Bank-operated LBP-USD exchange platform. Originally established for money exchangers, access to the platform has been opened to businesses and individuals at various points since late 2021. Access to the platform is now largely restricted to individuals, subject to monthly limits on the amount they can exchange, often depending on which commercial bank they use to access USD. The Sayrafa exchange rate is set by the Central Bank, often accounting for changes in the parallel market rate. It is a monetary tool used to provide USD to the market and control the amount of LBP in circulation. It has at times been relatively close to the parallel market rate, and at others has significantly diverged.



Industrial Manufacturing and Food Production Sector

The Ukraine conflict exacerbated ongoing challenges facing Lebanon's beleaguered manufacturing sector throughout most of 2022, compounding the effects of financial, economic, and political crises and external factors such as the global supply chain supply crunch following the COVID-19 pandemic and global inflation. The range of KIIs conducted in the production of this report make clear that the negative impacts of the Ukraine conflict on Lebanese manufacturing have been pervasive, interact with, and exacerbate the complex set of additional challenges already being faced in the context of Lebanon's other crises.

Stakeholders in Lebanon's manufacturing sector identified higher energy costs as the most important problem facing their businesses since the outbreak of war in Ukraine. The war in Ukraine did not necessarily cause debilitating or long-term difficulties with sourcing raw materials and other inputs according to KIIs, although some noted increased prices of imported inputs, which they attributed to global inflation. Some KIIs noted that changing sources of imported inputs took up to three to four months, though this issue was largely dependent on from where those goods were sourced prior to the Ukraine conflict. Many of those working with imported timber or metals such as steel from Ukraine or the Black Sea region more broadly described difficulties and costs associated with changing suppliers. Other KIIs described difficulties in transferring foreign currency abroad to pay for (more expensive) imports, largely due to the ongoing collapse of Lebanon's commercial banking sector. Higher shipping costs were cited as a lesser problem, one that eased in late 2022 and was not perceived as being directly tied to the war, despite the fact that shipping data demonstrates that costs rose at points in 2022, roughly corresponding with the conflict.



Lebanon's manufacturing sector — long-struggling in the country's services-oriented economy and under a distorted subsidy regime which often favored imported over locally produced goods¹⁹ — made up 12.4% of the country's gross domestic product in 2019, behind the contributions of the financial, public, education, real estate, and wholesale and retail trade sectors, according to the World Bank.²⁰ From 2019 to 2020, the sector contracted 54.8%, according to the most recent GDP statistics prepared by the Center for Administration of Statistics.²¹ According to World Bank data, the industrial sector accounted for 6.6% of GDP in 2020 and a low 2.8% in 2021. During that period, manufacturing companies were hurt by the collapse of Lebanon's banking system — which left them scrambling to finance imports of inputs and other key expenses — COVID-19 closures, crumbling national infrastructure, and the eviscerated purchasing power of Lebanon's residents due to high inflation, among other factors.²²

Many hoped that the economic collapse would foster a situation whereby lower staffing costs could increase the competitiveness of the sector, supporting increased local productivity and working towards reducing the significant trade imbalance. However, structural obstacles faced during the crisis, and exacerbated by the impact of the conflict in Ukraine, have resulted in the opposite. The manufacturing sector's woes have persisted, despite the collapse of the LBP theoretically offering the possibility of making Lebanon's exports more competitive.^{23 24} According to a recent LCAT study on customs data,²⁵ the trade imbalance is widening, as reflected in a shockingly large import bill for 2022. Lebanese importers are spending an inordinate amount of foreign currency on imported goods compared to what one would expect, considering the current state of the economy. This is due to a set of perverse incentives and obstacles, such as effective tax breaks offered on all imports due to the inability of the government to adapt tariffs in line with LBP depreciation, the high cost of fuel imports, and the increased import of goods such as solar panels and generators.

Fueling Manufacturing

Manufacturers are dependent on expensive diesel cargoes to fuel back-up generators for their businesses as Lebanon's state utility Électricité du Liban (EdL) was only able to provide a few hours of electricity per day through most of 2022, nearly declining to zero towards the end of the year.^{26 27}

¹⁹ "Lebanese industry standing at a crossroads," Le Commerce du Levant, October 15, 2019 [Lebanese industry standing at a crossroads](#)

²⁰ [Industry \(including construction\), value added \(% of GDP\) - Lebanon](#)

²¹ Ibid

²² "How the COVID-19 lockdown has brought Lebanon's vital manufacturing sector to its knees," L'Orient Today, 30 Jan. 2021 [How the COVID-19 lockdown has brought Lebanon's vital manufacturing sector to its knees - L'Orient Today](#);

"Why currency depreciation has proved no boon for Lebanese manufacturers," L'Orient Today, 8 Oct. 2021 [Why currency depreciation has proved no boon for Lebanese manufacturers - L'Orient Today](#)

"In Lebanon, manufacturers mull stark choices to stay in business," Al-Jazeera, 23 Dec. 2021 [In Lebanon, manufacturers mull stark choices to stay in business | Business and Economy News | Al Jazeera](#)

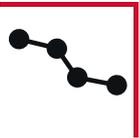
²³ Why currency depreciation has proved no boon for Lebanese manufacturers," L'Orient Today, 8 Oct. 2021 [Why currency depreciation has proved no boon for Lebanese manufacturers - L'Orient Today](#)

²⁴ Former head of Association of Lebanese Industrialists and CEO of a Packaging company said "Lebanon is one of the very few countries in the world, where we had the [currency depreciation] problem we had, but exports did not increase," blaming the missed opportunity on poor governance and crippling fuel costs.

²⁵ "Lebanon Crisis Analytics Team January Crisis Update", Mercy Corps. January 2023.

²⁶ Board member of Association of Lebanese Industrialists and owner of a food producer company, KII November 2022; Managing partner of a woodworking firm, KII November 2022; Board member of Association of Lebanese Industrialists and owner of a steel company; COO and co-owner of an industrialChemical company, KII November 2022; Members of Lebanon's Syndicate of Poultry Producers and manager of a poultry firm; Former head of Association of Lebanese Industrialists and CEO of a packaging company

²⁷ For instance, the head of a woodworking firm said, "Fuel prices have gone up astronomically... we are struggling just to fuel our diesel generators. It is a direct hit that all industries took, as EdL is barely giving us an hour a day of electricity."



Two pharmaceutical manufacturing companies executives stressed the need for 24-hour electricity, saying their production requires round-the-clock temperature control, continuous airflow, refrigeration, and other processes.²⁸ The head of a plastics packaging company said his line of business was particularly energy intensive. According to him, the Ukraine war “impacted us directly through the cost of energy” and the impact on energy intensive industries was “devastating.”²⁹ Of note, diesel is also used for purposes other than electricity generation. For example, a KII noted that the food manufacturing industry — the largest segment of Lebanon’s industrial sector (34.24%) in 2020³⁰ — uses diesel to generate steam to create their finished products.³¹

The increase in fuel prices driven by the conflict in Ukraine exacerbated the already major local price hikes that affected Lebanon at the end of 2021, when the Lebanese state cut most of its fuel subsidies.³² A manager of a company working in the chemicals sector, which comprised 14.95% of Lebanon’s industry in 2020,³³ said that before the subsidies were cut, his firm paid USD 800 per month for diesel, which now costs USD 10,000 per month.³⁴ Expensive options to mitigate the impact of expensive fuel are available, but depending on the industry are limited in utility. Executives of two manufacturing companies said they installed solar panels for limited power production. The manager of a poultry processing firm said that while their installation was expensive, they can “help reduce costs significantly” at feed mills that run 24 hours a day.³⁵ Another manufacturer ruled out solar power as a solution for the industrial sector, saying, “What we need is a sustainable source of high-output electricity.”³⁶

Sourcing Raw Materials

Most interviewed manufacturers said they have not faced critical, sustained problems with sourcing raw materials or intermediate goods needed for their businesses due to the Ukraine conflict. They instead noted temporary sourcing issues - negatively affected by Lebanese manufacturing’s comparatively low leverage in the marketplace due to their size and market share - as well as price increases amid global inflation, which some attributed in part to the conflict. Others, particularly individuals involved in businesses which import non-food commodities faced challenges adapting supply chains in the wake of the Ukraine conflict. This included not only delays and higher costs, but additional challenges related to quality.

²⁸ A lab owner stated during a KII in November 2022 that, “Everything has to keep running, even if the plant is closed during the weekends or at night.” The head of a pharmaceutical company stated in a KII in November 2022 that his company stopped using Lebanon’s scant state power and instead was running its own diesel-fueled generators for electricity.

²⁹ A former head of the Association of Lebanese Industrialists and CEO of a packaging company, stated that his company “generates its own electricity 24 hours a day, since if it turned off its machines, it would take two to three hours to restart them and consume more electricity... In my facility we went from USD 20,000 a month diesel bills [in 2021] to USD 150,000 a month.”

³⁰ “National Accounts - 2004-2020 Tables in Excel,” Central Administration of Statistics, <cas.gov.lb/images/PDFs/National%20Accounts/2020/CAS_Lebanon_National_Accounts_Tables_2004-2020.xlsx> Tab 1.3

³¹ Board member of Association of Lebanese Industrialists, member of Syndicate of Lebanese Food Industry Owners, and owner of a food producer company, KII November 2022

³² “Lebanon raises fuel prices as subsidies are phased out,” Agence France-Presse, September 22, 2021 <[Lebanon raises fuel prices as subsidies are phased out - France 24](https://www.francepress.com/francepress/Lebanon-raises-fuel-prices-as-subsidies-are-phased-out)>

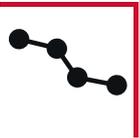
³³ “National Accounts - 2004-2020 Tables in Excel,” Central Administration of Statistics, <cas.gov.lb/images/PDFs/National%20Accounts/2020/CAS_Lebanon_National_Accounts_Tables_2004-2020.xlsx> Tab 1.3

³⁴ COO and co-owner of a chemical company, KII November 2022

³⁵ Head of a pharmaceutical company, KII November 2022;

Member of Lebanon’s Syndicate of Poultry Producers, manager at a poultry firm

³⁶ Managing partner at a woodworking firm, KII November 2022



The owner of a business that sells steel for construction said that “Ukraine was a primary source” for his company. He explained that after Russia invaded Ukraine, he lost communication with his Ukrainian colleagues. “All my purchases from Ukraine were canceled,” he said, adding that he was presented with the option of steel being moved overland through Poland for onward shipping, but this was too costly for his business. His business called upon sources it used in the past - including in China, South Korea, Japan, and Turkey - and “paid more” to fill the gap created by the war. “The new supply is stable,” the businessman said, adding that prices have jumped up.³⁷

A separate owner of a company that fabricates metal and wood products, stated that in addition to increasing transport costs, “stocks have been extremely tight due to supply chain disruptions”. He claimed that large-scale companies have better leverage over accessing market commodities but that supply chains are readjusting, shifting to Asian markets. “Steel has been purchased from Korea, for example. However, this has created new problems. Korean steel is much more brittle – this business sourced a large quantity but due to the brittleness, it could not handle the machining.”

Lebanon imported 519,136.9 MTs of iron and non-alloy steel in 2022, up from its 2021 total of 379,419.5 MTs, but lower than its pre-crisis total of 997,123.4 MTs in 2018, according to Lebanese customs data.³⁸ Ukraine’s share of this import market, in terms of metric ton volume, dropped from 22.9% in 2021 to 5% in 2022. Overall prices of iron and non-alloy steel products jumped up from an average of USD 705.6 per MT in 2021 to USD 788.7 per MT in 2022, according to the data.

After wheat, Lebanon’s next largest imports from Ukraine in 2021 (by USD value) were iron and non-alloy steel, sunflower oil, and maize for animal feed — inputs for Lebanese manufacturing and agro-industry — according to Lebanese customs data.³⁹ The volume, in metric tons, of maize imported from Ukraine to Lebanon increased 55.4% in 2022, according to the data set. Meanwhile, 2022 imports from Ukraine of iron and steel imports plummeted 69.9% while sunflower oil dropped 31.3%.⁴⁰ Lebanon’s Customs database shows that the country’s imports of sunflower oil increased in 2022 compared to the previous year. In 2022, Lebanon imported 88,071 MTs, up from its 2021 total of 75,176.3 MTs, but lower than its pre-crisis total of 98,731.3 MTs in 2018.⁴¹ Ukraine’s share of these imports dropped from 42.9% to 25.2%, while Turkey picked up the slack with an increase from 23.9% to 49.8%. Overall prices jumped up from an average of USD 143.5 per MT in 2021 to USD 181.8 in 2022.

³⁷ Association of Lebanese Industrialists board member and owner of a Steel company

³⁸ Trade Statistics - Annual Statistics - By Country and HS4 [HS code 72.06 to 72.17, all countries, 2022, 2021 and 2018 queries]

customs.gov.lb/Trade_Statistics/Yearly/Country_HS.aspx?Report=By_Country_HS4

³⁹ Trade Statistics - Annual Statistics By Countries and HS4 [From HS4 01.00 to 99.99/Ukraine/2021 query]

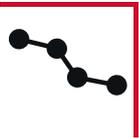
customs.gov.lb/Trade_Statistics/Yearly/Country_HS.aspx?Report=By_Country_HS4

⁴⁰ Trade Statistics - Annual Statistics By Countries and HS4 [From HS4 01.00 to 99.99/Ukraine/2022 query]

customs.gov.lb/Trade_Statistics/Yearly/Country_HS.aspx?Report=By_Country_HS4

⁴¹ Trade Statistics - Annual Statistics - By HS4 and Country [15.12/All Countries/2022, 2021, 2018 queries], Lebanese Customs,

customs.gov.lb/Trade_Statistics/Yearly/Country_HS.aspx?Report=By_HS4_Country



Key to consider in this regard is that Lebanon cannot shift domestic production to supplant imported inputs and raw food items consumed in the country. One importer noted that apart from olive oils, other cooking oils are produced in Lebanon using imported wheat, as Lebanon produces hard wheat - used to produce, for instance, bulgar - but not soft wheat. Considering bread consumption habits in Lebanon, it would be difficult and likely impossible to shift domestic production to meet demand. While importers made adjustments in line with supply chain disruptions, importers of certain food processing inputs were able to continue to receive shipments from Ukraine through secondary ports, or following internationally brokered deals in July 2022.

The owner of a food processing plant and an official in Lebanon's food industry lobby said that in the two months after Russia invaded Ukraine on February 24, 2022, "there was a lot of ambiguity and uncertainty regarding supply and a high spike in prices" for vegetable oil (including sunflower oil) and sugar, key inputs for his sector.⁴² He said approximately 50% of Lebanon's vegetable oil was sourced from Ukraine, while approximately 70% of Lebanon's sugar imports came from Algeria, which banned exports of the product in March due to food security concerns following Russia's invasion of Ukraine.⁴³ He added that there was a "temporary replacement" in sourcing vegetable oil, adding that "regular shipments were still coming from Ukraine, I don't know how."

The manager of a poultry processing business that operates a feed mill said that the Black Sea Grain Initiative, signed in late July 2022 to facilitate grain trade from Ukraine,⁴⁴ helped stabilize the supply of maize for his business, which grinds the corn into food for chickens.^{45 46} "Even before the [Black Sea Grain Initiative] deal, we were still able to get corn through the port of Reni, near Moldova," he said. He added that in the event hostilities escalated and shipments through the Black Sea could not be secured, his business could still source corn from North America, however that option was more expensive and more difficult to finance.⁴⁷

Some sectors were largely insulated against the impact of the conflict. Other manufacturers did not note any difficulties, even temporary, with sourcing material due to the war in Ukraine. The manager of a chemicals company said that he sourced from Turkey, a large player in the solvent sector, with supplies readily available.⁴⁸ The owner of a woodworking business said that he uses traders to acquire wood and has faced no shortages, adding however that prices have gone up.⁴⁹

⁴² Board member of Association of Lebanese Industrialists, member of Syndicate of Lebanese Food Industry Owners, owner of a food producer company stated in a KII in November 2022 that "As for sugar, it is available all over the world, so our importers shifted to other contracts other than [those in] Algeria... There was an interim period of changings suppliers, but the situation is now stable." He also stated that the import of vegetable oil and sugar is "regular and prices are stabilized."

⁴³ "Algeria bans exporting foodstuffs including sugar and wheat derivatives," Reuters, 13 Mar. 2022 [Algeria bans exporting foodstuffs including sugar and wheat derivatives | Reuters](#)

⁴⁴ "Beacon on the Black Sea," United Nations, Black Sea Grain Initiative Joint Coordination Centre [Black Sea Grain Initiative | Joint Coordination Centre | United Nations](#)

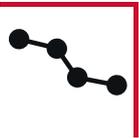
⁴⁵ Member of Lebanon's Syndicate of Poultry Producers, manager of a poultry firm

⁴⁶ Lebanon imported 421,064.7 MTs of maize in 2022, down from its 2021 total of 439,833.9 MTs and its pre-crisis total of 565,895.5 MTs in 2018, according to Lebanese customs data. Ukraine's share of this import market, in terms of metric ton volume, increased from 20.7% in 2021 to 33.7% in 2022. Overall prices of maize increased from an average of USD 312.6 per MT in 2021 to USD 352.8 per MT in 2022, according to the data.

⁴⁷ The poultry processing company manager added that if shipping in the Black Sea were to shut down completely, corn and other inputs would need to be purchased in bulk, which entails larger shipping vessels because "bulk carriers from North America are much larger, 30-60k tons, there is limited ability to finance such shipments, as banks are closed, we would need to get cash money in suitcases to buy something like this" (in comparison grain from black sea comes in smaller shipments more easy to pay for).

⁴⁸ COO and co-owner of a chemical company, KII November 2022

⁴⁹ Managing partner of a woodworking firm, KII November 2022



Pharmaceutical companies noted the risk in raw input costs as the biggest impact, although this trend began earlier. The head of two pharmaceutical companies said the greatest issue they faced was the increased costs of inputs. "All raw material [prices] have increased," one CEO said, explaining that his business mainly sourced from Europe, where prices have gone up between 5% to 15%.⁵⁰ He also noted that these issues, while exacerbated by the conflict, predate the war in Ukraine, and that the supply chain crunch following the COVID-19 pandemic has been a challenge. "The supplier will make a certain quantity for a year, but now they won't make more. They used to make a large quantity that they would keep in stock," he said, adding that orders are backed up.

Shipping Costs

The Ukraine war contributed to increased maritime shipping costs, according to a June 2022 report by the United Nations Conference on Trade and Development (UNCTAD). The organization noted, however, that the conflict was just "one of several major issues currently affecting international maritime transport."⁵¹ In its assessment of the impact of the Ukraine war, UNCTAD cited the ClarkSea Index, a weighted average of container, bulk, tanker, and gas vessels' daily earnings used as a barometer for shipping costs,⁵² which increased from USD 33,543 days before the war to USD 44,357 in late May.⁵³ As of December 8, 2022, the ClarkSea Index dropped down to USD 34,974, slightly above the level before Russia invaded Ukraine.⁵⁴ A far more dramatic increase in shipping prices began in mid-June 2020, with the ClarkSea Index registering a four-fold increase from USD 10,461 on June 5, 2020 up to 42,468 on Oct. 22, 2021, after which prices eased prior to the Ukraine war.⁵⁵ UNCTAD explained in a report that this came due to a surge in demand for goods, as opposed to services, during COVID-19 lockdowns amid a lack of maritime shipping capacity.^{56 57}

Lebanese manufacturers noted that the trend of higher shipping costs began in 2020, and while higher shipping rates were brought up in KILs, some manufacturers said the problem had subsided or that their specific business did not face a serious challenge from them. None of the interviewees identified them as being as great of a challenge as energy costs or the collapse of the Lebanese financial system. A Lebanese importer said that the shipping cost of a 20-foot equivalent unit (TEU) container from Shanghai to Beirut had dropped from approximately USD 9,000 in September 2022 to about USD 2,100 in early December. He added that the price of transporting a TEU from European destinations to Lebanon had dropped from about USD 2,000 at its height to about USD 1,600 at present.⁵⁸

⁵⁰ Lab owner, KIL November 2022

⁵¹ "Maritime Trade Disrupted - The War in Ukraine and its effects on Maritime Trade Logistics," 29 June 2022, UNCTAD [Maritime Trade Disrupted: The war in Ukraine and its effects on maritime trade logistics | UNCTAD](#)

⁵² "Clarkson's cross-sector index logs record first quarter," Seatrade Maritime News, 6 Sep. 2021 [Clarkson's cross-sector index logs record first quarter | Seatrade Maritime](#)

⁵³ "Interact with the charts," UNCTAD <[Maritime Trade Disrupted | UNCTAD](#)

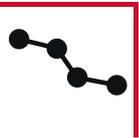
⁵⁴ Clarksons Shipping Intelligence Network, accessed 8 Dec. 2022 [sin.clarksons.net](#)

⁵⁵ "Clarkson's cross-sector index logs record first quarter," Seatrade Maritime News, 6 Sep. 2021 [Clarkson's cross-sector index logs record first quarter | Seatrade Maritime](#)

⁵⁶ "High freight rates cast a shadow over economic recovery," UNCTAD, 18 Nov. 2021 <[High freight rates cast a shadow over economic recovery | UNCTAD](#) >

⁵⁷ Gauging shipping costs for Lebanon's manufacturing sector — which is dependent on imports of inputs — is difficult due to varied means of transport, for example bulk cargo vessels for raw unpacked goods such as steel and container vessels for many others. Also, the origin of goods affects prices, with transport from Turkey or western Europe cheaper than from east Asia.

⁵⁸ Owner of a trading company, KIL December 2022



By and large, KIIs indicated that increased shipping costs at least partially linked to the Ukraine conflict were a challenge. However, most agreed this paled in comparison to the costs associated with the economic crisis in Lebanon or the cost increases of the commodities themselves. The owner of a food processing company said that higher shipping costs “had an effect” on his business, but stressed this was “marginal” when compared to the price increases of the vegetable oil and sugar he was importing. These two goods, he said, had skyrocketed in price due to supply problems (Ukraine provided nearly 50% of vegetable oil to the world market),⁵⁹ speculation, and uncertainty caused by the war.⁶⁰ “For these items, the shipping cost increases were not that great,” he said, adding that they were currently sourced from regions geographically close to Europe, and not from East Asia or the Americas. The owner of a cardboard packaging business said that while shipping costs had been a challenge in late 2021, the factor was “no longer an issue, it has been solved.”⁶¹ The manager of a chemicals company, meanwhile, said that he did not think the Ukraine war had any impact on the shipping rates he paid, adding that rates from Turkey — where he sources solvents — had decreased in recent months.

Executives of pharmaceutical firms, for their part, said shipping costs increased for them, with one identifying as a knock-on effect of the conflict of the Ukraine war. Another explained that after the financial crisis started in Lebanon in the fall of 2019, his business had shifted to smaller orders of inputs via airfreight instead of larger orders via maritime transport. “Air freight costs have increased,” he said.⁶² Similar to maritime shipping, the comparatively small air freight market saw rates spike in 2020, with prices at the end of 2021 reaching 150% of those at the end of 2019.⁶³ Prices have since eased, with rates in the last week of November 2022 dropping 25% from their levels one year prior, despite higher jet fuel costs, according to market data by WorldACD.⁶⁴

Despite shipping costs rebounding by the end of the year, higher costs took a marked toll on Lebanese businesses across multiple sectors. However, the effects appear to be short-term, not as significant as increases in the prices of specific commodities, and do not stem from existing deficiencies in the Lebanese economy itself. While future spikes in shipping costs could harm import-dependent businesses, these added costs are a result of changes in the market upon which (potential) competitors in other countries must also contend.

⁵⁹ “Russia’s invasion of Ukraine heats up cooking oil prices in global squeeze,” NPR, Apr. 26, 2022 [Russia’s invasion of Ukraine heats up cooking oil prices in global squeeze](#)

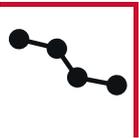
⁶⁰ Board member of Association of Lebanese Industrialists, member of Syndicate of Lebanese Food Industry Owners, owner of a food producer company, KII November 2022

⁶¹ Former head of Association of Lebanese Industrialists

⁶² Lab owner, KII November 2022

⁶³ “Air Cargo Market Analysis - December 2021,” International Air Transport Association (IATA) [Air Cargo Market Analysis December 2021 - IATA](#)

⁶⁴ “World ACD: Air cargo rates finally stabilise,” International Transport Journal, 5 Dec. 2022 [World ACD: Air cargo rates finally stabilise: ITJ | Transport Journal](#)



Agricultural Inputs

Russia's invasion of Ukraine has contributed to a rise in fertilizer prices and other energy-intensive products, according to the UN's Food and Agriculture Organization (FAO), which sounded the alarm that this will lead agriculture input prices to "rise considerably".⁶⁵ According to Lebanese Customs data analyzed by LCAT, Lebanon imported 44,190.2 MTs of mineral and chemical fertilizers in 2022. The country's imports in 2021 stood at 50,306,8 MTs, down significantly from 95,403.7 MTs in 2018, before the financial and economic crises hit Lebanon.⁶⁶ The ongoing decline in fertilizer imports, while, possibly, partly due to better practices and local production/substitution, is indicative of the damage the crisis is having on the agricultural sector, despite broader import levels rebounding in 2022 to pre-crisis levels.

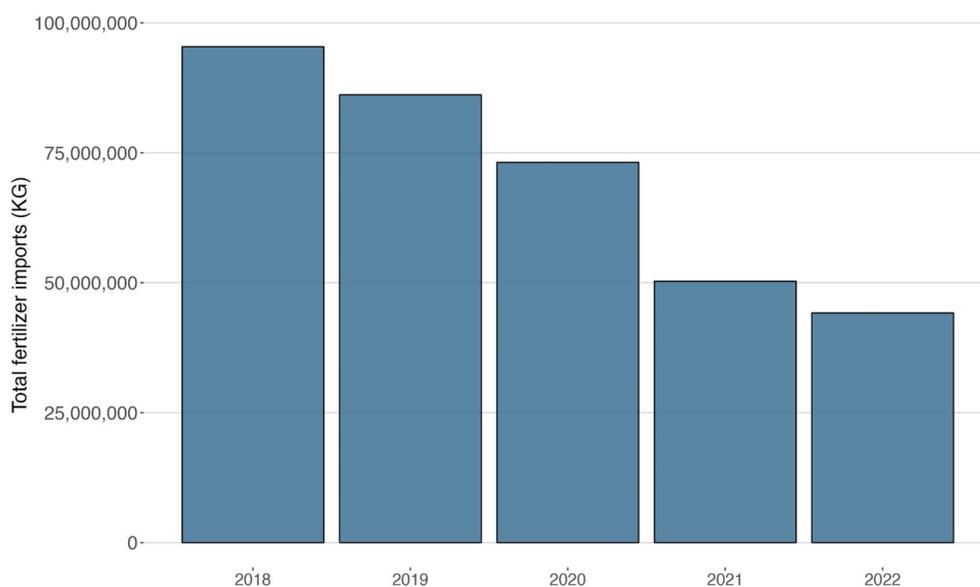


Figure 7: Total fertilizer imports to Lebanon 2018 to 2022 - compiled using Lebanese Customs Data

⁶⁵ "The Importance of Ukraine and the Russian Federation for Global Agricultural Markets and the Risk Associated with the War in Ukraine," UN's Food and Agriculture Organization, 10 Jun. 2022 [CL 170/6 - Impact of the Ukraine-Russia conflict on global food security and related matters under the mandate of the Food and A](#)

⁶⁶ Trade Statistics - Annual Statistics - By Country and HS6 [HS codes 3102.21 through 3105.90, all countries, 2022, 2021, and 2018 queries] [<customs.gov.lb/Trade_Statistics/Yearly/Country_HS.aspx?Report=By_Country_HS4>](#)

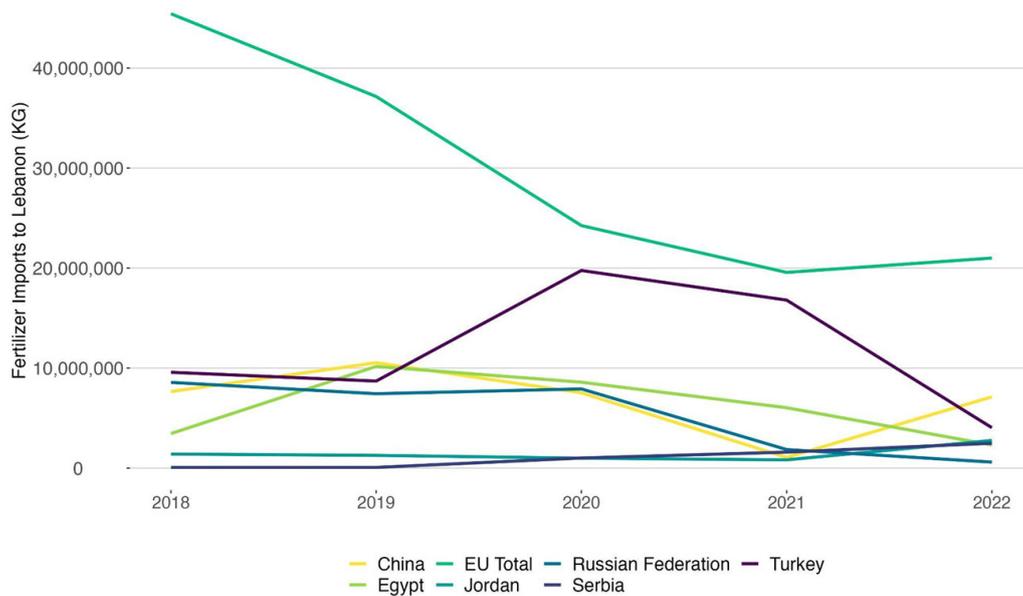
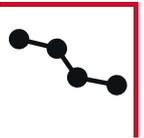


Figure 8: Fertilizer imports to Lebanon by country 2018 to 2022 - compiled using Lebanese customs data

KIIs noted that Lebanon was almost entirely reliant on imported fertilizers, with no domestic production of the key agricultural input other than a chemical plant in Selaata that makes phosphatic fertilizers. One importer said that this facility's production was mostly for exports.⁶⁷ Executives at three companies importing agricultural inputs to Lebanon said that the Ukraine war helped propel a rise in fertilizer prices, which had been surging since 2020, before prices started dropping in the latter half of 2022.⁶⁸ However, they emphasized that the recent drop in prices offers only scant relief for Lebanon's agricultural sector, already hard hit by the financial, economic and political crises in the country since 2019. Farmers lack credit facilities to properly finance the import of agricultural inputs, including fertilizers.⁶⁹ "In general, this year, we don't know what awaits agriculture [in Lebanon]. We are blind, it is speculation, the sector is under a lot of pressure," an executive at a major agricultural inputs importer cautioned.⁷⁰

An agriculture specialist and small-farm owner said that the country's agriculture sector is very fragmented, with a majority of farms being small to medium sized, whose farmers are vulnerable and have faced critical issues with financing since the 2019 banking crisis began.⁷¹ In a June 2022 study of Lebanon's agriculture sector, the FAO warned that the country was heavily dependent on the import of agricultural inputs, including fertilizer, as these imports are "dominated by an oligopolistic structure, which benefits only a few actors."⁷² Amid the worsening crises in Lebanon, KIIs noted a contraction in the fertilizer market, with the CEO of a regional agricultural input importer saying the market was down approximately 60% since 2019.⁷³ Another importer said that since the banking crisis started in October 2019, business was down 70%.⁷⁴

⁶⁷ Manager of family-owned fertilizer importer, KII Dec. 2022

⁶⁸ CEO of Agriculture company, KII Dec. 2022; Manager of family-owned fertilizer importer, KII Dec. 2022; COO of Agriculture company, KII Dec. 2022;

⁶⁹ Manager of family-owned fertilizer importer, KII Dec. 2022; COO of an agriculture firm, KII Dec. 2022; Agriculture specialist, small-farm owner, former employee of FAO and fertilizer importing firm, KII Dec. 2022

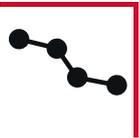
⁷⁰ COO of Agriculture company, KII Dec. 2022

⁷¹ Agriculture specialist, small-farm owner, former employee of FAO and fertilizer importing firm, KII Dec. 2022

⁷² "Food System Profile - Lebanon; Catalyzing the sustainable and inclusive transformation of food systems,"

⁷³ COO of Agriculture company, KII Dec. 2022

⁷⁴ Manager of family-owned fertilizer importer, KII Dec. 2022



Impact on Fertilizer Prices

In a May 2022 report, the World Bank cited multi-year price increases in fertilizers due to increasing input costs, supply disruptions due to sanctions on Russia and Belarus, and China's export restrictions on fertilizers, all of which have been exacerbated by the war in Ukraine.⁷⁵ Prior to the war in Ukraine, the World Bank noted an approximately 80% hike in fertilizer prices in 2021. By the end of 2022, fertilizer prices eased, though did not reduce to levels seen in 2021.

Similar to manufacturing inputs, fertilizer prices were affected by a range of factors throughout 2022, though Russia's pivotal position in the global market played a key role in price spikes. Russia is a key source in the global fertilizer supply chain, with the country ranking as the top exporter of nitrogen fertilizers, the third leading for phosphorus fertilizer, and the world's second-largest source of potassium, used for potassium fertilizer, according to the FAO's June 2022 assessment of the impact of the Ukraine war on food security.⁷⁶ Furthermore, Russia is a top source for natural gas, a key ingredient for the production of nitrogen fertilizers, the FAO said. Natural gas prices, along with the costs of other fuel sources important for the energy-intensive fertilizer industry, have spiked since Russia's invasion of Ukraine in February 2022.

KIIs noted that fertilizer prices in recent months have eased.⁷⁷ According to the World Bank's commodity index, the price of diammonium phosphate has dropped from a 14-year high of USD 954 per MT in April 2022 to USD 665.6 per MT in November 2022, while an organic fertilizer it tracks, urea, dropped from USD 856 per MT to USD 625 in the same time period.⁷⁸ One importer said "it is difficult to isolate one cause [of higher prices] from the other, all of the problems overlapped."⁷⁹ He added, "First came logistics issues with China, then the price of fuel went up after COVID-19 and then came the war in Ukraine, with Russia one of the biggest suppliers [of fertilizers]." Another importer said that the war in Ukraine had direct and indirect impacts on fertilizer prices, explaining that United States and European Union (EU) sanctions were complicating the global logistics of shipping from Russia — a top fertilizer supplier — while increased energy costs spurred by the war were driving up the costs of producing fertilizers.⁸⁰ The CEO of a regional fertilizer supplier operating in Lebanon said that "prices are going down for fertilizers, some dealers in Lebanon have high stock, while there is low demand."⁸¹ Another importer said purchases of fertilizers have dropped further in Lebanon as farmers and importers anticipate further drops in market prices.⁸² This could indicate market panic in the early days of the Ukraine conflict, in fear of (or to take advantage of) potential market fluctuations.

⁷⁵ "Fertilizer prices expected to remain higher for longer," World Bank Data Blog, 11 May 2022 [Fertilizer prices expected to remain higher for longer](#)

⁷⁶ "The Importance of Ukraine and the Russian Federation for Global Agricultural Markets and the Risk Associated with the War in Ukraine," UN's Food and Agriculture Organization, 10 Jun. 2022 <[CL 170/6 - Impact of the Ukraine-Russia conflict on global food security and related matters under the mandate of the Food and A](#)>

⁷⁷ CEO of Agriculture company, KII Dec. 2022; Manager of family-owned fertilizer importer, KII Dec. 2022; COO of Agriculture company, KII Dec. 2022;

⁷⁸ "Monthly Prices - 'Pink Sheet' Data - Publications and Data - Commodity Markets," World Bank, accessed Dec. 2022 [Commodity Markets](#)

⁷⁹ CEO of an Agriculture company, KII Dec. 2022

⁸⁰ Manager of family-owned fertilizer importer KII Dec. 2022

⁸¹ CEO of Agriculture company, KII Dec. 2022

⁸² Manager of family-owned fertilizer importer, KII Dec. 2022



Impact on Supply

Since 2018, the EU has been the main source of mineral and chemical fertilizers for Lebanon, making up approximately 30% to 50% of the market share, and notching its highest number in 2022, with just over 50%, according to LCAT's analysis of Lebanese Customs data. This data shows that Russia's share of the import market to Lebanon for mineral and chemical fertilizers ranged from 8.9% to 10.8% between 2018 and 2020, before dropping to 3.69% in 2021 and 1.37% in 2022.⁸³ Delving further into these trade statistics dating back to 2018, Russia has served as a source of imports for five of the 23 different types of fertilizer products. It has been one of Lebanon's top sources for diammonium phosphate, with a market share as high as 51.8% in 2020. This type of fertilizer, however, is not imported in great numbers into Lebanon, making up between 0.35% and 5.27% of imports by metric ton of fertilizers into the country between 2018 and 2022.⁸⁴

Prior to 2021, Russia was an important source for ammonium sulfate, the most commonly imported fertilizer to Lebanon by volume. Its market share ranged from approximately 25% to 30% of these imports from 2018 to 2020, according to trade data. The head of one of Lebanon's largest fertilizer importers said his firm was mainly importing from EU countries and did not face supply shortages due to the war in Ukraine. Another importer also said his company was not facing shortages or supply disruptions.⁸⁵

An importer said that ammonium sulfate has grown in popularity in Lebanon due to its cheaper cost.⁸⁶ He added that China is a primary source worldwide for this fertilizer. Lebanese trade data shows that ammonium sulfate imports, as a percentage of the total volume of the country's mineral and chemical fertilizers imports, is on a sharp upward trend since 2017, reaching a high of 39.3% of the market in 2022.⁸⁷ In 2022, China's exports of ammonium sulfate — which has been subject to fewer of Beijing's export restrictions and inspection requirements — Lebanon made up 41.4% of this product's market shares, the country's highest slice in the past five years.⁸⁸ One importer said that shipping costs from China to Beirut have dropped dramatically in recent months.⁸⁹ He added that other than ammonium sulfate, Lebanese farmers have sought out cheaper fertilizing products and used less of the input amid the debilitating financial and economic crises in the country. An agriculture specialist said this practice could lead to smaller and lower quality crop yields.⁹⁰

⁸³ Trade Statistics - Annual Statistics By Countries and HS6 [From HS6 31.02.00 to 31.05.99/All countries/2022, 2021, 2020, 2019, 2018 queries] <customs.gov.lb/Trade_Statistics/Yearly/Country_HS.aspx?Report=By_Country_HS6>

⁸⁴ Trade Statistics - Annual Statistics By Countries and HS6 [From HS6 31.02.00 to 31.05.99/Russian Federation/2022, 2021, 2020, 2019, 2018 queries] <http://customs.gov.lb/Trade_Statistics/Yearly/Country_HS.aspx?Report=By_Country_HS6>; Trade Statistics - Annual Statistics By HS6 [From HS6 31.02.00 to 31.05.99/2022, 2021, 2019, 2018, 2017 queries]

<customs.gov.lb/Trade_Statistics/Yearly/Country_HS.aspx?Report=by_hs6>

⁸⁵ CEO of Agriculture company, KII Dec. 2022; Manager of family-owned fertilizer importer, KII Dec. 2022

⁸⁶ Manager of family-owned fertilizer importer, KII Dec. 2022

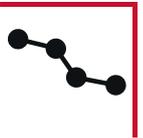
⁸⁷ Trade Statistics - Annual Statistics By HS6 [From HS6 31.02.00 to 31.05.99/2022, 2021, 2019, 2018, 2017 queries] <customs.gov.lb/Trade_Statistics/Yearly/Country_HS.aspx?Report=by_hs6>

⁸⁸ "China reduces fertilizer exports to Brazil in 50% this year," Valor International, 5 Dec. 2022

<[China reduces fertilizer exports to Brazil in 50% this year | Agribusiness | valorinternational](https://www.valorinternational.com/news/china-reduces-fertilizer-exports-to-brazil-in-50-percent-this-year)>

⁸⁹ Manager of family-owned fertilizer importer, KII Dec. 2022

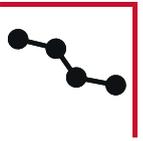
⁹⁰ Agriculture specialist, small-farm owner, former employee of FAO and fertilizer importing firm, KII Dec. 2022



Conclusion

The war in Ukraine shined a light on Lebanon's pre-existing structural vulnerabilities and exacerbated them in ways not necessarily predictable nor linear. As in countries across the world, the Ukraine conflict exacerbated challenges faced by Lebanon's import-dependent sectors. While effects varied across countries and commodity prices largely settled by the end of the year, the 2022 supply crunch and resulting higher prices highlighted Lebanon's existing vulnerabilities in a marked way. Many import-dependent sectors found ways to cope - most often entailing higher costs and adjusting how their businesses operate - but this must be understood in the context of the economic and monetary collapse. Many businesses across the country were previously forced to downsize their workforce and/or implement other cost-cutting measures, in addition to a range of other coping mechanisms. Consequently, a rebound in commodity prices did not provide a major reprieve to businesses. Instead, 2022 highlighted existing deficiencies, exacerbated them, and offered a view of how future commodity price hikes could negatively affect the country in a more severe and sustained way.

Accordingly, the "passing storm" of 2022 should be understood as a wakeup call to government actors, foreign governments which ostensibly support Lebanon's post-2019 recovery, and aid agencies which seek to affect the lives of citizens directly and positively. All factors which predated the Ukraine conflict and those exposed during the war remain in place, amid a protracted political paralysis which has seen governance grind to an effective halt.



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