



Chapter 9: Russia's Agri-Food Trade with the Middle East and North Africa

*Maximilian Heigermoser, Tinoush Jamali Jaghdani,
and Linde Götz*

1 INTRODUCTION

As Russia's food exports started to increase substantially with the turn of the millennium,¹ the Middle East and North Africa (MENA) region became the most important destination region, particularly for grain exports.² Due to unfavourable climatic and soil conditions, most MENA countries are dependent on grain imports, as domestic production does not meet consumption. While around one-third of Russia's food exports were destined for MENA countries in 2019, the region's share exhibited a slight downward trend over the past decade, while agricultural exports to Asian markets gradually increased. From 2011 to 2019, Russia's total

M. Heigermoser (✉) · T. J. Jaghdani · L. Götz
Leibniz Institute of Agricultural Development in Transition Economies
(IAMO), Halle, Germany
e-mail: heigermoser@iamo.de

T. J. Jaghdani
e-mail: jaghdani@iamo.de

L. Götz
e-mail: Goetz@iamo.de

© The Author(s) 2022
S. K. Wegren and F. Nilssen (eds.), *Russia's Role in the Contemporary
International Agri-Food Trade System*, Palgrave Advances
in Bioeconomy: Economics and Policies,
https://doi.org/10.1007/978-3-030-77451-6_10

food exports more than doubled from \$12 billion USD to over \$25 billion USD, and in 2018 the government's declared its objective to increase the volume of food exports to \$45 billion USD by the year 2024.³ The government subsequently had to back off the target date of 2024, but food exports by that date were still expected to be significantly higher than the base year of 2017. Simultaneously, food imports decreased during the immediate period following Russia's decision to implement a complete ban on agricultural imports from Western countries in August 2014. In 2015 Russia's imports fell by almost a third compared to 2014, from 39 billion USD to \$27 billion USD, although after 2016 the dollar value of imports began to rise again.⁴

Russia's primary agricultural export item is grain, which accounted for 37 percent of the country's food exports between 2011 and 2019. Wheat is Russia's most important grain export product, accounting for more than 75 percent, followed by barley (11 percent) and maize (11 percent). In the 2015/2016 season, Russia became the world's largest wheat exporter for the first time, a position it has mostly maintained since then.⁵ While fish and crustaceans are important food export products, primarily for East Asian markets such as China (frozen fish) and South Korea (crustaceans), the MENA market region is Russia's key market for grain exports. Only 70 percent of grain consumed in this region is produced domestically,⁶ while the rest, 90 million tonnes annually, is imported, with Russia and further Black Sea exporters playing an increasingly important role. Against this background, this chapter primarily focuses on Russian wheat exports to the MENA region, while barley, maize, and sunflower oil exports are considered when relevant. We also consider Russia's food imports from the MENA region, which are small compared to exports and mostly consist of fruit, nuts, and vegetables.

We focus on Russia's top four destination markets within the MENA region, namely Egypt, Turkey, Iran, and Saudi Arabia. Jointly, these four countries accounted for close to two-thirds of Russia's food exports to the whole region from 2011 to 2019, while 55 percent of Russia's food imports from MENA originate from these four countries. Grain is the main commodity of this food trade relationship; Egypt and Turkey are the two top wheat export markets for Russia, while Saudi Arabia is the primary destination market for Russian barley. Food trade is largely unidirectional considering Egypt, Iran and especially Saudi Arabia, while Turkey is also a significant supplier of fruits and vegetables to Russia. Considering Russia's total food exports, Turkey is the most important

destination market followed by China and Egypt, while Iran and Saudi Arabia fall into the top ten. Regarding Russia's most important suppliers of food, Turkey is fifth, trailing Belarus, Brazil, China, and Germany.

In most MENA countries, including the four considered, State Trading Enterprises (STEs) that manage food imports play a major role in food trade and food security.⁷ In most instances, these agencies have a dominant, if not monopolistic position, as primary or exclusive importers of grain in the respective countries. The Egyptian General Authority for Supply of Commodities (GASC), the Turkish Grain Board (TMO), the Saudi Grains Organisation (SAGO), and the Iranian State Livestock Affairs Logistics (SLAL) purchase agricultural commodities on international markets by employing tender systems in order to foster competition among suppliers. These tender markets constitute a central characteristic of the considered regional food trade. Another key feature of Russian food trade with MENA countries is the recurrent disruption caused by political disputes or rapprochement between the respective countries.⁸ Further, food trade is frequently impacted by conflicts about the quality and compliance with phytosanitary standards for the supplied products.

In the following, we first briefly outline central characteristics of Russian grain exports, before presenting four individual descriptive analyses of Russia's food trade relationships with Egypt, Turkey, Saudi Arabia, and Iran. We finally project future trends and scenarios in the outlook.

2 GENERAL CHARACTERISTICS OF RUSSIAN GRAIN EXPORTS

Russian customs data shows that close to 90 percent of Russia's grain exports flow through ports located at the Black Sea, while smaller quantities are exported by train or via ports at the Caspian Sea, the Baltic Sea, or Far Eastern ports.⁹ The deep-water port of Novorossiysk is central to Russia's grain exports via the Black Sea.¹⁰ Together with Tuapse and Taman, Russia's three deep-water ports handle 60 percent of grain exports shipped via the Black Sea. The remaining 40 percent are managed by smaller ports located at the Azov Sea and up the Don River, such as Azov, Rostov-at-Don, Taganrog, and Yeysk. These shallow water ports handle smaller vessels with capacities reaching up to 25,000 tonnes. Turkey—the geographically closest among the four considered trading partners—is usually supplied by these smaller vessels, while barley gets

shipped to Saudi Arabia by larger panamax vessels exclusively. In the case of Iran, grain trade partly flows via Black Sea ports and partly via smaller ports located at the Caspian Sea, most notably Astrakhan.

Russian grain exports generally show a strong seasonal pattern. Export volumes are high in the summer months of July through September, when wheat is exported right after the harvest. Elevated exports can be observed until the end of the year before they decrease during the winter and spring months. This pattern partly results from a lack of adequate, modern storage infrastructure, as Russian farmers have no alternative to exporting the new crop right after the harvest, having to accept low prices at the start of a marketing year. However, in recent years, additional storage facilities were set up in Russia. While the United States Department of Agriculture (USDA) estimated Russia's grain storage capacities at 119 million tonnes in 2017,¹¹ this capacity was estimated at 157 million tonnes in 2019. It can thus be expected that the strong seasonality pattern of Russian grain exports will be dampened in the future.¹²

The climatic and soil conditions in Russia's main agricultural producing regions are generally favourable to grain production. However, Russia's recent ascent as a top wheat exporter also results from a strong devaluation of the Russian ruble since 2014, which supported the competitiveness of Russian exports on the international market.¹³ Furthermore, due to close geographical proximity to important destination markets such as Egypt, Russia and further Black Sea exporters, like Ukraine and Romania, benefit from freight cost advantages when competing with other major exporting countries such as France, the United States, or Australia.¹⁴ As agricultural commodities—and grains in particular—have a low value-to-weight ratio, differences in freight costs can become a decisive factor in determining the overall competitiveness of specific exporters in contested destination markets.

3 FOCUS ON SPECIFIC MENA COUNTRIES

3.1 *Egypt*

Egypt is the world's largest wheat importer, buying around 12 million tonnes per season, as its domestic production only covers 42 percent of its total consumption.¹⁵ Around half of Egypt's wheat imports are handled by the General Authority for Supply of Commodities (GASC), a STE responsible for the procurement of foodstuffs. In fulfilling its mandate,

the GASC alone imports as much wheat as the whole of Japan, making the agency a dominant single player on the international market. To purchase wheat, as well as other food commodities such as rice, soy oil, or sunflower oil, the agency employs a tender system. The GASC usually issues wheat tenders every two weeks, buying three to four cargoes of 60,000 tonnes originating from the destinations that are currently most competitive. GASC tenders are closely watched by the global grain trade, as Egypt is geographically located at a vital chokepoint of international trade, namely the Suez Canal. Therefore, being competitive in GASC tenders typically also implies competitiveness in destination markets beyond the canal, which grants high informational value to the outcome of Egypt's wheat tenders.¹⁶

The wheat that GASC purchases is processed domestically to produce *baladi* flat bread. This staple food is sold at subsidised prices to Egyptians with lower incomes. Egypt's bread subsidy programme is a politically sensitive issue and efforts to abolish or reform the subsidy system repeatedly caused uprisings and riots.¹⁷ Over the past two decades, Russia and further Black Sea exporters such as Ukraine and Romania have steadily increased their share in the GASC tender market, mostly at the expense of the United States, which had been the top wheat supplier to Egypt for decades. From the 2015/2016 agricultural year onwards, at least 80 percent of wheat imported by the GASC originated from the Black Sea region, with Russia alone accounting for between 40 and 80 percent. This compares to an average share of 33 percent between the 2005/2006 and 2008/2009 agricultural years. As a result of the increasing share of Black Sea wheat in the Egyptian market, the United States Wheat Associates, the U.S. wheat industry's export market development agency, closed their Cairo office in December 2017.¹⁸

Russia exports significant amounts of wheat and sunflower oil to Egypt, while importing fruits and vegetables from the North African country (see Fig. 1). The food trade between the two countries has repeatedly been affected by conflicts over product quality and compliance with phytosanitary standards regarding the shipped commodities. A major Russo-Egyptian food trade dispute arose after Egypt imposed a zero-tolerance policy regime regarding ergot contamination¹⁹ in wheat cargoes shipped to the GASC on 28 August 2016. After requiring that wheat shipped to the GASC must contain zero ergot, which is practically impossible for traders to ensure when wheat is delivered in bulk, Egypt rejected cargoes from Romania and Russia in early September 2016, as

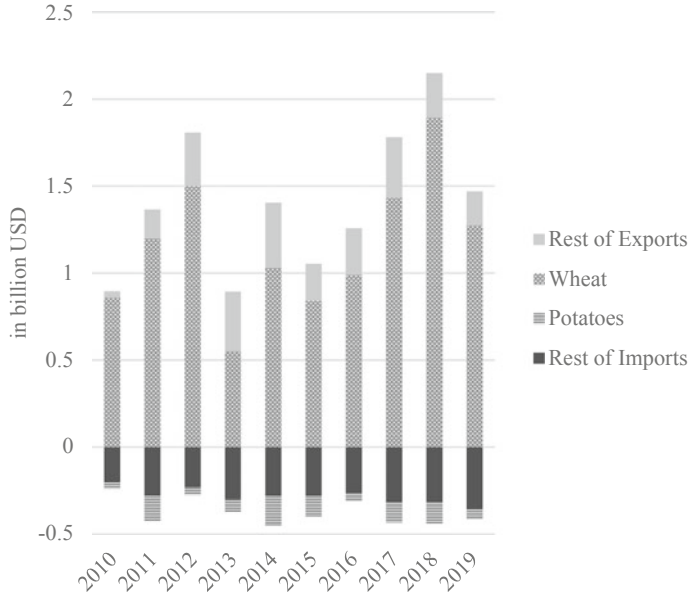


Fig. 1 Russia's Agri-Food trade with Egypt, 2010–2019 (*Source* UN Comtrade. *International Trade Statistics Database*. <https://comtrade.un.org/>, Accessed 18 August 2020)

they failed to meet the newly established quality standards.²⁰ In response, wheat traders boycotted several GASC wheat tenders that the agency had to cancel due to a lack of offers. On 16 September, the Russian government announced that fruit and vegetable imports from Egypt would be temporarily halted starting 22 September, due to concerns over food safety. Shortly after, on 21 September, the Egyptian government decided to cancel the zero-tolerance ergot policy.²¹ This was followed by the resumption of fruit and vegetable imports from Egypt to Russia on 26 September. Importantly, however, the resumption of food imports did not include Egyptian potatoes, its second most important export to the Russian market after citrus fruits, which remained banned from entry to the Russian market until 14 December (see Fig. 1). Russia itself is a large producer of potatoes and could become a net exporter of potatoes in the future after becoming virtually self-sufficient in potato production recently.²²

In a similar trade dispute, several shipments of Egyptian potatoes were initially rejected at Russian ports in March and May 2018 due to the cargos reportedly being infested with brown rot disease.²³ On 31 May, Egyptian officials rejected a cargo of Russian wheat because it exhibited ergot contamination levels of 0.06 percent, exceeding the acceptable level of 0.05 percent.²⁴ Two days after the rejection of the cargo, the Russian government announced that potato imports from specific Egyptian regions that had previously been banned would resume on 6 June 2018. Conducting a second test on ergot levels of the respective Russian wheat cargo, Egyptian officials concluded that the wheat contained 0.01 percent ergot and was therefore allowed to enter the country. However, even as potato exports to Russia resumed, the potato trade volume still declined from \$120 million USD annually in 2014 through 2018 to \$60 million USD in 2019 (see Fig. 1). While adjustments in trade policy and phytosanitary standards by the Egyptian and Russian governments are usually not explicitly implemented as a response or in retaliation to steps taken by the other side, the sequence of policy changes displayed above suggests that the food trade between the two countries is strongly affected by political considerations.

In 2017, several reports published by Reuters portrayed widespread corruption in the Egyptian food procurement system, with government officials allegedly taking bribes in order to guarantee seamless passage of wheat into Egypt.²⁵ While the effort to curb corruption resulted in arrests of several government officials responsible for Egypt's food supply, disputes over ergot levels in wheat cargos and adjustments to the quality inspection procedures employed by the GASC continue to cause friction within Egypt's food trade. However, it can be expected that Russia will remain the uncontested top supplier of wheat to Egypt and the GASC due to its competitively priced wheat and the freight cost advantages it enjoys in comparison to competing origins such as the United States or France.

3.2 *Turkey*

Turkey is Russia's most important trading partner in the MENA region with an average annual food trade volume of \$3.15 billion USD from 2017 to 2019 (see Fig. 1). Food trade, however, constituted only 13 percent of total trade between the two countries over the past decade, as Turkey—a country dependent on energy imports—predominantly

buys natural gas and crude oil from Russia, making energy trade the prior component in the economic relationship between the two countries located at the Black Sea. Turkey is mostly self-sufficient in wheat and barley production, while total corn consumption exceeds domestic production by around 40 percent. However, grains and wheat in particular still account for more than 55 percent of Turkey's food imports from Russia (see Fig. 2), with excess wheat quantities being processed into wheat flour, which Turkey exports to destination markets in the MENA region, foremost Iraq, as well as Syria and Yemen. With a market share of 20 percent and exports worth \$1 billion USD per year, Turkey is the world's largest wheat flour exporter, followed by Kazakhstan (10.5 percent) and Germany (6.5 percent).²⁶

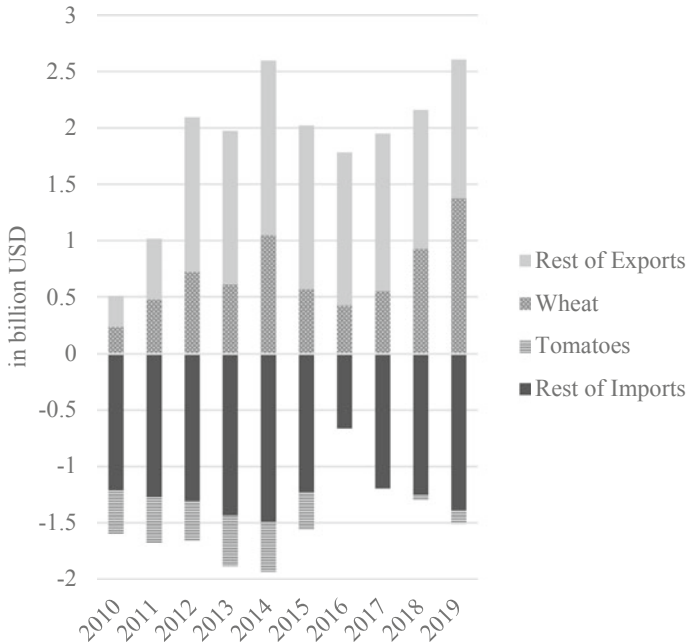


Fig. 2 Russia's Agri-Food trade with Turkey (Source UN Comtrade. *International Trade Statistics Database*. <https://comtrade.un.org/>, Accessed 18 August 2020)

Similar to Egypt, Turkey's grain imports are managed by a state procurement agency, the Turkish Grain Board (TMO). The TMO covers Turkey's wheat and feed corn imports and also purchases feed barley if domestic production does not meet consumption. While the TMO, like its Egyptian counterpart, predominantly purchases Russian wheat, it contrasts the GASC by sourcing grain from smaller Russian shallow water ports located at the Azov Sea and up the Don River, most notably the ports Azov and Rostov-on-Don. Shipping grain using large panamax vessels enables economies of scale if geographically distant destination markets are supplied. Turkey, however, is located in close geographical proximity to the Russian grain export facilities and the TMO thus purchases numerous smaller parcels of between 10,000 and 30,000 tonnes in its grain tenders. Grain exports from Russia's shallow water ports show particularly strong seasonality patterns as some port facilities become inoperable in the winter months due to cold temperatures.²⁷

In spite of the generally strong economic entanglement between Russia and Turkey, bilateral food trade was highly affected by political tensions between the two countries in recent years.²⁸ On 24 November 2015, a Russian fighter jet operating in Syria was downed by the Turkish military close to the country's border. In response, Russia introduced an extensive package of sanctions against Turkey, including a ban on imports of Turkish food products such as tomatoes, onions, cucumbers, grapes, apricots, apples, chicken products, and salt, while imports of lemons and nuts remained unrestricted just like the energy trade that is central to the bilateral trade relationship.²⁹ After these trade restrictions took effect on 1 January 2016, the Kremlin announced in late June 2016 that Ankara had apologised for downing the military jet. Subsequently, after a meeting between the two countries' presidents in St. Petersburg in early August 2016, the intent to 'normalise' the bilateral relationship and a gradual lifting of the Russian import restrictions were announced.³⁰

As a consequence of the implemented trade restrictions, Russia's food imports from Turkey decreased by more than 50 percent, from \$1.5 billion USD per year between 2011 and 2015 to \$663 million USD in 2016 (Fig. 2). Conversely, Russian food exports to Turkey only showed a modest decrease of around 15 percent in 2016. After the agreement to gradually resume food trade in late 2016, Russia's food imports from Turkey rebounded to around \$1.25 billion USD per year in 2017 through 2019, still standing below the levels recorded prior to 2016. This gap in trade volume is almost entirely resulting from diminished imports

of Turkish tomatoes, which remained restricted after 2016. Exempting tomatoes from the resumption of food trade corresponds to an effort by the Russian government to support domestic tomato production to ultimately reach self-sufficiency. Indeed, Russian vegetable greenhouse production grew by around 12 percent annually over the past five years.³¹

As Russia's ban on Turkish tomato imports remained in place, Turkey removed Russian food products, most notably wheat, corn, and sunflower oil, from its tax-free import licence list on 15 March 2017, which effectively barred all Russian food exports to Turkey.³² Following another meeting between the state leaders in Sochi, Russian food exports to Turkey resumed in May 2017, while the ban on Turkish tomato imports was, however, only partially relaxed and converted to an import quota that came into effect on 1 November 2017.³³ This new policy regime allowed only a small number of Turkish companies to sell tomatoes to Russia, which prompted Ankara to threaten a similar limitation on the number of Russian companies accepted to ship food products to Turkey on 19 March 2018.³⁴ In late April 2018, the limitation on the number of trading companies allowed to sell tomatoes to Russia was finally removed, while the import quota remained unchanged until 28 March 2019, when a tripling of the quota to 150,000 tonnes was announced. This policy adjustment followed an announcement by the Turkish government to implement a 5,000-tonne tax-free import quota per year for beef imports from Russia.³⁵ A further increase of the Russian import quota to 200,000 tonnes was announced on 26 February 2020. However, as Turkish tomato exports to Russia amounted to around 340,000 tonnes per year before 2016 and in light of Russia's expansion of greenhouse vegetable production over the past five years, a further increase or abolishment of the import quota is likely to have little effect on Turkey's total tomato exports to Russia.

3.3 *Saudi Arabia*

Until 2016, food trade between Russia and Saudi Arabia was practically limited to Russian barley exports (Fig. 3). For several decades, Saudi Arabia has been the world's largest barley importer with annual imports of around 7.5 million tonnes and a market share of around 30 percent.³⁶ Today, Saudi Arabia is entirely dependent on the import of barley, which is used as animal feed in the country. Since the early 2000s, Saudi Arabia sources around 40 percent of its barley from the Black Sea

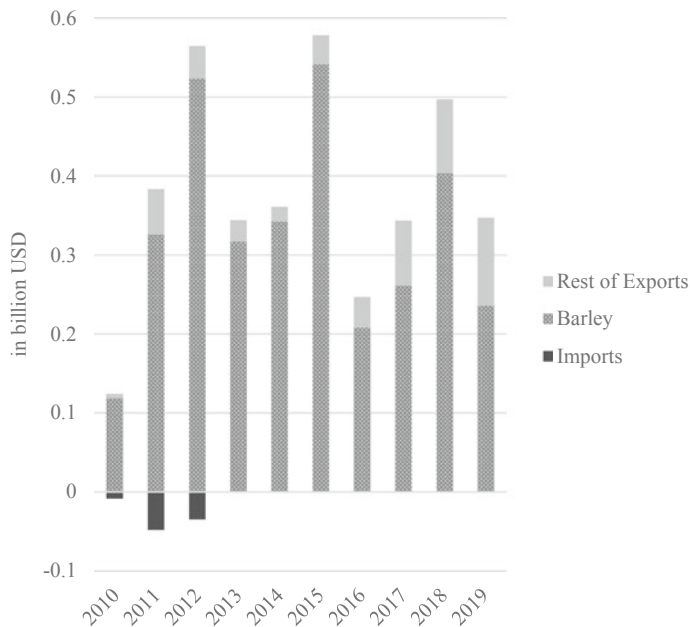


Fig. 3 Russia's Agri-Food trade with Saudi Arabia (Source UN Comtrade. *International Trade Statistics Database*. <https://comtrade.un.org/>, Accessed 18 August 2020)

region, primarily from Ukraine, followed by Russia. In particular years, the Black Sea market share has even exceeded 60 percent. While Saudi Arabia is still the top destination for Russian barley exports, its share has decreased from 60 percent between 2011 and 2015 to 40 percent since 2016, while exports to other MENA countries, particularly Iran and Jordan, increased substantially.

Currently, Saudi Arabia is also among the top 20 wheat importers in the world. However, the country only started importing grain on a large scale in 2008. In the early 1980s, Saudi Arabia had formulated an extensive self-sufficiency policy encouraging and supporting domestic wheat production projects, which were entirely based on irrigation.³⁷ This policy enabled the country to indeed become a sizeable wheat exporter between 1985 and 1994,³⁸ before domestic wheat production was scaled back to only supply the domestic market. Due to serious concerns about

depleting water reserves, the irrigation-intensive wheat production was gradually phased out between 2007 and 2016. During this time period, Saudi Arabia's wheat imports increased steadily to ultimately reach 3.4 million tonnes annually. In November 2015, the Saudi Grains Organization (SAGO) was established to manage the country's grain imports.³⁹ The SAGO has a monopoly on the import of milling wheat and is responsible for the vast barley imports, as well. Feed corn, of which Saudi Arabia is also a major importer, is imported by private companies. Similar to the countries discussed previously, the SAGO employs a tender system to purchase grains on the international market. Compared to its counterparts in Egypt and Turkey, the SAGO issues tenders rather infrequently (i.e. roughly every two months) and then buys large quantities at once.

After years of bilateral negotiations, Russian wheat was approved to be offered in SAGO tenders on 8 August 2019.⁴⁰ Precisely, tolerated bug damage levels for Russian wheat were adjusted from a practically prohibitive 0 percent level to a manageable level of 0.5 percent. The decision was announced after samples of Russian wheat were sent to Saudi Arabia in late 2018 and multiple meetings between government officials had taken place to discuss amending the quality specification. After Saudi Arabia became a wheat importer, Russian wheat was initially allowed to enter the country. However, a Russian wheat cargo exhibiting strong contamination with the sunn pest on arrival prompted the government to effectively ban Russian wheat in 2012.⁴¹ Following re-approval, the first two cargos of Russian wheat purchased in SAGO tenders were sent to Saudi Arabia in April and May 2020.⁴²

The opening of the Saudi Arabian market for Russian wheat must be seen in the context of a steadily improving relationship between the two countries in recent years. After bilateral relations reached a low point due to opposing involvements in the Syrian civil war, Saudi Arabia and Russia, the two largest crude oil exporters worldwide, initially started to cooperate in oil markets in 2016 in view of crude oil prices falling to historic low levels.⁴³ An agreement to cut oil production between the Organization of Petroleum Exporting Countries (OPEC)—which is virtually led by Saudi Arabia—and Russia was signed on 10 December 2016, resulting in rising oil prices in the following years. Similarly, food exports from Russia to Saudi Arabia, which had halved from around \$500 million USD annually in 2012 through 2015 to \$250 million USD in 2016, returned to previous levels (see Fig. 3). Additionally, since 2016, Russia's food exports to Saudi Arabia show a gradual diversification, as cocoa products, as well

as poultry, started to be exported to Saudi Arabia in 2017 and 2018, respectively. This resulted in a decreasing share of barley in Russia's food exports to Saudi Arabia, from 95 percent in 2014 to 68 percent in 2019.

On 14 October 2019, during the first state visit by the Russian president Vladimir Putin to Riyadh since 2007, the heads of state signed a comprehensive Memorandum of Understanding (MoU) aiming to further improve the bilateral relationship. Alongside various agreements on joint investments and expanded cooperation, both governments reaffirmed their intent to increase the mutual food trade. Particularly, the Russian side expressed interest in the export of animal and dairy products, among others, while Saudi Arabia proclaimed the intent to export fish and shrimp products, as well as fruit and dates to Russia.⁴⁴ During a preceding bilateral meeting in early September 2019, the Russian Minister for Agriculture had underlined the goal of quadrupling Russian food exports to Saudi Arabia to reach USD 2 billion in 2024.⁴⁵ The MoU should be seen in the context of his ambitious goal regarding the food trade volume between the two countries.

3.4 *Iran*

After the collapse of the Soviet Union, there was bilateral political will to expand trade relations between the Russian Federation and the Islamic Republic of Iran (Iran, hereafter). The 'Look to the East' policy defined by Tehran in 2006,⁴⁶ promoted the improvement of Iran's economic and political relations with Russia and China after many years of a no-alliance policy.⁴⁷ However, while the bilateral economic relationship remains insignificant if total trade is considered, agricultural and food trade has increased substantially since 2017 (see Fig. 4). In 2018, Iran had imported food products worth \$856 million USD from Russia, while food exports to Russia showed a volume of \$450 million USD.⁴⁸ As such, the Russo-Iranian food trade accounted for around two-thirds of the total trade between 2017 and 2019. Russia and Iran both have large oil and natural gas reservoirs, and both depend on fossil fuel exports. However, Iran has an arid to semi-arid climate and is confronted with severe water scarcity issues. Despite this fact, Iran has implemented self-sufficiency policies, particularly for its domestic grain production, which is affected by varying levels of precipitation. As Russia turned into a major grain exporter, Iran has started to diversify its cereal import portfolio by relying more on Russia, while imports from other countries remain

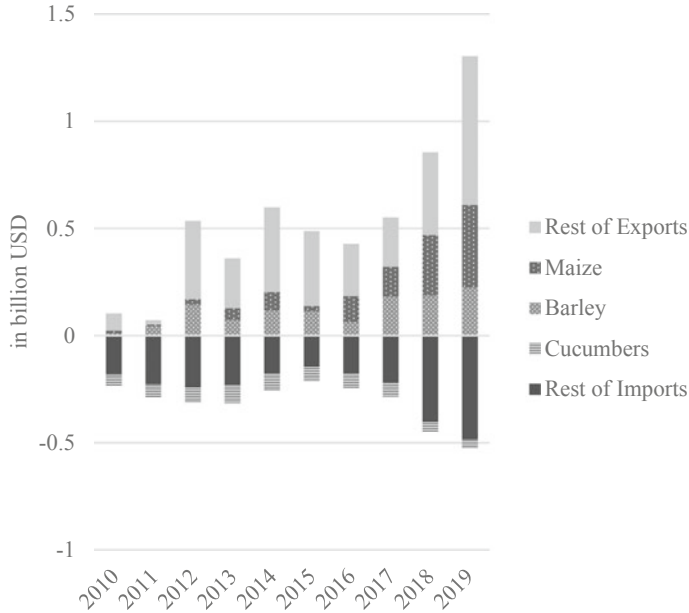


Fig. 4 Russia's Agri-Food trade with Iran (Source UN Comtrade. *International Trade Statistics Database*. <https://comtrade.un.org/>, Accessed 18 August 2020)

substantial, as well.⁴⁹ In 2018, maize was Iran's primary food import from Russia followed by sunflower oil and barley. The top food exports from Iran to Russia are fruits, nuts, and vegetables. It must be added that there is a volatile pattern of Iranian wheat imports from Russia, which mainly depends on the domestic wheat production in Iran and thus on annual precipitation levels (see Fig. 4).⁵⁰

While Russia and Iran do not have a land border, they are connected by the Caspian Sea and its sea transport facilities. The food trade over the Caspian Sea is mainly conducted via the Russian port of Astrakhan and the ports of Amirabad and Anzali in Iran. However, bilateral seaborne trade is impeded by a lack of adequate infrastructure, as well as bureaucratic hurdles. For instance, the available port facilities are not well prepared for handling container trade, as well as the storage of fresh agricultural products.⁵¹ Furthermore, non-Russian ships are only allowed to use inland waterways in Russia after paying a fee of \$30,000 USD. As this

fee is essentially prohibitive, non-Russian vessels need to either unload cargos at the ports of Astrakhan or Makhachkala or switch to Russian vessels.⁵² Facing these impediments, a mutual protocol aimed at the improvement of trade infrastructure and the reduction of bureaucratic hurdles was signed in 2020.⁵³ Furthermore, the first permanent container shipping line between Iran and Russia was planned to be established in September 2020, which could increase the trade of fresh food products.⁵⁴ Further reports have announced the construction of additional Russian port infrastructure in Lagan at the Caspian Sea, which could also facilitate food trade with Iran.⁵⁵ Railway and road infrastructure between Russia and Iran is not well developed and the contribution of non-marine transport of agricultural commodities is currently low. On the Iranian side, the constant intervention of the government in the domestic agricultural market is another issue that impedes the long-term provision of fruit and vegetable exports to the Russian market, as a state organisation called the Market Control Centre frequently implements restrictions on the export of agricultural and food commodities once food shortages appear in Iran.⁵⁶

Despite the deficiencies in transport infrastructure, bilateral food trade has increased in recent years and can be expected to further develop in the future. After years of negotiations, on 27 October 2019, a free trade agreement between the Eurasian Economic Union and Iran took effect.⁵⁷ This was an important decision for expanding Iran's trade relationships with former members of the Soviet Union, and Russia in particular. The main objective of the agreement is the liberalisation and facilitation of the trade between the parties through, *inter alia*, reduction, or elimination of tariff and non-tariff barriers.⁵⁸ This interim preferential trade agreement should lead to a free trade agreement within three years (Article 1.3, §3). At its primary stage, the EAEU-Iran interim preferential trade agreement (PTA) covers approximately 55 percent of the total trade between the partners and focuses on selected agricultural and industrial products. Iran grants preferential treatment for meat and other food commodities, as well as metals, electronics, and other items. The average import tariff applied by Iran to imports from the EAEU is reduced from 22.4 percent to 15.4 percent for manufactured commodities and from 32.2 percent to 13.2 percent for agricultural commodities. A total of 360 commodity categories are covered in the agreement. Furthermore, Iran receives preferential treatment for exports of fruits and vegetables and other selected products. The average import tariff applied by the EAEU

on Iran is reduced for agricultural commodities from 9.6 percent to 4.6 percent and for industrial commodities from 8 percent to 4.7 percent, with 502 commodity categories being covered.⁵⁹ The available data on tariff changes show, however, that barley and corn are not included in the list of goods with reduced tariffs by Iran at this stage. Conversely, there are complaints that the agreement disregards goods that are important to Iranian producers and exporters. While tariff reductions on additional goods could be considered in the next round of negotiations,⁶⁰ the trade between Iran and EAEU has already increased compared to the same period before the agreement, despite the presence of U.S. sanctions against Iran since 2018.⁶¹ A first study investigating the effects of this EAEU-Iran free trade agreement employing a gravity model framework projected a higher increase of exports by EAEU members to Iran than by Iran to the other EAEU members.⁶²

4 OUTLOOK

This chapter examined Russia's food trade with its top four destination markets in the MENA region. Food trade is the most important component of the bilateral economic relationships with Saudi Arabia, Iran, and Egypt, which are energy net-exporters like Russia. Regarding Turkey, the sole energy net importer among the considered cases, food trade only accounts for 13 percent of total trade with Russia, which is dominated by energy trade. In all four cases, Russian food exports to the MENA clearly outweigh its food imports. Due to unfavourable climatic conditions, the majority of MENA countries are unable to produce enough grain to meet the consumption of growing populations and Russia thus emerged as a main supplier of wheat, as well as barley and maize for the neighbouring region. After Saudi Arabia approved the import of Russian wheat in August 2019, only few MENA countries continue to disallow the import of Russian wheat, most notably Algeria, the world's third-largest wheat importer, as well as Iraq.⁶³ However, regardless of Algeria approving wheat imports from Russia, its overall grain exports to the MENA region are unlikely to increase much further in the future, as the region already sources most of its grain from Russia or competing Black Sea exporters, such as Ukraine, Kazakhstan, or Romania.

As a consequence, a goal outlined by Russian trade officials is the diversification of Russia's food exports, and thus the development of new destination markets for food export products other than grains and

vegetable oils. In this respect, Russia recently started to export notable amounts of chocolate products and poultry meat to Saudi Arabia, which had previously almost exclusively imported barley from Russia. This diversification in Russia's exports to the high-income gulf country follows an improvement in the bilateral relations due to a fruitful cooperation in the energy market since 2016 and corresponds to Russia's proclaimed effort to quadruple food exports to Saudi Arabia by 2024. Since 2018, growing volumes of chocolate products and lamb meat have also been exported to Iran. Russo-Iranian food trade shows a clear upward trend after Iran's free trade agreement. Regarding Egypt and Turkey, total food trade does not exhibit a clear upwards or downwards trend over the past decade.

The considered food trade relationships are strongly shaped by political disputes and/or the improvement of diplomatic ties. Russia appears to use import restrictions on specific food products as an instrument of support for domestic production to substitute its imports, reach self-sufficiency and even gain the capacity to export, an approach that several studies focusing on Russia's import restrictions versus Western countries in 2014 have previously analysed.⁶⁴ The trade dispute surrounding the imports of Turkish tomatoes especially illustrates how Russian import quotas are maintained to (successfully) encourage domestic greenhouse tomato production. Regarding food trade between Russia and the MENA countries, food exports are often restricted using non-tariff measures, as products are rejected over concerns about food safety, product quality or the alleged non-compliance with prevailing phytosanitary standards. While it must be expected that non-compliant food cargos be rejected from government agencies that control the quality of food imports, the sequence of cargo rejections in the considered cases suggests that the product quality tests are partly influenced by bilateral political relations or previous adjustments in trade policies or quality standards introduced by the other side.

By exporting wheat and other grains to the import-dependent MENA region, Russia has achieved building meaningful economic trade relationships with countries that are also primarily energy-exporters and thus competitors. After reaching low points in 2016 due to inter alia Russia's involvement in the Syrian civil war, a stand-off in international energy markets and various disputes over product quality, the food trade relationships with the selected MENA countries have largely improved recently. While the food trade was repeatedly disrupted by political interventions in

recent years, its central component, grain trade, can be expected to remain stable in the long run due to its unequivocal mutual benefit. Because of climatic and geographic advantages, Russia can competitively produce and ship grains to the MENA countries that lack sufficient production of grains to meet domestic consumption.

NOTES

1. In the following, we define all products falling under the two-digit HS-2 codes 01 through 23 as food products. The trade statistics are presented as provided by the Russian Federation to the UN Comtrade database.
2. The MENA region includes Algeria, Bahrain, Djibouti, Egypt, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Qatar, Saudi Arabia, Syria, Tunisia, Turkey, United Arab Emirates and Yemen.
3. Stephen K. Wegren, 'Can Russia's Food Exports Reach \$45 Billion in 2024?' *Post-Communist Economics* 32, no. 2 (2020): 147–175.
4. William M. Liefert and Olga Liefert, 'Russia's Economic Crisis and Its Agricultural and Food Economy', *Choices* 30, no. 1, 2015, 1–6; Stephen K. Wegren, 'The Russian Food Embargo and Food Security: Can Household Production Fill the Void?' *Eurasian Geography and Economics* 55, no. 5 (2014): 491–513; and Martin Banse, Ivan Duric, Linde Götz and Verena Laquai, 'From the Russian Food Import Ban to Free Trade from Lisbon to Vladivostok—Will Farmers Benefit?' *Journal of International Studies* 12, no. 4 (2019): 20–31.
5. William M. Liefert and Olga Liefert, 'Russian Agricultural Trade and World Markets', *Russian Journal of Economics* 6 (2020): 56–70; Maximilian Heigermoser and Linde Götz, 'Russia's Rise to Become the World's Largest Wheat Exporter: Implications for the Global Grain Trade', *Russian Analytical Digest* no. 244 (17 December 2019): 7–11.
6. United States Department of Agriculture, Foreign Agriculture Service, 'Production, Supply and Demand Online Database', n.d. <https://apps.fas.usda.gov/psdonline/app/index.html#/app/advQuery>. Accessed 18 August 2020.
7. Ghada Ahmed, Danny Hamrick and Gary Gereffi, 'Shifting Governance Structures in the Wheat Value Chain: Implications for Food Security in the Middle East and North Africa', Presentation held at the Global Value Chains and Trade Policies for Food and Nutrition Security Workshop in Rome, 26 September 2014. https://gvcc.duke.edu/wp-content/uploads/2014-09-26_Shifting-Governance-Structures-in-the-Wheat-GVC.pdf. Accessed 13 October 2020; and Ahmed F. Ghoneim, 'The Political Economy of Food Price Policy in Egypt', in *Food Price Policy in an*

Era of Market Instability, ed. Per Pinstrup-Andersen (Oxford: Oxford University Press, 2015), 253–274.

8. Stephen K. Wegren, Frode Nilssen and Christel Elvestad, 'The Impact of Russian Food Security Policy on the Performance of the Food System', *Eurasian Geography and Economics* 57, no. 6 (2016): 671–699; and Stephen K. Wegren, Alexander M. Nikulin and Irina Trotsuk, 'The Russian Variant of Food Security', *Problems of Post-Communism* 64, no. 1 (2016): 47–62.
9. Zerno on-lain, 'Zerno Traffic Database', n.d. <http://www.zolbase.ru/>. Accessed 18 August 2020.
10. Deep-water ports are equipped to handle large supramax and panamax vessels that can load up to 65,000 tonnes of grain.
11. United States Department of Agriculture, Foreign Agriculture Service, 'Russian Federation. Grain and Feed Annual', 14 April 2017. GAIN Report RS1726. www.fas.usda.gov/data. Accessed 18 August 2020.
12. Maximilian Heigermoser and Linde Götz, 'Russia's Rise to Become the World's Largest Wheat Exporter'.
13. Thomas Glauben, Linde Götz and Ulrich Koester, 'The Rouble Crisis and the Russian Grain Export Controls', IAMO Policy Brief No. 22, 2015. https://www.iamo.de/fileadmin/documents/IAMOPolicyBrief22_en.pdf. Accessed 13 October 2020.
14. French grain exports mostly flow through the port of Rouen, located in the English Channel.
15. International Grains Council, Supply & Demand Database, 2020. <https://www.igc.int/en/markets/marketinfo-sd.aspx>. Accessed 11 August 2020.
16. Maximilian Heigermoser, Linde Götz and Miranda Svanidze, 'Egypt's Wheat Tenders—A Public Noticeboard for Black Sea Grain Notations?' Proceedings of the Gewisola Annual Meeting in Kiel, Germany, September 2018. <https://ageconsearch.umn.edu/record/275853>. Accessed 13 October 2020.
17. Ahmed F. Ghonein, 'The Political Economy of Food Price Policy in Egypt'.
18. Arvin Donley, 'U.S. Wheat Associates to Close Cairo Office', 18 October 2017. <https://www.world-grain.com/articles/8814-u-s-wheat-associates-to-close-cairo-office>. Accessed 5 August 2020.
19. The common ergot fungus often infests wheat crops and causes harm to humans if it is consumed in large quantities. However, small amounts of ergot are harmless, and the international trade considers ergot levels in wheat of less than 0.05 percent acceptable.
20. Emiko Terazono and Heba Saleh, 'Wheat Trade Hit Hard by Egypt Quarantine Crackdown', 19 September 2016. <https://www.ft.com/content/e92d0caa-7b2e-11e6-ae24-f193b105145e>. Accessed 6 August 2020.

21. Eric Knecht, 'Egypt Cancels Zero Ergot Wheat Policy Amid Mounting Pressure'. 21 September 2016. <https://www.reuters.com/article/us-egypt-wheat-ergot-idUSKCN11RIWX>. Accessed 6 August 2020.
22. United States Department of Agriculture, Foreign Agriculture Service, 'Russian Federation: Strategy for Development of Agriculture and Fisheries Through 2030', Report RS2020-026. 14 May 2020. www.fas.usda.gov/data. Accessed 18 August 2020.
23. Enterprise Press, 'Russia Bans 140-Tonne Shipment of Egyptian Potatoes Over Pest Infection', 6 May 2018. <https://enterprise.press/stories/2018/05/06/russia-bans-140-tonne-shipment-of-egyptian-potatoes-over-pest-infection/>. Accessed 18 August 2020.
24. Reuters Staff, 'Egypt's Rejection of Russian Wheat Over Ergot Creates Latest Supply Snag', 31 May 2018. <https://www.reuters.com/article/egypt-wheat/update-3-egypts-rejection-of-russian-wheat-over-ergot-creates-latest-supply-snap-idUSL5N1T22DW>. Accessed 6 August 2020.
25. Eric Knecht and Maha El Dahan, 'Inspection Battle Threatens Egypt's Wheat Supply', 17 October 2017. https://www.reuters.com/article/us-egypt-wheat-inspections-insight/inspection-battle-threatens-egypts-wheat-supply-idUSKBNI0M10N?utm_content=buffer2f4c4&utm_medium=social&utm_source=twitter.com&utm_campaign=buffer. Accessed 6 August 2020.
26. United Nations, 'UN Comtrade Database', n.d. <https://comtrade.un.org/>. Accessed 18 August 2020.
27. Heigermoser and Götz, 'Russia's Rise to Become the World's Largest Wheat Exporter'.
28. Ziya Önis and Suhnaz Yilmaz, 'Turkey and Russia in a Shifting Global Order: Cooperation, Conflict and Asymmetric Interdependence in a Turbulent Region', *Third World Quarterly* 37, no. 1 (2016): 71–95.
29. Reuters Staff, 'Russia Approves Detailed Sanctions Against Turkey Over Downed Plane', 1 December 2015. <https://www.reuters.com/article/us-mideast-crisis-russia-turkey-sanction/russia-approves-detailed-sanctions-against-turkey-over-downed-plane-idUSKBN0TK4SD20151201>. Accessed 18 August 2020.
30. Reuters Staff, 'Turkey, Russia Agree on Need to Normalize Ties: Turkish Official', 9 August 2016. <https://www.reuters.com/article/us-russia-turkey-erdogan-official/turkey-russia-agree-on-need-to-normalize-ties-turkish-official-idUSKCN10K1EQ>. Accessed 18 August 2020.
31. Institut Kon'iunktury Agrarnogo Rynka, 'IKAR: Itogi Goda—2019. Rynok Kartofelia', 8 January 2020. <http://ikar.ru/1/lenta/709/>. Accessed 18 August 2020.
32. Gus Trompiz and Michael Hogan, 'Turkish Mills Buy EU, Black Sea Wheat to Replace Russian Imports', 5 April 2017. <https://www.reuters.com>.

- com/article/turkey-wheat-europe/turkish-mills-buy-eu-black-sea-wheat-to-replace-russian-imports-idUSL5N1HD3X9. Accessed 18 August 2020.
33. Kamila Aliyeva, 'First Truck with Turkish Tomatoes Arrives in Russia', 16 November 2017. <https://www.azernews.az/region/122341.html>. Accessed 18 August 2020.
 34. Hurriyet Daily News, 'Turkey Objects to Russia's Import Quota on Tomatoes', 19 March 2018. <https://www.hurriyetaidailynews.com/turkey-objects-to-russias-import-quota-on-tomatoes-128981>. Accessed 18 August 2020.
 35. Russia remains a net importer of beef and exports only very small quantities of beef so far.
 36. United Nations, 'UN Comtrade Database'. Most recently, China's barley imports have increased substantially and have exceeded Saudi Arabian barley imports, particularly in 2015.
 37. Arani K. Grindle, Afreen Siddiqi and Laura Diaz Anadon, 'Food Security Amidst Water Scarcity: Insights on Sustainable Food Production from Saudi Arabia', *Sustainable Production and Consumption* 2 (2015): 67–78; and Thomas W. Lippmann, 'Saudi Arabia's Quest for Food Security', *Middle East Policy* 17, no. 1 (2010): 90–98.
 38. 'United States Department of Agriculture, Foreign Agriculture Service, Production, Supply and Demand Online Database'. n.d. <https://apps.fas.usda.gov/psdonline/app/index.html#/app/advQuery>. Accessed 18 August 2020.
 39. United States Department of Agriculture, Foreign Agriculture Service, 'Saudi Arabia: Grain and Feed Annual', 2 April 2017. www.fas.usda.gov/data. Accessed 18 August 2020.
 40. Maha El Dahan and Polina Devitt, 'Exclusive: Saudi Boosts Russia Ties with Welcome for Black Sea Wheat', 8 August 2019. <https://www.reuters.com/article/us-saudi-wheat-exclusive/exclusive-saudi-boosts-russia-ties-with-welcome-for-black-sea-wheat-idUSKCN1UY0ZW>. Accessed 18 August 2020.
 41. Anatoly Medetsky and Javier Blas, 'Russia Eyes Up Saudi Wheat Market Dominated by EU Supplies', 21 December 2017. <https://www.bloomberg.com/news/articles/2017-12-21/russia-is-eyeing-up-saudi-wheat-market-dominated-by-eu-supplies>. Accessed 18 August 2020.
 42. An increasing share of Russian wheat in the Saudi Arabian market could negatively affect exporters from Germany and the Baltic states, which were previously the top suppliers of wheat to Saudi Arabia.
 43. Ruby Lian, Josephine Mason and El Gamal, 'Saudi Arabia, Russia Sign Oil Pact, May Limit Output in Future', 5 September 2016. <https://www.reuters.com/article/us-g20-china-saudi-russia-oil-idUSKCN11B0UF>. Accessed 17 August 2020.

44. Interfax, 'Russia, Saudi Arabia Sign Memorandum to Boost Agricultural Exports', 14 October 2019. <https://interfax.com/>. Accessed 17 August 2020.
45. Reuters Staff, 'Russian Agri Minister, Saudi's Falih to Discuss Russia-Saudi Trade', 4 September 2019. <https://www.reuters.com/article/us-saudi-wheat-russia/russian-agri-minister-saudis-falih-to-discuss-russia-saudi-trade-idUSKCN1VP0Y7>. Accessed 17 August 2020.
46. Ali Adami, 'Look to the East Strategy in the Foreign Affairs of Islamic Republic of Iran; Perspectives, Basics and Opportunities', *Quarterly Journal in Political Studies* 7 (2010): 97–127 (Originally in Persian).
47. Adam Tarock, 'Russo-Iranian Relations in the Post-Soviet Era', *Diplomacy and Statecraft* 28, no. 3 (2017): 518–537.
48. AWNRC, 'Summary of Iran Food and Agricultural Trade in 2018', 2019. <https://bit.ly/2EvmwY>. Accessed 30 August 2020 (Original in Persian). The data available in Iranian sources present different trade volumes compared to data provided by the UN Comtrade Database. Following these sources, Iran has imported USD 661 million agricultural and food products from Russia and exported USD 218 million of the same commodity groups to Russia.
49. ITC, 'Trade Map—Trade Statistics Between Iran and Russia', <https://www.trademap.org/Index.aspx>. Accessed 24 August 2020; and Kevin Lim, *Bumped Crops: Iran's Grain Imports and Geopolitical Shocks* (Washington, DC: The Washington Institute, 2020).
50. Recently, plans to import Russian wheat to Iran to process it into flour for re-exporting to Iraq have been formulated. However, such activity, which would put Iranian flour producers in competition with Turkish producers on the Iraqi market, has not yet materialised.
51. Wali Kuzehgarkaleji, 'Five Important Essentialities on Iran-Russia Trade', 16 August 2020. <http://fdn.ir/44562>. Accessed 24 August 2020 (Original in Persian).
52. Wali Kuzehgarkaleji, 'Sanctions and Marine Transport in Caspian Sea', 22 August 2020. <http://fdn.ir/44850>. Accessed 24 August 2020 (Original in Persian).
53. Mehr News Agency, 'The Mutual Protocol Signed Between Iran and Russia on Increasing Sea Trade', 5 December 2019. mehrnews.com/xQJLX. Accessed 24 August 2020 (Original in Persian).
54. Tejaratgardan, 'Establishing the First Permanent Container Ship Between Iran and Russia in September 2020', 11 August 2020. <https://tejaratgardan.ir/?p=64503>. Accessed 17 August 2020 (Original in Persian).
55. Global Construction Review Staff, 'Russia Approves \$1.6bn Caspian Seaport to Increase Trade with Iran, India and China', 3 August 2020. <https://www.globalconstructionreview.com/news/russia-approves-16bn-caspian-seaport-increase-trad/>. Accessed 24 August 2020; and RT, 'Russia

- Building New Seaport to Boost Trade with Iran, India & Kazakhstan', 1 August 2020. <https://www.rt.com/business/496775-russia-new-sea-port-construction/>. Accessed 17 August 2020 (Original in Persian).
56. Kuzhgharkaleji, 'Five Important Essentialities on Iran-Russia Trade'.
 57. Eurasian Economic Commission, 'EAEU and Iran Pass on to Preferential Trade Conditions', 29 August 2019. <http://www.eurasiancommission.org/en/nae/news/Pages/28-08-2019-3.aspx>. Accessed 17 August 2020.
 58. 'Interim Agreement Leading to Formation of a Free Trade Area Between the Eurasian Economic Union (EAEU) and Its Member States, of the One Part, and the Islamic Republic of Iran, of the Other Part', 27 October 2019. http://www.eurasiancommission.org/ru/act/trade/dotp/sogl_torg/Documents/Interim_Agreement_EAEU-Iran_final.pdf. Accessed 13 October 2020.
 59. Amat Adarov and Mahdi Ghodsi, 'The Impact of the EAEU-Iran Preferential Trade Agreement', WIIW Working Paper No. 179, May 2020. <https://wiiw.ac.at/the-impact-of-the-eaeu-iran-preferential-trade-agreement-p-5335.html>. Accessed 13 October 2020.
 60. Amir Nikkhah, 'Corona Crisis and Expansion Trade Relation Between Iran and Russia', 15 May 2020. <https://www.eghtesadonline.com/n/2EZ5>. Accessed 24 August 2020 (Original in Persian).
 61. It is not evident whether there are complications on money transfers between financial institutions of Iran and EAEU countries at this point.
 62. Adarov and Ghodsi, 'The Impact of the EAEU-Iran Preferential Trade Agreement'.
 63. Iraq, however, imports large quantities of wheat flour from Turkey, which imports more wheat than it needs from Russia. Thus, Iraq virtually already imports Russian wheat via Turkey in an indirect way.
 64. Liefert and Liefert, 'Russia's Economic Crisis and Its Agricultural and Food Economy', 1–6; Wegren, 'The Russian Food Embargo and food Security: Can Household Production Fill the Void?', 491–513; and Banse et al., 'From the Russian Food Import Ban to Free Trade from Lisbon to Vladivostok—Will Farmers Benefit?', 20–31.

SELECTED BIBLIOGRAPHY

- Adami, Ali. 'Look to the East Strategy in the Foreign Affairs of Islamic Republic of Iran; Perspectives, Basics and Opportunities'. *Quarterly Journal in Political Studies* 7 (2010): 97–127.
- Adarov, Amat, and Mahdi Ghodsi. *The Impact of the EAEU-Iran Preferential Trade Agreement*. Vienna: WIIW Working Paper No. 179, 2020, 1–20.

- Ahmed, Ghada, Danny Hamrick and Gary Gereffi. 'Shifting Governance Structures in the Wheat Value Chain: Implications for Food Security in the Middle East and North Africa'. *Presentation held at the Global Value Chains and Trade Policies for Food and Nutrition Security Workshop in Rome*, 26 September 2014. https://gvcc.duke.edu/wp-content/uploads/2014-09-26_Shifting-Governance-Structures-in-the-Wheat-GVC.pdf.
- Banse, Martin, Ivan Duric, Götz Linde and Verena Laquai. 'From the Russian Food Import Ban to Free Trade from Lisbon to Vladivostok—Will Farmers Benefit?' *Journal of International Studies* 12, no. 4 (2019): 20–31.
- Ghonein, Ahmed F. 'The Political Economy of Food Price Policy in Egypt'. In *Food Price Policy in an Era of Market Instability*, ed. Per Pinstrup-Andersen. Oxford: Oxford University Press, 2015, 253–274.
- Glauben, Thomas, Linde Götz, and Ulrich Koester. *The Rouble Crisis and the Russian Grain Export Controls*. IAMO Policy Brief No. 22. Halle, Germany, 2015.
- Grindle, Arani K., Afreen Siddiqi, and Laura Diaz Anadon. 'Food Security Amidst Water Scarcity: Insights on Sustainable Food Production from Saudi Arabia'. *Sustainable Production and Consumption* 2 (2015): 67–78.
- Heigermoser, Maximilian and Linde Götz. 'Russia's Rise to Become the World's Largest Wheat Exporter: Implications for the Global Grain Trade'. *Russian Analytical Digest*, no. 244 (17 December 2019): 7–11.
- Heigermoser, Maximilian, Linde Götz and Miranda Svanidze. *Wheat Price Formation in the Black Sea Region: The Role of Egypt's GASC*. Washington, DC: Proceedings of the IATRC Annual Meeting, 2017.
- Liefert, William M. and Olga Liefert. 'Russia's Economic Crisis and Its Agricultural and Food Economy.' *Choices* 30, no. 1 (2015): 1–6.
- Liefert, William M. and Olga Liefert. 'Russian Agricultural Trade and World Markets'. *Russian Journal of Economics* 6 (2020): 56–70.
- Lim, Kevin. *Bumped Crops: Iran's Grain Imports and Geopolitical Shocks*. Washington, DC: The Washington Institute, 2020.
- Lippmann, Thomas W. 'Saudi Arabia's Quest for Food Security'. *Middle East Policy* 17, no. 1 (2010): 90–98.
- Önis, Ziya and Suhnaz Yilmaz. 'Turkey and Russia in a Shifting Global Order: Cooperation, Conflict and Asymmetric Interdependence in a Turbulent Region'. *Third World Quarterly* 37, no. 1 (2016): 71–95.
- Tarock, Adam. 'Russo-Iranian Relations in the Post-Soviet Era'. *Diplomacy and Statecraft* 28, no. 3 (2017): 518–537.
- Wegren, Stephen K. 'The Russian Food Embargo and Food Security: Can Household Production Fill the Void?' *Eurasian Geography and Economics* 55, no. 5 (2014): 491–513.
- Wegren, Stephen K. 'Can Russia's Food Exports Reach \$45 Billion in 2024?'. *Post-Communist Economics* 32, no. 2 (2020): 147–175.

- Wegren, Stephen K., Alexander M. Nikulin and Irina Trotsuk. 'The Russian Variant of Food Security'. *Problems of Post-Communism* 64, no. 1 (2016): 47–62.
- Wegren, Stephen K., Frode Nilssen and Christel Elvestad. 'The Impact of Russian Food Security Policy on the Performance of the Food System'. *Eurasian Geography and Economics* 57, no. 6 (2016): 671–699.

Open Access This chapter is licensed under the terms of the Creative Commons Attribution 4.0 International License (<http://creativecommons.org/licenses/by/4.0/>), which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

