2018

Exploring the Visegrád-Russia Connection: Understanding the Political and Economic Ramifications of Sanction Policies Four Years Later (Essay 5: Agriculture)

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Essay 5: Agriculture

2018
Introduction

Agriculture, one of humanity’s oldest commercial endeavors, has blossomed in the last century into a multi-trillion dollar industry, capable of feeding the entire globe. Alongside this growth, never before have so many different foods and goods been available to more people. Exemplifying this, through the marvels of international trade and modern industrial agriculture, Swedish residents can receive bananas, mangos, and other tropical fruits all year round. Similarly, people living in Singapore can eat New England-grown cranberries anytime. As we dive now into this fifth essay, this topic, agriculture and the agro-food trade, will be the focus.

In response to the implementation of EU sanctions on Russia for their perceived military involvement in the Crimean and Donbass regions of Ukraine in 2014 (and to this day in Donbass), Russia enacted their own set of economic and political sanctions. Russian sanctions, referred to as ‘counter-sanctions,’ target the agriculture and agro-food industries of sanctioning Western countries. Have these counter-sanctions impacted V4 agricultural producers significantly? Do V4 producers heavily rely on the Russian market? How have the V4 and Russian agro-food industries reacted to the economic shock of counter-sanctions? To answer these questions, this work will be broken into six parts:

1) a review of Russian agro-food counter-sanctions,
2) an explanation of the importance of agriculture for V4 and Russian national economies,
3) an overview of the Russian agricultural sector,
4) an overview of the V4 agricultural sector,
5) a statistical and historical analysis of V4 agro-food exports to Russia, and
6) a discussion of how V4 and Russian markets have evolved since counter-sanctions were introduced.

By looking at each of these topics in turn, I aim to sketch a holistic picture of Czech, Hungarian, Polish, and Slovakian agriculture in light of 2014 counter-sanction policy. By having access to this
knowledge synthesized and clearly communicated, V4 policymakers will be able to continue to appropriately mitigate any negative effects of Russian foreign policy for their constituents.

**Review of Agricultural Counter-Sanctions**

1. Overview of Russian Counter-Sanction Policy

On August 7th, 2014, in response to the sanction policies of the EU, United States, and other Western nations, Russia announced their own set of retaliatory economic sanctions. Effective immediately, Russian counter-sanctions targeted not the energy or financial sectors, like their Western counter-parts, but the agricultural industry. More similar to a traditional embargo, Russian counter-sanctions ban food imports from the EU, United States, Canada, Australia, Norway, and Denmark (1),(2). While Russian counter-sanctions also include individual sanctions (i.e. travel bans) for certain Western political leaders, the primary power of counter-sanction policy is the trade restriction of agro-food products (3). Therefore, this will be the focus of this essay.

Interestingly, these restrictions, when announced, were not framed as a response to Western sanction policies, but enacted under the guise of health and sanitation measures instead (4). Counter-sanctions fall into a wider theme of the Russian restriction of agro-food imports on these same health and sanitation grounds. Used numerous times in 2014 prior to the announcement of counter-sanctions, the import of EU pork imports, Dutch dairy imports, Ukrainian meat and dairy, and Polish fruits and vegetables were already prohibited (5). While the specific reason for these decisions varied each time, from cases of African swine fever in the wild boar populations of Lithuania and Poland to excessive pesticide residue,

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1 Food and Agricultural Organization of the United Nations: Russia’s Restrictions on Imports of Agricultural and Food Products: An Initial Assessment
2 W., Christian: Russia Extends Import Ban on Danish Food Products
3 Seymat, Thomas: The Complete Blacklist of EU Officials Banned from Russia
4 Food and Agricultural Organization of the United Nations: Russia’s Restrictions on Imports of Agricultural and Food Products: An Initial Assessment
5 Food and Agricultural Organization of the United Nations: Russia’s Restrictions on Imports of Agricultural and Food Products: An Initial Assessment
the theme of using the “insufficient sanitation standards” argument to accomplish political goals remains constant.

Similar again to Western sanctions, Russian counter-sanctions have been extended since their introduction, and are still currently in effect. While Russia has stated that they wish to maintain counter-sanction policies indefinitely, barring any geopolitical changes, they have not stated any intentions to expand the list of embargoed products (6).

2. Specifics of Agro-food Restrictions

Russian agro-food counter-sanctions target eight product categories. Table 1 lists these products, organized by Harmonized System (HS) trade code and aggregated at the 2-digit level.

*Table 1. Russian Counter-Sanctioned Products by HS Code*

<table>
<thead>
<tr>
<th>HS Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Meat and edible meat offal</td>
</tr>
<tr>
<td>3</td>
<td>Fish and crustaceans, mollusks and other aquatic invertebrates</td>
</tr>
<tr>
<td>4</td>
<td>Dairy produce; birds’ eggs; natural honey; edible products of animal origin, not elsewhere specified or included</td>
</tr>
<tr>
<td>7</td>
<td>Vegetables and certain roots and tubers; edible</td>
</tr>
<tr>
<td>8</td>
<td>Fruit and nuts, edible; peel of citrus fruit or melons</td>
</tr>
<tr>
<td>16</td>
<td>Meat, fish or crustaceans, mollusks or other aquatic invertebrates preparations thereof</td>
</tr>
<tr>
<td>19</td>
<td>Preparations of cereals, flour, starch or milk; pastrycooks’ products</td>
</tr>
<tr>
<td>21</td>
<td>Miscellaneous edible preparations</td>
</tr>
</tbody>
</table>


Technically counter-sanctions specifically address products at smaller levels of aggregation (4-digit, 6-digit, and 8-digit). However, for sake of ease, we will look at these products at the highest (2-digit) level of aggregation. While I acknowledge that not all products encompassed by the 2-digit level are counter-sanctioned, the majority of products within these categories do face restrictions. Therefore, I feel this view is most appropriate. For an intensive econometric analysis of the historical trade of these goods

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6 Medvedev, Sergei: Russia Extends Food Counter-Sanctions until End of 2017
between Russia and V4 nations, please see Essay 1: Econometric Analyses. A lesser, non-statistical view of this trade will be explored in coming sections.

**The Importance of Agriculture in V4 & Russian Economies**

In order to appropriately frame this essay on V4 and Russian agriculture and the impact of counter-sanctions, the importance of the agricultural industry must be evaluated. Is it a large contributor to national economies? For the V4 and Russian economies, agriculture and the agro-food industries do represent key components of the national economy mix. Therefore, concerns about the agro-food industry being negatively impacted are not simply sectoral business worries, but national economic worries. Figure 1 details the total value added by agriculture to each of these nations’ economies. Figure 2 displays agricultural output in percentage terms, compared to the GDP of each respective nation.

*Figure 1. Annual US$ Value Added to National Economies by Agricultural Output (2010-2016)*

Source: World Bank, AJTK Calculations
Unsurprisingly, output is correlated with nation size, with Russia and Poland ranking as the largest agricultural producers, respectively. In percentage terms, for over half of the time frame measured, Hungarian agriculture contributed the highest share to GDP. On average, from 2010-2016, the percentage share of GDP contributed by agriculture was 4.40%, 4.07%, 3.66%, 2.93%, 2.43% for Hungary, Russia, Slovakia, Poland, and Czechia, respectively. Therefore, for V4 countries, I can conclude from Figure 1, Figure 2, and these average values that agriculture is most vital for the health of the Hungarian and Slovakian economies. While not as critical for Poland and Czechia, agriculture still maintains an important place in the national economy mix. For Russia, the agricultural and agro-food industry is objectively quite large and occupies a crucial role in the economic mix. With the importance of agriculture now established, we will first examine Russian agriculture. How is the sector structured and how does it fit within the wider, global agricultural marketplace?
Russian Agricultural Markets

1. Introduction to Agriculture in Russia

Recently overtaking the arms and defense industry, the Russian agricultural industry is now the second largest sector of the Russian economy, behind only the energy sector (7). Before examining the market dynamics of the V4 and EU agricultural markets, the Russian agricultural sector will be first analyzed. While there is less data on Russia’s agricultural sector than for comparative Western sectors, by looking at what is available for the Russian marketplace, we will be greatly aided in understanding what impact counter-sanctions could have for V4 producers and policymakers. In this section, two topics will be discussed: 1) the market structure and global position of Russian agriculture and 2) the output mix of Russian producers.

2. Global Position & Market Structure

At the time of the implementation of counter-sanction policy, Russia ranked globally as the 7th largest agricultural producer (8). While on average accounting for roughly 4% of GDP, Russian agriculture employs 16% of the population (9)(10). Russia’s primary agricultural product, wheat, possesses a global export share of approximately 10.5% (11). 50% of agriculture is dedicated to farming, while the other half is dedicated to processing and other related functions (12). While in the last three years (since counter-sanctions), the concentration and importance of Russian agriculture has only grown, its exposure to risk has only increased as well. Russian agriculture is intensely sensitive to fluctuations in weather, due to a lack of trade and land diversification (13). Counter-sanctions have self-imposed a limited marketplace where it is difficult for prices to recalibrate. In addition to this, considering the geographical position of

7 Buckley, Neil: Russian Agriculture Sector Flourishes amid Sanctions
9 See Figure 2.
10 Invest in Russia: www.investinrussia.biz/industry/agriculture/agriculture-industry-russia
11 Colibasanu, Antonia: Predicting the Unpredictable in Russian Agriculture
12 Colibasanu, Antonia: Predicting the Unpredictable in Russian Agriculture
13 Colibasanu, Antonia: Predicting the Unpredictable in Russian Agriculture
Russia, only the southernmost areas of the nation are best-suited for industrial agriculture. Much of this business is concentrated in one region, an area inclusive of the North Caucasus, Southern, Central, and Volga regions of the country. In a governmental attempt to manage prices and risk, harvesting was delayed one month in 2017. Other methods used include the expansion of storage facility capacities from the current level of 120 million tons of grain to 130 million tons by 2030. Currently around 25 million tons of grain is stored per harvest, with another 75 million tons consumed annually (14). The Russian government aims to increase production and storage in order to more appropriately manage price levels and hedge against the lack of diversification.

3. Output Mix

The output mix of Russian agriculture is split fairly evenly between animal husbandry and crops, with crops tending to possess a slightly larger share annually. Figure 3 provides a historical illustration of output levels and the share of the animal and crop industries within total production.

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14 Colibasanu, Antonia: Predicting the Unpredictable in Russian Agriculture
Of crops, Russia relies on grains more than any other agro-food product. Of crops farmed, 80% harvested is some form of grain product. Of this 80%, 60% is wheat specifically. The second most commonly farmed product is similar – barley. Outside of grains, various roots and tubers are also quite popular. Potatoes, a base for vodka, are grown widely. Recently, production and yield capacity has increased sharply for beets and sunflower seeds. Among animal husbandry, pig and poultry holdings outnumber cattle. Total pig and poultry holdings increased in 2016, while cattle holdings decreased. More time is needed to determine if this represents a supply-side shift towards the pig and poultry market over the cattle market.

While the Russian agricultural sector is a major actor in the global grain markets, they are not globally competitive in the production and trade of corn, sugar, or meat. Much of this is due to the use of...
genetically modified organisms (GMOs) being banned. Additionally, Russia is not present in the trade of sugar. This is related to the high transport costs of shipping sugar. Without the infrastructure to handle large container shipments of sugar in a financially viable way, it is unlikely Russia will enter this market for some time (18).

4. Conclusions

Accounting for the 7th largest agricultural economy in the world and employing 16% of the national population, Russian agriculture is a massive and profitable industry (19),(20). While the sector displays an expertise in the production and export of grains, this has left the industry poorly diversified. The Russian agricultural industry’s lack of diversification is a symptom of their cultivation and husbandry choices as well as the current geopolitical climate. Therefore, Russian output is subject to a greater dependency on good weather conditions (21). Having now reviewed the Russian agricultural and agro-food sectors’ global position, market structure, and output mix, we see an industry with obvious strengths coupled with glaring weaknesses. How does the Russian agricultural market structure and output mix compare to their EU (and V4) counterparts? Are there strategic advantages or weaknesses of one versus the other?

V4 Agricultural Markets

1. Introduction to Agriculture in the V4

Having explored the fundamentals of agriculture in Russia, what do agricultural and agro-food markets look like in the V4? What role do Czech, Hungarian, Polish, and Slovakian agriculture play within the wider EU market? Before turning to review historical agricultural trade data between V4 nations and Russia, it is equally important to understand the baseline dynamics of the sector in Central

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18 Medetsky, Anatoly: How an Oil Giant (Russia) Came to Dominate Wheat
20 Invest in Russia: www.investinrussia.biz/industry/agriculture/agriculture-industry-russia
21 Colibasanu, Antonia: Predicting the Unpredictable in Russian Agriculture
Europe. In this section the initial reactions to Russian counter-sanction policy, the role of the EU in the agricultural sector, and the place of V4 output within EU production will all be inspected.

2. Initial V4 Reactions to Counter-Sanctions

Immediately following the announcement of Russian counter-sanctions, V4 nations expressed significant concerns about the possible harm such counter-sanctions could have for their national agricultural industries. For Czechia and Poland, among others, Russia ranks as the largest non-EU export destination \(^{(22)}\),\(^{(23)}\). In 2013, Czech exports to Russia totaled 2.4 billion Czech korunas. The Czech Ministry of Agriculture forecasted that Czech farmers could lose 250-300 million korunas in revenue in the last 5 months of 2014 alone. Further, the Czech Ministry of Agriculture worried that the Russian agro-food embargo would increase intra-EU competition and lower the price of competing Russian products \(^{(24)}\). These sentiments were echoed by Slovakian and Polish farmers alike. While Russia is not a key agricultural partner for Slovakia, Slovakian farmers expressed concerns that even producers not directly exporting to Russian entities could be impacted \(^{(25)}\).

Are these concerns justified? What does the EU marketplace look like? Is it structured in such a way that counter-sanctions could represent a serious systemic problem for European and V4 producers?

3. Overview of EU Agriculture

In 2016, total EU agricultural output value amounted to €405 billion. Of this, crop-growing contributed the majority share of value at 51.9%. Behind crops, animal husbandry’s share added 39.2% of value, with secondary and agricultural services rounding out the final 8.9% \(^{(26)}\). Viewed by country, France, Italy, Germany, and Spain accounted for the four largest agricultural economies in 2016. At

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22 Lazarová, Daniela: Agriculture Ministry – “Czech Exporters May Lose Hundreds of Millions of Crowns Due to Russian Food Embargo”
23 Devitt, Polina, and Wiktor Szary: Warsaw Says Russian Ban on Polish Produce Is Revenge for EU Sanctions
24 Lazarová, Daniela: Agriculture Ministry – “Czech Exporters May Lose Hundreds of Millions of Crowns Due to Russian Food Embargo”
25 Balogov, Beata, and Michaela Terenzani: Slovakia to Feel Sanctions
26 Peperkamp, Michel: CBI Trade Statistics: Fresh Fruit and Vegetables in Europe
17.4%, 13.2%, 13.1%, and 11.6% respectively, these four nations’ combined output totaled over half of the EU’s total agricultural output (27). As much of traded agricultural goods passes through the Belgium-Netherlands-Luxembourg (“Benelux”) area due to these countries’ prime geographical position, the Netherlands is the EU’s largest re-exporter. Both Belgium and the Netherlands serve as critical trading hubs within the greater European agricultural supply chain (28).

Broken down further by product, EU countries exported €18.7 billion in fresh fruit and €14.9 billion in fresh vegetables during 2014. Spain was the largest exporter of fruits and vegetables, with the majority of their production being shipped outside of their national borders (29). Italy also is a notable producer and exporter of vegetables (30). From 2010-2013, the most produced fruits within the EU were grapes, apples, and oranges, respectively. For apples, V4 nation Poland numbers as the largest producer and exporter of apples. 2013 figures placed total Polish apple exports at €438 million (31). Within vegetables and over the same time frame from 2010-2013, potatoes outpaced all other vegetables, roots, and tubers by a significant margin (32). A fun additional note, the EU is the world’s largest producer of sugar beets. Most V4 nations, with the exception of Poland, are not significant global players in the export of fruits and vegetables (33). The EU does figure prominently in the global production of oilseeds, olives, cereals, and wine (34).

Agriculture in the EU is supported by the EU’s Common Agricultural Policy (CAP). As quoted in Eurostat’s 2017 edition of Agriculture, Forestry, and Fishery Statistics, the goals of CAP are threefold: “to ensure a decent standard of living for farmers, to provide a stable and safe food supply chain at

27 Peperkamp, Michel: CBI Trade Statistics: Fresh Fruit and Vegetables in Europe
28 Peperkamp, Michel: CBI Trade Statistics: Fresh Fruit and Vegetables in Europe
29 Peperkamp, Michel: CBI Trade Statistics: Fresh Fruit and Vegetables in Europe
31 Devitt, Polina, and Wiktor Szary: Warsaw Says Russian Ban on Polish Produce Is Revenge for EU Sanctions
32 Peperkamp, Michel: CBI Trade Statistics: Fresh Fruit and Vegetables in Europe
33 European Commission, Agriculture and Rural Development: Analysis of the EU Fruit and Vegetables Sector, EU Production and Exports to Russia (2011-2013)
affordable prices for consumers, and to ensure the development of rural areas throughout the EU” (35).

The common collaboration promoted by CAP has allowed for successful intra-EU trade to benefit of all EU member states’ agricultural industries.

Due to the usefulness of CAP, the large production abilities of Spain, Italy, and other southern EU member states, and the logistical excellence of Belgium and the Netherlands, EU agricultural trade tends to be focused on other member states. While numbers vary depending on the year, source, good, and nation, almost all EU agricultural exports can be classified as “intra-EU.” For the EU fruits and vegetables production, from 2010-2013, only 15% and 7% respectively, were exported to nations outside the EU (36). Looking through the V4 lens more so, for Hungary, 90% of exported agricultural goods were exported to other EU countries (37). Numbers are similar for Slovakia, with 96.6% of agricultural output staying within the EU (38).

The statistics of intra-EU trade for agricultural trade may be among the most critical figures in this essay. Taken at face value, these would indicate that the possible negative effects of Russian counter-sanctions may not be quite as detrimental as initially worried by V4 producers. However, to properly contextualize these statistics for effective policymaking and guidance, more work must still be done. We will return to this topic in coming sections for a proper discussion.

4. Framing V4 Agriculture

Returning to our V4 focus, what role do Czech, Hungarian, Polish, and Slovakian agriculture play within the wider EU market? Poland, while not a top four producer, is undoubtedly a major producer, albeit due to its size and geography. Where do other V4 countries place? Are they key players? Figure 4

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36 European Commission, Agriculture and Rural Development: Analysis of the EU Fruit and Vegetables Sector, EU Production and Exports to Russia (2011-2013)
37 Novak, Benjamin: Hungarian Agricultural Producers Find Way around Russian Sanctions
38 Balogov, Beata, and Michaela Terenzani: Slovakia to Feel Sanctions
displays total agricultural output for each V4 nation in relation to total EU output for selected years.

Figure 5 illustrates the same data, but in a percentage form.

*Figure 4. V4 & EU Annual Agricultural Output (2010, 2013-2016)*

Source: Eurostat Agriculture, Forestry, and Fishery Statistics (2017), AJTK Calculations
As can be seen in Figure 5 especially, Poland contributes slightly over 5% of total EU agricultural output. Hungary possesses about a 2% annual share, with Czechia and Slovakia contributing less than 1.5% each annually. Poland and Hungary both possess land much more suited for agriculture than Czechia and Slovakia. It is true that both Poland’s and Hungary’s shares are small in comparison with nations like Spain and Italy. However, considering the location of Poland and Hungary, and their respective shares, it would be unwise to see their production as unimportant to a 28-member state bloc. To a lesser degree, this is valid thinking for Czechia and Slovakia as well. For a more detailed breakdown of 2016 output shares by V4 country, I would encourage the reader to review Figure 14, 15, 16, 17, and 18 in the Index. There one can view 2016 EU output shares for specific products within the cereal, root, fruit and vegetable, meat, and milk and dairy segments.
5. Conclusions

Due to the diversity found within the EU, the EU agricultural market is broader and much more complex than the Russian market. With a combined total agricultural output value of €405 billion in 2016, the EU is involved in the production and sale of most major agricultural goods. Despite being led by agricultural giants France, Italy, Germany, and Spain, V4 nations also remain notable contributors. Ranked, Poland is the largest agricultural producer of the group, with Hungary, Czechia, and Slovakia following afterwards. Most agricultural and agro-food products are traded within the EU’s common market, as orchestrated by the political and structural designs of the CAP. With our reviews of EU, V4, and Russian agricultural markets now completed at a high level, how do the V4 and Russian markets interact on more granular levels?

V4-Russian Agricultural Trade

1. Primer on Direct Trade

Having explored the fundamentals of both the V4 and Russian agricultural sectors, how have V4 exports of counter-sanctioned goods to Russia changed over the last 7 years? Here we will explore literature directly related to this topic and also V4 historical export data in order to lay a more robust foundation for understanding the impacts of counter-sanctions on V4 markets.

2. Relevant Literature
   a. United Nations

In September 2014, the Food and Agriculture Organization of the United Nations published a report titled Russia’s restrictions on imports of agricultural and food products: An initial assessment. In

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39 Peperkamp, Michel: CBI Trade Statistics: Fresh Fruit and Vegetables in Europe
41 European Commission, Agriculture and Rural Development: Analysis of the EU Fruit and Vegetables Sector, EU Production and Exports to Russia (2011-2013)
42 Novak, Benjamin: Hungarian Agricultural Producers Find Way around Russian Sanctions
43 Balogov, Beata, and Michaela Terenzani: Slovakia to Feel Sanctions
terms of domestic consumption percentages, Russia sources approximately 25% of meat consumed, 20% of milk and dairy products consumed, and 70% of fruit consumed from international sources. Based upon the authors’ assessment, and based upon 2013 statistics, in total, Russia’s own counter-sanction policy affects 56% of these agro-food imports (44). Table 2 displays the overall import percentages by banned product and by nation or nation group.

Table 2. Import Share of Counter-sanctioned Products by Original Destination

<table>
<thead>
<tr>
<th></th>
<th>Beef</th>
<th>Pork</th>
<th>Poultry</th>
<th>Fish &amp; Seafood</th>
<th>Milk &amp; Dairy Products</th>
<th>Vegetables</th>
<th>Fruits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU*</td>
<td>4.6%</td>
<td>58.9%</td>
<td>10.6%</td>
<td>46.5%</td>
<td>37.5%</td>
<td>31.9%</td>
<td>23.5%</td>
</tr>
<tr>
<td>Australia</td>
<td>4.1%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0.9%</td>
<td>0%</td>
<td>0.1%</td>
</tr>
<tr>
<td>Canada</td>
<td>0%</td>
<td>11.1%</td>
<td>0%</td>
<td>4.1%</td>
<td>0%</td>
<td>0.1%</td>
<td>0%</td>
</tr>
<tr>
<td>U.S.</td>
<td>0%</td>
<td>0.9%</td>
<td>37.7%</td>
<td>2.6%</td>
<td>0%</td>
<td>0.3%</td>
<td>3.6%</td>
</tr>
<tr>
<td>Total Sanctioned</td>
<td>8.7%</td>
<td>70.9%</td>
<td>48.3%</td>
<td>53.2%</td>
<td>38.4%</td>
<td>32.3%</td>
<td>27.3%</td>
</tr>
</tbody>
</table>

EU Percentages include Norway.

Source: Food and Agricultural Organization of the United Nations, AJTK Calculations

Countries within the EU with the largest exposure to the Russian market and the effects of counter-sanctions include Germany, Finland, and France. Specifically exposed national agricultural sub-industries include Dutch pork, Lithuanian milk and dairy, and Polish fruit (45). Here we have our first mention of a V4 nation, Poland, the V4’s largest agriculture-producing country. Based upon the trade statistics used by the United Nations (UN), Polish fruit bore the V4’s most significant exposure to Russia at the time Russian counter-sanctions were first introduced. 30.4% of exported Polish fruit was destined for Russian markets. Also notable was that 19.8% of Polish vegetables and 8.9% of Polish milk & dairy

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44 Food and Agricultural Organization of the United Nations: Russia’s Restrictions on Imports of Agricultural and Food Products: An Initial Assessment
45 Food and Agricultural Organization of the United Nations: Russia’s Restrictions on Imports of Agricultural and Food Products: An Initial Assessment
products were exported to Russia in 2013 (46). Initially, this UN report concluded that notable risks existed for the producers of exposed nations due to the nature of trade flows at the time of counter-sanctions (47).

b. European Commission

During the same time frame, the European Commission authorized Analysis of the EU fruit and vegetables sector, EU production and exports to Russia (2011-2013): Recent market trends and measures taken to address market disruptions following the Russian import ban. This study specifically focused on the European fruit and vegetable trade. Of total agriculture, 7% can be categorized as fruits and 10% as vegetables. Of this, 5% of produced fruit and 2% of produced vegetables are exported to extra-EU destinations. At the time counter-sanctions were implemented, Russia was the largest purchaser, buying 34% and 26% of extra-EU exported fruit and vegetables, respectively (48). While counter-sanctions affecting fruit and vegetables are a larger concern overall for southern EU nations, the European Commission ultimately found a similar conclusion to the UN’s report. This result – the impact of counter-sanctions is worrisome for the agricultural economies of EU states. Exposure should be limited as possible and prescriptive policy solutions will be necessary to protect commercial interests (49).

c. Other

In addition to these two supranational studies, journalists also commented on V4 exposure to the Russian market. Of the many written, two notable articles appeared addressing this topic specifically for Czech and Polish agriculture. At the time counter-sanctions were announced, the Czech milk and dairy

46 Food and Agricultural Organization of the United Nations: Russia’s Restrictions on Imports of Agricultural and Food Products: An Initial Assessment
47 Food and Agricultural Organization of the United Nations: Russia’s Restrictions on Imports of Agricultural and Food Products: An Initial Assessment
48 European Commission, Agriculture and Rural Development: Analysis of the EU Fruit and Vegetables Sector, EU Production and Exports to Russia (2011-2013)
49 European Commission, Agriculture and Rural Development: Analysis of the EU Fruit and Vegetables Sector, EU Production and Exports to Russia (2011-2013)
product industry possessed a large exposure to counter-sanctions-related risk (50). Poland, as has been mentioned previously, was also highly exposed, with Russia buying more than €2 billion in fruits and vegetables annually prior to counter-sanctions (51).

3. Analysis of Historical V4-Russia Export Data

   a. Data Description

   Having covered literature related to the initial exposure of EU and V4 nations to the possibility of detrimental counter-sanction impacts, what narrative does historical trade data tell of the impact of Russia’s policies? The historical data used is the same data used in Essay 1 – Econometric Analyses. It is sourced from the UN Comtrade’s historical trade database. For this essay, the monthly trade data was annualized, covering from 2010-2016. It includes country-specific export data for all banned HS 2-digit level product categories as covered in Review of Agricultural Counter-Sanctions.

   b. Export Visualizations

50 Lazarová, Daniela: Agriculture Ministry – “Czech Exporters May Lose Hundreds of Millions of Crowns Due to Russian Food Embargo”
51 Devitt, Polina, and Wiktor Szary: Warsaw Says Russian Ban on Polish Produce Is Revenge for EU Sanctions
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Figure 6. HS 02 Annual V4-Russia Export Value (US$)

Source: UN Comtrade, AJTK Calculations

Figure 7. HS 03 Annual V4-Russia Export Value (US$)

Source: UN Comtrade, AJTK Calculations
Figure 8. HS 04 Annual V4-Russia Export Value (US$)

Source: UN Comtrade, AJTK Calculations

Figure 9. HS 07 Annual V4-Russia Export Value (US$)

Source: UN Comtrade, AJTK Calculations
ESSAY 5: AGRICULTURE

Figure 10. HS 08 Annual V4-Russia Export Value (US$)

Source: UN Comtrade, AJTK Calculations

Figure 11. HS 16 Annual V4-Russia Export Value (US$)

Source: UN Comtrade, AJTK Calculations
**Figure 12. HS 19 Annual V4-Russia Export Value (US$)**

Source: UN Comtrade, AJTK Calculations

**Figure 13. HS 21 Annual V4-Russia Export Value (US$)**

Source: UN Comtrade, AJTK Calculations
c. Discussion of Findings

As expected, for each visualization, Poland is typically the largest producer for each product group. Also as expected, since Russian counter-sanctions were implemented in August 2014, the Czech, Hungarian, Polish, and Slovakian export of these goods to Russia has either decreased sharply or remained negligible. This trend is particularly noticeable for Poland in Figure 9 and 10. Figure 9, representing vegetables and certain roots and tubers, and Figure 10, representing fruit, nuts, and fruit peel, both showcased Polish exports to Russia in the hundreds of millions range prior to counter-sanctions. During counter-sanctioned time periods, the annual export value for these products dropped to well below $2 million. Looking outside of Polish fruits and vegetables, the export of Hungarian meat, fish, and shellfish preparations, as displayed in Figure 11, showcased the same tendencies, although on a smaller scale. From 2010-2014, Hungarian exports to Russia of HS 16 products averaged almost $16 million per year. After counter-sanctions, 2015 and 2016 figures totaled $5.1 billion and $4.1, respectively. This represents a drop of almost 66% when comparing these two time periods to previous years. Contrastingly, when compared to Poland and Hungary, Slovakian and Czech direct exports of counter-sanctioned products are quite minimal, even prior to August 2014. This serves as an intriguing response to Slovakian and Czech actors who expressed strong worries about the potentially harmful effects of Russian counter-sanctions.

Putting It All Together – Developments Since 2014

1. Introduction & Important Questions Raised

Having reviewed the market dynamics of Russia and the V4, the literature surrounding the impact of counter-sanctions, and the historical data of V4 exports, how can we make sense of the true effects of counter-sanctions? Has the exposure of European agriculture actually manifested in significant losses? How has the economic shock of counter-sanctions changed the Russian market? For Europe, export data would indicate minimal direct effects for Czechia and Slovakia, but substantial decreases for Hungary and
Poland. Has this spelled disaster for the Hungarian and Polish agricultural sectors? For direct and indirect effects alike, have V4 countries been able to mitigate the effects of losing the EU’s largest non-EU agricultural market?

2. Russia Agriculture Today
   a. The Good

Russian counter-sanction policy emphasizes import substitution, with a goal of self-sufficiency (52). Unfortunately for European interests, this Russian goal has been realized. Since the introduction of counter-sanctions, Russia has imported less and less agro-food products each year, decreasing from 36% in 2013, to 28% in 2015 and 24% and 22% in the first and second quarters of 2016 (53). Russia has fully substituted the imports of pork and poultry with their own domestic production (54). The Russian aquaculture industry has boomed since 2014, with production growing six times over in 2017 alone (55). 2017 also saw greenhouse vegetable production increase 30% from 2016 figures (56). The Russian fruit industry also expects to harvest 14% more fruit this year than last year due to new orchards (57).

From a financial standpoint, counter-sanctions have been a boon for Russian agricultural and agro-food companies. Russian firms Cherkizovo, PhosAgro, and Acron have seen their stock prices increase 63%, 85%, and 300% respectively, in ruble terms, since August 2014 (58). Russia has also focused on new agro-food trade partners as well. Unable to source products from sanctioning European and North

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52 Food and Agricultural Organization of the United Nations: Russia’s Restrictions on Imports of Agricultural and Food Products: An Initial Assessment
53 Sheftalovich, Zoya, and Christian Oliver: Russia’s Boom (Farming) Economy
54 Buckley, Neil: Russian Agriculture Sector Flourishes amid Sanctions
55 Foy, Henry: Russian Agriculture Thrives as Sanctions Close off Imports
56 Buckley, Neil: Russian Agriculture Sector Flourishes amid Sanctions
57 FreshPlaza: www.freshplaza.com/article/192138/Russia-expects-fruit-production-to-grow-by-nearly-14-procent-in-2018
58 Buckley, Neil: Russian Agriculture Sector Flourishes amid Sanctions
American nations, New Zealand has become a key source of milk and dairy products (59). Egypt, Turkey, and China have also become increasingly important trade partners as well (60),(61).

The most important growth in Russian agriculture and agro-food has taken place in the grain industry. Of 2016 total agro-food production, wheat grains represented 61.5%. Wheat production grew by 18.6% in 2016 alone to 119 million tons, of which 34 million tons was destined for export after domestic demand was satisfied (62),(63). This increase in production led to Russia seizing the title of largest global grain exporter from the U.S. (64). Increases in farming subsidies and the addition of another Black Sea port in Sevastopol (thanks to the annexation of the Crimean peninsula), have aided in Russia’s establishment as a grain superpower (65).

Despite Russian attempts to frame agricultural outputs as simply the result of self-sufficiency measures and hard work, climatic and macro-economic reasons have contributed to the rise of Russian agriculture more than anything else. First, prior to climate change, the growing season for most Russian agro-food products was quite short. However, with rising global temperatures, more Russian land is useful for farming. This has resulted in longer growing seasons and better crop yields as well (66). Russia has wisely managed their farming land soundly to take advantage of this (67). Secondly, and even more influential, has been the devaluation of the Russian ruble, in no small part due to Western sanction policy and falling oil prices (68). The drop in value has allowed Russian agro-food exports to enjoy a significant price advantage relative to Western exports. Exemplified, cheaper prices have cajoled almost 50% of the

59 Sheftalovich, Zoya, and Christian Oliver: Russia's Boom (Farming) Economy
60 Medetsky, Anatoly: How an Oil Giant (Russia) Came to Dominate Wheat
61 Sheftalovich, Zoya, and Christian Oliver: Russia's Boom (Farming) Economy
63 Buckley, Neil: Russian Agriculture Sector Flourishes amid Sanctions
64 Sheftalovich, Zoya, and Christian Oliver: Russia's Boom (Farming) Economy
65 Buckley, Neil: Russian Agriculture Sector Flourishes amid Sanctions
66 Bershidsky, Leonid: Russia Is an Emerging Superpower in Food Supply
67 Sheftalovich, Zoya, and Christian Oliver: Russia's Boom (Farming) Economy
68 Buckley, Neil: Russian Agriculture Sector Flourishes amid Sanctions
world into becoming purchasers of Russian wheat, hugely contributing to their new role as the world’s largest grain exporter \((69)\)(\(70)\).

b. The Bad

However, things are not as rosy as they may seem. Becoming the world’s largest grain exporter as a result of the devaluation of one’s national currency is not a recipe for solid macro-economic health. First, the growth in the grain industry has placed a high burden upon Russian infrastructure, which is not designed for the increased loads (\(71)\). Secondly, and for the citizenry, the combination of counter-sanctions and a less valuable ruble has contributed to rising inflation (\(72)\). In 2015, food prices increased by 14%. This increase has enlarged the cost of food to about 1/3 of household income, compared to about 1/9 of household income for British citizens (\(73)\). Rising food prices have incentivized consumers to switch from more expensive pork to cheaper meats, like poultry. From 2013-2015, pork consumption decreased by 7.7%, despite Russia becoming self-sufficient in pork production. While self-sufficiency measures have allowed Russia to satisfy domestic demand, it must be considered that the total consumption of Russian citizens is decreasing as well, in order to accommodate new prices (\(74)\). One additional anecdote on this topic are the rumors of widespread fake foods. Due to the inability of Russian consumers to buy banned European dairy products, and price increases for products imported from further-away destinations, it has been said that fake, cheaper cheeses have been sold in supermarkets. Excited about their good luck in finding an affordable cheese product, some Russian citizens have unwrapped a block of cheese only to find a block of grease instead (\(75)\).

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69 Medetsky, Anatoly: How an Oil Giant (Russia) Came to Dominate Wheat
70 Sheftalovich, Zoya, and Christian Oliver: Russia's Boom (Farming) Economy
71 Medetsky, Anatoly: How an Oil Giant (Russia) Came to Dominate Wheat
72 Buckley, Neil: Russian Agriculture Sector Flourishes amid Sanctions
73 Sheftalovich, Zoya, and Christian Oliver: Russia's Boom (Farming) Economy
74 Sheftalovich, Zoya, and Christian Oliver: Russia's Boom (Farming) Economy
75 Sheftalovich, Zoya, and Christian Oliver: Russia's Boom (Farming) Economy
3. EU and V4 Agriculture Today

a. The Bad

For Russia, the results of their own counter-sanction policy have seemingly produced mixed results. How has the EU and V4 agricultural and agro-food industry reacted since 2014? Initial results were not encouraging. The elimination of the EU’s (and therefore V4’s) largest extra-EU market contributed to the aforementioned worries of European farmers. EU agro-food exports to Russia decreased from €11.8 billion in 2013 to only €5.6 billion by 2016 (76). An estimate by ING Groep N.V. found that the loss of business could cost 130,000 European jobs (77). Cheaper imports from Russia (due to the devaluation of the ruble) increased price competition in EU markets as well, even forcing some British farmers out of business (78). In Slovakia, pork prices dropped by 18% in 2014, compared to 2013 prices. Similar effects were seen in the Slovakian apple and dairy markets and the Polish apple market. While Slovakian and European consumers enjoyed lower prices, some businesses were forced to operate at a loss in the short-run (79). Some commercial entities attempted to navigate around the export ban, by re-exporting through non-counter-sanctioned nations. While this was initially successful for some Hungarian businesses via Serbia, this route is no longer as used due to Russian efforts (80). In 2015, Russia began to more heavily enforce counter-sanction policies in re-exporting countries via the criminalization of food smuggling. Thus, the loophole through which EU and V4 agro-food exports flowed through Kazakhstan and Belarus, among other nations, was closed (81). Following this, Russian authorities intercepted and destroyed 1,650 kilograms of Polish apples and Belgian pears that were re-exported through Belarus and Lithuania, respectively (82). Fortunately for EU and V4 farmers, this is not where the story ends.

76 European Commission, Agriculture and Rural Development: EU Responses to the Russian Import Ban: Questions and Answers
77 Food and Agricultural Organization of the United Nations: Russia’s Restrictions on Imports of Agricultural and Food Products: An Initial Assessment
78 Doward, Jamie, and Anthony Cornish: Cheap Imports Force UK Pig Farmers out of Business
79 Cuprik, Roman: Food Producers Worry about Sanctions’ Effect
80 Novak, Benjamin: Hungarian Agricultural Producers Find Way around Russian Sanctions
81 Buckley, Neil: Russian Agriculture Sector Flourishes amid Sanctions
82 FreshPlaza: www.freshplaza.com/article/142830/Polski-apples-and-Belgian-pears-intercepted
b. The Good

Seeing the risks posed to the agricultural community, the EU has utilized CAP and other policy tools to mitigate many of the most harmful economic effects of Russian counter-sanctions. Sponsoring multiple aid packages, the EU has successfully opened new markets for V4 producers and minimized the losses of oversupply. In August 2014, the European Commission authorized a €125 million aid package for fruit and vegetable producers to compensate losses (83). This was continued in early 2015, via another €30 million package, on top of the already €60 million annually allocated via CAP. October 2015 saw further aid with a €500 million package for farmers, of which €420 million was designated for the milk and dairy and animal husbandry industries. Finally, in July 2016, another European Commission aid package was finalized for €500 million, with an additional €350 million for milk and dairy products producers (84). The funds designated through these packages served two primary purposes. The first was to pay farmers to store products for up to five months, in order to stabilize prices (85). The second was to promote export destination diversity. Following this, EU representatives were sent to North and South American, North African, and East Asian countries in order to develop new markets, with great success (86),(87).

Following the success of the EU in opening new markets, alongside individual businesses’ efforts, the statistics demonstrate that the fears of significant losses for EU and V4 producers were never realized. While European agro-food exports to Russia dropped 38% in the last 5 months of 2014, these losses have been compensated by growth in new markets as well as old (88). Total EU agro-food exports increased to €131.1 billion in 2016, a year-over-year growth of 1.6% on 2015 statistics, and 29% from

83 Lazarová, Daniela: Agriculture Ministry – “Czech Exporters May Lose Hundreds of Millions of Crowns Due to Russian Food Embargo”
84 European Commission, Agriculture and Rural Development: Russian Import Ban on Agricultural Products
85 Doward, Jamie, and Anthony Cornish: Cheap Imports Force UK Pig Farmers out of Business
86 European Commission: Draft Rule Paves the Way for EU Exports of Apples and Pears to the US
87 European Commission, Agriculture and Rural Development: Russian Import Ban on Agricultural Products
88 European Commission, Agriculture and Rural Development: EU Responses to the Russian Import Ban: Questions and Answers
2011 (89). Much of this was driven by the inherent market structure of EU agriculture. Remember, the majority of EU agricultural trade is of an intra-EU nature. This is exemplified well via Hungary and Slovakia’s intra-EU export statistics. 90% and 96.6% of agricultural trade is with EU partner countries (90),(91). Trade with extra-EU nations had grown by 2% by the end of 2014, and has continued to grow into 2017 and beyond (92). Therefore, EU countries are trading more and more often with other member states and with new partners. In fact, 12 month exports from April 2016 to April 2017 with extra-EU nations saw a 3.4% increase in value. Today, the U.S., China, Switzerland, and Japan register at the top four extra-EU agro-food destinations for member states. Russia, previously the largest extra-EU market, has dropped to a much less consequential fifth place (93). Large gains in EU imports was also seen by South Korea and Hong Kong (94).

These new destinations have aided in cancelling out any Russian-related losses to the pork industry – good news for the previously mentioned British pork industry in particular (95). Examining export changes further at the product levels, even embargoed dairy products and poultry, who saw decreased overall export value, saw increases in total volume (96). Beef products also showed small gains in total value exported. Export losses for oft-worried fruits and vegetables producers was partially offset by increases in the export of fruit and vegetable preparations (97).

Focusing on the V4’s largest agro-food economy as a case study, Poland has seen similar results as the EU as a whole. In 2013, agro-food exports totaled €20.4 billion, of which €1.25 billion was sent to

89 European Commission, Agriculture and Rural Development: Russian Import Ban on Agricultural Products
90 Novak, Benjamin: Hungarian Agricultural Producers Find Way around Russian Sanctions
91 Balogov, Beata, and Michaela Terenzani: Slovakia to Feel Sanctions
92 European Commission, Agriculture and Rural Development: EU Responses to the Russian Import Ban: Questions and Answers
93 European Commission, Agriculture and Rural Development: Monitoring EU Agri-Food Trade: Development until April 2017
94 European Commission, Agriculture and Rural Development: EU Responses to the Russian Import Ban: Questions and Answers
95 European Commission, Agriculture and Rural Development: EU Responses to the Russian Import Ban: Questions and Answers
96 European Commission, Agriculture and Rural Development: Russian Import Ban on Agricultural Products
97 European Commission, Agriculture and Rural Development: EU Responses to the Russian Import Ban: Questions and Answers
Russia. The following year, with counter-sanctions in effect, agro-food exports to Russia had dropped 30%. However, total agro-food exports had increased 7.1% to €21.9 billion. Polish total agro-food exports continued to increase in 2015 with total exports equaling €23.6 billion, of which €19.3 billion was sold to other EU nations. 2015 also saw Polish agro-food exports to non-EU and non-CIS nations increase 13%. Growth in value and extra-EU trade was again seen in 2016 (98). For Polish fruit (i.e. apple producers), export value and volume did decrease in 2014 and 2015. In the milk and dairy products category though, while export value fell, volume increased slightly (99). This gives evidence again that counter-sanctions affect EU and V4 producers asymmetrically – exposure matters. Overall, since the implementation of counter-sanction measures, EU aid packages and the introduction of new markets has blunted the Russian embargo for affected agro-food sectors. The share of Polish exports to the Middle East, North African, and East Asian markets has increased notably and helped sustain Polish agriculture across industry sub-sectors (100). In summary, the Polish agro-food industry, along with their V4 counterparts, has adapted well to losing the Russian market.

4. Summarized Findings

While managing new market conditions has not been easy, V4 agro-food sectors can rest assured that they are not dependent on a volatile Russia. Such good news is not as clear cut for a more economically isolated Russia. While they have increased their fruits, aquaculture, vegetables, and grain production tremendously, and become the global leader in grain exports, the self-inflicted costs of counter-sanction policy are greater than the Russian government wishes to acknowledge. The negative economic fundamentals of decreasing consumption, increasing domestic prices, and a weak ruble cannot be overlooked.

98 Wyciszkiewicz, Ernest: The Impact of Russian Sanctions on the Polish Agri-Food Sector
99 Wyciszkiewicz, Ernest: The Impact of Russian Sanctions on the Polish Agri-Food Sector
100 Wyciszkiewicz, Ernest: The Impact of Russian Sanctions on the Polish Agri-Food Sector
For the EU though, the European Commission has acted wisely to provide aid packages and open new markets for an initially vulnerable agricultural industry. With time, these initiatives will only strengthen European agriculture. This is especially true for V4 producers. Poland exemplifies this well via their resilience and growth since August 2014. As time continues to pass since the imposition of counter-sanctions and the lack of a Russian market normalizes, the conviction for diversification has only grown within the V4. The agricultural and agro-food industries of Czechia, Hungary, Poland, and Slovakia have weathered the initial shock, and will only be more robust going forwards.
Conclusion

Agriculture, a constant cornerstone of society, has evolved and grown in the last 100 years into a globalized industry. Never before has trade been so important for the economic health of the industry, and the physical well-being of citizens. Due to its important role in daily life in Europe especially, and in response to Western sanction policies, Russia chose to enact a set of counter-sanctions in August 2014, targeting the Western agriculture and agro-food industry. In this essay we analyzed the impacts of Russian counter-sanctions for V4 producers, Russian producers, and the wider EU. Has V4 agriculture experienced the severe retraction that so many predicted would result from the loss of the Russian market?

Russian counter-sanctions are designated at the product-level and effectively ban the import of most EU and Western agro-food goods. For the V4 and Russia, agriculture has and will continue to register as an important contributor to gross domestic output. Russian agriculture, ranking 7th globally in total production, displays a focus on grain and wheat production (101). However, while excelling in the growth of grain crops, the Russian agricultural industry is overall poorly diversified. Partially due to cultivation and animal husbandry choices, Russia is also susceptible to increased costs from self-created geopolitical uncertainty and volatile weather conditions. On the other side, European agriculture is structurally incredibly diverse and profitable, as supported by the variety of production of southern member states and the logistical excellence of more northern ones (102). This framework has allowed Czech, Hungarian, Polish, and Slovakian agro-food producers to thrive as well. While Poland possesses the largest agricultural economy by a wide margin in the four-nation group, Hungary, Czechia, and Slovakia are still valuable pieces of the EU agricultural production mix.

102 Peperkamp, Michel: CBI Trade Statistics: Fresh Fruit and Vegetables in Europe
After reviewing the minutiae of Russian counter-sanction policy and the market structures of the Russian and EU (and V4) agriculture, we reviewed literature and data concerning the direct V4 export of banned products to Russia. Based upon a small literature review, I found that product exposure to the Russian market in August 2014 was deemed to be the most important factor in determining how detrimental counter-sanctions would be for industry sub-sectors. Annual export data was collected from 2010-2016. For product groups that showcased non-negligible trade amounts, strongly negative trends were present for banned exports once counter-sanctions were enacted. While this was expected, it was beneficial to examine the annual amounts of now-banned V4 agro-food exports to Russia.

The results of counter-sanction policy for the Russian agro-food market are mixed. While Russia has become the world’s largest grain exporter and seen significant growth in the production of various product groups, the long-term effects of counter-sanctions may ultimately cause more harm than benefit (103),(104),(105),(106). For V4 producers, has the loss of the Russian market significantly harmed business? The trends seen in historical data may seem to support this argument. However, looked at holistically, I conclude that counter-sanctions did not have the negative impact expected. Following the announcement of counter-sanctions, the European Commission authorized numerous aid packages to stabilize prices and developed new markets for EU (and therefore V4) producers (107),(108). Supplementing the already robust intra-EU agro-food trade market, where the vast majority of EU and V4 agricultural trade occurs already, a notable shift away from the Russian market has taken place. While once the EU’s largest extra-EU agricultural trade partner, Russia has been replaced by North and South American, Northern African, and Asian partners (109). Poland, as discussed, exemplifies the success of V4 nations appropriately adjusting to

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103 Sheftalovich, Zoya, and Christian Oliver: Russia's Boom (Farming) Economy
104 Buckley, Neil: Russian Agriculture Sector Flourishes amid Sanctions
105 Foy, Henry: Russian Agriculture Thrives as Sanctions Close off Imports
106 FreshPlaza: www.freshplaza.com/article/192138/Russia-expects-fruit-production-to-grow-by-nearly-14-procent-in-2018
107 European Commission: Draft Rule Paves the Way for EU Exports of Apples and Pears to the US
108 European Commission, Agriculture and Rural Development: Russian Import Ban on Agricultural Products
109 Wyciszkiewicz, Ernest: The Impact of Russian Sanctions on the Polish Agri-Food Sector
counter-sanction policies. While some segments of the agro-food industry have faced short-term difficulties, total EU and V4 trade of agricultural has annually grown since 2014 (\(^{110}\)).

In conclusion, Russian counter-sanctions have been unsuccessful in neutralizing EU sanction efforts. If anything, the economic shock created by counter-sanctions has strengthened EU and V4 agriculture. Expected losses have been offset by growth in intra-EU trade and new extra-EU trade relationships. Today, total EU agro-food trade has never been higher. With newly diversified customers, as well as a strengthened European trade bloc, V4 agricultural industries can look to the future with optimism.

\(^{110}\) European Commission, Agriculture and Rural Development: Russian Import Ban on Agricultural Products
Works Cited


“Agriculture Industry In Russia.” Invest in Russia, Hanko Hackberry Group, 2016, www.investinrussia.biz/industry/agriculture/agriculture-industry-russia.


World Development Indicators, The World Bank.

Figure 14. V4 Share of EU Cereals Production (2016)

Source: Eurostat Agriculture, Forestry, and Fishery Statistics (2017), AJTK Calculations
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Figure 15. V4 Share of Primary EU Roots Production (2016)

![Figure 15: V4 Share of Primary EU Roots Production (2016)](image)

Source: Eurostat Agriculture, Forestry, and Fishery Statistics (2017), AJTK Calculations

Figure 16. V4 Share of Primary EU Fruits & Vegetables Production (2016)

![Figure 16: V4 Share of Primary EU Fruits & Vegetables Production (2016)](image)

Source: Eurostat Agriculture, Forestry, and Fishery Statistics (2017), AJTK Calculations
**Figure 17. V4 Share of Primary EU Meats Production (2016)**

Source: Eurostat Agriculture, Forestry, and Fishery Statistics (2017), AJTK Calculations

**Figure 18. V4 Share of EU Milk & Primary Dairy Products Production (2016)**

Source: Eurostat Agriculture, Forestry, and Fishery Statistics (2017), AJTK Calculations