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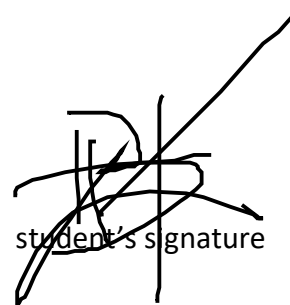
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HUNGARIAN-RUSSIAN ECONOMIC RELATIONS AFTER THE UKRAINIAN CRISIS:
SANCTIONS, NATURAL GAS AND PAKS 2

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Introduction

Hungarian-Russian Economic relations have been through a lot from the times of pursuing common socialistic interests to economic relations of two sovereign countries. It has been a rollercoaster of positions, situations, and characters. In the last few years, Hungarian-Russian concerns came to immense popularity due to recent events. While Western EU-members try to shy away from the Eastern-partnership, Hungary continues to develop its ties. The Paks project, which is a joint-venture in expanding the Hungarian Nuclear Energy sector, has just been put in its first gear. As other countries try to undermine these relations, we can speculate how things will turn out. Relations between countries cannot be sheerly economic. Politics are the main driving force in the relevant events, so the links have been studied in a socio-politico-economic way.

In this study, the focus is on the scenarios that followed after the Ukrainian Revolution depicted in a few chosen out cases. The main question is how the situation has changed between the two parties. I include the history of relations from the near-past for additional clarity and a smaller overview of the events with other information. The study's focus is on some exciting business ventures and situations connected with Russia and Hungary. Such as the Paks 2 Nuclear Power Plant project and the seemingly illogical Natural Gas backhauling. After starting the commotions in Eastern parts of Ukraine, affirmative relations with Ukraine and Russia seemed impossible. Ukraine had often stated in the world political arena that they had been victims of war and seized territories by the Russian Federation. This decision and the intrusion of western countries into Ukraine's sovereignty with the international sense of justice has created an economic downfall for the past six years. The sanctions imposed affected both sides (EU and Russia) their effectivity is controversial, and I'm trying to give some insight into the subject later on.

In recent years there was a tug of war between Hungary and Ukraine. Hungary dragging with it is the use of the veto right. Ukraine's method is to take away rights from the Hungarian minority living on its territory. Also, Ukraine has clearly stated that it does not appreciate other countries having a good relationship with Russia. So the undermining of Hungarian-Russian relations was another choice to have some effects in political warfare. These tugs from both directions made the rope stay in one place. The veto is still not lifted, and the notorious Ukrainian language law is still in place.

Meanwhile, conflicts are still happening in the Donbas region; political uncertainty is certain, and political moves seem controlled. Many businesses that worked in both Russia and Ukraine needed to seize operation in one of them to avoid problems in their future ventures. Ukraine

blocks Russian influences in its country. Most of the companies that work in Hungary and do business with Russia also did with the other CIS(Ex-Soviet-Union) countries. Therefore after the conflicts, they suffered casualties in the form of lowered revenues and artificial obstacles that made operations harder than they should have been.

Hungary needed to choose whom they want to be their strategic partner out of Russia and Ukraine. The decision was easy as Russia is a trading partner that Ukraine cannot compete with. At the same time, choosing a firm standpoint in the situation was not possible, as the European Union and the United States of America supported Ukraine wholeheartedly in the problems that arose, especially at the start of the happenings.

The geological location of Ukraine plays a significant role as well. It is precisely placed between Hungary and Russia, making it a buffer zone between East and West. Land transport usually running through it, to get to the destinations. Train tracks that date back to the Soviet Union also placed through its land, not to mention the natural resources passing through.

The study's focus is on sanctions, natural gas, and the Paks 2 project. Sanctions are a direct result of Russia's "actions" in Ukraine. Sanctions that were initially intended for Russia ended up affecting most of the European Union in some way or another. Hungary was one of the countries which felt it the most both ideologically and economically. Sanctions will be brought up from both sides and a broader focus on the coin's Hungarian side.

Russia's main export and political weapons are their sheer natural gas reserves which are nowadays flowing throughout Europe. Like most of the countries in Central-Eastern-Europe, Hungary import their natural gas from the Russian Federation despite many diversification attempts. With many pipelines on the way, Gazprom is steadily increasing its grasp all over Europe. With Ukraine creating a situation where the previously most-used channel will be virtually unused. Ukraine buys the Russian gas from its other neighbours such as Hungary and Slovakia when in no position to purchase natural gas from their Eastern Neighbors directly.

The paks 2 project may not be relevant regarding the study's title, but it is the most crucial future landmark in Russian-Hungarian economic relations. A mega project worth more than 10 billion EUR is essential both for Hungary and Russia. After the deterioration of ties with the European Union, the Russian Federation has been allowed to construct such a strategic project.

Methods and Difficulties of the study

This area has not been studied yet due to it being a pretty recent occurrence. The research is mostly based on news articles, journals, and official reports. As to the history of Russian-Hungarian relations, many books and studies are used as a building material. Economic ties cannot be studied without good numbers, statistics. The biggest problem in this field that we talk about two countries, which differ in many ways. Calculation methods, taxations and grouping, et cetera differ. That is why we see radically different numbers on each side. In these situations, the only way to understand the changes to change to a bilateral percentage system is by looking at both sides simultaneously. Currencies are different, and the exchange rates which

they calculate with do not match either. It is not a problem for the Russian side because these numbers are meant to use internally. Hungary, on the other hand, does it in correspondence with European Union regulations.

One of the main goals was to analyze the case from both sides. It is manageable by looking at press releases in both languages, which are highly contradictory. Considering all the ideological differences between the two sides, this way proves to be the more logical for getting a clear picture. Articles from the Hungarian side consist of sources that support the current Government and those they do not. Not many offer information based on analysis and understanding of the ongoing event, and usually, these are smaller blogs or freelance writers whose articles sometimes get in more prominent journals. Those that do their journalism in a pro-government way welcome Russia as an economic and political partner. The other side thinks Russia is not a good fit for the country's position and overall development. These factors make some material very biased and unusable. Russian journalism has similar characteristics. Most of the analytical material is found on youtube and similar video/audio platforms, where people analyze recent news and statistics. The analysis provided most of the time is profound and focuses on their side of the coin. It is tough to use for the audio format's sole reason, which requires attention and understanding of the subjects. The materials have no English versions whatsoever. It is not easily accessible without a good knowledge of Russian. In summary, gathering subject matter is quite troublesome and challenging.

Because this study considers many viewpoints present in these events, only by understanding everyone's decisions could one know the whole situation.

There is a few hypothesizes that I would like to prove throughout the study

- The initial sanctions had not achieved their goal of overall weakening the Economy of the Russian Federation. It played along to fortify their turtle-like inner economy.
- In the long term, the Hungarian economy got hurt by sanctions more prominent than their Russian counterpart.
- Paks 2 is a strategic sentiment made by the Government of Hungary
- Hungary is the most significant natural gas exporter to Ukraine
- Russia sees Hungary as its ally in the European Union.
- Ukraine does not make friendly ties possible with the Russian Federation and with them at the same time.
- The Russian Federation`s new natural gas pipelines will give a strategic advantage for Hungary

Looking through the comparative history of Russian-Hungarian economic relations could provide insight into the current happenings. I wanted to start my study just before the start of

the Hungarian Democratic transformation in 1989. When the two countries would begin to become equal, they could deal and communicate with each other in a comparable manner. These are the times when the life-long struggle that is apparent even nowadays appeared, that should Hungary be focusing on East or West or even could it do both effectively at the same time.

History of Hungarian-Russian Economic relations

For the study's best comprehension, it is vital to know the events that preceded the study's subject matter. Hungary and Russia in some forms and others have been around for centuries. Disputes and friendships between kingdoms or monarchies mustn't be relevant to this study. A correct start would be the precursor times to the end of communism in Hungary. The country for a long time was readying itself for changes. It knew that it wanted to move from a planned economy to market-based and change socialism for democracy. The 1956 revolution showed that the Hungarian people were not happy with the regime and the military control of the Soviet Union. Being in that position meant that they were not part of the ongoing global trade and were solely dealing with the Soviet Union and countries of socialistic interest. In the Soviet Union, work was "divided," and every ally had some sector designated to them; Moscow chose these. Production quotas and development were overlooked from the top as well. All this made the companies and products located in the Soviet Union and its influence area inferior to their capitalistic counterparts. Most of this could be accredited mostly to the lack of competition, which would prove later fatal when the decision to ditch the planned economy was made. These economic relations were not optional for Hungary, which was demonstrated in 1956. The Soviet Union wanted to control Hungary and have it remain in the area of interest. They made many efforts for the liveliness of socialism on Hungarian soil.

Pre-EU times

Despite the well documented historical difficulties in the USSR, in 1991, the parties continued to work on the latest agreements of the primary documents that were supposed to open the way for new relations. However, given the looming crisis events, aggravated by the Russian Federation and the USSR leaders' contradictions, almost a similar agreement with the Russian Federation was being prepared just in case. On December 25, 1991, the collapse of the Soviet Union was official, and the successor was the newly proclaimed Russian Federation with their first President Boris Yeltsin. Before this, Antall Jozsef departed to Moscow to sign the new Russian-Hungarian basic-treaty, which included condemning the Soviet intruding in the 1956 Hungarian Revolution. This was incorporated by the personal recommendation of Boris Yeltsin. Russia undertook the Soviet Union's debt to Hungary and promised to pay 61 percent of it and thanked the Hungarian President for supporting him in August of 1991. On his way back from Moscow, Antall Jozsef stopped in Kyiv to meet with Leonid Kravchuk for the signage of the controversial Ukraine-Hungary basic treaty. Ukraine guaranteed the safety of the Republic of Hungary's eastern borders and promised to pay back the debt that is connected to Ukraine, which did not happen. A new chain of meetings started regarding the Soviet debt between Hungary and Russia. The latter side undertook the full obligation based on the inheritance of the Soviet Unions' overseas properties.

Boris Yeltsin's visit to Hungary in November 1992 did not make any significant progress in the development of relations. Yeltsin's first meeting took place on the phone with Hungarian Prime Minister Jozef Antall took place in the difficult days of December 1991, when he was one of the first to express his solidarity to the Russian President. Hungary was also the first Eastern European country to recognize

an independent Russia. As Antall recalls, all the negotiations with the Russian leader contributed to favorable conditions for mutually beneficial Hungarian-Russian relations.

However, the real base for such was rapidly disappearing. Hungary has reoriented itself quickly to the West, considering Russia insolvent. As with many other countries, at the forefront of the negotiations was the problem of debt, determined by experts at \$1.6 billion. Half of it, 800 million USD, is used to purchase 28 MIG-29 jet fighters, while the other half let Hungarian businesses purchase Russian products while making some people rich. The Russian troops that left the country in the summer of 1991 left 176 objects on Hungary's territory. Moscow asked for monetary compensation for the buildings above. In reply, Hungary came up with an evaluation regarding the environmental harm done by Soviet constructions. In response, Boris Yeltsin offered Jozef Antall a "null option" when the Russian army's property on Hungary's territory would be taken into account as a debt. However, the fate of this document was not easy. During Yeltsin's visit, a Declaration on principles of cooperation to ensure the rights of national, ethnic, religious, and linguistic minorities was signed. Realizing the loss of about 30 million of their compatriots after the collapse of the Soviet Union, Moscow considered that Hungary's experience in solving its diasporas in neighboring countries could be useful.

Russia recognized its national debt to Hungary and routinely fulfilled the Hungarian side's changing requirements for the first ten years. They were concerned about the terminology of deliveries and methods of repayment of debt. The trade turnover between Russia and Hungary and Russia's relations with other Eastern European countries reached its lowest limit in 1993-1994. Then it began its slow rise, again crippled by the Russian default in 1998.

Thus, the first decade of the "new relations" actually turned into stagnation and continued deconstruction. Both sides were in the grip of compensating ties. In this sense, Russia very quickly found new suppliers for the range of products that it previously received from the socialist countries of Eastern Europe. The fear of the pitfalls of Hungary's new political obligations, as other countries – the former allies of Moscow – left the main effort to establish links directly with the Russian regions. It replaced the ideology of the socialist brotherhood with an ethnocultural kinship with the Finno-Ugric people of Russia. This line was maintained by Budapest, regardless of the orientation of the Government in Budapest. The national-liberal Cabinet of Jozef Antall and the social-liberal Government of Gyula Horn kept a certain distance in Moscow's relations, as did the first Government of Viktor Orban. The Peak of the deterioration of political relations coincided with the war in Yugoslavia. The day before the country that joined NATO, Hungary announced that it would not allow a Russian cargo convoy to cross its border to help the Serbs. Also, not letting them use their air-space after the famous Pristina Airport dash. It was a kind of sobering moment, which highlighted the real distance between the parties and made us think about the relationship's future for the first time in ten years.

The early 2000s

Several factors contributed to an absolute improvement in Russia and Hungary's relations with the advent of the new Millennium in the early 2000s. By that time, the consequences of the Russian default had begun to be overcome. Hungary, having become a member of NATO, was calm about its security. Besides, the issue of Hungary's admission to the EU was almost irrevocably resolved. The sense of safety achieved in this way allowed Hungary to step up its policy in the Russian direction. The need for this was felt, though it would be only because of the country's dependence on Russian energy supplies. By this time, Russia had paid off its debts after the withdrawal of its troops. Besides, in Russia, by this time, the

leadership had changed, and predictability appeared. At the beginning of the new Government, Central-European countries got little to no attention while it shifted onto other areas.

In the political sphere, there were few successes, and the topics for discussion were not easy. On the one hand, improving relations were dominated by the shadow of the events of 1956, which is periodically used by politicians. On the other is the tragic memory of the Second World War. Both countries worked on the problems of the historical memorial complex. The Hungarian side also expressed its desire to get back the cultural values removed from its territory during the war. Problems were slowly being solved. In Hungary, it was possible to preserve and restore the graves of Soviet soldiers and save the monument to Soviet soldiers on Freedom square in Hungary from repeated offers to move it. In turn, Hungarians had the opportunity to open in May 2003 in the village of Rudkino, the largest memorial in memory of the Hungarian "Don army" that died during the war near Voronezh.¹

Hungarian-Russian trade depicted on Sectors

Sectors	Export				Import			
	2003 M €	2003 %	2004 M €	2004 %	2003 M €	2003 %	2004 M €	2004 %
Food, Beverages, Tobacco	160,2	27,7	155,9	21,2	0,4	0,0	0,8	0,0
Raw Materials	19,4	3,3	20,4	2,8	74,0	2,9	119,6	4,3
Energy	0,0	0,0	0,5	0,0	2170,4	85,3	2203,8	80,4
Processed Products	277,2	48,0	421,7	57,5	208,4	8,2	330,5	12,0
Machinery	121,2	21,0	136,2	18,5	90,4	3,6	90,7	3,3
Total	578,0	100,0	734,7	100,0	2543,6	100,0	2745,4	100,0

Source: KHS

2

Table 1

The above table depicts the state in which the Russian-Hungarian economic relations were in the period of 2003-2004 with then at the lowest where the relationships have been. For see-throughness sectors have been included with percentage for each of them respectively.

After Budapest received a debt from Russia for mutual settlements during the COMECON (Council for Mutual Economic Assistance) period, economic relations developed more steadily. Still, it did not make any other claims since the payments had already hindered trade relations between our countries for many years. Hungary quickly lost its once-won positions in supplying agricultural, pharmaceutical, and light industry products to the Soviet market. Therefore, the priority task for Hungarians in the 2000s was to support these "traditionally successful" export items to Russia. The result was not long in coming: by 2004, Hungarian supplies to the Russian market had doubled, and mutual trade reached half the

¹ Keskeny (2012) (The History of relations that has been marked was written by data and information from the book mentioned, which contains the most fulfilling relevant information of that period)

² Table with data compiled from KSH (Hungarian Central Statistical Office) sources

COMECON period's volume. However, a large share of Russian exports to Hungary was still energy, which always provoked a trade deficit.

Progress began with the introduction of new forms of economic interaction: participation in privatization and investment cooperation. By that time, Hungarians had already gained collaboration in such areas through involvement in Russian enterprises' privatization. Gradually, the line of pragmatism and economization of ties prevailed in the relations. From a distance of time, it can be argued that the frequency of high-level delegation exchanges and top-level visits was approximately the same under both the social-liberal governments of Meggyesi/Gyurcsány/Bajnai and the conservative Government of Orbán. Meetings of the leaders of the countries took place annually, or even twice a year. Although both then and now, those who are "not in power" actively criticize Moscow's relations. An essential stage in restoring relations was Moscow's visit in February 2005-Prime Minister of Hungary Ferenc Gyurcsány. Then entrepreneurs of the two countries signed contracts worth more than \$ 30 million.

The culmination of Russian-Hungarian relations of the "recent period" was Russian President Vladimir Putin to Budapest on February 28 – March 1, 2006. This was his first visit to Hungary and the second visit of a Russian President to this country. Vladimir Putin brought three hundred entrepreneurs to Budapest for talks. Besides, several joint documents were signed during the visit that expands and complement the legal framework of bilateral cooperation. Simultaneously, the Russian President proposed to create a gas distribution center in Hungary for Russian gas flows exported to the EU. Despite the lack of consensus on this issue in Hungarian society and the barrage of criticism, Prime Minister Gyurcsány acknowledged in a conversation with President Vladimir Putin the liberation mission of the Soviet army during world war II.

During the 2006 election campaign, it became clear that the Russian factor returned to Hungarian politics and played an essential role in it. The social liberal coalition very actively used the Russian President's visit as part of its election campaign. That even during the TV debates, then Prime Minister Ferenc Gyurcsány argued that the Russian Federation is an important trade partner where local businesses could market their goods. This was especially critical due to the 2008 World Financial Crisis, which shook both sides of the world and forced countries to rethink their economic policy. Until that time, Hungary was focusing on trade with the West, which did not work out and got them to a debt time. Hungary, hungry for economic upbringing, understood that portfolio diversification is in need, and entirely forgotten eastern partners were again brought into the spotlight.

A new critical stage of relations began with the return to power in 2010 Prime Minister Viktor Orban's office. Starting to build relationships with Russia in 2010, the FIDESZ government concentrated its proposals on the "policy of opening to the East." Based on the time when this policy was created, we can assume that it was also parallel to the Eastern partnership policy. Relations with Russia within the framework of the "Opening to the East" – for the first time in the recent history of Hungary-have gained a conceptual basis. Up to today, this compares favorably with Budapest's policy towards Moscow. In the early years of Orban's rule, Russia was one of the main elements in this strategy. Gradually, its focus shifted further beyond its horizons, to the former Soviet republics of Central Asia and later towards China.

However, after the crisis of 2014, against the background of activation in the Central European region of China with the concept of "one belt, one road," the Russian direction somewhat lost priority. There was no break in Russian-Hungarian cooperation due to the crisis in Ukraine and the imposed sanctions. Gradually the Russian movement was only part of a multi-vector politics in the East of Hungary. However, by the end of the second decade, economic interaction reached a new level, which was interaction in third-country markets. An example is the creation of a consortium for the modernization

of Railways in Egypt. Perhaps this project can be considered the most high-profile after Paks in the modern economic cooperation package between the two countries. Pragmatism is firmly established in the Russian–Hungarian relations of the new century.

The organization of the visit of Russian President Vladimir Putin to Hungary on February 17, 2015, can be considered a symbol of a new stage in Hungary's policy, a kind of gesture of independence from European public opinion. This was the first trip to Europe of the Russian leader after the EU imposed sanctions on Russia. Simultaneously, it was Vladimir Putin's second visit to Budapest, almost a decade apart. Since then, the schedule of nearly annual official meetings of the two leaders in Moscow and Budapest has been established.

Many Russian-Hungarian business ventures within the framework of the Hungarian-Russian joint venture, a meat plant with a capacity of 4,800 tons per year will be completed near Moscow by the beginning of 2020, and a dairy plant will also be built next year with a joint venture investment of 34 million euros near the Russian capital. The pharmaceutical company Richter is building a new plant to produce 80 million medicine boxes a year to make 2 billion tablets a year in Russia. Sanatmetal, a manufacturer of medical devices, set up a plant with an investment of EUR 4 million, and Agrofin, also a Hungarian, built a feed plant for EUR 13 million and became one of the largest feed distributors in the Russian market.³

Hungary shows and markets its friendly ties with the Russian Federation when in 2019 Viktor Orbán got asked by the US ambassador to increase pressure on Russia and China he rejected, saying that Hungary has business interests that they do not want to put in jeopardy. Later on, Washington introduced Russian-style sanctions against Hungarian officials to warn on the reason for the "threat to democratic values." The Russian Federation is a government that likes and rewards gestures made while promoting friendship. They value and cherish the not-many allies they have around the globe. On a political summer camp, Orbán said, I quote, " We need to know that Russia sees itself as an unsafe country if collision zones do not surround it. Therefore, it will seek to establish collision zones around Russia just as it has so far. Ukraine is one of the victims.. They want to join the Western world and therefore break away from the Russian zone, perhaps get closer, join NATO, the European Union, and build a modern Ukraine. I do not see NATO membership. The reality of EU membership is almost zero.

In this context, the relationship between the European Union and Russia must be considered. And let me be rude and prudent, but let me say that the European Union is pursuing a primitive Russian policy today, a policy that refers to sanctions and security threats. Unable to make a difference, that would be necessary, because there are countries within the European Union that can really feel threatened, really feel that their lives are spent at the risk of security every day. Such are the Baltic states, and such is Poland. This feeling is justified by both history and geography. At the same time, it was evident that Hungary does not feel such a threat, Slovakia does not feel such a threat, neither do the Czechs or

³ New Hungarian successes in business with Russia (2019)
<https://www.portfolio.hu/gazdasag/20191029/szijjarto-a-magyar-orosz-gazdasagi-kapcsolatokrol-beszelt-405431>

Western Europe. And we also have a reason to feel that way. Instead of a primitive Russia policy, we would need a fragmented Russia policy for the European Union."⁴

In this quote, the prime minister of Hungary has pointed out the difficulty of the situation at hand and the need for a new policy and economic grasp targeting the Russian Federation. In my mind, it sums up the situation well, and shows Hungary's position regarding the European Union's Russia policy while mentioning Ukraine's struggle for its path to the European Union. Meanwhile shows a wanting for the situation to improve, meaning that Hungary's path lays with Russian-Hungarian economic cooperation.

The Ukrainian Situation

First of all, we need to understand what happened at the time when things have turned around unexpectedly and what made the nowadays taken for granted Ukrainian-Russian political differences to appear. Seven years ago, between November 29 and December 30 2013, Euromaidan ended in Ukraine, and the "revolution of dignity" began. This happened after Yanukovich at the Eastern Partnership summit in Vilnius on November 29 refused to sign the Association Agreement with the EU, and on the night of November 29-30, with unusual cruelty for Ukraine, broke up the camp on Independence square.

The Euromaidan with "coffee and good mood," which Mustafa Nayem called for on November 21, turned out to be connected with the severe and mass civil protest that began on November 30, except for the occasion and venue. New people came to the square, and there were significantly more of them. Now the number of participants in the action was measured in the hundreds of thousands and approaching a million. In contrast, the day before a significant success could be considered a ten-thousand rally. However, most importantly, the campaign's slogans began to be written in a much more uncompromising language. Instead of "Yanukovich, sign!" they began to demand "Yanukovich, go away!" and increasingly chant "Revolution!«. This change in mood was due to the crackdown that happened against peaceful protesters, which was allegedly ordered by the current President, but he denies the claims. The current and past Ukrainian authorities consider the former head of the Ukraine Serhiy Lyovochkin's presidential Administration to be one of Euromaidan's ideologues and the authors of the crackdown. His wife actively supported Nayem's initiative and was herself among the protesters. Furthermore, after the Euromaidan crackdown, Lyovochkin even resigned, which Yanukovich accepted only in January.⁵

The revolution has created a conflict of interest between the people economically ruling Ukraine. Some parties wanted to stay affiliated with the Russian Federation while others leaned to the European/Western side. These affiliations were motivated by previous business ventures. For example, Rinat Akhmetov, who bought steel mills in Italy and the UK and a coal mine in the US, was directly interested in entering the European and American markets. The Association agreement provided such an opportunity, while the orientation to the Customs Union (with Russia) was not profitable for the oligarch because his direct competitors — Russian metallurgical companies—were located. Another

⁴ Speech of Viktor Orban made at the 29th Balvanyos Summer Camp (2018)
<http://www.miniszterelnok.hu/orban-viktor-beszede-a-xxix-balvanyosi-nyari-szabadegyetem-es-diaktaborban/>

⁵ BBC RUSSIA (2019) (A press article that points out the details regarding the crackdown of the EuroMaidan)
<https://www.bbc.com/russian/features-42178908>

central business area of the country's first oligarch — energy, also needed a European perspective, as Akhmetov expected to occupy a niche in the export of electricity from Ukraine, which at that time was in surplus. However, he played on both sides as a kind of waiting game, from which situation he will profit the most out of. Most of the oligarchs wanted to get rid of the Government because they were not getting most of the business ventures. Many see the possibility in the revolution to gain power and money or to place their subordinates in critical positions.⁶

After the start of the revolution, tensions started all around the country, "mini-revolutions" in most of the regions. Anti-Russian feelings have been injected into the Ukrainian people, which were not welcomed by the people living in Ukraine but identified themselves as Russian nationality. Due to the dilemma mentioned above, Russia could successfully inspire commotions in the Donetsk and Luhansk oblasts of Ukraine, collectively called the "Donbas." During the aftermath of the EuroMaidan, Russia exercised the infamous annexation of Crimea, which resulted in a worldwide backlash. A have not seen before the threat to territorial sovereignties of Eastern-European states. The annexation took place in the form of a vote that gave Crimean residents the possibility to choose whether they want to live as a part of the Russian Federation or Ukraine. The operation shooked the world, showing that territory capture could be done quickly and effectively even in the 21st century.

The annexation was a clear violation of the Charter of the United Nations. The Budapest Memorandum was also an "agreement" that made Ukraine lose the third-largest nuclear weapon stockpile globally, with Moscow, the United States, and the United Kingdom signing for the defense of Ukrainian territorial integrity. Not too common knowledge, but the Memorandum mentioned above was worthless. The only thing that was clearly stated that the countries guaranteed to help Ukraine in case of an attack that included nuclear warheads. In case of a non-nuclear threat, the countries were advised to discuss the situation that did not happen due to Mr. Lavrov's boycott, who stated after a question regarding the Memorandum, "If you're referring to the Budapest Memorandum, we have not violated it. It contains only one obligation—i.e., not to use nuclear weapons against Ukraine. No one has made any threats to use nuclear weapons against Ukraine".⁷ Ukraine gave their military might away because they did not have all the instruments to maintain and deploy the atomic missiles.

Moreover, at the beginning of Ukrainian sovereignty, there were no funds available for the maintenance and other ventures. Ukraine initially wanted to sell the nuclear missiles prior for 1 billion USD/silo, but Washington did not let this happen. In the end, Ukraine did not get much from the Memorandum; the reason for this, in the opinion of then Ukrainian President Leonid Kravchuk, is the non-inclusion of set mechanisms and steps for help and intervention.⁸

⁶ RBC RUSSIA(An analysis regarding the reasons that started the Ukrainian Revolution of 2014)

<https://finance.rambler.ru/other/38463935-pochemu-sluchilsya-maydan/>

⁷ (Lavrov) NEWS LIGA (The minister of foreign affairs of the Russian Federation explains why they have not violated th Budapest Memorandum, which was an official case where Ukraine gave up its nuclear weapons in exchange for securities provided by signing nations) (2018)https://news.liga.net/politics/news/yadernoe_oruzhie_my_ne_primenili_i_budapesht_ne_narushili_lavrov

⁸ Gordon (2020) (An interview with the First President of Ukraine in which he talks about the situations that made Ukraine to sign the Budapest Memorandum) https://www.youtube.com/watch?v=0tKToc-rSNM&t=7432s&ab_channel=%D0%92%D0%B3%D0%BE%D1%81%D1%82%D1%8F%D1%85%D1%83%D0%93%D0%BE%D1%80%D0%B4%D0%BE%D0%BD%D0%B0

By the end of 2014, a civil war started in the eastern regions between the residents and the Ukrainian army, which is still ongoing to this day and made some Ukrainian areas unusable. Russian Federation on actions "destabilizing the situation in Ukraine." The European Union and Washington tried to control the situation and used sanctions to stop the Russian "expansion." As mentioned earlier, the moves from the countries were not justified as they never held any juridical authority in those territories.

Ukraine has not yet recovered politically, economically, or in any sense, since the revolution on the contrary to the official position. Its former ally, the Russian Federation, and its leader Vladimir Putin have been turned into a named enemy. Tensions do not seem to be decreasing, and more recent incidents such as the one in the Kerch Strait, where sailors got sent in to further fuel the political difference. The incident was enough to fuel and maintain the hate towards Ukraine.⁹As of 2020, Ukraine's facts do not control the Crimea and Donbas/Lugansk regions are taken for granted and not even talked about. A peaceful settlement regarding the livelihood of residents in the Eastern disputed areas has not yet been made. It is certain that Ukraine, on the contrary to its official position, does not want a quick resolution on the reason of being worried about results.

Power of Sanctions. Did they prove useful in the long run?

History of Sanctions

The use of sanctions related to the imposition of a ban on various types of cooperation, primarily trade interaction with a particular country, is a relatively common tool of pressure that is historically related to military actions, usually preceding military actions or used to strengthen their positions during military operations. The institution of sanctions has also been used against political competitors in history. Gradually, sanctions were used mostly as an instrument of unfair economic competition and influence on a particular country's political situation.

At first, the most common tool of sanctions was used by the British, who, producing an immense volume of industrial goods, had the opportunity to put economic and political pressure on other States. By the way, the British's desire to protect their financial interests was one of the reasons for the country's entry into the First world war. As for the United States, it is easy to remember their desire to resist Japan, against which they imposed sanctions on energy supplies. This also explains why Japan considered the United States, and not the USSR, to be the main enemy. Alternatively, here is another example related to economic interests: in 1973, Arab oil-exporting countries imposed an embargo on the supply of petroleum products to the United States, opposing their support for Israel, which caused a prolonged energy crisis. In response, the US broke off technological cooperation with these States.

In the future, the United States replaced the British on the fields of sanctions wars and often began to use the tool of sanctions, especially during the cold war. However, in recent years, they have used this tool much more often than before. Moreover, at least half of the world was subjected to some sanctions initiated by the United States, if not most of it. The US also actively supports international sanctions on

⁹ 112 news (2020)(A detailed analysis of the incident in the Kerch Strait with proofs linking it to President Poroshenko) <https://112.ua/statji/my-s-etogo-sdelaem-reyvah-kak-poroshenko-posylal-v-plen-moryakov-strana-publikuet-ekspertizu-po-kerchenskomu-delu-536103.html>

the supply of technology, weapons, or specific goods to certain countries. It is essential that in the 1990s, the United States recognized that the sanctions imposed by them might include food and even medicine, and in this case, sanctions can be considered an instrument of war. In General, the United States is very committed to the institution of sanctions and believes itself entitled to impose them whenever it pleases. At the same time, in the United States, sanctions against other countries are assessed not only by the Federal Government ¹⁰but also by State and local authorities — even at the level of city authorities.

2014 Sanctioning

The sanctions against Russia started after the debated Annexation of Crimea that happened on February 27, 2014.

The first ones to forego with sanctions were the United States of America on July 12, 2014, with Executive Order 13662. The United States Government wrote out restrictive measures targeting the Russian Federation economically. Most of the steps are definite, with some falling on member states' judgment, which has designated competent authorities that decide based on situations.

Prohibited areas are the following:

- Sale of dual-use goods and technologies to any Russian related party
- Sale of technologies suited to the oil industry for use in deepwater oil exploration and production, Arctic oil exploration, and production, or shale oil projects in Russia.
- Technical/Financial assistance to items listed in the Common Military List for use in Russia
- Deal with transferable securities (maturity >90 days later 30) relatable to listed institutions/persons.

Gas/Oil-related impact

An analysis of the entire set of sanctions in 2014-2017 shows their high conditionality: an essential feature of these documents is their very vague wording, which in principle creates a large variability in interpretation and application depending on the circumstances and the degree of geopolitical confrontation. Within the framework of already adopted sanctions, both the basic scenario (maintaining the status quo) and the "strengthening of sanctions" scenario are possible, including a more stringent interpretation of existing sanctions and their active application to specific projects. Moreover, the degree of impact in both cases depends on the time horizon.

For oil, noticeable negative consequences may begin to manifest themselves even within the framework of existing sanctions by merely applying more consistent financial restrictions and expanding the interpretation of technology restrictions. For example, transactions with hydraulic fracturing equipment, which currently provides about 10% of total oil production (about 50-55 million tons), are subject to regulatory control, and, according to the measures already introduced, if the technology, according to the regulator, can theoretically be used for shale oil production, the supply of such equipment is subject to a ban. Russia produces its hydraulic fracturing equipment, but Russia has not made a single hydraulic fracturing fleet for three years after introducing sanctions. The existing fleet is becoming outdated and needs to be replaced.

In the gas sector, the sanctions that have already been adopted also create a lot of scope for introducing restrictive measures: a lot depends on interpreting the adopted acts. A striking example is the Yuzhno-

¹⁰ Economic Sanctions https://en.wikipedia.org/wiki/Economic_sanctions

Kirinskoye field, which was included in the sanctions list due to a particular explanation from the US Treasury in the summer of 2015. The gas field was identified as an oil field, and Sakhalin island was identified as Arctic. As a result, the commissioning of the area had to be postponed to a later date.

But perhaps the most significant problems for the Russian gas industry may be created by the expanded application of sanctions against export gas pipelines provided for by the act "On countering America's enemies with sanctions," signed by Trump in August 2017. Potentially, the show allows the U.S. President to impose sanctions prohibiting any operations worth more than \$5 million a year, which is a tiny amount for gas projects) for the supply of equipment and services for both the construction of new and maintenance of existing gas pipelines, subject to two conditions: they threaten US national interests and that sanctions are imposed "based on prior consultation with European allies."

Until recently, it was the "European allies" who were the prominent defenders of Gazprom. German authorities recently even assured that the US promised them not to impose sanctions related to the construction of gas pipelines to supply Russian gas to Europe. But the lack of explicit confirmation from the US, combined with Merkel's ultimatum statement about the connection of the decision on the Nord Stream 2 with guarantees for Ukrainian transit, makes one wonder how long the Europeans will be ready to continue their line. The introduction of personal sanctions against Alexey Miller in this context is a bad sign. For the first time since 2014, the Europeans were unable to block such an adverse decision for Russia by the US administration.¹¹

Goal of Sanctions

Sanctions against Russia were no use for anyone involved as they impaired economic development in both directions. It was the thought up of Western countries' duty to show that bold and unethical moves are not tolerated in the 21st century. The United States of America wanted to chastise Russia for the annexation and the conflicts in eastern Ukraine. Being a prominent financier and supporter of the Ukrainian revolution, this was the next logical step. The imposed sanctions would not hurt them as they did not have much trade going on with the Russian Federation except for some minerals that were not available on the American continent.

The goal was simple as Francesco Giumelli explains in EUISS Chaillot Paper 129/2013, international sanctions may pursue three sets of goals: signal to foreign target countries or domestic audiences dissatisfaction with specific policies, constrain the target countries or their leaders from undertaking future actions or coerce a government into changing or reversing existing policies. The main goal was to stop the Russian expansion throughout Ukraine. The European Union thought that the Russian Federation had plans to gain some territories in Transnistria and Moldova and thought of the sanctions to save those territories from the occupation. In reports, it is told that their sanctions held those territories and that the Russians had no plans on them.¹²

On the other hand, many European countries depended on Russia in some trades that were vital for their economy. Some of them had concerns regarding the necessity of the imposed sanctions and the enthusiasm behind the implementation. One of those countries was Germany, which questioned the point of prolonging the sanctions, not that they felt sympathy for the Russian economy's state. However,

¹¹ Skolkovo Research Institute(2018) <https://energy.skolkovo.ru/downloads/documents/SEneC/research04-ru.pdf> All data in the given paragraph was taken from this source

¹² How Eu Sanctions Work. Chaillot(2013) https://www.iss.europa.eu/sites/default/files/EUISSFiles/Chaillot_129.pdf

many of their energetical imports came from them. Many Central-European countries had a growing trade trend with the Russian Federation, which was halted by the events mentioned earlier. At that time, many companies that were making products that were not good by European standards have been imported to the Russian Federation and its allies. These products might not have found their buyer after the sanctions, and it would hurt the company producing them.

In the European debate on sanctions, pragmatists, including Hungary, have confronted those who have called for strict action. According to the latter, the issue should have been addressed not only on political grounds but also based on realities: in the case of Russia, given its size and economy, sanctions policy is ineffective and incapable of changing the Kremlin's policy. This view was, and often has been, erroneously, attributed to Russian influence by the Western media at the time.

Between these two positions was a group of countries led by Germany, which did not want to cut itself off from Russia altogether while calling for serious action. Finally, the latter group dominated the definition of the content elements of the EU sanctions package. As part of this, the EU has restricted Russian access to its financial markets, imposed comprehensive embargoes on arms exports and imports, imposed restrictive measures on dual-use items, and imposed tightening on the energy industry. In response, Moscow also introduced counter-sanctions, the central element of a ban on importing certain foods. The import ban on the latter also seriously affected Hungary, considering that Hungary exported food products to Russia to a significant extent.

Russian answer to Sanctions

On August 6, 2014, Vladimir Putin signed a decree "On applying certain special economic measures to ensure the Russian Federation's security." The next day, based on the document, the Russian Government imposed a ban on imports from the United States, the European Union, Norway, Australia, and Canada of cattle meat, pork, meat, and poultry offal, salted, dried, and smoked meat; fish, crustaceans, shellfish, and other aquatic invertebrates; milk and dairy products; vegetables, edible root vegetables, and tubers; fruits and nuts; sausage; as well as milk-containing products based on vegetable fats.

On August 20, 2014, and June 22, 2015, the list was adjusted: specialized lactose-free dairy products, salmon and trout fry, oyster, and mussel fry were excluded from it. This was done because it was impossible to establish their import substitution quickly. According to the Federal Customs Service (FCS) official website, in 2013, Russia imported such products from the above countries in the amount of about \$8.35 billion, which is about 2.5% of the total import volume (\$317.8 billion). Since the autumn of 2014, several agricultural producers, primarily from the EU, have reported large losses. According to the European Commission, the Russian embargo affected 4.2% of all exports of 28 EU countries totaling 5 billion EUR. The EU authorities were forced to assist farmers affected by the Russian blockade; its total amount in September 2014 was estimated at 164 million EUR.

After the EU countries extended sanctions against the Russian Federation on June 22, 2015, Vladimir Putin signed a decree on June 24, according to which the embargo was extended for another year. Subsequently, it was extended twice, the last time on June 30, 2017-until, until the end of 2018. According to the Federal Customs Service, the share of products subject to restrictions amounted to

2.8% (\$4 billion) of total imports to Russia in the first two quarters of 2014 (\$142.4 billion). Thus, on an annual basis, importing countries that fell under retaliatory sanctions could lose up to \$8 billion.

On August 13, 2015, the Russian Government added Albania, Montenegro, Iceland, Liechtenstein, and Ukraine to the list of countries that are subject to a ban on the import of agricultural products, raw materials, and food to Russia (sanctions against it began to take effect on January 1, 2016). These states have previously joined European sanctions against Russia. In 2014, they delivered sanctioned products worth \$656.2 million (5.9% of their total exports to Russia). No retaliatory economic measures were introduced against Switzerland and Japan, which joined the sanctions regime against Russia in 2014.

According to the Russian Federation's federal customs service, total imports to Russia from Albania, Montenegro, Iceland, Liechtenstein, and Ukraine amounted to \$11.048 billion in 2014, or 3.8% of the total import value (\$286.669 billion). The share of products that fell under the sanctions amounted to \$656.2 million, or 5.9%.¹³

According to the Ministry of Agriculture of the Russian Federation, over the past six years, Russia has reduced food imports by a third — from \$43.3 billion in 2013 to \$30 billion in 2019. For pork, it was decreased by almost ten times. If in 2013 the country imported meat for \$2.6 billion, in 2019 — \$270 million. For cattle meat, imports decreased by 2.5 times, poultry — by almost two times, vegetables and dairy products — by a third. Imports of tomatoes decreased by 42.1% from \$1.1 billion to 639 million, apples and pears by 50.8% from \$1.2 billion to 586 million.

The list of sanctioned goods has been adjusted seven times since August 2015. On September 16, 2015, food products for athletes were excluded from it. On March 1 and October 22, 2016, bans on the import of fry of certain types of fish, shrimp and mussels were lifted. Since May 27, 2016, it's allowed to import poultry meat, beef, and vegetables to Russia, which will be used for the production of baby food. On September 10, 2016, salt (table and denatured) was banned, but the amendment of May 20, 2017, clarified that the sanctions do not apply to salt for dietary supplements and medical products. On October 25, 2017, live pigs (excluding purebred breeding animals), various meat subproducts, pork fat, and some animal oil types were included in the list.¹⁴

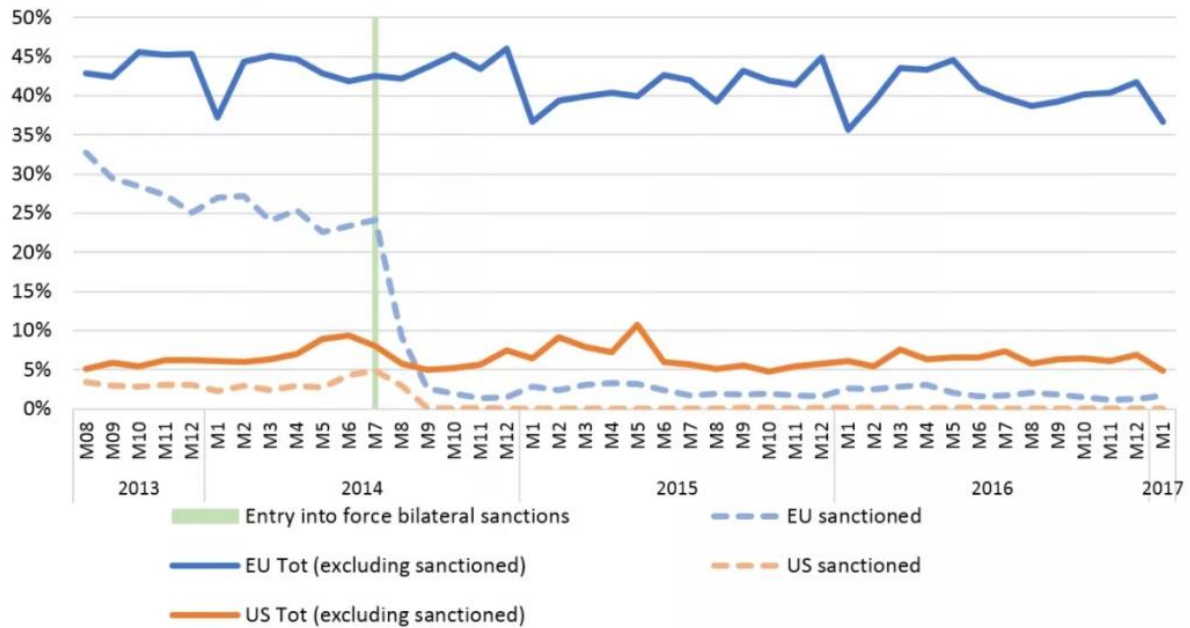
The above data shows the Russian side's perception of the effectiveness of the embargo judging by data provided by Russian news agencies where it is shown that Russia has made a big decision which is affecting a lot of products and inquiring about price increases that are felt by the people of the Russian Federation. BBC of Russia did an interesting experiment where they bought the same products in 2014, 2017 and 2019. This way, they collected data that is used for determining price growth felt by the consumers. To be fair, many of the purchased items are imports and not needed for necessary consumption, such as cheeses and Jamón. Sums were the following: 4421 Russian Rubles (2014), 7471 (2017), and 8291 in 2019, which shows the aforementioned price increases. All in all compared to the 2014 bill there was a 69 percent price increase for 2017 and an astonishing 88 percent for 2019. All of this while salaries started keeping up with inflation only starting from autumn 2018.¹⁵

¹³ Ria (2019) <https://ria.ru/20190806/1557173982.html>

¹⁴ All above data regarding the chronology of the Russian Trade Embargo is taken from Ria.ru from their article regarding the aforementioned subject <https://ria.ru/20190806/1557173982.html>

¹⁵ „Shopping basket” experiment by BBC Russia regarding Trade embargo price increases (2019) <https://www.bbc.com/russian/features-49250584#anchor12>

Figure 1. Shares of the EU and the US in Russian imports of counter-sanctioned goods and other goods



¹⁶Graph 1

On the graph above there is visual representation regarding the effect of Russia's trade embargo on the import of sanctioned and non-sanctioned goods. There is a clear drop where the sanctions got into effect and we could see that the share dropped instantly to below 5 percent marks. Meanwhile the non-sanctioned goods are on a slow but steady decline, but by looking at the graph they don't seem to be directly affected by the change of situation.

European Union not profiting from sanctions

More than six years later, let us review whether sanctions, as Van Rompuy put it, contributed to achieving the goals or whether, in line with the pragmatists' warnings at the time, Russia was able to adapt to the bans. Of course, in the early years, it was observed that Eurasian countries that did not join the sanctions against the Government of the Russian Federations benefited from the lagging Russian exports of other European countries. Thus, the winners included China, Brazil, and some Central Asian countries. However, they did not fill the gap created by the lack of European exports. The Russian food industry's dynamic growth was much more pronounced than the relocation of imports, as a result of which Russia is now meeting its missing food needs less and less from imports, but from its own increased production. Moscow's long-standing goal of replacing food imports with domestic production as much as possible has been accentuated, and the strategic importance of the domestic output of essential agricultural products has started in the early 2000s.

Food security was also a priority for Vladimir Putin himself. As part of this, the food safety doctrine was adopted in January 2010, which intended to provide basic foodstuffs with 85-90 percent domestic production. However, achieving these goals would have led to higher prices and lower quality, so in the political situation before 2014, they could hardly have been readily accepted by the public. However, in response to sanctions by the European Union and the United States, in the euphoria of feedback on

¹⁶ CEPS (2018) Revisiting sanctions <https://www.ceps.eu/ceps-publications/revisiting-sanctions-russia-and-counter-sanctions-eu-economic-impact-three-years-later/>

Crimea, Russian citizens accepted and supported the package of measures. The Russian economy, which initially undoubtedly suffered heavy losses, was thus able to adapt quickly to the sanctions regime, and by 2017, Russia's import substitution strategy has proved successful. It is well illustrated that in 2018, Russian food exports reached \$ 24 billion, bringing twice as much revenue to the budget as arms exports, which hold a prominent place in the Russian economy.

What has happened can be seen as strategic for a country of this size. Russia is likely never to need to import in the future to meet its needs. It is terrible news for the EU Member States, as Hungarian food-exporting companies can no longer hope to return to pre-2014 conditions if sanctions are lifted. In addition to lost exports, the new Russian capacities may even be competitors of European Union producers in the future. The fact that total European Union exports to Russia fell from approximately EUR 120 billion to EUR 74 billion, with a fall of almost 40%, raises serious questions about the effectiveness of EU sanctions policy.¹⁷

In Hungary's case, this trend is exacerbated by the fact that sanctions interrupted a dynamic export expansion until 2013, further increasing Hungary's losses. In contrast, Russian-Chinese trade grew by 53 percent in three years, reaching 107 billion dollars by 2019.

Based on this, it can be stated that Russia's victory in the field of trade counter-sanctions is not a question but a fact, and it is also clear that Moscow has no interest in returning to the pre-2014 situation. Russia is waiting for the crisis with massive reserves, almost debt-free large corporations, and nearly self-sufficient agriculture.

Between 2014 and 2020, Russia significantly increased its foreign exchange reserves while stabilizing its public debt at around 15 percent. It was the basis for Vladimir Putin's statement in 2019 that "we have taken very serious and great steps to increase our economic and technical sovereignty. In that sense, restrictions and sanctions have benefited our economy." Moreover, EU sanctions did not achieve their foreign policy goal either: Russia did not withdraw from its Ukrainian policy, but Ukraine moved further away from its possible NATO and EU membership.¹⁸

Unquestionably, the Union had to stand up for the territorial integrity of Ukraine. However, the countermeasures should have been chosen in such a way that our economies would not be significantly damaged, more than the economy of the sanctioned country. It is now clear that the warnings of pragmatists at the time were justified, but knowing European domestic policy, we are waiting in vain for it to be publicly acknowledged. Moreover, in December, the issue of extending sanctions will be on the agenda again. Their reason for maintaining them now would be to recognize the European Union's defeat and the United States by their political, partial, or total withdrawal. Russia's economic restructuring has taken place, and Moscow will not step back.

Hungary`s Case

As to the losses of Hungary, there are many discrepancies; let`s start with an official statement made by the Hungarian Minister of Foreign Affairs when he was asked by a Russian newspaper "Коммерсант" regarding the losses suffered by the Hungarian Economy because of sanctions. He replied quote, "According to our estimates, the lost profit for Hungary amounted to \$6.5 billion in three years — this

¹⁷ EU Policy Department(2017)all Data in the paragraph for arguments taken from in[https://www.europarl.europa.eu/RegData/etudes/STUD/2017/603847/EXPO_STU\(2017\)603847_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2017/603847/EXPO_STU(2017)603847_EN.pdf)

¹⁸ Kremlin Press-Conference <http://kremlin.ru/events/president/news/62366>

is in terms of exports. given that the annual volume of Hungarian exports is about \$90 billion, this is a sensitive loss.”¹⁹ Later on, in the interview, it is clear that the mentioned period is only 2.5 years. In the following days, State Secretary at the Ministry of Foreign Affairs Levente Magyar stated that some sectors lost half of their trade performances. Only the Hungarian agriculture suffered more than 1 billion EUR losses.²⁰

The numbers seem relatively unnatural, as suspected by a Hungarian business-oriented portal Portfolio.hu. The assumption came from several facts that show that the numbers presented by the Minister of Foreign Affairs may not be reflective of the situation; these are the following

- The 6,5 billion USD mentioned is quite big compared to the Hungarian yearly export, which was only 1.5 billion EUR in 2016. It could not add up to that number
- 1 billion EUR loss in agriculture seems not factual when the yearly export in the sector before the sanctions was only 300 million EUR

When it is further analyzed and compared with other numbers such as Hungary’s GDP, which was 141.5 billion USD in 2017, then we see that the sum mentioned is 4.5 percent of the Gross Domestic Product. From the evaluation, it is clear that the effect has not been as severe as told by the Government of Hungary.

But the effect is still there and struck many businesses that were steadily exporting their goods to the Russian Federation. With previous steady growth such as a 3.2 percent in 2012 and a 1,5 percent increase in exports to Russia in the year 2013. By the year 2014, a downward trend followed with a 12 percent decrease with a further low in 2015 when Exports fell another 27 percent until hitting an all-time-low in 2016 at 1.5 billion EUR. In 2013 the number was 2.5 billion EUR from the data provided by the Hungarian Central Statistic Office. With imports from the Russian Federation, it’s the same pattern all over again, topping out in 2013 at 6.4 billion EUR and 2nd-time bottom point in 2016 at 2.5 billion EUR just after 2002 when we hit an all-time low at 2.3 billion EUR (adjusted for inflation). The data above shows that the damage was noticeable, but it is on recovery, but might not recover completely. The yearly data shows that after the 2008 Global Financial Crisis in which the Russian Federation and Hungary took pretty big hits, the numbers as mentioned above recovered in 3 years, which is not the case with the ones caused by the current sanctions. That even in 2019, compared to 2013, numbers are at a 21 percent downwards change in the case of Hungarian exports and at 31 percent in the case of imports.²¹ There’s a 1 billion EUR difference, which shows that the number of 6.5 billion USD for the span of 2 years is not representative of reality.

¹⁹ Peter Szijjarto interviewed by Russian Newspaper „Kommersant” regarding the cancellation of sanctions
<https://www.kommersant.ru/doc/3199740>

²⁰ Potrfolio (2017) mentioned the statement made by Magyar Levente
<https://www.portfolio.hu/gazdasag/20170129/nem-hiszted-el-mennyire-artanak-nekunk-az-orosz-szankciok-243200>

²¹ All data used was taken from the Hungarian Central Statistical Office
https://www.ksh.hu/docs/hun/xstadat/xstadat_eves/i_qkt009c.html?down=2944

Sector	Export				Import				Total			
	2016	2017	2018	2019	2016	2017	2018	2019	2016	2017	2018	2019
Total	1595,4	1917,6	1840,03	2028,25	2636,7	3576,4	4604,95	4468,67	4232,1	5494	6444,98	6496,92
Food, Beverages, tobacco	192,0	225,2	203,22	182,71	1,1	1,0	1,58	3,57	193,1	226,2	204,80	186,28
Raw Materials	23,0	24,9	22,82	41,68	142,1	188,4	154,82	156,51	165,1	213,3	177,64	198,19
Energy	5,6	7,8	10,96	11,04	2177,4	2942,8	3975,10	3 902,80	2183	2950,6	3986,07	3913,84
Processed Products	828,0	1041,3	983,90	981,18	221,6	324,8	365,37	282,21	1049,6	1366,1	1349,27	1263,39
Machinery, Equipment	546,8	618,4	619,12	811,64	94,5	119,4	108,08	123,57	641,3	737,8	727,20	935,21
Source: KSH												
Million (EUR)												

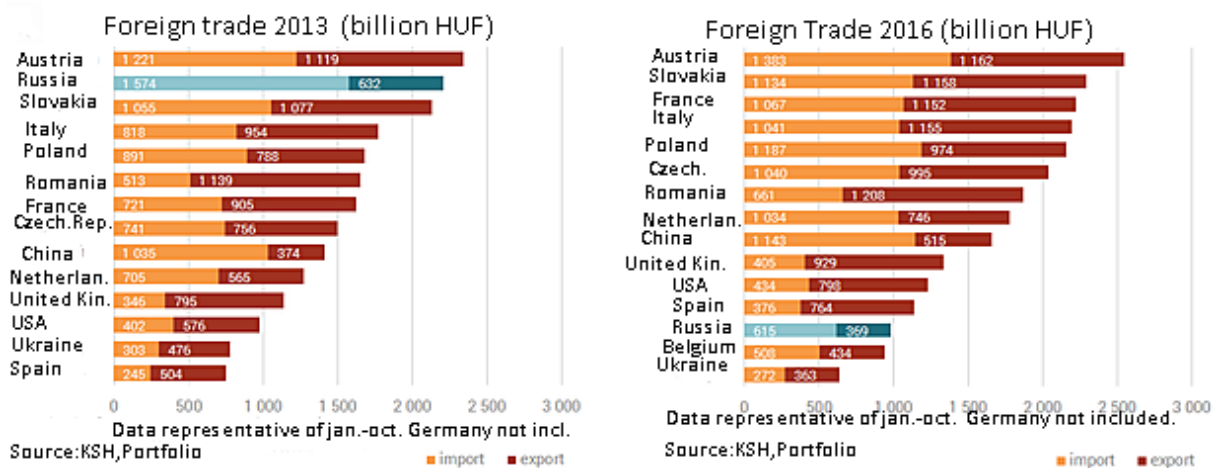
²²Table 2 Russian-Hungarian trade in the period of 2016-2019

The above table is a data set using data from the Hungarian Central Statistical Office, representing Hungarian-Russian Trade with Sectors and goods. We can see the previously mentioned trends with the additional focus on applicable sectors in the trade between the two countries. A different graph is included in the Annex where the Russian-Hungarian trade is depicted in the years of 2001-2017. We could see an overall increasing trend, but not in all product-types. Food and beverages are at a low due to the measures taken by the Russian Government. One show is that in 2015 meat exported to the Russian Federation was at a value of 5.3 million EUR, which is a 20.9 million EUR loss compared to the previous year; fortunately, Hungarian businesses could re-export some of the products to China.²³ One import that logically keeps on growing is energy-related, while the Hungarian Government had a trend of increasing its imports from Iraq, which has died off in recent years. It is a fact that the Russian Federation and probably will stay as the leading exporter of oil and natural gas to Hungary. In Processed products, the Russian Federation was the number one export target in 2015. After 2016 due to the sanctions and the ruble's devaluation, it has lost its position but still holds an important part.²⁴ Overall Hungarian-Russian trade is rising, and a sudden increase might come when the Paks2 NPP project is started with the highly-technological features.

²² Table compiled with data taken from the Hungarian Central Statistical Office https://www.ksh.hu/docs/hun/xstadat/xstadat_eves/i_qkt009c.html?down=2944

²³ KSH (2016) Review of the year 2015 on the basis of foreign trade by the Hungarian Central Statstic Office <https://www.ksh.hu/docs/hun/xftp/idoszaki/kulker/kulker15.pdf>

²⁴ KSH (2017) Review of the year 2016 on the basis of foreign trade by the Hungarian Central Statstic Office <https://www.ksh.hu/docs/hun/xftp/idoszaki/kulker/kulker16.pdf>



²⁵ Graph 2 Foreign trade visual comparison between 2013 and 2016

The above visual representation of data provided by the Hungarian Central Statistical Organization was compiled by Portfolio.hu. It is seen that the Russian Federation went from 3rd place on the rankings of Hungarian Foreign trade partners down to the 14th. This shows the effect of the sanctions again. Still, there are some additional circumstances to consider, such as the decrease of oil price at the time and the devaluation of the Russian national currency Ruble. The depicted two periods are important because as previously deduced 2013 was the high-point of the trade just before the initial wave of sanctions and 2016 was the new-low-point at the brink of then new Russian contr-sanctions.

The Russian economy is structurally facing several problems. Its performance depends heavily on oil prices, which fell by a third during this period, significantly depressing economic performance and incomes. The number one stabilization tool for commodity-exporting countries is the exchange rate policy. The Russian ruble fell sharply, which helped curb the fall in oil revenues, but made imports more expensive. The fall in the exchange rate raised inflation, which reduced real wages. Exchange rate movements also had a significant direct effect: dollar sales of ruble exporters fell sharply. The increasing geopolitical and other risks associated with Crimea's occupation have raised premiums, and thus financing costs. The truth is that certain financial sanctions have also hurt the Russian economy, strengthening capital outflows, thus contributing to the sometimes seemingly uncontrolled weakening of the ruble. However, much of the significance of this is revealed by the fact that the Russian ruble is just beginning to weaken again by economic policy, even though the dollar has to pay almost twice as much a ruble as in early 2014, and oil prices have risen well from their lows.

Effect where it matters

One of the Russian economic system's key characteristics is its ruling by a particular group of people who hold and decide for most of the market. It is essential to understand that by looking at the effect that the sanctions had on these people, we can deduct the real impact that matters to the Russian Federation's Government. They can be divided into those who profit from the Western money(oligarchs)

²⁵ Visual representation of change in Foreign trade with years 2014 and 2016 shown based on data from portfolio.hu and KSH(Hungarian Central Statistical Office) <https://www.portfolio.hu/gazdasag/20170129/nem-hiszted-el-mennyire-artanak-nekunk-az-orosz-szankciok-243200z>

and the ones that wield state power or profit from the domestic budget(siloviki). The will of the people, as mentioned above, influence the moves of the Russian Federation in the world arena.

There is a saying, "hit where it hurts the most" Washington had it in their mind when drawing up sanctions against Moscow. By targeting many individuals close to Putin and their respective companies or state-owned banks, unease started to appear among the Russian elite. "Rising pressure at the top may have affected a shift in the Kremlin's rhetoric.²⁷ In the hope of alleviating sanctions following the April round of sanctions, the Kremlin reportedly ordered officials to curb their anti-U.S. rhetoric.²⁸ In the past, Kremlin officials tended to claim that the sanctions did not bother them much and, if anything, stimulated Russia's domestic industries. After the April round, however, they dramatically scaled-down aggressive anti-Western rhetoric. The tone changed further at the St. Petersburg Economic Forum in late May. Putin and other officials, such as Minister of Finance Anton Siluanov, started describing sanctions as being "harmful to everybody" and expressing hopes for their gradual removal. The change was occurring."²⁶

"Solving" the Gas problem in Ukraine: Backhauling.

Due to the conflicts with the Russian Federation, Ukraine cannot buy gas from them. Even if they can, it would result in an immense backlash due to the already chosen standpoint that any kind of contact with Moscow is not desirable. Back in 2013, when the relations were all and well, the share of the Russian gas in imports was at 91.75%, making Ukraine wholly reliant on their eastern neighbors. In December of the year, as mentioned earlier, Putin gave a 30 percent price cut on gas for Ukraine, bringing down the price to 268.5 USD/1000 cubic meters from 400 USD, which was a great deal, at the time the Russian Federation wanted to cooperate with its ally. After the deterioration of the relations, on April 1, 2014, Moscow canceled the discount getting the purchase price back to the European norm, which was 485 USD at that time. For Ukraine, the year 2014 came out at a record high 5.7 billion USD worth of gas imports. At the same time, Ukraine started to give away some signs that they are not willing to pay for their debt to "Gazprom," which accumulated by the beginning of January 2014, 3.29 billion USD.

This tug-of-war came to a point where "Gazprom" sought the Stockholm Arbitration Court's help in settling the contractual duty of "Naftogaz." The later party also gave action for the price change that occurred and asked for reimbursement for the overpayment and the possibility of reselling the purchased gas. Since June 16, due to debt growth, Russia switched gas supplies to Ukraine to prepayment mode, which led to their termination. Only gas intended for transit to Europe was delivered via pipelines in the amount of 185 million cubic meters per day. Russia also demanded that Ukraine pay its debt by the end of the year. Ukraine did not agree to use a prepayment mechanism for gas supplies from Russia and insisted that payment should be made upon receipt of the gas.

On February 28, 2018, the Stockholm arbitration Tribunal made a decision, according to which it recognized violations of the contract for gas transportation by Gazprom for a total amount of \$ 4.63 billion. Simultaneously, the arbitrators decided that \$ 2.1 billion of this amount will be credited for gas received in 2014-2015, but not paid for by Naftogaz. Consequently, Gazprom still owes Naftogaz \$ 2.6 billion-plus interest for the period of non-execution of the court decision. Gazprom almost immediately refused to comply with the arbitration decision and appealed it to the Svea district court of appeal in

²⁶ Center for European Policy Analysis (2018)
https://cepa.org/cepa_files/2018-07-Tension_at_the_Top.pdf

Sweden. The court initially sided with Gazprom without hearing Naftogaz, but later reversed its previous decision in September 2018. In my mind, these decisions have not been made on a rational basis, with a clear bias and intent to show Western countries' influence. The occurrence could be called "democratic bullying." Any country has the right to abandon its previous deals if the other party diminishes its name worldwide frequently with accusations.²⁷

The situation mentioned above was not the first time a conflict has happened between the two corporations on the subject basis of natural gas. Back in 2005-2006, there was a conflict where the newly elected Ukrainian President Viktor Yushchenko proposed to Moscow to change transit payments to dollar form. In reaction to this, the Russian Federation changed the prices for Ukraine to the European market levels. It has started a back and forth where European countries stopped receiving gas for a few days. The situation was all settled between the two sides, but with Ukraine still being unhappy with the market prices. The previous prices have been reinstated after the next President Viktor Yanukovich took office. This just shows how politically controlled the gas industry is and how the area is used for political aggression.

After a prolonged dependence on gas provided by the Russian Federation, Ukraine started seeking other alternatives for keeping the needed energy source in stock. The most prominent way of getting LPG to the country was a deal with Slovakia for supplying reverse gas(backhauling). The new addition is a technique called "virtual reverse," in which the natural gas only crosses borders in documents. After the signing of new gas transit agreements with Gazprom, the ability to perform virtual reverse became available in 2020. This opportunity allowed European countries to compete for gas supplies to Ukraine. This term is best explained by Alexei Grivach, Deputy director-general for gas issues at the National Energy Security Fund for the Russian Federation. "The virtual reverse mechanism is such operations in which Ukrainian companies or residents formally buy gas from European traders, while the gas is physically selected simply on the territory of Ukraine from transit volumes. And the paperwork makes it look like he went to Europe and then returned."²⁸

Virtual Reverse Contracts have been made with Poland, Hungary, and Slovakia that provide most of the natural gas at the moment for Ukraine. After the launch of the new virtual reverse natural gas from Hungary from May 1, this direction became the main route of supply to Ukraine with a share of almost 50% of the total import volume. The percentage of Slovakia, which had been a leader in Ukrainian imports for many years, fell to 34%. Slovak transit operator Eustream has not yet offered the market a new service for gas transit to Ukraine from the E.U. Poland's share of gas imports has grown significantly to 16%, with more than half of the total volume delivered via virtual reverse.²⁹

The method itself represents Ukraine's standpoint it had taken five years ago not to buy gas from the Russian Federation. From a non-biased perspective, it does seem hopelessly illogical. Ukraine got one of the best deals for natural gas that was possible in that region. Since 2013 consumer gas prices have risen more than 800 percent, including many spikes that were hard to swallow for the significant poverty population.

From the perspective of Hungary, Poland, and Slovakia, it is all about the margins. The amount that Ukraine overpays for the same Russian gas now bought from its western neighbors is not disclosed. However, by looking at the price increase of 800 percent for end-users, we could think of it as pretty sizeable. It should be significant and probably includes benefits for sole persons. Such a profitable

²⁷Tass (2019) <https://tass.ru/info/7210637> Data from the start of the paragraph till the footnote taken from this source

²⁸ Ria.ru (2015) <https://ria.ru/20150310/1051717180.html>

²⁹ RT (2020) <https://russian.rt.com/ussr/article/723186-ukraina-revers-gaz-slovakiya>

venture for the EU countries included as the only needed part is paperwork. The gas that was bought this way goes straight to the Ukrainian depositories located on the Eastern side of the Carpathians without ever being in the "seller's" country. Both sides come out happy with the end-user getting the wrong part of the deal.

One of the ventures that were thought out by the owners of Gas transportation systems(GTCs) is the storage of LPG that was bought by a foreign party. The venture is possible due to the vast repositories left behind by the Soviet Union that are located on Ukraine's territory. The availability of storage facilities is a kind of guarantee of During the year 2020, and many traders opted for the service that is provided by the owners of Ukraine GTCs. To a point where Ukrainian depositories are almost filled, according to Ukrtransgaz, on September 30, Ukrainian storage facilities contained 28 billion cubic meters most massive in Ukraine and Europe UGS Bilche-Volitsko-Ugersky-by 97.6 percent. It contained 16.6 billion cubic meters of gas. Low gas prices explain the record level of filling Ukrainian storage facilities in Europe and high UGS reserves in the EU countries themselves. According to the GIE monitoring Association, they accounted for 94.8% or 100 billion cubic meters on September 29. This year, gas prices fell below \$ 100 per thousand cubic meters, and many traders took advantage of the situation to buy cheap fuel. A mild winter in Europe has led to large gas reserves, and Ukraine has offered the most preferential storage rates: \$ 10 per thousand cubic meters per cycle. As a result, as of September 1, more than a third of gas, 9.2 billion cubic meters, in Ukrainian storage facilities accounted for fuel that is stored under the terms of "customs warehouse." According to the EEX platform, since mid-August, gas delivered in October has almost doubled in price at the largest European TTF hub — from \$ 78 to \$ 138 per thousand cubic meters. Traders expect that this will be a colder winter than the previous one, and the demand for gas will increase sharply.³⁰

Uninterrupted gas supply to industry and the population, as well as it's export. Storing gas can also be profitable from the point of view of filling the budget. Suppose there are excess volumes in Underground gas storages(UGS). In that case, it is economically advantageous to buy gas in the summer, pump it into them, and pump it out and sell it in the winter, since it costs much more because of the consumption growth.

Russian gas for Hungary

The construction of the Turkish Stream 2 gas pipeline, which is expected to be operational from Hungary to Serbia from October 2021, was primarily urged by Russia's Gazprom, and a low-cost, smaller-capacity version of the Russian South Stream project, which was abandoned in 2014 due to EUs resistance. Although Turkish Stream 2, which follows a broadly similar route, is dwarfed compared to the planned 63 billion cubic meters of annual transport capacity of South Stream, cubic meters) and extended Ukrainian transit until 2024, and the Belarusian pipeline and expanding Russian LNG exports)appear to secure the largest Russian gas imports, accounting for 41% of EU supply in 2019.

The largest part of Russia's gas exports to the EU, totaling about 163 billion cubic meters in 2019, 74 billion cubic meters, came through Ukraine. This transport route is also the most important for supplying the Hungarian market, which uses nearly 10 billion cubic meters annually. In previous years, 60 percent of the natural gas imported to Hungary, mostly through long-term contracts 12.7 billion cubic meters in 2018. Some went to additional transit, and wage storage traditionally came from Ukraine, while the remaining 40 percent came from Austria, but it was also mainly of Russian origin.³¹

³⁰ Page Ua (2020) <https://thepage.ua/news/v-ukraine-rekordnyj-zapas-gaza>

³¹ Thane Gustafson (2020) The Bridge: Natural gas in Redivided Europe (Data up till the footnote)

Due to the differences mentioned earlier between Ukraine and the Russian Federation, Ukraine's pipes were meant to shut down. Nevertheless, instead of the Russian-Ukrainian gas supply contract expiring at the end of last year, the parties, through the European Commission, concluded a new last-minute agreement meeting the economic interests of both, at least 65 billion this year and 40-40 billion in the next four years. Russia will supply billions of cubic meters of gas to Europe on the Ukrainian route by 2024. Therefore, this volume is significantly lower than in previous years - especially when the annual transport volumes of well over 100 billion cubic meters in the 1990s and 2000s are taken into account. Although the current Russian gas supply can be sustained in quantitative terms without Ukraine, with the entry of Nord Stream 2 and Turkish Stream 2 under construction, the Russians are economically interested in increasing deliveries. Their growing LNG exports may also make an increasing contribution to this, but it is not in their interest to avoid and underutilize the huge Ukrainian transit capacity. However, due to the conflict of Russian economic and political interests in determining the expected course of events, there is still a great deal of uncertainty about the future of the Ukrainian route after 2024.³²

Diversifying the overwhelming Russian gas supply, which is depressing for Hungary, would be a strategic goal even if the Ukrainian route were still available with the usual transport volumes. This particular diversification can be divided into two parts: on the one hand; it seeks to involve as many sources as possible (such as Romanian, Azerbaijani, Norwegian, North African LNG, etc.) in addition to Russia; on the other hand, the construction of new supply routes is almost one of the priorities, practically regardless of the source, as it can improve its security of supply and customer bargaining position by increasing the number of international connections of its gas system. According to the present situation, the Turkish Stream 2 gas pipeline's construction can bring Hungary closer to achieving the latter goal. However, in the event of a failure of the Ukrainian route after 2024, we will not talk about an additional supply route. Hungary has achieved significant results in recent years in diversifying its gas supply, which in principle would also provide an opportunity to solve its supply without a long-term gas contract, as it seems to be able to do in 2019-2021. However, the government also appears to be insisting on a somewhat flexible long-term agreement. The reason for this may be that although the situation in the Hungarian gas market has improved with the connections, at the same time, the neighboring countries are in no hurry to do their part of the work.

By joining Turkish Stream 2, Hungary can only diversify its Russian-supplied gas supply routes for the time being, but in the long run, it is conceivable that not only Russian gas will come through the pipeline. The trans-Anatolian gas pipeline and the trans-Adriatic gas pipeline, which was completed about a year ago, could transport 16 billion cubic meters of Azerbaijani natural gas a year to Turkey via Greece, Albania to Italy, and soon to 31,000 cubic meters. Although Gazprom outmaneuvered the EU with the non-realization of the Nabucco pipeline, which was not intended for Russian gas transmission, they achieved the construction of the almost precisely equivalent Turkish stream 2. But maybe the Russian gas will share it with a large quantity of central Asian gas supporting supply competition.

At the same time, the implementation of the Turkish Stream is not going smoothly either. Neither the European Commission nor the United States is looking at the project well - the latter is trying to thwart it with sanctions. Still, in addition to Russia's energy power dimensions, there are growing voices against natural gas infrastructure development projects' eligibility as part of the fight against climate change.

³² Meduza io (2019) <https://meduza.io/en/feature/2019/12/23/at-last-minute-russia-and-ukraine-agree-to-new-five-year-gas-deal-here-s-who-won>

Only from green organizations. The complete cessation of the Ukrainian transit route and the launch of Turkish Stream 2 would not necessarily be a step forward in terms of supply security. Although the extremely problematic Russian-Ukrainian relationship would be eliminated from gas supplies, the Turkish-Russian relationship would not be ideal. The export chain would also expand with Greece, Bulgaria, and Serbia, which are also not very friendly with Turkey. Again, with one exception, the Russian partner has proven to be a reliable supplier in recent decades (closing the gas tap in 2009 as part of the Ukrainian-Russian gas dispute). No such experience is available for Azerbaijan.³³

Paks. Hungary's struggle for Nuclear Energy

Hungary has only one nuclear power plant that is the one located in Paks that has started its functioning in 1974 with the help of Soviet knowledge in the field of nuclear reactors. With its four reactors, the facility generates power that is 40 % of the Hungarian energy production values. At the time, being a significant feat in Soviet-Hungarian cooperation, the plant has been modernized, and now only the iron shell is still of Soviet origin. Nuclear power divides the planet; some are against it; some understand the safety and potential hidden in the famed technology of the 20th century. Nevertheless, for the next 50 years, humanity will consume more energy than it has consumed in all previous history. Earlier forecasts about the growth rate of energy consumption and the development of new energy technologies were not justified. The level of consumption is growing much faster, and new energy sources will start working on an industrial scale and at competitive prices no earlier than 2030. The problem of the shortage of fossil energy resources is becoming more acute. Opportunities for building new hydroelectric power stations are also minimal. Do not forget about the fight against the "greenhouse effect," which imposes oil, gas, and coal-burning restrictions in thermal power plants. The solution to this problem can be the active development of nuclear energy, one of the youngest and fastest-growing global economic sectors. An increasing number of countries are now coming to the need to start developing peaceful atomic energy.

Back in 2008, the Hungarian Government had plans for an extension of the already standing nuclear complex. MVM, the 100 % State-owned electricity trader and power producer, was asked to make a feasibility study regarding the expansion of nuclear power in the country. Calculations were made that the retirement of 6 000 MW from the 8-9 000 MW gross installed capacity was forecast by 2025 due to the obsolete power plants' shutdown. These plants were due to be partly replaced by the expansion of the Paks NPP. With the plans of building a development to the already existing Nuclear Reactor Complex, the Hungarian Government needed to find the most suitable company for building the new reactors on Hungarian soil. Not many companies/countries possess the knowledge and technology for creating such highly technological assets. On its own, Hungary is not capable of building a nuclear reactor, and neither has the funds to do so. There were five options available at the moment: AREVA(French/German), KEPCO/DOOSAN(South Korea), ROSATOM(Russian Federation), TOSHIBA/WESTINGHOUSE(JAPAN), and Areva/MITSUBISHI(FRANCE/JAPAN). These five suppliers were closely evaluated and were considered for the massive task at hand. The most crucial factor that decided on the Russian offer is that the other companies offered reactors that were experimental and were not functioning at the moment, only some in construction. None of the companies and their respective countries were keen on adequate financing.

³³GazProm Turk stream project description (2020) <https://www.gazprom.ru/projects/turk-stream/>

³⁴But, against common belief, not everything is sourced from the Russian Federation. Many vital facilities in the nuclear power plant are sourced from General Electric or AREVA. The automated process control systems will be supplied and manufactured by the Framatome-Siemens consortium.

ROSATOM is considered the most effective “export” focused nuclear project builder by holding 74% in foreign projects. The company has four projected atomic reactors in the Russian Federation and 36 in other parts of the world. The Russian State-Company offered to build a higher output version of their already functioning water-water VVER-1200, which is considered a Generation3+ Nuclear Reactor and is safely operating in many Russian cities. Reactors are under construction in Bangladesh, Turkey, and Belarus. Not to mention it works on the same principle as the already existing VVER-440, which has been functioning in Hungary for many years. One of the few drawbacks of the reactor mentioned above is that it operates on Enriched Uranium, which makes us dependent on the Russian company because they own a 38% market share in this highly-technological process. It is essential to keep in mind that the fuel differs based on the reactor type; buying it from ROSATOM is the logical step in terms of cost and availability. Many would think that by buying Russian based Nuclear Fuel, Hungary would contribute to the environmental issues that the European Union is committed to solving. During the last decade, the Russian-state-owned company put a significant effort into the Nuclear Reprocessing sector in which they already have the highest capacities on the globe with a plan for expansion till the year 2030. In this plan, there is a plant included which specializes in nuclear fuel reprocessing needed for the VVER reactors used in Paks. The overall goal is to get the closest to a closed fuel cycle by using the fuel for a maximum time with change for usage in Water-water and graphite-based reactors. The process decreases harm to our environment while generating nucleoids that are used worldwide in Nuclear Medicine. ³⁵

The Hungarian Parliament granted the license to begin the two new NPP(Nuclear Power Plant) units' preparation activities on March 30 2009, while the Hungarian Atomic Energy Authority granted the site investigation and evaluation license in November 2014.

Need for Approval

The European Commission has been notified and asked for approval for the project at hand. The support did not come; the European Commission had some concerns regarding some aspects of the plan. We do not know how many of these are based on prejudice regarding the strategical partner of the new nuclear project ROSATOM.

The concerns were the following :

- There were no tenders as for the source of the reactors.
- Because of the financing, the European Union considers this state aid and not fair dealings regarding the energy market, and the competition
- Diversification of the energy sources in Hungary would be hurt

³⁴Nemzeti fejlesztési Minisztérium (2012) (Data and information taken in the whole part where reasoning is regarding the options presented to the Government of Hungary)https://www.parlament.hu/biz39/ffb/esem/121127/kovacs_pal2.pdf

³⁵ ROSATOM (2020) (All information regarding the ROSATOM corporation and the state of the nuclear energy business sector is taken from their 75th anniversary detailed report) <https://rosatom.ru/upload/iblock/033/03395b2a9751b4fcd385d746a2f9df15.pdf>

- The use of profits from investment, will PAKS 2 use them for reinvestment?
- Market liquidity risk by limiting the number of supply offers available on the market
- The chosen company was ROSATOM, and an immense loan is taken from the Russian Federation

One of the prominent opposers of the Paks 2 were the Western neighbors of Hungary, the Government of Austria. Austria contends that nuclear power plants' construction and operation are unprofitable, given all the related costs internalized under the 'polluter pays' principle. Austria considers that the MEIP principle is not complied with as regards Hungary's investment in Paks II. Austria argues that there is no evidence that the economic studies submitted by Hungary to the Commission have been carried out with due diligence or that the costs considered for the calculations contain all possible expenses in compliance with the 'polluters' pays' principle.

In my mind, it could be reasoned that economic interests fuel this. In the last decade, Austria put big numbers and efforts into the renewable energy market for self-sustainment and export to neighboring countries. Hungary imports some of its energy from Austria. Still, after the decommissioning of the Paks 1 reactors, the numbers would rise; therefore, the new reactors could make them lose out on some profits, which will further deteriorate the IRR on their investments.

Evaluation

The most crucial concern for the European Commission was the possibility of state aid in the venture because the Hungarian Government was financing most of it for the state-owned company MVM which could disrupt the energy market and give an unfair advantage compared to competitors. Before the Commission's intrusion, there were no exact steps for repayment of the given loan to the Government, and it was assumed that it could be later on used for reinvestment to increase the advantage further. Hungary stated that state aid is not applicable in this case and was asked to provide proof and help with the evaluation in the current situation. Their position is that the state is acting as a market investor seeking a reasonable profit and are ready to prove their right in the specially designed evaluation to determine the existence of state aid.

Hungary was evaluated based on the MEIP test, used for analysis in possible state aid cases. The Market Economy Investor Principle (MEIP) is, in the Commission's practice, one of the entry points for economic analysis in State aid cases. Its purpose is to establish the extent to which an aid measure confers a financial advantage on the aid recipient. In many cases, determining the economic advantage's size is relatively straightforward, i.e., for firms' direct subsidies. However, often the situation is much less clear. The assessment of the state aid character of a measure is challenging in cases where the state intervenes through measures comparable to that of private investors, for example, by making equity investments or providing loans or loan guarantees. Hungary claimed that the MEIP test is satisfied in two ways. Firstly, the WACC (Weighted average cost of capital) of the project is higher than its IRR. Secondly, it is argued that the levelised cost of electricity ('LCOE') is sufficiently low to make nuclear competitive concerning other generation technologies and to offer reasonable returns under prevailing electricity prices. Hungary estimated WACC's range to be about 6.2-7.7 percent. IRR was calculated to be about 8,6percent.

The LCOE range was calculated in 2015 multiple times due to the availability of similar studies regarding future energy prices in the European Union and worldwide using different calculation theories. The field is calculated with the formula of $\frac{\sum (Costs \times (1 + r)^{-t})}{\sum (MWh \times (1 + r)^{-t})}$ (t is the year and r is the WACC) and it is the total cost of installing and operating a power generation project expressed in a uniform electricity price over the lifetime of the project. As we see, the IRR is higher than its WACC,

which shows that the investment is worthwhile; also, it was argued that a delay could cost some points on the IRR showing the need for a swift decision from the European Commission. Due to the project's size, it could be said that there are more things to consider, as the studies point suggests by itself. The LCOE range itself was estimated at 50.5-57.4(EUR/MWh) by the Hungarian side, which differed from the study made by other appointed organizations. When compared to the future electricity prices from the same Economic Study, the Hungarian nuclear power plant project can be argued to be profitable. As such, it contends that a private investor would feel it reasonable to undertake the project. The range mentioned above of 50,5-57,4(EUR/MWh) is relatively high compared to the 45 EUR baseload price at the Paks 1 nuclear power plant.³⁶

The abovementioned figures were recalculated in 2017, where again they satisfied the MEIP test. The numbers have changed due to changes. In the numbers included in the computation, the IRR range dropped to 6.79-7.9 percent and the WACC to 7.40-8.35 percent. Besides, the underlying calculations for the estimation of the project IRR, combined with the estimated WACC values, can also be used to quantify the net present value (NPV) of the total losses expected to accrue over the lifetime of the project if a market economy investor financed it. In particular, the project is expected to produce EUR 600 million losses in the baseline³⁷ case of a 7,88 % market WACC and a 7,35 % IRR, the mean values for the 2017 data.

Hungary pointed out that there is an expected growth in the energy consumption market rated at 4% by the year 2030 due to the measures and programs that will be realized by the Government. This timeframe falls perfectly in a tie with the expected completion of the reactors, as mentioned earlier. Furthermore, diversification is a crucial concept to consider when Hungary has a higher gas dependency than that of the EU average. If the energy consumption would've risen, the gap needed to be filled with oil or gas sources that are at a 90+ percent import and principally from the Russian Federation. Hungary argued that their topographic and geographic location does not allow for the deployment of renewable energy sources such as wind or hydro plants. Nevertheless, the energy, as mentioned above, sources can't supply electricity on a 24h basis due to their functioning specifics. The plant will increase jobs around the area in multiple sectors while decreasing energy prices in the long run.

At the time of evaluation, the forecasted future energy prices did not match the reality, not as we see today in 2020. This has probably been due to the one significant occurrence that wasn't on the agenda before it had happened and changed the year as a whole. Based on the increased baseload prices, the construction seems much more viable than it did back in 2017. It was not expected to cross the 60 EUR/MWH mark by 2020, but in December of 2020, it already surpassed 100 EUR/MWH judging by the Hungarian Energy Exchange data.³⁸ This would increase the IRR and make the venture more investor-friendly. Due to the nature and marginal cost differences in the energy market, the Paks 2 reactors will be mostly the price takers during their functioning.

In a reasonably short back and forth by European Union standards, Hungary got the green light with a few standard rules that should be followed in the project and after. In this case, the Government is responsible for ensuring Paks 2 for using the profits only for the development, financing, construction,

³⁶ European Commission (2017) Calculations used by the European Commission
<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017D2112&from=EN>

³⁷ European Commission (2017) Further calculations done by the European Commission
<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017D2112&from=EN>

³⁸ HUPX (2020/12/11)Used to check the current next-day baseload prices <https://hupx.hu/en/>

commissioning, operation and maintenance, refurbishment, waste management and decommissioning of two new nuclear power units and payment of profits to the Hungarian State. In no case, Paks 2 is allowed to use the gained profits for investment not included in the scopes mentioned above. If such investments are made, they need to be approved for state aid once again. The Commission also regulates the way that Paks 2 should make its trading to ensure a profit-optimizing strategy. Paks 2 is obligated to sell 30 % of its total electricity output on the day ahead, intraday, and future markets of the Hungarian Power Exchange. Other exchanges are usable but need to get approval. The rest of Paks II's total electricity output shall be sold by Paks II on objective, transparent and nondiscriminatory terms by way of auctions. Hungary is also must oversee the legal and functional separation of Paks 2 and the MVM group. Reports should be made of the first financial year for analysis of ³⁹

Financing

One of the significant headline materials for the Paks expansion was the financing that was provided straight by the Russian Federation for the sole use of the design, construction, and commissioning of the planned reactors. It is clear that Hungary, on its own, is not capable of financing the molding of the new reactors. The whole project was estimated at 12.5 billion USD, in which 10 billion USD is provided as a loan from Moscow, and the Hungarian Government finances the rest, which is not a unique case as ROSATOM had many foreign projects where their Government gave out loans to the countries where the nuclear reactors will be built. One such example is a nuclear power plant in Roppor, India, where the 12.65 Billion USD contract in 90 percent is funded by a loan from the Russian Government. The financial aspects of the deal stipulate an interest rate on the €10bn loan at 3.95% until Paks 2 is operational, which then rises incrementally to 4.95% over the next 21 years. Lower financing costs on the market have made the Russian loan conditions far less favorable.

Nevertheless, at the time of planning, the loan was thought to be advantageous, but the market has changed, and the evaluation of Hungary has increased over the years in the eyes of lenders. It is also essential to understand that possibly the construction would not have been possible without agreeing to the loan. It is provided on money on-demand basis where Hungary is free to take any amount they want and can return it instantly. However, there's an added fee for having the funds at disposal at 0,25 percent of the unused amount. This meant € 250,000 in 2016, € 762,500 in 2017, and € 334,454 in 2018, as told by Süli János, who is the first person responsible for the project on the Hungarian side. The Hungarian Government thought about other sources to refinance the project, but there has not been any news regarding it. In other words, Hungary has already paid more than 1.3 million euros to the Russian side just because it allows the loan to be drawn down if necessary. ⁴⁰The use of funds is thought in a way to avoid the not justified use where Paks 2 project company only gets the funds after a milestone fulfilled by sending a request to Bank for Development and Foreign Economic Affairs of Russia for 80 percent and to the Government Debt Management Agency of Hungary for the remaining 20 percent.

There is no doubt regarding the necessity of the loan in my mind, but the terms are not the best that could've been achieved. It is also vital that we got a fair timeframe for returning the loan where the Government argued that at the time, nobody was willing to give out a loan with such a timescale. The

³⁹ European Commission (2017) Data in this part of the study is taken from this source <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017D2112&from=EN>

⁴⁰ Portfolio (2018) <https://www.portfolio.hu/uzlet/20181206/paksi-hitel-mar-majdnem-felmilliardba-kerult-csak-az-hogy-van-306937>

Hungarian Government is obliged to return the loan within 21 years as of March 15 or September 15 following the date of commissioning of both of the new nuclear power units 5 and 6, but not later than March 15 2026. The deal could be thought of as a package with the technology and financing included. ROSATOM can't be expected to build such highly-technological structures without some kind of guarantee, and the best is their own Government. Refinancing the project could help minimize the costs, but no intentions have been proclaimed yet. Leaning for more beneficial loans on the market might not be possible based on the deal's nature.

Few studies were submitted by third parties, which criticized some parts of the opening decision. One of the studies pointed out additional costs not covered in the plan, such as a security and cooling system upgrade, which would not be good enough for the reactor in the long term and might need additional funding estimated at about 1 billion EUR. It also raised some concerns regarding the current storage space for radioactive waste, which likely will not be enough for future endeavors and might cost additional billions of Euros. The existing national electricity grid will need an upgrade in the 400 kV cable-system and the 120 kV auxiliary high voltage cable. Investment for the projects mentioned above can cost as much as 1,6 billion EUR. Losses were also not included, generated by the older reactions' reduced operational capacity until their decommissioning. These comments were answered by the Hungarian Government, making them obsolete to the investigation. Another study included writings regarding adverse effects on the Hungarian Government's budget that even in the case of a profit on the investment, it was not the best area for the use of funds.

Importance of Paks 2 to Hungary

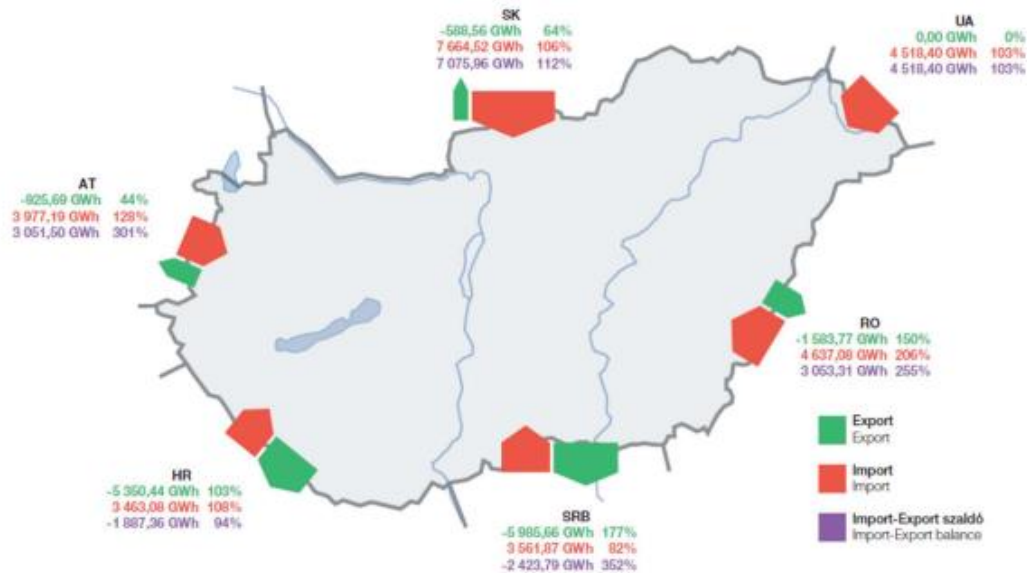
As previously mentioned, the now-functioning reactors provide a 50 percent share of the Hungarian energy production while only providing 36 percent of the total electricity consumption. As a result of a service life extension program, Unit 1 of the nuclear power plant will operate for another 20 years, ensuring favorable electricity generation conditions. Upon obtaining a license for extended service life, Unit 2 of Paks NPP will be in operation until 2034, Unit 3 until 2036, and Unit 4 until 2037. A study issued by MAVIR concluded that based on the retirement of many energy sources, Hungary would need somewhat more than 7 GW of additional new electricity generation capacity by the end of the forecast period in 2031. Also, at the time of the European Commission's hearing, there was only one power station under construction: a 44 MW waste-to-energy plant. The energy import in Hungary amounted to 13,69 TWh, corresponding to 31,28 percent of the total consumption, making Hungary a net energy importer in Europe that will not change after the new reactor's function. It will lower the dependence on imported electricity and gives us safety regarding foreign manipulations with baseload prices. Nuclear reactors are not dependent on fuel, where it is already bought for years worth, which can't be said for coal energy in which supply needs to be constant.⁴¹

More important is the strategic importance of the Paks 2 project. Such a highly-technological and costly project is not often present, where the cost is equal to about 10% of the country's GDP. The Government made a point both in a political and economic sense. The Russian Federation ties were cemented, especially when anti-Russian tendencies started to appear amidst the European Union and its allies. On the other hand, it was felt that the Russian Government was pushing the deal forward in some kind of

⁴¹ European Commission (2017) <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017D2112&from=EN>

sense. Nevertheless, Hungary made the statement that it considers the Russian Federation as a business partner in due-diligence and is not “scared” to invite its eastern ally for such a big project.

Electricity exchange between Hungary and neighbouring countries



Source: Data of the Hungarian Electricity System (Mavir, 2014).

⁴²Graph 3

The above illustration of the Hungarian electricity import/export further points out the Paks 2 Nuclear Power Plant need. The only two countries to who we are considered a net electricity exporter are Croatia and Serbia, therefore 1/3rd of our neighbors. This graphic depicts a case where the Paks Nuclear Power Plant's currently functioning reactors are still commissioned. In their disappearance, our net import numbers will increase and would makes us dependant on neighboring countries. Due to the EU Green energy requirements, most of the electricity imported would need to be from green sources in which prices are high, and subsidies favor the operator, not the purchaser and end-user. In Hungary's terms, the new nuclear power plant is not a profit-seeking investment but an establishing foundation for the future. With the example of the United States, where due to air conditioning electricity usage is high, we need nuclear energy as it can deliver the power required 24/7 contrary to renewable and ignition based energy sources.

Conclusion

This study aimed to identify the key differences and characteristics of Hungarian-Russian relations after the Ukrainian Situation. The analysis happened on a few subjects, such as the effect of sanctions, Natural

⁴² Visual Representation of Electricity IMPORT/EXPORT in the case of Hungary (2014) <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017D2112&from=EN> Figure 5

gas, and the Paks Nuclear Power Plant project. Based on data, opinions, and facts provided by literature, press releases, and studies, we can conclude a few actualities in these troubling times where many things became uncertain that was beyond doubt. Nevertheless, the ideas and directions are chosen and keep on moving forward despite the artificial or real obstacles. The Hungarian Government keeps its diversification in the area of the financial Portfolio. Despite all the voices raised in „concern” from western allies, Budapest sees that they have no natural resources, a highly-technological economy, or world-class tourism. The logical way is to be open to all kinds of money sources, especially when eastern countries such as the Russian Federation seek allies to trust in the European Economic area. It is safe to say that the Hungarian Government has achieved real friendly ties with the Russian Federation’s Government that are already profiting us. Still, the main flowers may just be ahead. We don’t yet know what these ties can bring us in the future, but it won’t be negative. The Russian Federation is deciding on its way of handling the European Union, with many options on hand; it all depends on the Western party’s actions and spirit. As Lavrov describes, “The reason - in the non-partner, and often unfriendly behavior of some EU countries, which receive the approval of the entire European Union.”⁴³ By this, Hungary is moving on the right way to become a „gate to the east” and will profit from it.

Based on the data provided in this study, the effectiveness of the sanctions could be doubted. It is quite sure that if the European Union’s overall goal is welfare for its member states, the sanctions did not prove out successful. Based on the data, we can see that the sanctions have brought an ample amount of losses for those companies that did not get their place in the European economic market, only in Hungary’s case. The overall goals set up in the initial sanctions have not been met. Hungary was one of the most hurt countries; the Russian sanctions limiting imports took a big hit on Hungarian businesses. At the same time, bigger deals with the Russian Federation keep on happening, such as the Nordstream 2 and Paks 2 NPP. The pre-2014 situation will not return as the Russian Federation feels themselves comfortable and Hungarian businesses that got affected closed down or found different destinations for their products.

The Ukrainian situation created an interesting phenomenon that has become the only way for Ukraine to receive natural gas. Hungary is one of the countries that profit from this venture while doing no physical activity. Sadly the numbers, margins, and profits are not public, but we can safely assume that they’re pretty significant. This shows the nature of Ukrainian politics where they’re are not shy of Russian origin gas, significantly when it costs their citizens much more than it would in a pre-2014 situation. This will go on for a long time, making Hungary profits that were not possible before. Meanwhile, the Russian Federation’s pipeline systems might end up profiting Hungary in the future with the Turk Stream 2. A worthwhile contract between Hungary and Gazprom could be in place.

Paks 2 Nuclear Power Plant is the most critical and costly strategic project since the proclamation of democracy in 1989. It is a show for the worth of the Eastern Partnership program. Hungary makes a strategic move of not being reliant on other countries in the question of electricity. In the era of alarmingly growing energy consumption, it is the right investment choice while cementing and promoting Russian economic ties. Moscow considers this a success as well; one of the leading forefront companies, ROSATOM, has a large-scale project in the European Union after the relations got worse.

Overall, Hungarian-Russian Economic relations are looking towards a bright future that is all moving according to both plans. Even with the Ukrainian situation ruining some of the two countries’ prior efforts, backdoors have been found and will be located should any trouble arise. Both economies are in

⁴³ Ria (2020) <https://ria.ru/20201126/lavrov-1586442623.html>

good shape and are not scared to make moves further to improve the situation of the state and its people.

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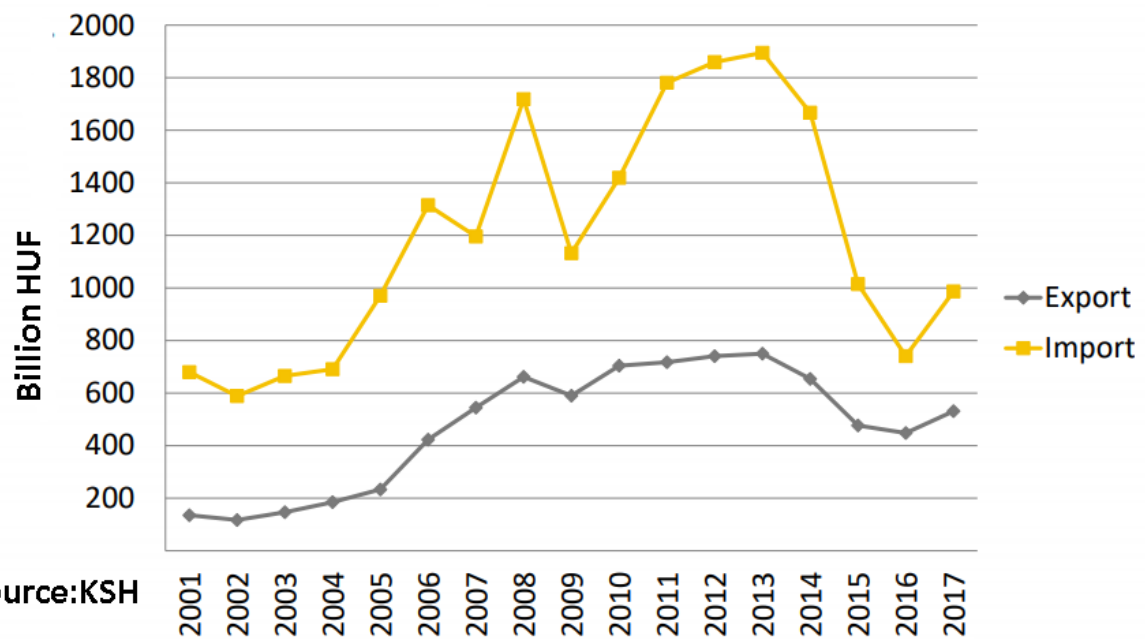
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APPENDICES

Trade between Hungary and the Russian Federation



Source:KSH

⁴⁴Graph 4

⁴⁴ Graph comprised of data from KSH