

Simola, Heli

Research Report

Russian foreign trade after four months of war in Ukraine

BOFIT Policy Brief, No. 5/2022

Provided in Cooperation with:

Bank of Finland, Helsinki

Suggested Citation: Simola, Heli (2022) : Russian foreign trade after four months of war in Ukraine, BOFIT Policy Brief, No. 5/2022, Bank of Finland, Bank of Finland Institute for Emerging Economies (BOFIT), Helsinki,
<https://nbn-resolving.de/urn:nbn:fi:bof-202209091354>

This Version is available at:

<https://hdl.handle.net/10419/264589>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

BOFIT Policy Brief 2022 No. 5

Heli Simola

Russian foreign trade after four months
of war in Ukraine



Bank of Finland, BOFIT
Bank of Finland Institute for Emerging
Economies

BOFIT Policy Brief
Editor-in-Chief Mikko Mäkinen

BOFIT Policy Brief 5/2022
9 September 2022

Heli Simola:
Russian foreign trade after four months of war in Ukraine

ISSN 2342-205X (online)

Bank of Finland
BOFIT – Institute for Emerging Economies

PO Box 160
FIN-00101 Helsinki

Phone: +358 9 1831

Email: bofit@bof.fi
Website: www.bofit.fi/en

The opinions expressed in this paper are those of the authors and do not necessarily reflect the views of the Bank of Finland.

Contents

Contents	2
Abstract	3
1. Introduction.....	4
2. Trade sanctions imposed on Russia	4
2.1 Sanctions on exports to Russia.....	5
2.2 Sanctions on imports from Russia	5
3. Russian imports and production.....	6
3.1 Aggregate imports.....	6
3.2 Technology imports	7
3.3 Alternative import schemes	8
3.4 Russian production in higher-technology sectors	9
4. Russian exports and production	10
4.1 Aggregate exports	10
4.2 Exports of key commodities	11
4.3 Russian production in export-intensive industries	13
5. Concluding remarks	14
References.....	16

Heli Simola

Russian foreign trade after four months of war in Ukraine

Abstract

This brief examines the development of Russia's trade flows in the March-June period following Russia's invasion of Ukraine. Russia ceased publication of foreign trade statistics after the war broke out, so we utilize the trade statistics of Russia's major trading partners. We find that Russia's imports declined substantially in the period with the country struggling to find alternative import sources. On the other hand, Russian export revenues increased post-invasion due to high commodity prices, the lag in transition periods for EU import restrictions and higher export volumes going to other markets. Russian industrial output reflects a shift in foreign trade. High-tech industries reliant on imported inputs contracted, while output remained robust for some export-oriented industries. The first months of war show sanctions took an increasing toll on the Russian economy, seriously eroding the country's long-term growth potential.

Keywords: Russia, trade, sanctions

1. Introduction

At the time of this writing, Russia's brutal war in Ukraine has passed the six-month mark. The war, which has affected the Russian economy through multiple channels, has dramatically increased uncertainty and clouded Russia's economic outlook. As a reaction to the war, extensive regime of economic sanctions have been imposed on Russia led by the EU and the US. The sanctions, which now involve most developed countries, have limited Russia's participation in global financial markets and restricted its trade flows. Over a thousand multinational companies have also ceased their business operations in Russia.

Russia was quite integrated into the global economy before the war. Export revenues amounted to 35 % of GDP in 2021. Many industrial sectors remained highly dependent on imported technology and inputs. The war and sanctions have strongly affected Russia's foreign trade flows, knocking the wind out of many industrial sectors. Monitoring Russia's trade flows, however, has become difficult as the country has ceased to publish foreign trade figures.

In this brief, we construct estimates for Russia's goods imports and exports on the basis of mirror statistics, i.e. the corresponding figures released by Russia's major trade partners. These estimates allow us to analyze recent developments in Russia's foreign trade and their effect on industrial output in various sectors. Due to data limitations, the analysis only extends through June.

We find that Russian imports declined substantially in the period with little diversification of import sources. This failure to find substitutes applies particularly to technology imports. As a result, domestic production in certain technology-intensive categories declined sharply. In contrast, Russian exports *increased* in both value and volume during March-June. Export income was supported by high commodity prices. In volume terms, Russian exports to the EU have so far declined to a limited extent as most import restrictions had not entered into force by June. Exports of certain key commodities to Asia, particularly crude oil, helped offset the drop in European demand. This has also supported production in these industries. In any case, the war and sanctions are gradually taking a larger toll on the Russian economy, seriously eroding the country's long-term growth potential.

The paper is structured as follows. Section 2 describes briefly the trade sanctions imposed on Russia and some general features of Russia's trade structure. The estimates for Russia's aggregate imports and technology imports are presented in Section 3 and discussed in the light of industry developments. Section 4 provides similar estimates for the value of Russia's aggregate exports and volumes of certain key commodities. The final section concludes.

2. Trade sanctions imposed on Russia

The EU, US and UK imposed an unprecedented, highly coordinated economic sanctions regime on Russia in response to the invasion of Ukraine. Other developed economies, including Japan, Korea, Taiwan and Canada, also joined (at least partly) in sanctions. The sanctions framework seeks to cripple Russia's ability to continue the war and impose financial costs on Russia for initiating an unprovoked and unjustified military attack.

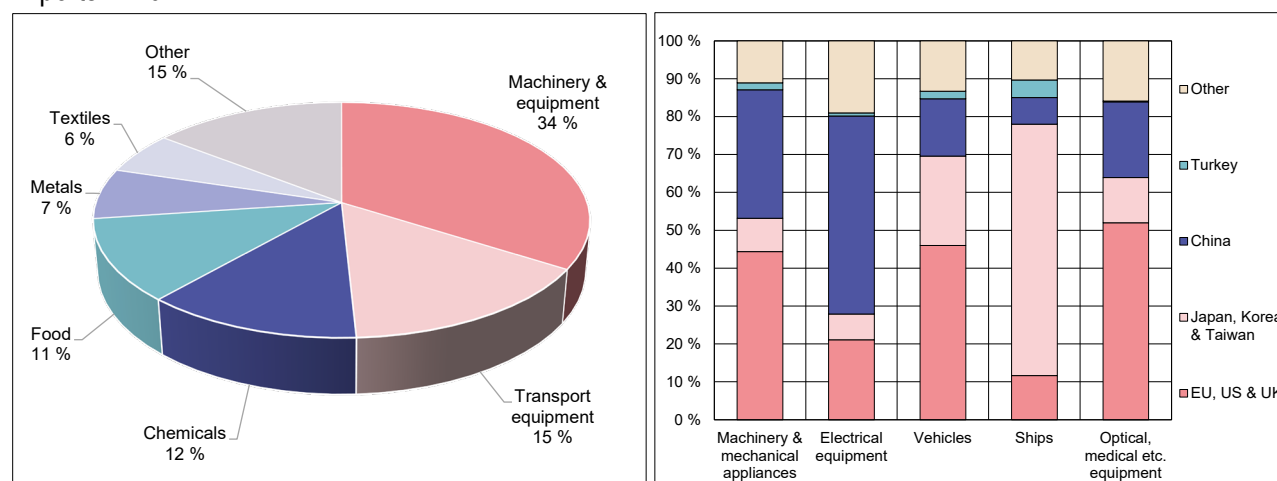
The sanctions include a wide variety of measures. The measures that are most important from the perspective of foreign trade are *restrictions on exports to Russia and imports from Russia*. Trade with Russia is also substantially hampered by restrictions placed on Russian financial institutions and transport flows. Over a thousand multinational companies have voluntarily ceased their business operations with Russia.

2.1 Sanctions on exports to Russia

Restrictions on exports to Russia are focused on – but not limited to – certain technological goods. These include aircraft and parts, semiconductors and advanced electronics and industrial machinery. The European Commission¹ determined that the export restrictions cover 28 % of EU goods exports to Russia in 2021. The initial restrictions implemented in March have been gradually widened as new layers of sanctions are added.

The aim of export restrictions on technology products is to degrade Russia's technological base and industrial capacity. Technological products account for about half of Russia's good imports (Figure 1a). Russian industry – including the military industry – is highly dependent on imports of high-tech goods (Byrne et al. 2022; Simola, 2022). Developed countries have traditionally been a major source of imports of technological products for Russia (Figure 1b).

Figure 1. a) Product structure of Russian goods imports in 2021; b) Geographic origins of Russia's technology imports in 2021.



Sources: CEIC and Russian Customs.

2.2 Sanctions on imports from Russia

A substantial share of imports from Russia are subject to restrictive measures. The European Commission estimates that the current restrictions would apply to about half of EU goods imports from Russia in 2021. The import restrictions aim at cutting Russia's export income. The value of Russian exports of goods and services amounted to USD 540 billion (35 % of GDP) in 2021. Russia's export taxes (particularly on oil) also constitute a major source of federal budget revenue.

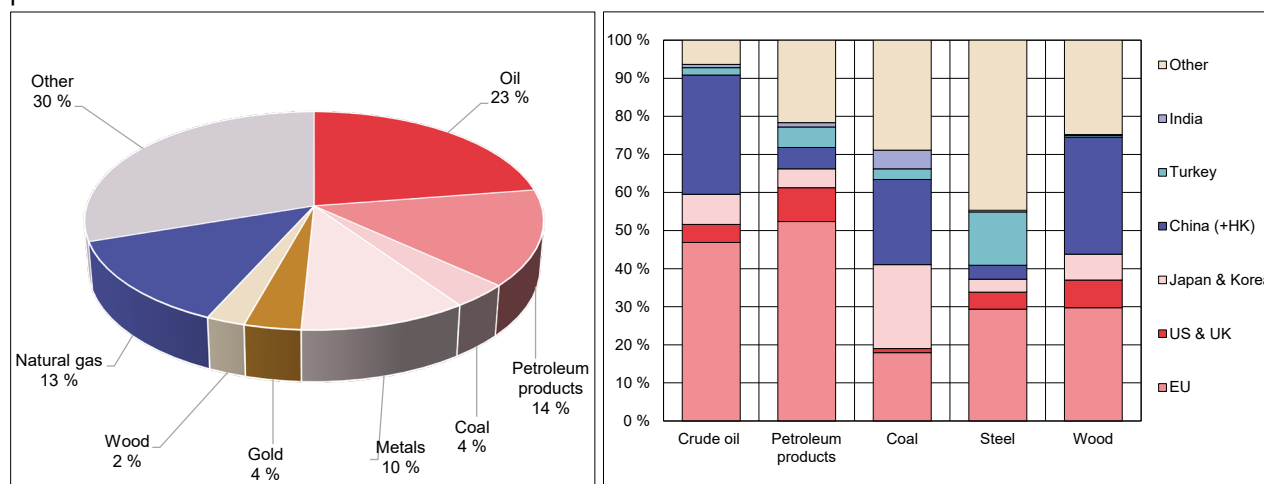
Some of Russia's most important export commodities, including crude oil, petroleum products, coal, wood, steel and gold (Figure 2a) are subject to import restrictions. The countries imposing import restrictions accounted for 40-70 % of Russian exports in these product categories (Figure 2b) last year.

Import restrictions for these products have typically been subject to transition periods of variable length to give importing countries time to adjust. In the EU, for example, an import ban on wood and wood products to effect in July, while the coal ban came in August. The ban on crude oil

¹ European Commission (2022). EU sanctions against Russia following the invasion of Ukraine. https://eu-solidarity-ukraine.ec.europa.eu/eu-sanctions-against-russia-following-invasion-ukraine_en

imports takes effect in December, while the petroleum product ban happens in February 2023. The US import bans on Russian oil and petroleum products were already imposed in March.

Figure 2. a) Product structure of Russian goods exports in 2021; b) Destinations for Russia's key export products in 2021.



Sources: CEIC, Russian Customs.

3. Russian imports and production

Monitoring of Russia's trade trends has become more difficult since the country suspended publication of foreign trade statistics. Thus, we calculate estimates for Russian goods imports based on mirror statistics, i.e. the export figures of Russia's major import markets. These estimates allow us to roughly track Russia's monthly import trends.²

3.1 Aggregate imports

The estimate for Russian aggregate imports is based on the export figures for 17 economies (including the EU27 aggregate).³ These countries together provided 85 % of Russian good imports in 2021. The correlation between Russia's official goods imports data and our estimate is very high (0.97) for the period of 2015–2021.

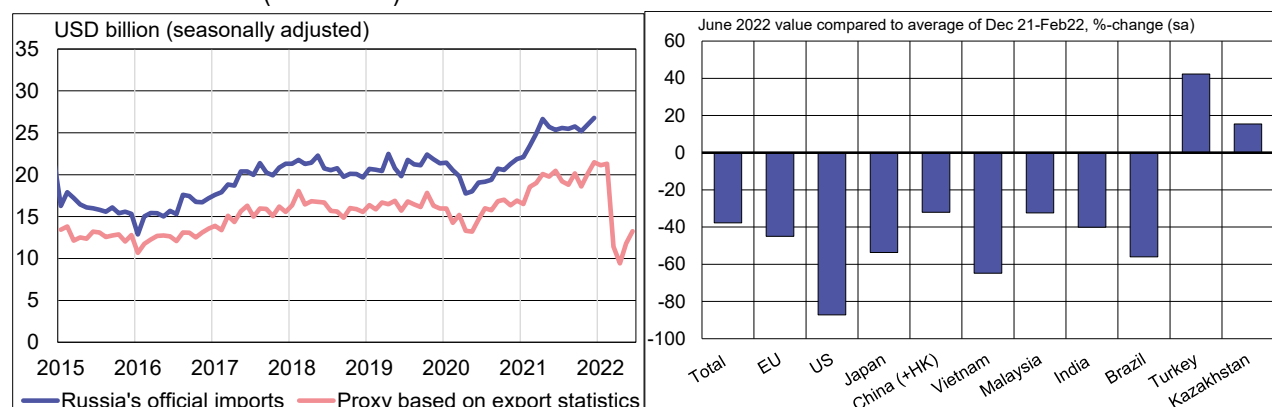
Our estimate indicates that Russian imports declined substantially immediately after the invasion, but eventually recovered slightly (Figure 3a). Nevertheless, the level of imports was still down 38 % in June from the pre-invasion level⁴. Not surprisingly, the biggest falls were recorded for imports from countries that imposed sanctions on Russia. Imports from other countries, however, also declined substantially (Figure 3b). Bucking the general trend, imports from Kazakhstan and Turkey were higher in June than at the start of this year. These shifts could reflect reorganization of transport routes, a topic discussed in more detail in Section 3.3.

² Due to multiple reasons, bilateral export and import statistics rarely match up. Even so, mirror statistics can be quite useful in estimating trade flows for countries with inadequate or unreliable trade statistics. For more discussion on this topic in the context of Russia, see e.g. Simola, 2012.

³ These economies include the EU27, US, UK, Japan, Korea, Taiwan, China, Hong Kong, Switzerland, Turkey, Kazakhstan, Brazil, Mexico, Malaysia, Thailand, Vietnam and India.

⁴ Preliminary trade data from China indicate that Russia's import recovery continued in July-August.

Figure 3. a) Russia's monthly imports (1M15–6M22); b) Change from pre-war level in Russian goods imports from select countries (June 2022).



Sources: Macrobond, Comtrade, Eurostat, author's calculations.

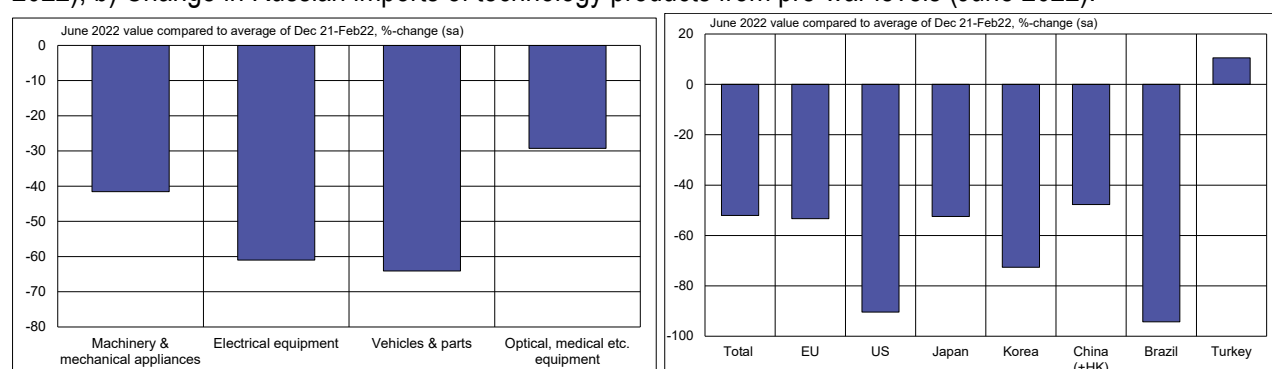
3.2 Technology imports

The following estimates for Russian technology imports are based on product categories of technological goods.⁵ Due to the lack of data, we use a narrower sample of eight economies (including EU27) that represent 75–85 % of Russia's technology imports across product categories.

We find that Russian technology imports fell more sharply than total imports. In June, imports of machinery and mechanical appliances were down 42 %, while imports of electrical equipment were off by 61 % from their pre-war level (Figure 4a). Imports of motor vehicles and parts contracted by 64 % even though they were not for the most part directly subject to export restrictions.

Nearly all sample economies show declines in technology imports, but Turkey is again the exception (Figure 4b). Russia's imports from Turkey of machinery, mechanical appliances and electrical equipment, as well as optical, medical and other equipment were up in June.

Figure 4. a) Change in Russian imports of select technology product categories from pre-war levels (June 2022); b) Change in Russian imports of technology products from pre-war levels (June 2022).



Note: Technology products aggregate refers to the sum across machinery and mechanical appliances (HS 84), electrical equipment (HS 85), motor vehicles (HS 87) and optical, medical etc. equipment (HS 90).

Sources: Macrobond, Comtrade, author's calculations.

⁵ "Technological goods" refers here to HS foreign trade product categories machinery and mechanical appliances (84), electrical equipment (85), motor vehicles (87) and optical, medical etc. equipment (90). While the export restrictions of the EU, US and other countries mainly focus on technological goods, it is worth emphasizing that many technological goods classified in these product categories are not subject to *any* restrictions. Due to data insufficiency, we have excluded from the analysis goods related to aircraft and ships (goods widely subject to export restrictions).

Our estimates suggest that Russia's total technology imports fell substantially in the first four post-invasion months. Moreover, Russia was unable to find alternative sources for technology imports. While our disaggregated technology import estimates contain only a limited number of countries, our aggregate level estimates include all the leading global exporters of technology products (e.g. Malaysia, Vietnam and Mexico). As Russia's total imports from these countries have also fallen substantially, it is likely that these countries did not provide substitutes for Russian technology imports.

3.3 Alternative import schemes

Russian officials acknowledge problems caused by the lack of imported goods. To alleviate this, Russia recently temporarily legalized "parallel importing" of various products ranging from car parts to consumer electronics. Parallel importing refers to imports of original goods (not counterfeits) made without the permission of the intellectual property owner in order to circumvent authorized distributors of the goods.

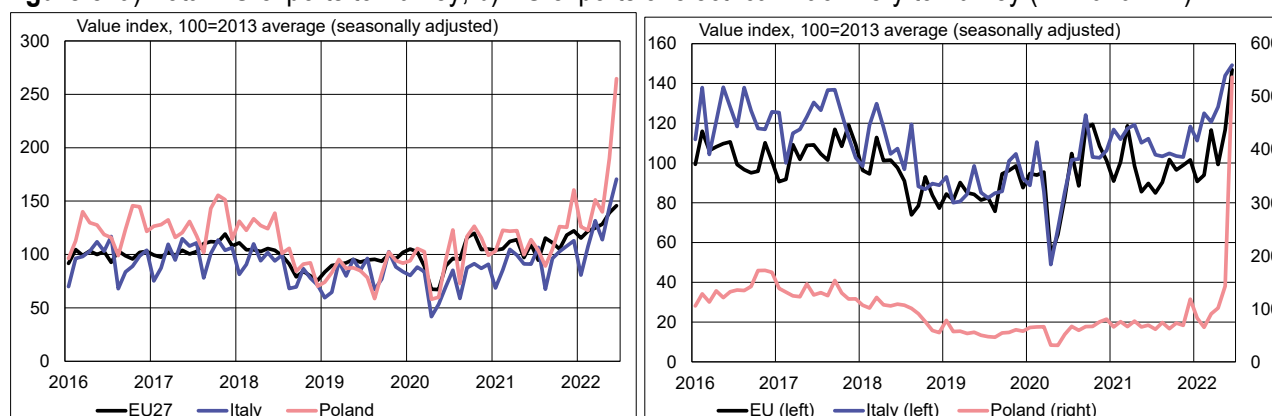
While it is hard to estimate the amount of parallel imports, media reports suggest that many Russian experts expect that the volumes of such goods imports is likely to remain modest due to the challenges of large-scale parallel importing. Russian industry experts note, for example, that passenger cars have so far not been imported practically at all under the parallel importing scheme.⁶ Russia's minister of industry and trade Denis Manturov recently stated that the value of parallel imports could reach USD 2–2.5 billion per month this year.⁷ Russian goods imports last year averaged USD 32 billion a month.

A related issue is re-orientation of trade flows through other countries. EU trade statistics suggest that some of the increase in Turkish exports to Russia may reflect trade flows from EU countries transported via Turkey to Russia. Exports from the EU to Turkey have increased in recent months, particularly from Poland and Italy (Figure 5a). The value of Italian exports to Turkey was up by about 70 % and Polish exports some 90 % higher in June compared to the first months of the year. Polish exports hit a historical high of USD 500 million in June. The value of Turkish exports to Russia was about USD 700 million in June.

In terms of product categories (Figure 5b), this appears to apply especially to electrical equipment. The value of Polish exports of electrical equipment to Turkey was five times higher in June than at the beginning of the year. Detailed analysis would be needed to evaluate the motives for such shifts.

⁶ Vedomosti 18.8.2022 Parallelny import ne pomog uvelichit vvoz legkovushek v Rossiyu
<https://www.vedomosti.ru/auto/articles/2022/08/17/936477-parallelnii-import-legkovushek>

⁷ RBK 15.8.2022 Manturov ocenil ob'om parallelnovo importa k koncu goda
<https://www.rbc.ru/economics/15/08/2022/62fa59159a7947f4c1194743>

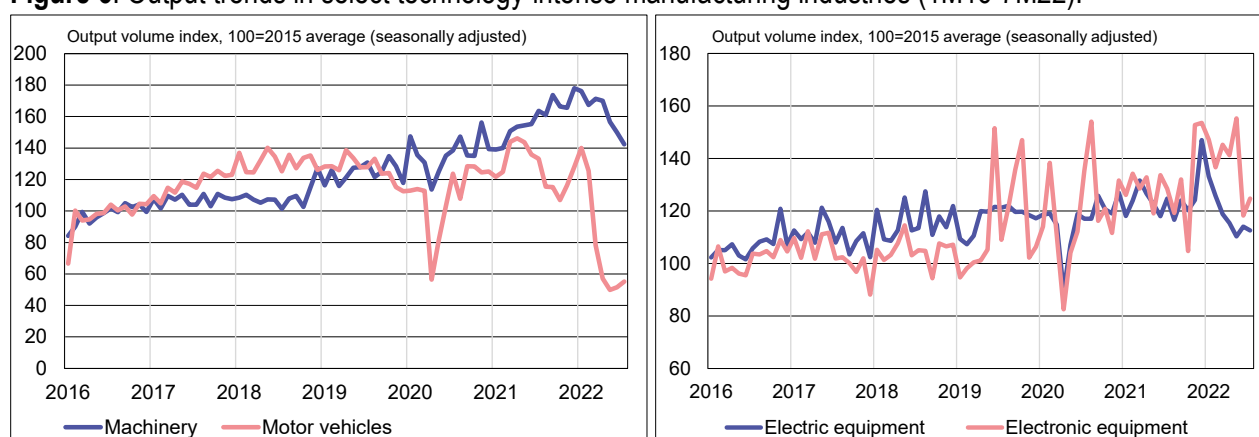
Figure 5. a) Total EU exports to Turkey; b) EU exports of electrical machinery to Turkey (1M16–6M22).

Sources: Eurostat, author's calculations.

While the potential amount of illicit imports evading sanctions is hard to estimate, Byrne et al. (2022) provide evidence that Russia's military industry, despite strict export controls, has managed even in recent years to acquire various components from the US and Europe. Such leakage underlines the importance of robust, consistent enforcement of the current sanctions in restricting the possibilities for Russia's military industry to produce of modern arms and weapons systems.

3.4 Russian production in higher-technology sectors

The substantial cut in supply of imported technology goods and inputs is a serious problem for some industries in Russia, particularly higher-technology industries such as machine-building, equipment manufacturing and even in military industry (Byrne et al., 2022; Simola, 2022). Output in these industries declined notably after the invasion of Ukraine (Figure 6). At the aggregate level at least, there is little evidence of import substitution by domestic producers. The Central Bank of Russia (CBR, 2022) concedes that, at least in the short-term, large-scale import substitution is impossible for most Russian industries.

Figure 6. Output trends in select technology-intensive manufacturing industries (1M16–7M22).

Sources: Macrobond, Rosstat.

Russia's automotive industry has been particularly hard hit. Automotive industry output was down by nearly 60 % (y/y) in July, with passenger car production plunging by over 80 %. Russian officials this spring loosened automobile safety requirements to alleviate the problems from lack of foreign

components. For example, Avtovaz has produced thousands of Ladas in recent months without airbags. The president of the company recently said in an interview that the company has not been able to find substitutes for a third of the components (1,500 items) needed for Lada assembly.⁸ A report by the Russian Center for Strategic Research (CSR, 2022) noted that, without foreign components, the Kamaz truck company may have to shift output to models produced last in the 1970s and 1980s.

The new development strategy for the automotive sector, prepared in August by the Ministry of Industry and Trade, foresees the sector requiring annual investments of RUB 200 billion (USD 3 billion) starting from 2023 to bring production back to pre-war levels by 2027. The outlook for the sector, however, appears quite gloomy. Russia's development strategies have traditionally been unreasonably sanguine. From 2015 to 2021, a period of far more benign financial market conditions than now, investment in the automotive sector only amounted to about RUB 70 billion a year.

Output of many other products in machinery & equipment category have also fallen notably. For example, production of washing machines in July was down by 55 % (y/y), elevators by 45 % and railway wagons by 25 %. Companies producing modern railway wagons have had to cut production, while crane manufacturers have had to shift to producing simplified models (CSR, 2022). Russia recently signed an agreement on importing elevators produced in the Kyrgyz Republic.⁹ The CBR (2022) expects the quality of goods and services in the Russian market to decline in general.

Domestic technology industries account only for a minor share of the Russian economy. The share of each technology industry analyzed above was about 0.5 % of GDP in 2021. While the performance of these industries is unlikely to have a large direct impact on Russia's economic development over the short term, their shares are tiny precisely because Russia has largely relied on imports in these sectors. The lack of imports and poor development of domestic industries hampers significantly Russia's potential for economic development in the longer term.

4. Russian exports and production

In this section we construct a similar proxy for the aggregate value of Russian goods exports as for imports above utilizing the mirror statistics of its leading trade partners. As Russian exports mainly consist of basic raw materials and commodities, the values are highly sensitive to the abrupt price fluctuations often seen for such goods. Therefore, we focus on our disaggregate product level examination on volumes rather than values.

4.1 Aggregate exports

The estimate for aggregate exports is based on the import figures of the same 17 economies (including EU27 aggregate) as above. These countries accounted for 81 % of Russian goods exports in 2021. The absolute value of our estimate is higher than Russia's official export figures due to statistical reporting conventions. Import data is typically reported in CIF terms (cost inclusive of insurance and freight), i.e. they include transport costs, while export data are reported FOB (free on board), i.e.

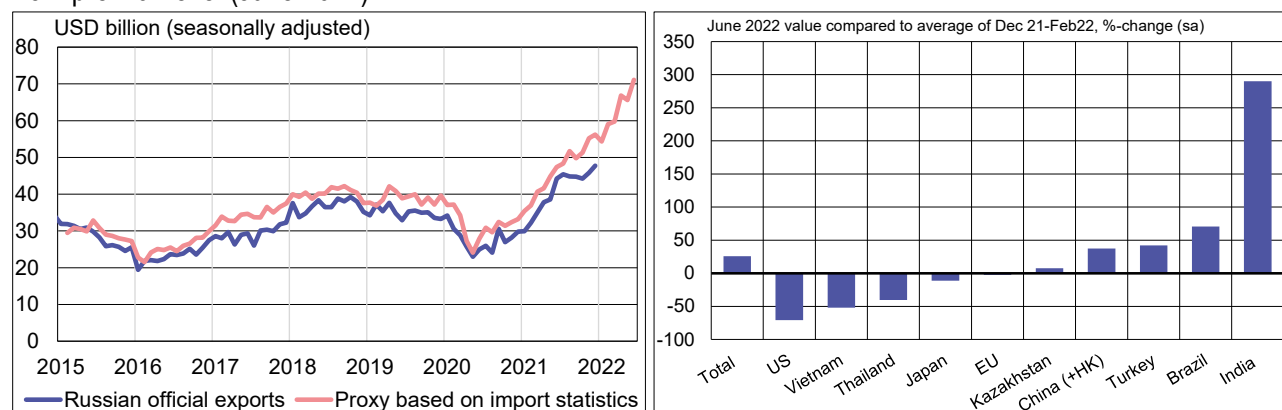
⁸ RBK 7.9.2022. Glava Avtovaza podelilsja planami vypustit novoe semeystvo Granta.
<https://www.rbc.ru/business/07/09/2022/6318a5419a79473f09a2d7e4>

⁹ Economist.kg 4.8.2022. Kyrgystan nachnet exportirovat lifty v Rossiju.
<https://economist.kg/novosti/2022/08/04/kyrgyzstan-nachnet-eksportirovat-lifty-v-rossiju/>

without transport costs.¹⁰ The correlation between Russia's official goods exports data and our estimate is quite high (0.96) for the period 2015–2021.

Our estimate suggests that the value of Russian goods exports has continued to climb steadily even after Russia's invasion (Figure 7a). Exports reached a historically high level in June with their value up 26 % from the pre-war level. Country-wise, the development of Russian exports has varied dramatically. The value of exports to the US was 70 % lower in June compared to the pre-war level, but the value of exports to India was nearly five times higher (Figure 7b).

Figure 7. a) Russia's monthly exports (1M15–6M22); b) Change in Russian goods exports to select countries from pre-war level (June 2022).



Sources: Macrobond, author's calculations.

4.2 Exports of key commodities

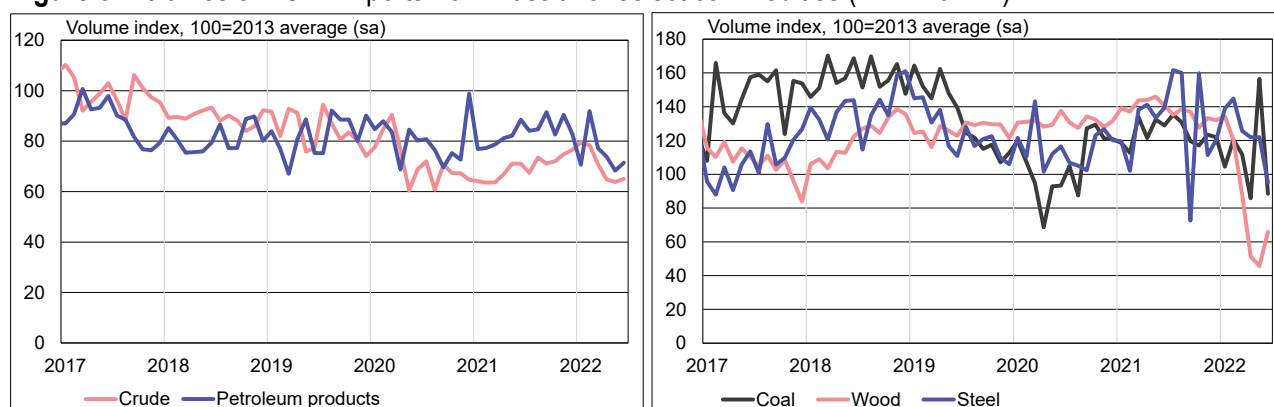
We now examine development of trade in Russia's key export commodities in more detail, focusing on those commodities placed under restrictions by the EU and other developed economies.¹¹ Even with limited data, we consider trade volume trends in this section.

The EU, a key export market for most Russian commodities, has imposed extensive restrictions on imports from Russia. These include import bans on crude oil, petroleum products, coal, wood, certain steel products and gold. As most of these import bans are subject to transition periods, most were not yet in force in June, our most recent point of data availability.

As a result, EU imports of affected commodities from Russia declined, but did not collapse in the first months following the invasion of Ukraine (Figure 8). Wood and wood products are a notable exception as they contracted to a historically low level after the invasion. Part of this reflects Russia's imposition of its own restrictions on wood exports in spring 2022. Several European forest industry companies also decided on their own to cease buying Russian wood.

¹⁰ For detailed discussion, see Simola (2012).

¹¹ We exclude natural gas here as the EU has not put any restrictions on imports of natural gas from Russia.

Figure 8. Volumes of EU27 imports from Russia for select commodities (1M17–6M22).

Source: Eurostat.

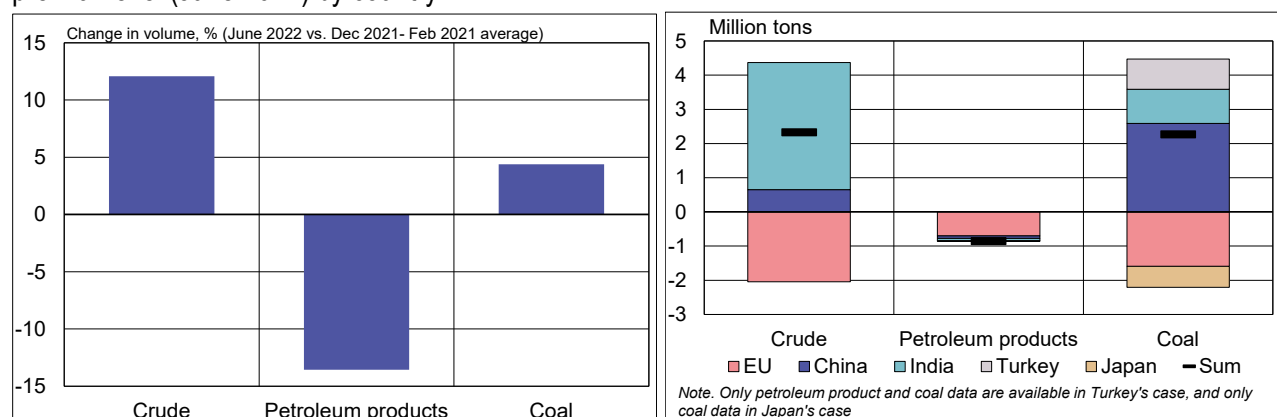
Russia has managed to find alternative export markets (most notably India and China) to make up for some of the decline in exports to developed economies. Since the war started, Russia's Urals blend crude has been traded with a substantial discount (about 30 % on average) in comparison to other oil grades, and India in particular has increased oil imports from Russia dramatically. In June, India imported over ten times more oil from Russia before the Ukraine invasion. Chinese oil imports from Russia were up 10 % in June. According to media reports, Turkish oil imports from Russia also appear to have increased, but comparable data is not available. India, China and Turkey have increased their coal imports from Russia substantially in recent months.

Estimating the volume of Russian exports of these commodities based on import data from a few key markets,¹² we suggest that Russia's export volumes of oil and coal were actually higher in June compared to the pre-war level (Figure 9a). The increases in imports of emerging economies have more than compensated for the cut in imports of developed markets (Figure 9b).

Petroleum products are the exception, however, as both China and India have their own refining capacity. Thus, imports of Russian petroleum products declined for China, India and Turkey in the four months after the invasion. China and India, both major steel producers themselves, also offer little to Russia as potential markets to make up for the loss of demand for steel exports to the EU. For Russian wood, China is a major importer, but it can be prohibitively expensive to transport to China. Most of the timber and wood products exported to the EU come from Northwest Russia.

¹² Due to lack of comparable data, we base our estimate on only a few key markets. For crude oil, the EU27, China and India accounted for 80 % of Russian oil exports in 2021. For petroleum products, the EU27, China, India and Turkey accounted for 65 % of Russian exports in 2021. For coal, the EU27, China, India, Turkey and Japan accounted for 60 % of Russian exports in 2021.

Figure 9. a) Estimated change (%) in Russia's export volumes of crude oil, petroleum products and coal from the pre-war level (June 2022); b) Change (million tons) in the monthly volume of imports from Russia from the pre-war level (June 2022) by country.



Sources: Macrobond, UN Comtrade, author's calculations.

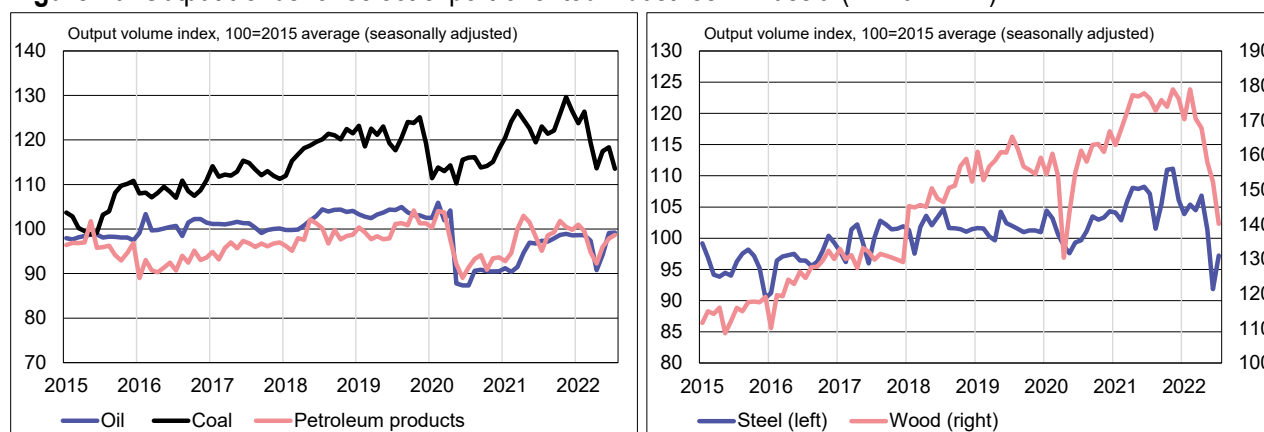
4.3 Russian production in export-intensive industries

Exports are important for many of Russia's key industries. As exports of most key commodities have not declined sharply, the output in these industries held up in the initial post-invasion months (Figure 10). Output of the oil industry dipped shortly after the invasion, but climbed back to pre-war levels thanks to the re-orientation of exports discussed above. Output of the coal industry declined, but was still at a level on par with previous years.

The declines in the steel and wood industries have been larger (Figure 10). The output of the steel industry in July was 8 % lower and the output of the wood industry 22 % lower than the pre-war level. This may reflect difficulties in finding new export markets to replace the lost demand from the EU that has already taken place due to the trade restrictions imposed both by the EU and Russia itself.

The bulk of production of Russian forest companies, particularly those in Northwest Russia, has been exported to the EU. Once the EU import bans start bite in earnest (they came in effect in mid-July) many of these companies are expected to ramp down production (CSR, 2022). The EU has also been a key export market for major Russian steel companies. These exports are not necessarily competitive in the Asian markets due to higher transport costs and ruble appreciation. A draft of the metal industry development plan prepared by Russia's industry and trade ministry notes that, even in its rosiest scenario, Russia's steel production recovers to pre-war levels only in 2030.¹³

¹³ Vedomosti 7.8.2022 (<https://www.vedomosti.ru/business/articles/2022/08/07/934909-chernoi-metallurgii-stagnatsiyu-sanktsiyami>)

Figure 10. Output trends for select export-oriented industries in Russia (1M16-7M22).

Sources: Macrobond, Rosstat.

Trends in the steel and wood sectors suggest that much weaker performances may lie ahead for Russia's oil and coal industries. As the EU import bans enter into force, the loss of EU imports will remove a large chunk of Russia's export demand. As Russian oil and coal exports to India and China have already grown substantially, logistical challenges may limit the further efforts to reroute commodity flows from Europe to Asia. Indeed, based on high-frequency data on transport flows of commodities, media reports already suggest that the volumes of Russia's commodity exports to India and China may have peaked.

5. Concluding remarks

With the invasion of Ukraine, Russia ceased the publication of foreign trade statistics. To overcome this information vacuum, we constructed estimates for Russia's foreign trade flows based on the trade statistics of partner countries in order to track trends in Russia's trade during the March-June 2022 period.

Our findings suggest that Russian imports declined substantially in the four months following Russia's invasion. Russia was unable to shift to alternative import suppliers, particularly in the case of technology imports. Indeed, the collapse of output in Russia's technology-driven industries offers little evidence of any domestic substitution of imports. Output of several higher-technology goods has declined sharply due to lack of imported components and inputs.

For over a decade, Russia extolled import substitution as a cornerstone of its industrial policy. If anything, Russia doubled down on import substitution policies after the illegal annexation of the Crimean peninsula and the initial sanctions regime. By any measure, Russia's progress in import substitution has been modest (Simola, 2021; 2022). Policymakers have recently abandoned the notion of total import substitution, claiming it was always an irrational and impossible aspiration. The politically fashionable goal at the moment is "technological sovereignty," a condition ostensibly fostered by importing only from "friendly" countries. So far, this plan seems to have advanced slowly.

On the export side, our findings suggest that Russian export revenue continued to grow throughout June. Exports to the EU have declined to a limited extent in volume terms, as most of the import restrictions were not in force yet in June. Moreover, India and China have substantially increased their purchases of Russian commodities. This more than offset the decline in exports of key commodities such as crude oil and coal to EU countries.

With continuous export demand, output in these industries has remained quite robust. The effect of trade restrictions and lack of alternative markets, however, is already visible in Russia's wood and metals industries. The performances of other key export industries are expected to weaken gradually as EU import bans enter into force in December 2022 and February 2023. Logistical problems and potentially plateauing demand after strong surges will further limit Russia's opportunities for finding alternative markets in Asia.

Overall, our analysis implies that the war and sanctions will take an increasing toll on the Russian economy in the months ahead. The latest forecasts foresee a total decline of Russian GDP of roughly 10 % in 2022 and 2023. Moreover, Russia's long-term growth potential – already a modest 1.5 % per year before the invasion – has been seriously eroded.

References

- Byrne, J., Somerville, G., Byrne, J., Watling, J., Reynolds, N. and Baker, J. (2022). Silicon lifeline. Western electronics at the heart of Russia's war machine. Royal United Services for Defence and Security Studies (RUSI), August 2022.
- CBR (2022). O chem govoryat trendy? 5/2022. Bulletin of the Forecasting and Research Department of the Bank of Russia, September 2022.
- CSR (2022). Riski 2022: gradoobrazuyushshie organizatsii i monogoroda, Centr strategicheskikh razrabotok, July 2022.
- Simola, H. (2022). Made in Russia? Assessing Russia's potential for import substitution. BOFIT Policy Brief 3/2022.
- Simola, H. (2021). Long-term challenges to Russian economic policy. BOFIT Policy Brief 11/2021.
- Simola, H. (2012). Russian import statistics in the mirror of world exports. BOFIT Online 2/2012.

- 2018 No 1 Ivan Lyubimov and Maria Lysyuk: Schooling ain't learning in Russia either: High level of student employment as an indicator for slow human capital accumulation
 No 2 Jouko Rautava: Intian nopea kasvu ei vähennä reformien tarvetta
 No 3 Eeva Kerola: Hongkongin talous on vahvasti kytkeytynyt Manner-Kiinaan
 No 4 Iikka Korhonen, Heli Simola and Laura Solanko: Sanctions, counter-sanctions and Russia – Effects on economy, trade and finance
 No 5 Andrei Yakovlev, Lev Freinkman and Nina Ershova: Channels of dialogue between international businesses and national governments: The implications for domestic reforms and international relations in the case of Russia
 No 6 Helmut Wagner: Structural change, rebalancing, and the danger of a middle-income trap in China
 No 7 Wing Thyee Woo: A U.S. perspective on China's external economic disputes in the past 40 years and in the coming 40 years
 No 8 Nigel Gould-Davies: Economic effects and political impacts: Assessing Western sanctions on Russia
 No 9 Jouko Rautava: Kiina ja Venäjä – eripariset talouksipannukset
 No 10 Sergey Vlasov and Mariam Mamedli: Russia's pension system in the context of world experience and expected trends
 No 11 Riikka Nuutilainen: Juanin kansainvälistyminen ei etene suoraviivaisesti
- 2019 No 1 Mariya Hake and Alice Radzyner: Western Balkans: Growing economic ties with Turkey, Russia and China
 No 2 Iikka Korhonen: Sanctions and counter-sanctions – What are their economic effects in Russia and elsewhere?
 No 3 Carsten Sprenger and Srdjan Todorović: Corporate Governance of the Largest Russian Banks
 No 4 Heli Simola: Effects of external shocks on Russian economy
- 2020 No 1 Laura Solanko: From reforms to stagnation – 20 years of economic policies in Putin's Russia
 No 2 Riikka Nuutilainen and Jouko Rautava: Russia and the slowdown of the Chinese economy
 No 3 Le Xia: Lessons from China's past banking bailouts
 No 4 Heli Simola: CO2 emissions embodied in EU-China trade and carbon border tax
 No 5 Jouko Rautava: Protektionismi ja uudistusvastaisuus estävät Intian nousun keskeiseksi globaaliksi taloustoimijaksi
 No 6 Heli Simola and Laura Solanko: Domestic and global economic effects of corona containment measures - Russia in international comparison
 No 7 Heli Simola: Venäjän talous koronan kourissa
 No 8 Christian Alexander Belabed and Thomas Theobald: Why the Chinese recovery will slow – some lessons from sectoral data
 No 9 Risto Herrala: Capital controls in an integrated world: A review of recent developments, policies and the academic debate
 No 10 Vesa Korhonen: Chasing developments in Russia's government budget
 No 11 Heli Simola: Climate change and the Russian economy
 No 12 Jinsok Sung: Implications of sectoral sanctions on Russia's gas sector
 No 13 Yin-Wong Cheung: A Decade of RMB Internationalization
 No 14 Juuso Kaarevirta, Eeva Kerola, Riikka Nuutilainen, Seija Parviainen ja Laura Solanko: Miten kaukana ilmastotavoitteista ollaan? – katsaus Kiinan energiasektoriin
- 2021 No 1 Julia Lintunen: An overview of China's regional trade agreements
 No 2 Heli Simola: The impact of Covid-19 on global value chains
 No 3 Seija Parviainen: Jiefang-kuorma-autosta Nio-sähköautoon: Kiinan autoteollisuuden pitkä marssi
 No 4 Juuso Kaarevirta, Eeva Kerola, Riikka Nuutilainen, Seija Parviainen ja Laura Solanko: How far is China from hitting its climate targets? – An overview of China's energy sector
 No 5 Juuso Kaarevirta and Helinä Laakkonen: China as an international creditor
 No 6 Heli Simola ja Laura Solanko: Venäjän öljy- ja kaasusektori globaalien energiamaarkkinoiden murroksessa
 No 7 Heli Simola and Laura Solanko: Russia's oil & gas sector in global energy transition
 No 8 Jamie Barker and Risto Herrala: Assessing the mid-term growth outlook for the Indian economy
 No 9 Iikka Korhonen: Russia's growth potential post-COVID-19
 No 10 Heli Simola: CBAM! – Assessing potential costs of the EU carbon border adjustment mechanism for emerging economies
 No 11 Heli Simola: Long-term challenges to Russian economic policy
 No 12 Juuso Kaarevirta, Eeva Kerola ja Riikka Nuutilainen: Kiinan kiinteistösektorin kriisiytymisen vaikutuksista Kiinan talouteen ja euroalueelle
 No 13 Juuso Kaarevirta, Eeva Kerola and Riikka Nuutilainen: China's real estate sector and the impacts of its possible disorder on Chinese economy and the euro area
- 2022 No 1 Vesa Korhonen: Russia's government budget swings around elections and recessions
 No 2 Iikka Korhonen and Heli Simola: How important are Russia's external economic links?
 No 3 Heli Simola: Made in Russia? Assessing Russia's potential for import substitution
 No 4 Heli Simola: Trade sanctions and Russian production
 No 5 Heli Simola: Russian foreign trade after four months of war in Ukraine