

The impact of the services trade partnership with Asian countries of APEC* on the economic growth in Russia, 2002–2021

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This paper explores the impact of Russia's services trade with 12 Asian countries of APEC member states for the period Q2, 2002–Q4, 2021. The purpose of this study is to reveal whether Asian countries can replace the roles of European countries even in the advanced service industry for the economic growth of Russia. The authors found a positive and significant impact of exports on the economic growth of Russia in ordinary least squares (OLS) and robust least squares estimations and that of openness and imports on it in a robust least squares estimation. From the vector autoregressive (VAR) Granger causality test, bidirectional causality between exports and the economic growth of Russia is revealed, while a unidirectional causality between openness (imports) and the economic growth of Russia is confirmed. However, the results of impulse response functions are rather vague, as the impacts of openness, exports, and imports are moving from negative to positive depending on the time period. The results in services trade, where Russia's dependency on European countries is large, are helpful to induce future trade policy directions for the Russian government to strengthen partnerships with Asian countries in the short term. Further barrier reduction issues should be carefully considered by the Russian government with attention to the long-term implications of this policy.

* Asian countries of Asia-Pacific Economic Cooperation (APEC) in the study: Brunei Darussalam, China, P. R.: Hong Kong, China, P. R.: Mainland, Indonesia, Japan, Republic of Korea, Malaysia, Philippines, Singapore, Taiwan province of China, Thailand, Vietnam.

Introduction

Over the last decades, the service sector has become a significant part of the gross domestic product (GDP) of practically every country in the world. This process was driven by the development of several specific factors of economic growth – scientific knowledge, intangible business assets, finance operations, information technology, transportation, tourism, and other derivative activities. In developed countries' economic perception, service industries were viewed as the center of postindustrial development incentives and foundations, based on highly skilled labor, and dominated mostly by finance and tech areas. It was a widespread understanding that the advanced and qualitative development of these areas of activity will have a decisive impact on progress in material production. The decisions of large businesses on whether to submit part of their management, logistics, sales, etc., functions to a specialized outsourcing enterprise or fulfilling these functions within its structure is determined mainly by comparing the costs. Small and medium business enterprises, however, were forced to use service providers due to the rising economy and competition complexity of all kinds (primarily in information technology (IT), logistics, tax, and finance), which was actively driving the service trade in the world economy.

Currently, the significance of Asian countries, based on a large population and stable economic growth, is increasing. To reflect this trend, BRICS countries (Brazil, Russia, India, China és Republic of South Africa) – the leading emerging economies – try to redefine and rearrange their roles in the Asia Pacific regions by strengthening economic and political cooperation with them (Niu 2018). In today's rapidly changing economic and geopolitical conditions, the study of current trends in important markets such as the Asia-Pacific region is of particular importance. It became obvious that this region belongs to the most dynamically developing markets, and it has become an object of attraction for many national and global companies. Among BRICS member states, due to the impact of 2014 sanctions, Russia was harshly forced to begin shifting the trade patterns to Asian states. From the 3rd presidency of Putin, the Russian government actively deepened economic and political cooperation with Asian countries based on the „Turn to the East” policy. Afterward, Russia actively formed strategic partnerships mainly with China and Association of Southeast Asian Nations (ASEAN) countries (Kanaev–Korolev 2018, Changming 2020, Manurung–Bainus 2021).

From a theoretical point of view, this study tests a service-led growth strategy in one of the largest emerging countries, Russia. Russia's dependence on services trade with European countries is highly large. Russia is facing fundamentally new geopolitical and economic challenges. It is forced to accelerate the diversification of its economic policy, including reducing the role of the oil and gas sector. In these conditions, it is important to study the opportunities and challenges in promoting

services trade. We are interested in whether Asian countries can replace the roles of European countries even in the advanced service industry. Previously, there are limited numbers of studies on the services trade's contribution to the economic or productivity growth of Russia (Knobel 2012, Rodríguez–Melikhova 2015); however, none of them link services trade growth theory to partnerships with Asian countries. In this sense, our study provides new perspectives. Methodologically, this study adopts multiple linear regression analyses and the VAR Granger causality test to identify both linear and cause-effect relationships.

Therefore, the current paper is outlined as follows. First, we will review previous studies on the effects of services trade on economic growth. Then, it will be examined the trends and patterns of the services trade of Russia. The next section contains the data, model specifications, and applicable research hypothesis, followed by the results of empirical tests. Finally, we compare our results with those of previous studies and render conclusions and policy implications.

Literature review

A summary of the literature review is presented in Table 1.

In 2021, global services exports amounted to 6.04 trillion USD, representing 6.29% of GDP. During the last two decades (2002–2021), it grew 3.3 times [1]. Generally, the governments were making efforts to increase the share of services trade to GDP, which was considered a pathway to becoming a developed economy. All Organisation for Economic Cooperation and Development (OECD) member countries represent more than 70% of global exports in services [1]. Over the last several decades, the significance of services trade has been enhanced due to technological factors, such as the fourth industrial revolution and appropriate high-added values compared to those in commodity trade. BRICS countries also spur the expansion of the services industry and enter the next level of economic development. High production specialization, rising standards of living, and urban expansion lead to the growth of the services industry, and its growth becomes a dominant contributing factor to national economic development and job creation in BRICS nations (Wu 2007, 2015).

To reflect such increasing significance of the services industry, some studies empirically investigate the impact of services trade on national economic growth. El Khoury–Savvides (2006) explored the relationship between the openness of trade in telecommunication and financial services and the economic growth of high- and low-income countries and found different effects for these two groups. Openness in telecommunication services enhances the economic growth of low-income countries, while the economic expansion in high-income countries largely corresponds with openness in financial services. Karam–Zaki (2015) investigated the impacts of the goods and services trade on economic growth in the Middle East and North Africa

(MENA) region. The results confirmed a positive and significant correlation between goods (and services) trade and real GDP, but the impact of goods trade is greater than that of services on GDP growth.

In addition, there are studies specifically dedicated to the case of BRICS, but substantial studies have explored the case of India and China. Khatun (2016) investigated the impact of trade in financial services on economic growth in BRICS. The results revealed an unidirectional causality from trade in financial services to economic growth both in the short run and long run. In a study by Dash–Parida (2013) on India, a bidirectional causality between services exports and economic output is confirmed. In a follow-up study, Thomas (2019) tested services export-led growth theory for India and demonstrated that promoting construction services, business services, and transport services will contribute to economic growth.

In a study by Cui–Shen (2011), it is demonstrated that financial services trade (the modes of cross-border supply and commercial presence) is a contributing factor to economic growth in China. A positive relationship between services trade and economic growth in China is continuously demonstrated in a study by Yang (2019). Clemes et al. (2016) demonstrated the positive effects of the service industry on the growth of the standard of living in China. Hayakawa et al. (2018) explored the relationship between services liberalization and export quality and found a positive correlation between the two variables.

On the other hand, a few studies have explored the services sectors in Russia in general. Knobel (2012) demonstrated that the liberalization of services sectors leads to the productivity growth of extracting and manufacturing industries in Russia. Rodríguez–Melikhova (2015) chronologically investigated the services industry in Russia. They demonstrated that services (particularly business services) can promote innovation and growth in Russia and diffuse knowledge, especially when they are supported by political leaders. Gornostaeva et al. (2014) articulated that to increase the efficiency of the service enterprises of Russia, the macroeconomy should be stabilized as a priority.

Based on the literature review, we can conclude that services trade development and general services sector expansion may lead to economic growth. With this in mind, the current research paper considers the effects of services trade comprehensively by introducing various econometric models based on different dependent variables. Additionally, none of the previous studies dealt with the impact of services trade between Russia and a specific group of countries. In this sense, this study will provide new perspectives.

Table 1

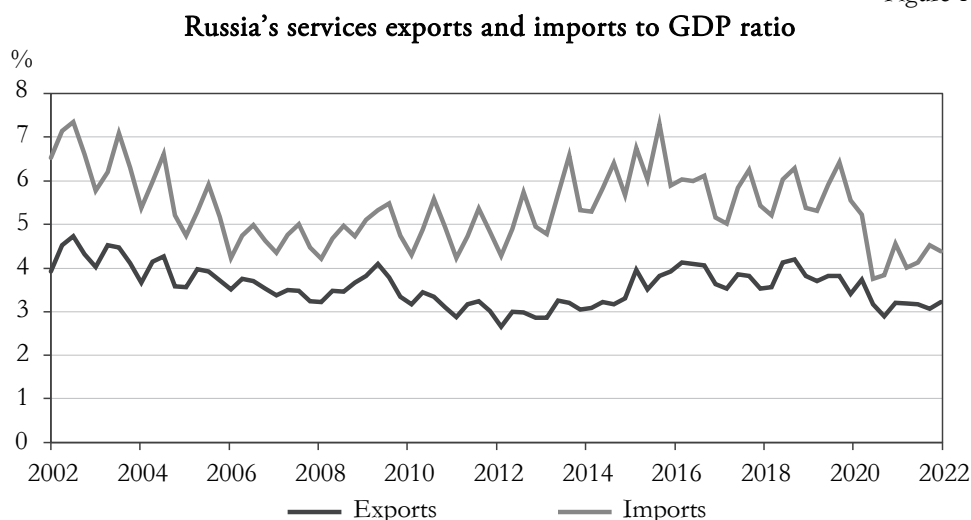
Empirical studies on services trade and economic growth

Study	Methodology	Country/Year	Findings
El Khoury–Savvides (2006)	Threshold regression	60 countries (decadal average 1990–2000)	Openness in telecommunication services enhances the economic growth of low-income countries, while it is openness in financial services drives economic growth in high-income countries
Cui–Shen (2011)	Multiple regression, Engle and Granger cointegration test, causality test	China (1997–2008)	A positive relationship between financial services trade (the modes of cross-border supply and commercial presence) and economic growth
Knobel (2012)	Multiple regression, FE	Russia (2000–2008)	A positive correlation between services liberalization and industrial productivity
Dash–Parida (2013)	Johansen cointegration test, causality test based on vector error correction model (VECM)	India (Q1, 1996/1997–Q4, 2010/2011)	A bidirectional causality between services exports and economic output
Karam–Zaki (2015)	Random effects (RE), fixed effects (FE), Arellano–Bond (AB)	MENA region (1960–2011)	The overall positive and significant impacts of both goods and services trade on real GDP
Rodríguez–Melikhova (2015)	Secondary data analysis	Russia (Mid-1990's~)	Services (particularly business services) can promote innovation and growth in Russia and should take the role of knowledge diffuser
Clemes et al. (2016)	Multiple regression	China (1994–2011)	The services industry promotes GDP per capita
Khatun (2016)	Pedroni's panel cointegration test, causality test based on the VECM	BRICS (1990–2012)	A uni-directional causality from trade in financial services to economic growth
Hayakawa et al. (2018)	Multiple regression	Chinese firms with 53 countries of export destinations (2000, 2003, 2006)	A positive correlation between services liberalization and exports quality
Thomas (2019)	Input-output analysis	India (Q1, 1996/1997–Q4, 2011/2012)	Promoting construction services, business services and transport services will contribute to economic growth in India
Yang (2019)	Johansen cointegration test, causality tests based on the VAR model, impulse response analysis, variance decomposition	China (1990–2010)	A positive relation between services trade and economic growth

Services trade of Russia

In 2021, Russia was the 25th exporter and 19th importer of services [1]. Its trade turnover of services amounted to 131.619 billion USD, whose volume is 3.4 times larger than that in 2002 [2]. However, services trade did not grow dramatically in comparison to the growth of the total national economy, which can be seen in Figure 1, representing the exports and imports of services to GDP ratio in Russia. For the period Q2, 2002–Q4, 2021, the exports of services to GDP ratio ranged between 2.5–5%, and its average was 3.553%. The imports of services to GDP ratio ranged between 4% and 7.5% (excluding Q3, 2020, whose ratio dropped to 3.813%), and its average was 5.375%. Both the export and import ratios reached a maximum in Q3, 2002. It can be seen that the later exports ratio generally presented a decreasing tendency by Q1, 2012 and switched to the opposite by Q1, 2020. The imports ratio dramatically increased between Q3, 2013–Q3, 2015 and showed an even more drastic drop in Q2, 2020. The chart reveals that the growth of services trade compared to national economic development was rather weak and additionally damaged due to the effects of COVID-19. It is likewise seen that despite the drop, Russia sustains a steady deficit in services trade.

Figure 1

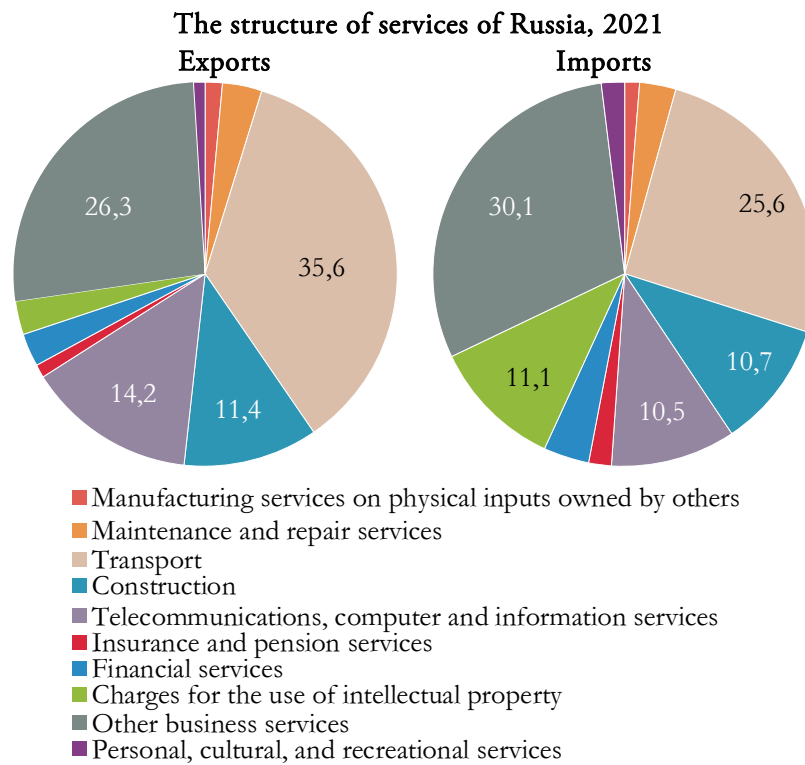


Source: [2-3].

In terms of structure, Russia mainly exports transport services, (other) business services, telecommunications, computer and information services, and construction services. The principal areas of (other) business services were professional, scientific, and technical activities, wholesale and retail; repair of motor vehicles and motorcycles, manufacturing, information communications, transportation storage, and mining and quarrying. The import pattern is somewhat similar to that of services exports.

However, it is worth noting that Russia shows significantly larger intellectual property imports than respective exports (Figure 2).

Figure 2



Source: [2].

Table 2

Top 10 partnering countries of Russia in service trade, 2021

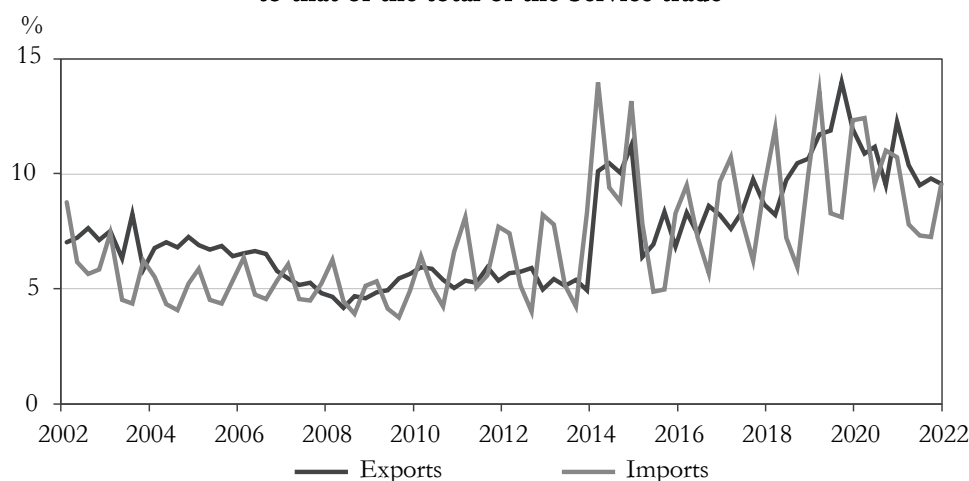
	Country	Exports		Country	Imports	
		million USD	share, %		million USD	share, %
1	United States	4,497.757	8.077	Ireland	5,874.441	7.736
2	Switzerland	4,272.217	7.672	Germany	5,134.578	6.762
3	Cyprus	3,840.051	6.896	United Kingdom	4,755.213	6.262
4	Germany	3,469.554	6.231	Turkey	4,648.720	6.122
5	United Kingdom	2,992.375	5.374	Cyprus	3,879.421	5.109
6	China	2,834.252	5.090	United States	3,823.081	5.035
7	Kazakhstan	2,356.490	4.232	Switzerland	3,819.115	5.030
8	Netherlands	2,131.788	3.828	Netherlands	3,579.551	4.714
9	Belarus	1,521.946	2.733	China	3,526.292	4.644
10	France	1,259.619	2.262	France	3,238.932	4.265

Source: [2].

Geographically, Russia’s main partners in service trade (Table 2) were somewhat concentrated in the European region, which displays relatively high dependence on the appropriate countries both in exports and imports. Among the top 10 partnering countries of trade in services, 7 countries belong to Europe. Historically, Asian countries were only represented by China and Kazakhstan in the top 10 exporters, and Turkey and China were within the top 10 importers. Additionally, China is the only Asian country in APEC that secured its position in both of these lists.

Figure 3

Share of exports (imports) to (from) Asian countries of APEC to that of the total of the Service trade



Source: [2].

However, the significance of Asian countries has increased since 2014. As one can witness in Figure 3, the share of service exports and imports to/from 12 APEC Asian countries in total Russia’s service exports rocketed in the first quarter of 2014. During Q2, 2002–Q4, 2013, its exports share was on average 5.981%, and the share of its imports was 5.61%. However, after the sharp increase in Q1, 2014, during Q1, 2014–Q4, 2021, its exports share was maintained at 9.75%, and its imports share was maintained at 9.182%. This is a good indicator of switching Russia’s dependency from the European Union (EU) to Asia after the western sanctions in 2014, which has not gone unnoticed in the world. Some researchers, such as Rasoulinezhad (2019), have demonstrated that Western sanctions have de-Europeanized and Asianized Russia’s trade patterns.

Data, model specification, and research hypothesis

For regression analysis, in this study, quarterly datasets for the period 2002, Q2 to 2021, Q4 were constructed. This study considers 12 Asian countries in the APEC (see footnote to the title of this study). We compiled GDP datasets from [3] and trade datasets from [2]. Table 3 presents summary statistics of the selected variables.

Table 3

Summary statistics						
Variable	Obs	Mean	Std. Dev	Minimum	Maximum	Unit
Grw_GDP	79	0.013417	0.153446	−0.412175	0.263133	Rate
Openness	79	0.006309	0.004879	0.002459	0.022439	Rate
Grw_exports	79	0.027559	0.224589	−0.599143	0.551555	Rate
Grw_imports	79	0.024773	0.246616	−0.451304	0.772327	Rate

Note: To calculate the growth rate, nominal values are changed to constant values in USD (base year: 2016) by applying the GDP deflator from the world development indicator.

Our model specifications are as follows:

$$Grw_{GDP_t} = \beta_0 + \beta_1 Openness_t + \varepsilon_t \quad (1)$$

$$Grw_{GDP_t} = \beta_0 + \beta_1 Grw_{exports_t} + \beta_2 Grw_{imports_t} + \varepsilon_t \quad (2)$$

where Grw_{GDP_t} is the growth rate of the Russian GDP in t (year, quarter). $Openness_t$ is the share of Russia's service trades with Asian countries in APEC to its GDP in t . Grw_{trade_t} is the growth rate of Russia's service trades with Asian countries in APEC in t . $Grw_{exports_t}$ is the growth rate of Russia's service exports to Asian countries in APEC in t . $Grw_{imports_t}$ is the growth rate of Russia's service imports from Asian countries in APEC in t . In this study, OLS and robust least squares estimations and the VAR Granger causality test are conducted to investigate both linear and cause-effect relationships. We further carried out impulse response functions in the VAR model.

To construct a VAR model, we check whether the time-series datasets are stationary based on augmented Dickey-Fuller (ADF) and Phillips Perron (PP) tests. The (adjusted) t -statistics of the ADF (PP) test are presented in Table 4. The null hypothesis is that there is a unit root. All variables (in levels) in our study reject the null hypothesis. This clarifies that our datasets are appropriate for using VAR estimator.

Table 4

Unit root checking in levels				
Variables	Grw_GDP	Openness	Grw_exports	Grw_imports
ADF	−2.911684**	−3.653937***	−11.99639***	−13.00264***
PP	−11.66694***	−5.788923***	−17.37180***	−9.850577***

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

When endogenous variables are Grw_GDP and $Openness$ and each variable contains t lags for period t , the following VAR model specifications are rendered:

$$Grw_GDP_t = \alpha_1 + \sum_{j=1}^k \beta_j \times Grw_GDP_{t-j} + \sum_{j=1}^k \gamma_j \times Openness_{t-j} + \varepsilon_1 \quad (3)$$

$$Openness_t = \alpha_2 + \sum_{j=1}^k \epsilon_j \times Grw_GDP_{t-j} + \sum_{j=1}^k \theta_j \times Openness_{t-j} + \varepsilon_{2t} \quad (4)$$

When endogenous variables are Grw_GDP , $Grw_exports$, and $Grw_imports$ and each variable contains t lags for period t , the following VAR model specifications are rendered:

$$Grw_{GDP}_t = \alpha_1 + \sum_{j=1}^k \beta_j \times Grw_{GDP}_{t-j} + \sum_{j=1}^k \gamma_j \times Grw_{exports}_{t-j} + \sum_{j=1}^k \delta_j \times Grw_{imports}_{t-j} + \varepsilon_{1t} \quad (5)$$

$$Grw_{exports}_t = \alpha_2 + \sum_{j=1}^k \epsilon_j \times Grw_{GDP}_{t-j} + \sum_{j=1}^k \theta_j \times Grw_{exports}_{t-j} + \sum_{j=1}^k \mu_j \times Grw_{imports}_{t-j} + \varepsilon_{2t} \quad (6)$$

$$Grw_{imports}_t = \alpha_3 + \sum_{j=1}^k \tau_j \times Grw_{GDP}_{t-j} + \sum_{j=1}^k \varphi_j \times Grw_{exports}_{t-j} + \sum_{j=1}^k \omega_j \times Grw_{imports}_{t-j} + \varepsilon_{3t} \quad (7)$$

To discuss the research hypothesis, considering the general equation of GDP, the rise of exports directly impacts the indicators' growth, and there is a plethora of studies demonstrating export-led growth (Dash 2009, Trošt–Bojnc 2016, Temiz Dinç–Gökmen 2019, Liu et al. 2019, Lee–Wu 2022). In this sense, we expect a positive correlation between $Grw_exports$ and Grw_GDP . On the other hand, the impacts of imports are quite vague, in that they should be subtracted from GDP, and excessive imports above exports will cause a trade deficit for the country. While some studies reveal import-led growth (Awokuse 2008, Uğur 2008, Kogid et al. 2011, Kim et al. 2007), imports can lead to productivity growth of a country to force enterprises to improve through competition (for example, with high technology embedded imported goods). Naturally, although the impacts of imports vary depending on the country of study, the relation between Grw_GDP and variables including imports (i.e., openness and $Grw_imports$) is rather uncertain.

Results

Table 5 represents the results of regression analysis using OLS and robust least squares estimators based on Equations (1)–(2). Openness has a positive impact on Grw_GDP, but its statistical significance only appears in the robust least squares model (at a 10% significance level). The relation between Grw_GDP and Grw_exports is positive and significant in OLS and robust least squares estimations at a 1% significance level. The regression coefficient sign of Grw_imports is negative in the OLS model, but it does not present statistical significance. Its statistical significance appears in the robust least squares estimations (at a 5% significance level), while its regression coefficient sign becomes positive, indicating its positive correlation with Grw_GDP. In addition, the positive impact of exports is larger than that of imports: in the robust least squares estimation, the coefficient of Grw_exports is 0.584248, while that of Grw_imports is 0.191494.

Table 5

The results of regression analysis, 2021

Dependent variable	Grw_GDP			
	OLS	Robust least squares	OLS	Robust least squares
Openness	3.456227 (3.790954)	3.437280* (1.920034)		
Grw_exports			0.426223*** (0.061356)	0.584248*** (0.096866)
Grw_imports			–0.033220 (0.055876)	0.191494** (0.088214)
Constant	–0.007717 (0.028914)	0.077502 (0.014644)	0.002493 (0.013720)	0.024558 (0.021661)
Obs	79	79	79	79

Note: Standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1

Table 6 describes the results of VAR [based on Equations (3)–(7)] Granger causality tests. The results are largely in line with those of the regression analysis. A unidirectional causality is found from Grw_openness to Grw_GDP in a lag length of 6. This indicates that the growth rate of the share of Russia's services trade with Asian countries to Russia's GDP is a significant driving factor of its economic growth rate. However, the opposite is not true.

The relation between Grw_exports (Grw_imports) and Grw_GDP is rather mixed depending on the lag length. However, it was possible to find statistically significant relations in some tests as follows. In lag lengths 4 and 6, a bidirectional causality between Grw_exports and Grw_GDP is revealed. This indicates that the growth rate of Russia's services exports to Asian countries of APEC causes the

growth rate of Russia’s GDP, and vice versa. For a lag length of 2, a unidirectional causality from Grw_imports and Grw_GDP is found. This indicates that the growth rate of Russia’s services imports from Asian countries is a significant driving factor to its economic growth rate, while the opposite is not true.

Table 6

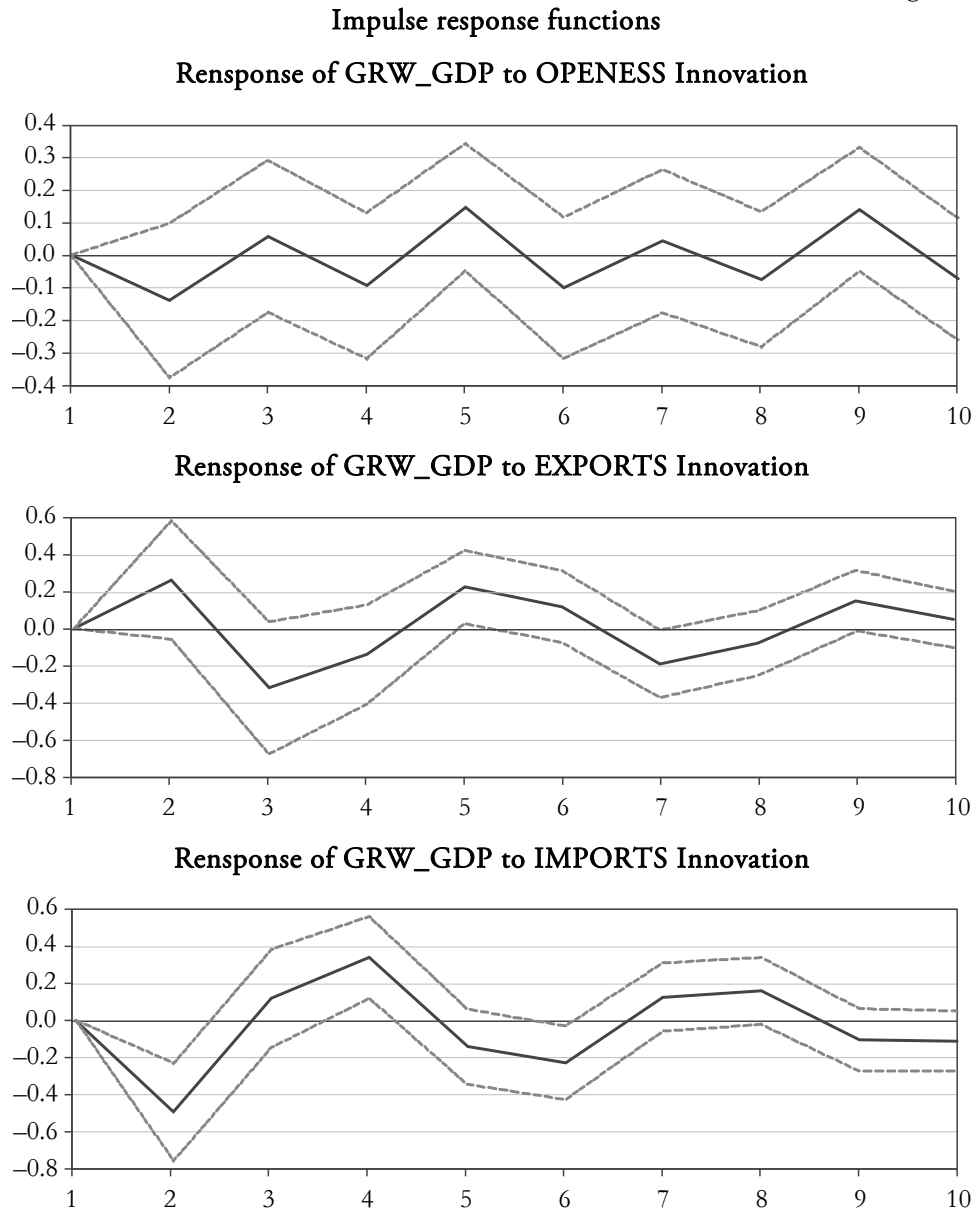
The results of VAR Granger causality

Lag	Direction of causality	Obs	Chi-Square	Probability	Causality
4	Openness \rightarrow Grw_GDP	75	5.349953	0.2532	None
4	GRW_GDP \rightarrow Openness	75	6.048266	0.1956	
7	Openness \rightarrow Grw_GDP	72	17.03114	0.0172**	Uni-directional
7	GRW_GDP \rightarrow Openness	72	8.384661	0.2999	
2	Grw_exports \rightarrow Grw_GDP	77	4.017332	0.1342	None
2	Grw_GDP \rightarrow Grw_exports	77	2.375614	0.3049	
2	Grw_imports \rightarrow Grw_GDP	77	16.60099	0.0002***	Uni-directional
2	Grw_GDP \rightarrow Grw_imports	77	3.463289	0.1770	
4	Grw_exports \rightarrow Grw_GDP	75	9.360918	0.0527*	Bidirectional
4	Grw_GDP \rightarrow Grw_exports	75	18.73546	0.0009***	
4	Grw_imports \rightarrow Grw_GDP	75	2.957032	0.5650	None
4	Grw_GDP \rightarrow Grw_imports	75	3.894786	0.4204	
6	Grw_exports \rightarrow Grw_GDP	73	21.59940	0.0014***	Bidirectional
6	Grw_GDP \rightarrow Grw_exports	73	23.33959	0.0007***	
6	Grw_imports \rightarrow Grw_GDP	73	5.609035	0.4684	None
6	Grw_GDP \rightarrow Grw_imports	73	3.973031	0.6803	

Note: The optimal lag length of the VAR model was chosen by the Schwarz information criterion (SC), the sequentially modified LR test statistic (LR), final prediction error (FPE), Akaike information criterion (AIC), and Hannan-Quinn information criterion (HQ), *** p<0.01, ** p<0.05, * p<0.1.

The impulse responses to one standard deviation shock are further conducted, and the results are presented in Figure 4. Unlike the results from OLS and robust least squares models, the impact of endogenous variables on economic growth in Russia is rather vague. When the positive shock on openness, Grw_exports, and Grw_imports are given, the response of Grw_GDP fluctuates from negative to positive consistently, while the responses decrease in the longer periods. In addition, the positive responses are larger than the negative responses of Grw_GDP to the openness shock, while the scales of both the negative and positive responses of Grw_GDP to Grw_exports and Grw_imports shocks are similar. This indicates that the adoption of policy to increase services trade with Asian countries should be implemented in a delicate manner in that it does not always bring positive results depending on the time period.

Figure 4



Source: Reproduced from Eviews version 12.

Discussion

Our results confirmed that an increase in Russia's services exports to Asian countries of APEC leads to its economic growth. This is in line with the research hypothesis and substantial previous studies based on export-led growth theory (Dash 2009, Trošt–Bojnec 2016, Temiz Dinç–Gökmen 2019, Liu et al. 2019, Lee–Wu 2022).

On the other hand, it is worth noting that our study revealed that Russia's services imports from Asian countries of APEC facilitate its economic growth as well as its exports. Import-led growth theory has been applied and proven in multiple studies (Awokuse 2008, Uğur 2008, Kogid et al. 2011, Kim et al. 2007). However, there are practically no studies that have conducted tests based on services import-led growth theory, so our research results have broadened the horizons in this respect. In the same sense, an increase in services trade between Russia and Asian countries of APEC also contributes to the economic growth of Russia, which is in line with previous studies (El Khoury–Savvides 2006, Karam–Zaki 2015, Khatun 2016, Yang 2019).

Overall, the model proves that there is huge potential for a further economic boost in the further enhancement of services trade volumes and appropriate barrier reductions between Russia and researched Asian countries. Due to the introduction of the G7¹ sanctions package, as a result of the Russian–Ukraine conflict, Russia is in a good situation to reorient to a new list of trading partners. Although some Asian countries, for instance, Japan, Taiwan, and Republic of Korea, are exposed to sanctions, they have fewer potential political contradictions than European countries and United States, which presents extra possibilities for Russia. In addition, a large number of Asian countries, especially China, did not participate in the sanctions. Being the 2nd largest economy in the world, it provides a huge cooperation hub with Russia in the service industry. Zhao–Tang (2018) demonstrated a highly complementary relationship between the Chinese and Russian economies. In this sense, our results in services trade, where Russia's dependency on European countries is large, are helpful to induce future trade policy directions for the Russian government.

On the other hand, by looking at the results of impulse response functions, it is also worth noting that despite the positive correlation between the economic growth of Russia and trading partnerships in the services industry with Asian countries, its positive impacts are rather unstable depending on the time period. This indicates that the adoption of the trade policy to tighten cooperation with Asian countries should be conducted in a deliberate way based on a detailed time frame for operational plans.

¹ The Group of Seven (G7) is an intergovernmental political forum consisting of Canada, France, Germany, Italy, Japan, the United Kingdom and the United States; additionally, the EU is a "non-enumerated member".

Conclusions

This study explores the relationship between Russia's services trade with Asian countries of APEC and its economic growth for the period Q2, 2002–Q4, 2021 through the application of regression analysis (by employing OLS and robust least squares estimators) and VAR Granger causality tests. The results confirmed a consistent positive impact of exports on economic growth in Russia. In addition, we found a bidirectional causality between the growth rate of exports and Russia's economic growth.

At the same time, the effects of the growth rate of openness and imports are rather mixed depending on the estimators and the lag length. However, we were able to induce statistically significant results in some models. Under the robust least squares estimator, it is shown that both openness and imports promote Russia's economic growth, although the positive impacts of exports are larger than those of imports. In addition, a bidirectional relation between the growth rate of openness and Russia's economic growth is consistently addressed in tests with different lag lengths. When a test with a lag length of 2 was performed, a unidirectional relation from imports to Russia's economic growth was revealed.

Starting in Putin's 3rd term as president, the Russian government actively deepened economic and political cooperation with Asian countries based on the „Turn to the East” policy. The introduction of the G7 sanctions package has fostered Russia to look for partnerships other than Europe. In this sense, our results in services trade, where Russia's dependency on European countries is large, are helpful to induce future trade policy directions for the Russian government in a way to strengthen partnerships with Asian countries.

From the policy implication side, it is worth remembering that initially, the Russian „Turn to the East” policy was motivated by the need to take advantage of the advanced development of the Pacific region economies. The post-Ukrainian crisis of Russia's relations with the West stimulated interest both in the policy regarding our Asian neighbors and turned it into an active search for allies in the region, starting with expanding and strengthening the strategic partnership with China. It can be tempting for the Russian government to foster the substitution of EU service providers with their Asian competitors to continue using service trade as a tool for economic GDP boosts. Our research points out the importance of service trade for Russian economic development, and Asian countries can fulfill this demand with mutually beneficial results.

On the other hand, it is worth noting that the results of impulse response functions are quite vague depending on the time period. With the current global economic crisis unfolding, it is highly likely that the Asian states will also be affected in the near future due to the unavoidable problems of the global financial system based on the USD. Our research points out the importance of service trade for Russian economic development, and Asian countries can fulfill this demand in the

short term with mutually beneficial results. However, this presents a balance problem, as these benefits show the maximum effect only on the condition of high openness and barrier reduction (as the literature above shows). However, switching from one "service trade dependency" to another in the current macroeconomic situation would not be correct in the long term. A reduction in barriers would block the possibility of local service provider occurrence, which is not sustainable in the situation of all-out global economic turbulence.

With this in mind, despite the positive results of Russia–Asia service trade shown by current research, further barrier reduction issues should be carefully considered by the Russian government with attention to the long-term implications of this policy.

However, this study has limitations. Economic growth and macroeconomic stability are affected by various other endogenous and exogenous factors, such as foreign direct investment (FDI), human capital (Ramdhan 2021), the education system (Alhendi et al. 2021), and the exchange rate (Klutse et al. 2022). Therefore, in future studies, it is advisable to include additional control variables when abundant quarterly datasets of the above variables become available.

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