IMPACT OF COVID-19 PANDEMIC ON INTERNATIONAL TRADE FLOWS IN SERBIA

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Abstract: *The COVID-19 pandemic has had an impact on the global business environment, and these consequences have been heterogeneous across countries. This work contributes to the scarce literature that has been published considering the COVID-19 pandemic's impacts on Serbian foreign trade. We analyzed the structure of Serbian imports and exports over the period 2019-2020, with a particular focus on the manufacturing sector being the most significant contributor to the Serbian international trade flows. The analysis shows that the structure of Serbian imports and exports, after the initial volatility following the outbreak of the pandemic in 2021, has stabilized and remained resilient to the impact of the COVID-19 pandemic, with very few exemptions.*

Keywords: *COVID-19 pandemic, import, export, Serbia*

1. INTRODUCTION

Appearing as an unprecedented global health crisis, the COVID-19 pandemic further contributed to a sharp decline in the world economy, including global trade. In order to mitigate shortages caused by the pandemic, 80 countries and separate customs territories enacted export prohibitions or restrictions by April 2020 (WTO, 2020). Trade barriers and restrictions brought on by an emergency situation sparked by COVID-19 had some negative repercussions. The economy initially experienced a significant shock when imports and exports were temporarily halted, leading to a supply shortage. The financial losses were then exacerbated by enormous layoffs and unprecedented unemployment followed by weak demand. Consistently with a pandemic spreading, the global merchandise trade dropped by 7.4% in 2020, which is the largest year-over-year decrease since 2009 (UNCTAD, 2021a). The developing economies in Africa and America faced the sharpest merchandise exports and imports slowdown. While emerging economies in America had their imports

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fall by 15.2% and exports by 9.5%, developing economies in Africa saw a decline in exports and imports of 19.3% and 13.2%, respectively (UNCTAD, 2021b).

The pandemic's impact on trade in services has been even more acute. The global services trade shrank by 20% year-over-year, which was a far more significant fall and the most prominent service trade decrease since records began to be kept. The key sectors, such as tourism, suffered greatly due to the disruptions brought on by the pandemic. According to UNCTAD (2021c), because of the collapse in travel, tourism, which made up one-fourth of the total and was, therefore, the greatest component of trade in services prior to the pandemic, fell by more than 50% overall and was still significantly below pre-pandemic averages in both 2020 and 2021. The transport sector's trade also decreased, but to a lesser degree. Due to the rise in global demand for air travel and an increase in air freight volumes, the transport sector recovered in the second half of 2021. On the other side, demand for information and communications technology (ICT), electronic commerce (e-commerce) and telecommunications services, as well as trade in these sectors, significantly increased during the lockdown and social distancing measures were applied (UNCTAD, 2022).

Since early 2021, the availability of vaccines and the key governments' economic responses (monetary and fiscal stimulus) have resulted in a fast but uneven recovery across nations and industries. The value of global trade also returned rapidly in 2021 as economic conditions improved, hitting a record high of roughly $28.5 trillion, which is a rise of about 13% from pre-pandemic levels (UNCTAD, 2022). Moreover, all sectors, except for energy products, faced significant growth in trade compared to the pre-epidemic levels. Although global trade had recovered to the pre-pandemic level, there was still a sizable disparity between trade partners and products in 2021, and not all losses from earlier sharp decreases have been entirely overwhelmed (OECD, 2022). Trade effects on certain goods, services, and trading partners were highly diverse, putting strain on some sectors and supply networks.

The Serbian merchandise trade similarly experienced a decline of 3.4% in 2020 before seeing a significant recovery, with a gain of 25.5% in 2021. Despite a recovery and rapid growth rates, Serbian trade nevertheless faces numerous challenges.

The main objective of this work is to discuss the impact of the pandemic on the international trade, with a brief empirical overview of the change in the structure of Serbian imports and exports. The first section of the work reviews relevant literature that discusses how the pandemic reshaped international trade flows. The second part deals with the empirical analysis of the structure of the Serbian exports and import over the period 2019-2021.

2. LITERATURE REVIEW

International trade is one of the key forces behind economic development that directly and indirectly impacts the agricultural, industrial, and service sectors (Zdravković & Bradić-Martinović, 2021). Participation in international trade flows promotes economic growth and the development of national economies while enhancing their competitiveness. Beyond promoting quicker growth, international trade helps nations raise productivity while providing their inhabitants and businesses with greater opportunities (Cerdeiro & Komaromi, 2017). Generally speaking, international trade enables consumers to benefit from imports' increased competitiveness and product diversification on domestic markets, while firms profit from exports' expansion of domestic production on foreign markets (Schneider, 2005). Busse and Königer (2012) also provide evidence that trade, including trade expansion, have a favourable and substantial effect on growth. International trade is particularly crucial for developing nations since it fosters the realisation of the benefits of economies of scale, enables better capacity utilisation, attracts foreign direct investments, decreases unemployment, and improves technology capacities (Jovičić & Stojanović, 2022).

As Beraha and Jovičić (2021) mention in their research, plenty of empirical works support the idea that trade openness stimulates economic growth. Karras's (2003) findings demonstrate that trade openness has a favourable, long-lasting, statistically significant, and sizeable economic impact on economic growth. Besides, the effect is robust for both data sets employed in the research, as well as for different estimation methods and lag lengths (Karras, 2003). According to Zarra-Nezhad et al. (2014), higher economic growth rates are strongly connected with higher trade rates in a broad sample of developing and developed countries, confirming views that support free trade. The findings of Idris et al. (2016) confirm the endogenous theory that stronger growth stems from expanded openness, which in turn promotes increased openness. Keho (2017) proposes that trade openness has a favourable impact on economic growth in the short and long terms and that trade openness and capital formation have a solid and positive complementary relationship in fostering economic growth. The empirical findings of Huchet-Bourdon et al. (2018) show that apart from the trade ratio, the quality and variety of the export basket are also important in terms of the relationship between trade openness and growth. In addition, based on evidence of a nonlinear relation between export variety, export ratio, and growth, authors conclude that countries with higher export levels will experience faster growth after they have attained a certain level of extensive margin of exports (Huchet-Bourdon et al., 2018).

Exports have special significance when it comes to international trade, and export-led growth has been a highly debated topic (Malović & Zdravković, 2017). Export-led growth of a small open economy in the post-globalised world. Review of applied socio-economic research, 30-44.). Many studies have discovered results that support the export-led growth concept. Using data from 11 developing nations, Balassa (1978) found a positive association between exports and economic growth. Hesse (2009) provides convincing empirical evidence that export diversification increases per capita income growth, and also discovers that this effect may be nonlinear, with developing nations benefiting from export diversification in contrast to the most developed nations, which exploit export specialisation. According to Nguyen (2011), exports support higher levels of product specialisation which, apart from higher productivity, encourages stronger economic growth. According to Eberhard-Ruiz and Calabrese (2018), the level of export competitiveness is of great importance for a country's effective participation in international trade, as well as the eventual management of the balance of trade distress. Hagemejer and Mućk (2019) revealed that from 1995 to 2014, exports considerably boosted Central and Eastern Europe countries' economic development. In addition, export-led economic growth is crucial for enhancing economic growth in developing countries (Hakobyan, 2017), and it is particularly vital to relatively small countries (such as Serbia), which are more dependent on cooperation with foreign partners (Jovičić & Marjanović, 2022).

The COVID-19 pandemic gave a new impulse to increase trade-related research since "*trade volumes collapsed at the same time in all nations and almost all products at a pace never seen before*" (Baldwin & di Mauro, 2020, p.17). For instance, Hayakawa and Mukunoki (2021), exploring monthly data on global trade in the period from January 2019 to August 2020, found very detrimental consequences of COVID-19 on both exporting and importing nations' international trade, and they also revealed that there were heterogeneous effects across industries. Using the monthly trade data of 68 countries exporting across 222 destinations between January 2019 and October 2020, Barbero et al. (2021) got threefold conclusions: (I) the negative impact of COVID-19 was more severe for countries participating in regional trade agreements prior to the pandemic; (II) the impact of COVID -19 was negative and strong when indicators related to governmental actions were considered; (III) detrimental effect is more pronounced when the exporter and importer countries have the same income levels.

Experiences from previous financial crises have shown that trade may be the mechanism through which the effects of the crisis are transmitted between countries (Cravino & Levchenko, 2017; Bräuning & Sheremirov, 2021), where developing and small open economies are more vulnerable (Berkmen et al., 2012; Chor & Manova, 2012). In the case of the COVID-19 pandemic, according to Li & Lin (2021), the three main channels by which COVID-19 affects trade are as follows: (I) reductions in supply and supply capacity; (II) a decline in foreign demand; and (III) trade costs rise.

Di Giovanni et al. (2022) reveal that despite the fact that there was a high demand for products, global trade did not react to the changes in GDP as significantly as it did during the global financial crisis in 2008. Hayakawa and Mukunoki (2021) conclude that even though COVID-19's adverse effects on exporting nations continued until August 2020, their severity gradually diminished. Furthermore, according to Mena et al. (2022), while the challenges posed by the COVID-19 pandemic have had an impact on the global business environment, these consequences have been heterogeneous across countries, which means that some nations experienced severe trade losses, whereas others were quite resilient to COVID-19 effects.

Considering the COVID-19 pandemic's impacts on Serbian foreign trade, it could be concluded that scarce literature has been published on this topic. Nevertheless, the authors mostly consider that Serbian trade, compared to other countries, was not affected so significantly (Kisin et al., 2022; Jovičić & Marjanović, 2021; Lukić, 2021; Ranđelović, 2021). According to Kisin et al. (2022), the COVID-19 pandemic effects on Serbian trade were not prominent in terms of scope or structure and were manifested mainly in stagnation. On the other side, Jovičić and Marjanović (2021) discovered that the sectors that suffered the most in 2020 were those that saw a decline in demand for goods or were intensively involved in the global supply chains. All sectors, however, experienced a robust recovery in 2021. Ranđelović (2021) found that the real decline in global value added of the trade, travel, and tourism sector in 2020 was lower by 58% compared to the decrease seen across the EU-27, which could be explained by the fact that Serbia's tourism industry relies less on foreign visitors than many other European nations, and international tourism receipts as a percentage of total exports, were even less than in some of the

Western Balkan countries (Pavlović et al., 2022). Furthermore, by successfully responding to the crisis brought on by the COVID-19 pandemic, Serbia achieved macroeconomic stability and a recovery of the key macroeconomic indicators, including foreign trade (Jovičić & Marjanović, 2021).

3. EMPIRICAL ANALYSIS

In this paper, we analyze Serbian international trade flows, with a particular focus on the changes in the structure of the imports and exports. We covered the period 2019-2021, i.e. the year before the outbreak of the pandemic and two years in which the impact of the pandemic was the most severe, but still not interfered with the outbreak of the Ukrainian crisis. Data are analyzed on a quarterly basis to get a deeper insight into the volatility of the trade flows structure.

The change in the structure of Serbian exports is displayed in Table 1. As can be noticed, the vast majority of Serbian exports aree made of manufacturing products, followed by the wholesale and retail trade and the mining and quarrying. When the structure of the export is considered, it can be noticed that the share of the mining and quarrying has substantially increased over the considered period. However, this increase cannot be attributed solely to the impact of the pandemic, but rather to investments of Zijin in copper extraction and production, which almost tripled exports from Serbia to China in 2021. When only 2020 is considered, it can be noticed that the share of the manufacturing in total exports significantly dropped by around 5 percentage points. On the other hand, shares of agriculture and wholesale and retail slightly increased in 2020. Eventually, shares of the manufacturing, agriculture and wholesale and retail stabilized in 2021, with somewhat lower shares than in 2019 due to the sharp surge of exports of mining and quarrying products.

Table 1: Structure of Serbian export, 2019-2021

	2019				2020				2021			
	Q1	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**
AGRICULTURE, FORESTRY AND FISHING	1.75	1.59	1.45	1.67	1.98	2.59	2.23	2.72	2.10	1.52	1.55	1.69
MINING AND QUARRYING	2.72	4.55	6.02	6.01	4.39	5.73	6.22	5.78	4.39	7.17	9.70	10.34
MANUFACTURING	74.73	74.30	72.50	73.02	74.13	69.01	71.47	69.53	74.10	74.10	70.97	71.70
ELECTRICITY, GAS, STEAM AND AIR CONDITIONING SUPPLY	1.61	2.09	1.41	1.25	1.70	1.90	1.93	2.38	1.96	1.81	1.24	1.34
CONSTRUCTION	0.69	0.58	0.53	0.59	0.41	0.37	0.34	0.29	0.45	0.45	0.33	0.42
WHOLESALE AND RETAIL TRADE; REPAIR OF MOTOR VEHICLES AND MOTORCYCLES	14.44	14.34	15.37	15.05	14.98	18.46	16.11	17.23	15.02	13.19	13.78	12.35
TRANSPORTATION AND STORAGE	1.72	0.86	1.31	0.79	0.42	0.26	0.27	0.39	0.59	0.46	1.12	0.53
ACCOMMODATION AND FOOD SERVICE ACTIVITIES	0.01	0.03	0.03	0.06	0.03	0.04	0.06	0.04	0.01	0.02	0.02	0.02
INFORMATION AND COMMUNICATION	0.30	0.32	0.29	0.28	0.22	0.26	0.24	0.26	0.22	0.20	0.46	0.50
OTHER	2.02	1.33	1.09	1.27	1.74	1.38	1.13	1.37	1.13	1.08	0.84	1.11

Source: authors' calculation

On the other hand, the structure of the import (displayed in Table 2) is more diversified than in the case of export. Manufacturing and retail sectors dominate the composition of the import, but the import of energy and mining and quarrying is also considerable. What is particularly interesting to notice is that the share of energy was declining over the considered period, but this trend was interrupted following the global uncertainty in the eve of the Ukrainian crisis. The other major impact of the pandemic on the structure of Serbian imports is steady increase in the share of the manufacturing sector starting following the drop in the first half of 2020, when the pandemic containment measures were at the pick.

Table 2: Structure of Serbian import, 2019-2021

	2019				**2020**				**2021**			
	Q1	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**
AGRICULTURE, FORESTRY AND FISHING	0.71	0.79	0.53	0.45	0.50	0.87	0.72	0.51	0.64	0.70	0.62	0.52
MINING AND QUARRYING	5.60	8.24	8.36	8.69	7.16	4.25	6.99	6.48	4.93	7.26	7.84	6.28
MANUFACTURING	38.49	37.86	36.48	34.18	35.45	38.79	38.69	38.26	43.43	41.83	42.80	42.74
ELECTRICITY, GAS, STEAM AND AIR CONDITIONING SUPPLY	5.68	2.90	2.72	3.38	4.86	2.53	1.81	2.52	2.68	2.19	2.64	3.18
CONSTRUCTION	1.79	3.20	5.25	4.09	3.68	2.24	2.74	2.56	2.80	2.79	2.73	2.49
WHOLESALE AND RETAIL TRADE; REPAIR OF MOTOR VEHICLES AND MOTORCYCLES	41.82	41.61	41.38	38.85	40.35	45.54	43.46	42.84	40.47	39.24	37.96	39.49
TRANSPORTATION AND STORAGE	2.09	1.52	1.57	2.68	1.10	1.40	0.97	1.44	1.25	1.43	1.73	1.22
ACCOMMODATION AND FOOD SERVICE ACTIVITIES	0.07	0.08	0.07	0.09	0.07	0.06	0.11	0.11	0.06	0.08	0.07	0.07

	2019				2020				2021			
	Q1	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**
INFORMATION AND COMMUNICATION	1.49	1.48	1.46	1.70	1.50	1.58	1.55	1.47	1.16	1.08	0.89	1.06
OTHER	2.26	2.32	2.18	5.89	5.32	2.75	2.95	3.81	2.58	3.40	2.71	2.95

Source: authors' calculation

Eventually, we focused on the structure of the import and export of the manufacturing sector, being the most important one for the Serbian international trade flows. The detailed analysis of the structure of the import and export of the Serbian manufacturing sector over the period 2019-2021 is shown in Tables 3 and 4.

Table 3: Structure of the export of the manufacturing sector, 2019-2021

	2019				2020				2021			
	Q1	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**
Processing and preserving of meat and production of meat products	0.70	0.81	0.75	0.64	0.76	1.01	0.84	0.69	0.58	0.68	0.61	0.66
Processing and preserving of fish, crustaceans and molluscs	0.03	0.04	0.07	0.05	0.03	0.05	0.08	0.09	0.03	0.03	0.04	0.06
Processing and preserving of fruit and vegetables	3.16	3.01	3.90	3.85	4.25	5.82	5.64	5.59	3.81	3.38	4.82	5.14
Manufacture of vegetable and animal oils and fats	1.65	1.55	1.69	1.82	1.91	2.95	2.35	2.51	2.12	1.75	2.03	2.26

	2019				2020				2021			
	Q1	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**
Manufacture of dairy products	0.92	1.18	1.11	0.59	0.96	1.59	1.39	0.71	0.77	1.27	1.09	0.56
Manufacture of grain mill products, starches and starch products	0.57	0.65	0.77	0.72	0.63	1.38	0.98	0.91	0.57	0.70	0.66	0.60
Manufacture of bakery and farinaceous products	0.86	0.88	0.93	1.03	1.08	1.71	1.43	1.42	0.98	1.05	0.94	1.06
Manufacture of other food products	2.05	2.22	2.08	2.04	1.91	2.81	2.45	3.02	2.31	2.11	2.14	2.38
Manufacture of prepared animal feeds	1.33	1.42	1.41	1.36	1.67	2.82	2.04	2.28	1.65	1.72	1.72	1.81
Manufacture of beverages	1.18	1.76	1.99	1.29	1.20	1.45	1.69	1.51	1.29	1.79	2.01	1.32
Manufacture of tobacco products	0.61	0.81	1.44	1.43	1.30	0.21	0.28	0.30	1.64	1.53	1.44	1.42
Preparation and spinning of textile fibres	0.15	0.15	0.13	0.15	0.14	0.23	0.16	0.18	0.11	0.13	0.10	0.15
Weaving of textiles	0.21	0.19	0.23	0.36	0.31	0.27	0.24	0.31	0.22	0.14	0.17	0.17
Finishing of textiles	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Manufacture of other textiles	2.23	2.15	1.85	1.92	2.01	1.59	2.32	2.29	2.05	1.85	1.37	1.46
Manufacture of wearing apparel, except fur apparel	2.14	2.00	2.11	2.06	2.00	1.91	2.23	1.98	1.85	1.77	1.86	2.00
Manufacture of articles of fur	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

	2019				2020				2021			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Manufacture of knitted and crocheted apparel	1.56	1.29	1.70	1.92	1.73	0.82	1.31	1.15	1.21	0.92	1.17	1.25
Tanning and dressing of leather; manufacture of luggage, handbags, saddlery and harness; dressing and dyeing of fur	0.89	0.84	0.86	0.83	0.80	0.51	0.90	0.81	0.76	0.77	0.63	0.75
Manufacture of footwear	1.54	1.19	1.34	1.17	1.32	0.56	1.06	0.80	1.21	1.01	1.02	0.79
Sawmilling and planing of wood	0.51	0.50	0.50	0.50	0.49	0.76	0.67	0.73	0.47	0.58	0.51	0.50
Manufacture of products of wood, cork, straw and plaiting materials	0.82	0.84	0.83	0.87	0.86	1.21	1.20	1.18	0.74	0.83	0.79	0.77
Manufacture of pulp, paper and paperboard	1.09	1.02	1.05	0.99	1.29	1.86	1.38	1.22	0.90	0.76	0.63	1.03
Manufacture of articles of paper and paperboard	2.68	2.71	2.69	2.56	2.41	4.34	3.30	2.97	2.32	2.50	2.29	2.42
Printing and service activities related to printing	0.58	0.55	0.61	0.65	0.65	0.90	0.80	0.78	0.49	0.52	0.54	0.60
Reproduction of recorded media	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Manufacture of refined petroleum products	0.24	0.25	0.18	0.22	0.20	0.11	0.16	0.20	0.26	0.27	0.32	0.38
Manufacture of basic chemicals, fertilisers and	3.78	2.68	3.75	2.99	3.73	4.25	4.25	4.24	3.66	3.35	4.22	3.21

	2019				2020				2021			
	Q1	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**
nitrogen compounds, plastics and synthetic rubber in primary forms												
Manufacture of pesticides and other agrochemical products	0.16	0.11	0.04	0.07	0.24	0.30	0.13	0.09	0.23	0.10	0.03	0.06
Manufacture of paints, varnishes and similar coatings, printing ink and mastics	0.26	0.34	0.33	0.26	0.31	0.67	0.54	0.38	0.30	0.39	0.35	0.27
Manufacture of soap and detergents, cleaning and polishing preparations, perfumes and toilet preparations	1.97	1.59	1.89	1.83	2.13	3.12	3.29	3.22	2.52	2.75	2.75	2.77
Manufacture of other chemical products	0.68	0.54	0.61	0.76	0.63	0.98	0.65	0.83	0.58	0.55	0.60	0.66
Manufacture of man-made fibres	0.01	0.01	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.01	0.01
Manufacture of basic pharmaceutical products	0.02	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01
Manufacture of pharmaceutical preparations	1.70	2.01	2.14	2.37	1.86	3.04	1.87	2.06	1.56	1.91	1.66	1.91

	2019				2020				2021			
	Q1	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**
Manufacture of rubber products	6.61	5.48	6.20	5.82	5.60	2.34	2.82	2.82	5.71	5.01	5.25	5.37
Manufacture of plastic products	4.72	4.82	4.83	4.33	4.76	5.54	5.32	4.50	4.50	4.77	4.45	4.18
Manufacture of glass and glass products	0.18	0.24	0.29	0.18	0.17	0.22	0.14	0.09	0.18	0.19	0.14	0.12
Manufacture of refractory products	0.01	0.02	0.02	0.04	0.03	0.01	0.02	0.01	0.01	0.01	0.03	0.01
Manufacture of clay building materials	0.41	0.58	0.68	0.50	0.42	0.79	0.90	0.61	0.38	0.54	0.53	0.47
Manufacture of other porcelain and ceramic products	0.01	0.01	0.01	0.01	0.01	0.01	0.03	0.03	0.02	0.02	0.02	0.02
Manufacture of cement, lime and plaster	0.08	0.14	0.13	0.12	0.08	0.17	0.15	0.09	0.04	0.08	0.06	0.09
Manufacture of articles of concrete, cement and plaster	0.18	0.27	0.25	0.16	0.23	0.48	0.36	0.25	0.19	0.25	0.23	0.20
Cutting, shaping and finishing of stone	0.03	0.05	0.03	0.03	0.03	0.04	0.04	0.04	0.03	0.04	0.02	0.02
Manufacture of abrasive products and non-metallic mineral products n.e.c.	0.34	0.38	0.45	0.42	0.42	0.71	0.62	0.45	0.38	0.46	0.42	0.41
Manufacture of basic iron and steel and of ferro-alloys	6.30	6.40	4.74	5.28	5.20	6.32	4.56	3.89	3.87	4.28	6.97	6.10

	2019				2020				2021			
	Q1	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**
Manufacture of tubes, pipes, hollow profiles and related fittings, of steel	0.26	0.24	0.22	0.24	0.24	0.18	0.14	0.17	0.24	0.23	0.21	0.25
Manufacture of other products of first processing of steel	0.07	0.08	0.12	0.14	0.12	0.19	0.20	0.18	0.10	0.14	0.18	0.22
Manufacture of basic precious and other non-ferrous metals	2.16	2.05	2.06	1.95	1.63	0.96	0.83	0.76	2.27	2.45	2.42	2.59
Casting of metals	1.78	2.03	1.63	2.52	2.12	1.20	1.92	2.30	1.73	1.61	1.48	1.42
Manufacture of structural metal products	1.46	1.55	1.69	1.65	1.75	2.38	2.13	2.15	1.52	2.09	2.06	2.07
Manufacture of tanks, reservoirs and containers of metal	0.13	0.17	0.24	0.32	0.20	0.26	0.32	0.34	0.20	0.20	0.24	0.27
Manufacture of steam generators, except central heating hot water boilers	0.03	0.04	0.03	0.03	0.02	0.02	0.03	0.04	0.01	0.05	0.02	0.02
Manufacture of weapons and ammunition	0.95	0.67	0.78	1.20	0.49	1.29	1.10	1.27	0.00	0.00	0.00	0.01
Forging, pressing, stamping and roll-forming of metal; powder metallurgy	0.08	0.06	0.07	0.09	0.09	0.12	0.10	0.12	0.07	0.08	0.07	0.07
Treatment and coating of metals; machining	1.29	1.31	1.44	1.40	1.45	1.51	1.39	1.53	1.68	1.73	1.85	1.74

	2019				2020				2021			
	Q1	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**
Manufacture of cutlery, tools and general hardware	0.42	0.38	0.39	0.42	0.44	0.48	0.51	0.55	0.36	0.47	0.45	0.42
Manufacture of other fabricated metal products	1.79	2.16	1.99	1.71	1.92	2.70	2.34	2.26	1.76	2.19	2.10	1.84
Manufacture of electronic components and boards	0.38	0.41	0.53	0.53	0.61	0.89	0.73	0.67	0.62	0.64	0.59	0.69
Manufacture of computers and peripheral equipment	0.44	0.36	0.47	0.43	0.26	0.16	0.18	0.23	0.36	0.50	0.40	0.34
Manufacture of communication equipment	0.02	0.02	0.03	0.05	0.05	0.04	0.04	0.02	0.04	0.02	0.02	0.04
Manufacture of consumer electronics	0.01	0.21	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.02	0.02	0.01
Manufacture of instruments and appliances for measuring, testing and navigation; watches and clocks	0.20	0.21	0.23	0.19	0.19	0.20	0.21	0.25	0.16	0.19	0.20	0.23
Manufacture of irradiation, electromedical and electrotherapeutic equipment	0.02	0.02	0.03	0.03	0.01	0.00	0.00	0.01	0.03	0.05	0.02	0.03
Manufacture of optical instruments and photographic equipment	0.13	0.13	0.08	0.08	0.10	0.14	0.23	0.16	0.08	0.09	0.11	0.14

	2019				2020				2021			
	Q1	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**
Manufacture of electric motors, generators, transformers and electricity distribution and control apparatus	1.21	1.23	1.23	1.19	1.23	1.28	1.15	1.13	1.72	1.68	1.55	1.53
Manufacture of batteries and accumulators	0.06	0.05	0.05	0.05	0.07	0.08	0.10	0.12	0.08	0.05	0.06	0.09
Manufacture of wiring and wiring devices	2.39	2.32	2.34	2.47	2.70	2.04	3.20	4.01	3.72	3.63	2.93	3.43
Manufacture of electric lighting equipment	0.21	0.28	0.49	0.32	0.30	0.40	0.44	0.36	0.28	0.46	0.45	0.44
Manufacture of domestic appliances	1.60	1.97	2.16	2.07	1.44	1.08	1.46	1.27	1.96	2.21	2.06	2.02
Manufacture of other electrical equipment	0.10	0.22	0.31	0.27	0.34	0.40	0.42	0.47	0.37	0.33	0.33	0.36
Manufacture of general-purpose machinery	2.72	2.27	2.48	2.68	2.75	3.18	3.57	3.27	2.58	2.24	2.07	1.96
Manufacture of other general-purpose machinery	1.00	1.13	1.06	1.14	1.06	1.10	1.13	1.31	0.92	1.16	1.31	1.05
Manufacture of agricultural and forestry machinery	0.20	0.25	0.18	0.14	0.23	0.39	0.26	0.26	0.21	0.26	0.18	0.20
Manufacture of metal forming machinery and machine tools	0.63	0.54	0.46	0.52	0.42	0.36	0.33	0.30	0.42	0.40	0.39	0.46

	2019				**2020**				**2021**			
	Q1	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**
Manufacture of other special-purpose machinery	0.47	0.50	0.53	0.56	0.46	0.49	0.43	0.77	0.47	0.54	0.56	0.55
Manufacture of motor vehicles	4.24	5.61	2.59	3.14	3.52	0.01	0.01	0.01	2.47	2.29	1.54	1.57
Manufacture of bodies (coachwork) for motor vehicles; manufacture of trailers and semi-trailers	0.55	0.52	0.45	0.39	0.40	0.46	0.45	0.41	0.45	0.45	0.47	0.40
Manufacture of parts and accessories for motor vehicles	11.10	10.48	10.15	10.83	10.26	3.99	6.97	8.36	12.97	12.03	10.77	11.04
Building of ships and boats	0.23	0.30	0.29	0.43	0.22	0.01	0.01	0.00	0.21	0.12	0.19	0.19
Manufacture of railway locomotives and rolling stock	0.21	0.20	0.23	0.23	0.19	0.06	0.01	0.01	0.23	0.25	0.27	0.36
Manufacture of air and spacecraft and related machinery	0.04	0.04	0.04	0.04	0.03	0.04	0.02	0.02	0.02	0.03	0.03	0.02
Manufacture of transport equipment n.e.c.	0.13	0.11	0.06	0.03	0.16	0.21	0.15	0.06	0.19	0.21	0.09	0.08
Manufacture of furniture	2.12	2.35	2.54	2.79	2.52	2.10	2.96	3.04	2.31	2.26	2.26	2.35
Manufacture of jewellery, bijouterie and related articles	0.11	0.10	0.12	0.09	0.14	0.10	0.12	0.16	0.07	0.12	0.12	0.11

	2019				2020				2021			
	Q1	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**
Manufacture of musical instruments	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Manufacture of sports goods	0.01	0.02	0.01	0.01	0.02	0.01	0.01	0.02	0.02	0.02	0.01	0.01
Manufacture of games and toys	0.01	0.00	0.01	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Manufacture of medical and dental instruments and supplies	0.74	0.70	0.76	0.76	0.89	1.12	0.98	1.01	0.69	0.66	0.51	0.64
Manufacturing n.e.c.	0.72	0.68	0.60	0.55	0.80	1.15	0.81	0.84	0.74	0.68	0.58	0.59
Repair of fabricated metal products, machinery and equipment	2.39	2.29	2.14	2.09	2.33	1.22	1.86	2.45	3.06	2.30	2.08	2.63
Installation of industrial machinery and equipment	0.06	0.07	0.07	0.04	0.05	0.08	0.13	0.08	0.04	0.10	0.04	0.06

Source: authors' calculation

Table 4: Structure of the import of the manufacturing sector, 2019-2021

	2019				2020				2021			
	Q1	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**
Processing and preserving of meat and production of meat products	0.89	1.03	1.18	1.12	1.31	1.28	1.00	0.90	0.66	0.63	0.77	0.96
Processing and preserving of fish, crustaceans and molluscs	0.16	0.18	0.21	0.26	0.15	0.16	0.16	0.19	0.14	0.16	0.14	0.14
Processing and preserving of fruit and vegetables	1.41	1.32	1.58	1.74	1.49	1.70	1.62	1.59	1.30	1.19	1.31	1.31
Manufacture of vegetable and animal oils and fats	0.32	0.30	0.27	0.35	0.31	0.39	0.28	0.45	0.30	0.47	0.44	0.82
Manufacture of dairy products	1.69	1.66	1.23	1.08	1.53	1.82	1.29	1.04	1.01	1.05	0.76	0.68
Manufacture of grain mill products, starches and starch products	0.15	0.13	0.17	0.30	0.17	0.28	0.16	0.22	0.14	0.23	0.12	0.17
Manufacture of bakery and farinaceous products	0.88	0.96	1.09	1.01	0.81	0.92	1.21	1.10	0.82	0.89	0.60	0.59
Manufacture of other food products	2.65	2.80	2.84	2.85	2.80	2.99	2.77	2.90	1.99	2.09	2.26	2.38
Manufacture of prepared animal feeds	1.04	0.93	1.09	1.00	1.12	1.45	1.06	1.16	0.90	0.94	1.08	1.10
Manufacture of beverages	2.79	3.01	2.77	2.22	3.34	2.60	2.65	2.03	2.28	2.68	2.71	1.86
Manufacture of tobacco products	0.88	1.11	1.32	1.30	1.22	1.64	1.07	1.54	2.40	2.20	2.30	2.29

	2019				2020				2021			
	Q1	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**
Preparation and spinning of textile fibres	0.24	0.25	0.18	0.22	0.21	0.22	0.17	0.20	0.14	0.14	0.12	0.13
Weaving of textiles	0.32	0.31	0.36	0.37	0.43	0.31	0.20	0.38	0.21	0.34	0.20	0.21
Finishing of textiles	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00
Manufacture of other textiles	2.31	2.61	2.40	2.40	2.27	1.54	2.08	2.47	2.30	1.93	1.51	1.32
Manufacture of wearing apparel, except fur apparel	1.82	1.84	1.76	1.87	1.70	1.49	1.41	1.72	1.78	1.93	1.62	1.79
Manufacture of articles of fur	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Manufacture of knitted and crocheted apparel	0.83	0.77	0.90	0.98	1.04	0.79	0.80	0.75	0.69	0.78	1.11	0.63
Tanning and dressing of leather; manufacture of luggage, handbags, saddlery and harness; dressing and dyeing of fur	0.80	0.76	0.75	0.72	0.81	0.40	0.58	0.62	0.64	0.61	0.58	0.60
Manufacture of footwear	0.96	0.82	0.84	0.88	0.85	0.55	0.60	0.72	1.30	1.33	1.06	1.16
Sawmilling and planing of wood	0.18	0.23	0.28	0.24	0.20	0.28	0.28	0.26	0.18	0.24	0.19	0.20
Manufacture of products of wood, cork, straw and plaiting materials	0.75	0.75	0.81	0.77	0.66	0.71	0.85	0.72	0.63	0.71	0.81	0.80
Manufacture of pulp, paper and paperboard	0.85	0.99	1.11	0.82	1.00	1.45	0.77	0.81	0.74	1.09	0.48	0.79

	2019				2020				2021			
	Q1	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**
Manufacture of articles of paper and paperboard	4.62	4.45	4.50	4.57	3.95	5.77	4.19	3.59	3.51	3.89	3.38	3.47
Printing and service activities related to printing	0.94	1.07	0.98	1.30	0.97	1.55	0.96	0.90	0.70	0.76	0.68	0.76
Reproduction of recorded media	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00
Manufacture of refined petroleum products	0.35	0.45	0.48	0.42	0.36	0.51	0.55	0.60	0.75	0.77	1.01	0.91
Manufacture of basic chemicals, fertilisers and nitrogen compounds, plastics and synthetic rubber in primary forms	2.50	1.95	2.20	2.26	2.70	2.60	2.13	2.42	2.21	1.98	1.84	2.36
Manufacture of pesticides and other agrochemical products	0.98	0.45	0.33	0.78	0.84	0.34	0.42	0.79	0.77	0.27	0.27	0.51
Manufacture of paints, varnishes and similar coatings, printing ink and mastics	0.66	0.77	0.80	0.55	0.68	0.86	0.79	0.60	0.53	0.70	0.67	0.50
Manufacture of soap and detergents, cleaning and polishing preparations, perfumes and toilet preparations	2.30	2.35	2.38	2.22	2.67	3.32	4.19	3.86	2.90	2.93	2.63	2.54
Manufacture of other chemical products	0.81	0.72	0.69	0.74	0.63	0.74	0.53	0.68	0.66	0.54	0.57	0.55

	2019				2020				2021			
	Q1	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**
Manufacture of man-made fibres	0.03	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01
Manufacture of basic pharmaceutical products	0.02	0.01	0.02	0.02	0.01	0.02	0.02	0.02	0.01	0.02	0.02	0.01
Manufacture of pharmaceutical preparations	2.45	1.94	2.42	2.30	2.47	2.81	2.16	1.92	1.81	1.40	1.59	1.24
Manufacture of rubber products	2.72	2.83	2.97	3.41	3.13	2.37	2.86	3.07	3.76	4.25	7.56	5.36
Manufacture of plastic products	6.02	5.45	5.04	4.56	5.45	5.60	5.18	4.30	4.78	5.06	5.19	4.86
Manufacture of glass and glass products	0.24	0.26	0.28	0.32	0.28	0.29	0.30	0.33	0.31	0.22	0.25	0.25
Manufacture of refractory products	0.00	0.01	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.00
Manufacture of clay building materials	0.23	0.36	0.32	0.26	0.39	0.32	0.32	0.57	0.37	0.33	0.33	0.32
Manufacture of other porcelain and ceramic products	0.02	0.01	0.01	0.02	0.02	0.02	0.01	0.02	0.02	0.02	0.01	0.02
Manufacture of cement, lime and plaster	0.45	0.50	0.27	0.24	0.22	0.15	0.27	0.20	0.30	0.24	0.32	0.33
Manufacture of articles of concrete, cement and plaster	0.69	0.86	0.93	0.81	0.90	0.94	0.97	0.93	0.68	0.80	0.71	0.67
Cutting, shaping and finishing of stone	0.24	0.35	0.37	0.37	0.25	0.39	0.43	0.34	0.27	0.33	0.32	0.32

	2019				2020				2021			
	Q1	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**
Manufacture of abrasive products and non-metallic mineral products n.e.c.	0.48	0.49	0.57	0.48	0.48	0.53	0.52	0.41	0.46	0.52	0.59	0.62
Manufacture of basic iron and steel and of ferro-alloys	10.44	10.30	8.13	7.14	6.49	4.53	5.18	3.86	4.17	4.90	7.10	6.39
Manufacture of tubes, pipes, hollow profiles and related fittings, of steel	0.04	0.05	0.07	0.04	0.06	0.09	0.05	0.06	0.15	0.21	0.11	0.14
Manufacture of other products of first processing of steel	0.27	0.38	0.49	0.41	0.48	0.58	0.54	0.48	0.31	0.51	0.60	0.51
Manufacture of basic precious and other non-ferrous metals	0.42	0.38	0.40	0.48	0.46	0.40	0.32	0.27	0.36	0.40	0.35	0.50
Casting of metals	1.99	1.49	1.21	2.10	1.05	2.57	1.74	1.16	1.11	1.20	0.68	1.76
Manufacture of structural metal products	1.67	1.83	1.87	1.85	1.76	1.99	2.00	2.15	1.72	2.07	2.19	2.59
Manufacture of tanks, reservoirs and containers of metal	0.09	0.15	0.15	0.14	0.09	0.08	0.11	0.11	0.09	0.08	0.08	0.08
Manufacture of steam generators, except central heating hot water boilers	0.01	0.03	0.05	0.05	0.01	0.04	0.09	0.02	0.05	0.06	0.02	0.01
Manufacture of weapons and ammunition	0.32	0.45	0.29	0.37	0.26	0.22	0.19	0.26	0.19	0.18	0.18	0.16

	2019				2020				2021			
	Q1	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**
Forging, pressing, stamping and roll-forming of metal; powder metallurgy	0.08	0.12	0.07	0.07	0.06	0.08	0.06	0.07	0.07	0.10	0.10	0.06
Treatment and coating of metals; machining	1.18	1.11	1.21	1.14	1.00	1.28	1.04	1.24	1.78	1.93	1.91	1.38
Manufacture of cutlery, tools and general hardware	0.56	0.51	0.42	0.47	0.42	0.34	0.41	0.39	0.35	0.39	0.32	0.38
Manufacture of other fabricated metal products	2.99	3.20	3.52	3.02	3.35	3.67	3.45	3.10	2.73	3.00	3.00	2.75
Manufacture of electronic components and boards	0.54	0.54	0.69	0.79	0.79	0.89	0.74	0.74	0.65	0.70	0.75	0.74
Manufacture of computers and peripheral equipment	3.54	3.43	3.86	4.19	3.44	4.45	4.31	4.30	3.05	2.88	2.74	2.99
Manufacture of communication equipment	0.09	0.10	0.19	0.14	0.13	0.18	0.16	0.09	0.06	0.09	0.09	0.09
Manufacture of consumer electronics	0.20	0.14	0.25	0.28	0.12	0.22	0.21	0.17	0.20	0.16	0.16	0.06
Manufacture of instruments and appliances for measuring, testing and navigation; watches and clocks	0.25	0.33	0.30	0.31	0.27	0.26	0.31	0.36	0.26	0.25	0.30	0.28
Manufacture of irradiation, electromedical and electrotherapeutic equipment	0.01	0.00	0.01	0.01	0.01	0.05	0.05	0.02	0.03	0.05	0.03	0.03

	2019				2020				2021			
	Q1	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**
Manufacture of optical instruments and photographic equipment	0.19	0.15	0.19	0.17	0.19	0.20	0.22	0.22	0.15	0.17	0.20	0.18
Manufacture of electric motors, generators, transformers and electricity distribution and control apparatus	1.16	1.01	1.18	1.17	1.13	1.16	1.18	1.27	1.37	1.45	1.73	1.44
Manufacture of batteries and accumulators	0.05	0.06	0.06	0.07	0.07	0.09	0.11	0.16	0.11	0.08	0.11	0.10
Manufacture of wiring and wiring devices	3.38	3.35	3.62	3.66	3.61	2.42	3.72	4.02	4.54	4.03	3.39	3.55
Manufacture of electric lighting equipment	0.27	0.47	0.66	0.65	0.43	0.42	0.46	0.39	0.55	0.55	0.60	0.68
Manufacture of domestic appliances	1.72	1.26	1.37	1.36	1.36	1.43	1.67	1.66	2.12	2.17	1.88	1.79
Manufacture of other electrical equipment	0.32	0.55	0.57	0.48	0.61	0.66	0.66	0.67	0.51	0.48	0.51	0.46
Manufacture of general-purpose machinery	3.03	3.00	2.78	3.07	2.87	2.80	2.70	3.07	2.49	2.35	2.04	1.98
Manufacture of other general-purpose machinery	1.22	1.35	1.56	1.86	1.57	1.57	1.32	1.40	1.11	1.21	1.19	1.29
Manufacture of agricultural and forestry machinery	0.40	0.55	0.31	0.36	0.49	0.59	0.34	0.28	0.31	0.36	0.30	0.32
Manufacture of metal forming machinery and machine tools	0.26	0.27	0.27	0.21	0.23	0.26	0.33	0.25	0.19	0.21	0.17	0.21

	2019				2020				2021			
	Q1	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**
Manufacture of other special-purpose machinery	0.29	0.41	0.35	0.37	0.32	0.37	0.32	0.40	0.37	0.36	0.42	0.33
Manufacture of motor vehicles	0.72	1.38	1.09	0.61	0.69	0.39	0.73	0.66	0.64	0.95	0.49	0.60
Manufacture of bodies (coachwork) for motor vehicles; manufacture of trailers and semi-trailers	0.37	0.38	0.30	0.29	0.27	0.27	0.23	0.27	0.30	0.34	0.31	0.25
Manufacture of parts and accessories for motor vehicles	6.75	6.80	7.39	7.93	8.99	5.34	9.53	11.72	14.93	12.55	11.92	13.67
Building of ships and boats	0.05	0.05	0.05	0.04	0.03	0.01	0.02	0.02	0.30	0.23	0.16	0.21
Manufacture of railway locomotives and rolling stock	0.04	0.05	0.03	0.08	0.04	0.09	0.05	0.05	0.28	0.25	0.22	0.21
Manufacture of air and spacecraft and related machinery	0.03	0.02	0.01	0.02	0.02	0.01	0.02	0.02	0.03	0.04	0.02	0.02
Manufacture of transport equipment n.e.c.	0.30	0.17	0.15	0.26	0.30	0.25	0.25	0.28	0.33	0.25	0.25	0.31
Manufacture of furniture	1.94	2.05	2.09	2.21	1.99	1.79	2.52	2.33	2.03	1.97	1.86	1.93
Manufacture of jewellery, bijouterie and related articles	0.12	0.13	0.16	0.17	0.20	0.31	0.71	0.46	0.30	0.37	0.23	0.43
Manufacture of musical instruments	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Manufacture of sports goods	0.01	0.04	0.04	0.03	0.03	0.03	0.03	0.02	0.01	0.02	0.02	0.02
Manufacture of games and toys	0.03	0.06	0.05	0.03	0.03	0.03	0.06	0.05	0.03	0.04	0.03	0.04

	2019				**2020**				**2021**			
	Q1	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**
Manufacture of medical and dental instruments and supplies	1.06	1.13	1.25	1.21	1.29	3.29	1.33	1.19	0.78	0.90	0.68	0.72
Manufacturing n.e.c.	0.49	0.42	0.38	0.41	0.47	0.54	0.57	0.43	0.38	0.42	0.36	0.35
Repair of fabricated metal products, machinery and equipment	2.33	2.13	2.06	2.04	2.51	1.44	1.93	2.41	3.01	2.31	2.03	2.36
Installation of industrial machinery and equipment	0.11	0.13	0.15	0.13	0.15	0.20	0.18	0.13	0.12	0.10	0.08	0.10

Source: authors' calculation

4. CONCLUSIONS

The COVID-19 pandemic has had an impact on the global business environment and these consequences have been heterogeneous across countries, which means that some nations experienced severe trade losses, whereas others were quite resilient to COVID-19 effects. Nevertheless, the existing literature on the impact of the pandemic on Serbian trade flows indicates that Serbian trade compared to other countries, was not affected so significantly (Kisin et al., 2022; Jovičić & Marjanović, 2021; Lukić, 2021; Ranđelović, 2021). The empirical evidence presented in this paper supports the previous finding that the pandemic has not had a substantial impact on the Serbian international trade flows at the aggregate level, in particular on the structure of the aggregate level of export and import. When manufacturing sector, being the most significant contributor to both import and export, is solely considered, some slight changes in the composition of trade flows are identified. For instance, the export of Processing and preserving of fruit and vegetables and Manufacture of plastic products increased over the observed period, while Manufacture of rubber products dropped. Nevertheless, shares of the majority of the divisions within manufacturing sector remained stable, so it can be concluded that the COVID-19 pandemic did not substantially influence Serbian international trade.

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