

Economic Relations between Hungary and Czechia

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Abstract

Trends of the economic relations between Czechia and Hungary – from Hungarian point of view – are reviewed, based mainly on the data of statistics office (KSH) and on the National Bank of Hungary (MNB). Developments are examined in EUR throughout the study, thus evaluation is exempt from HUF exchange rate changes. The first part presents, based on KSH data, the external trade turnover changes between Hungary and Czechia in 1994–2022. Czechia is an important trade partner of Hungary. Timely changes in product structure are emphasized, the most recent state is presented, based on SITC and BEC nomenclature. Car industry turnover size and structure is presented. The role of Czechia in the external trade of services is significantly smaller than in that of goods, but trade increases faster in this field. The second part compares, based on MNB data, the size and divisional structure of the outstanding capital stock, showing that Czech enterprises in Hungary are more productive than the average foreign subsidiary.

Keywords

External trade in goods, product structure of foreign trade, external trade in services, foreign-controlled affiliates, FDI

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INTRODUCTION

Economic relations between Hungary and Czechia go back to several centuries. The Visegrad agreement between kings Charles I of Hungary, Casimir III of Poland and John I of Bohemia included passages regarding the establishment of a more efficient trade between Hungary and Bohemia as early as 1335. These trade relations continued throughout the centuries.

Our study is looking for answers regarding how in the last 30 years, following the regime change, economic relations strengthened between the two countries, how significant is the role that Czechia is playing in the Hungarian economic processes. The short geographical distance as well as the fact that both countries joined the European Union at the same time, on 1 May 2004, are givens for an external trade related integration. The EU single market's four freedoms, launched in 1993, (free movement of people, goods, services and capital) are valid for both countries.

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1 EXTERNAL TRADE TURNOVER

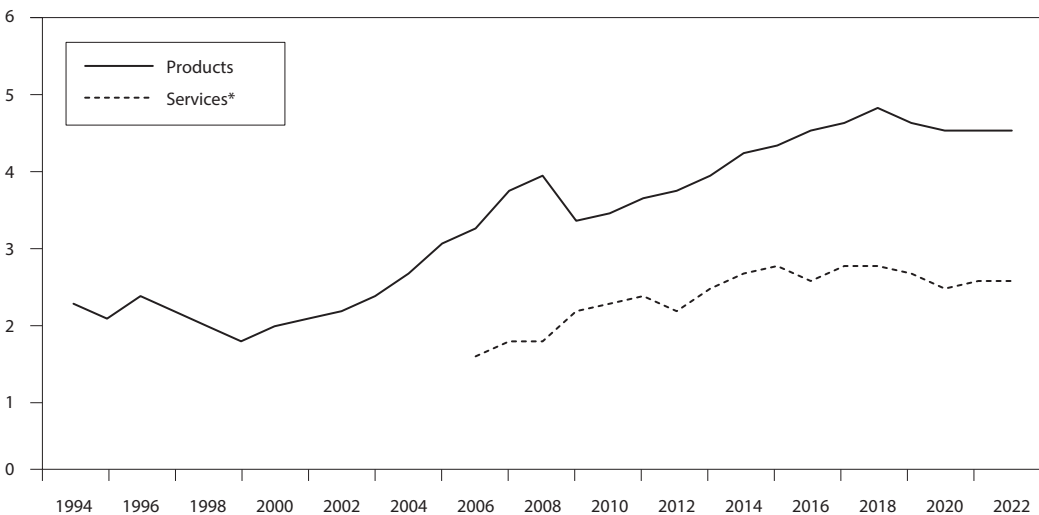
During the past nearly 30 years Czechia continued to be a significant trade partner of Hungary. The relatively short geographical distance between the two countries allows goods to be competitive on each other's markets, furthermore, both countries' production activity in the global value chains of multinational corporations follow each other in many cases, increasing trade turnover between them.

The observation of the Hungarian external trade turnover has been based on customs record data since 1991 up until the EU accession, in May 2004. Czechia and Slovakia already separated at the beginning of 1993, even so they figured as one country as the Czech and Slovak Republic for the given year in the Statistical Yearbook of External Trade³ of the Hungarian Central Statistics Office (hereinafter HCSO); in consequence turnover analysis is only possible since 1994.

Between 1994 and 2003, the years preceding their adherence to the EU, Czechia had consecutively a 2% share in the Hungarian external trade turnover. CEFTA, a free trade agreement, applied as early as March 1993 for the Visegrad four countries (Slovenia, Romania and Bulgaria joined later on) helped in intensifying the economic cooperation between the two countries. In spite of this trade agreement – allowing for close to 90% of goods to be sold duty-free – the share of Czechia in the Hungarian external trade shrunk in the second half of the 90s, also in connection with the fact that Hungary's external trade as a whole grew dynamically in these years. Factors like the unification of customs tariffs, lower customs duties, elimination of non-customs related impediments, liberalisation of foreign direct investment regulations and the introduction of the HUF convertibility made the significant increase of foreign trade possible.

Turnover growth was based on the activity of industrial customs free zones, producing, in part, goods for export from base materials coming from Asia, machinery, first of all, to be distributed in developed

Figure 1 Czechia's share in Hungary's external trade turnover (%)



Note: * for 2006–2007 balance of payment based on data from methodology manual BPM #5., from there on # 6.

Source: Own calculations based on HCSO data (for the 1994–1998 period according to the HCSO Statistical Yearbooks of External Trade, for the 1999–2022 period upon HCSO databases)

³ Similarly to the former Yugoslavia and the Soviet Union.

countries. All in all, the value of the Hungarian external trade turnover, calculated in ECU as well as EUR, increased 2.4-fold in the 1997–2000 period, meaning, on yearly average, a 25% growth.

In parallel with the outstanding increase the export's domestic added value content lessened considerably during these years; calculations performed based on the OECD Trade in Added Value database showed a 72% proportion in 1996 and a 54% one in 2000.

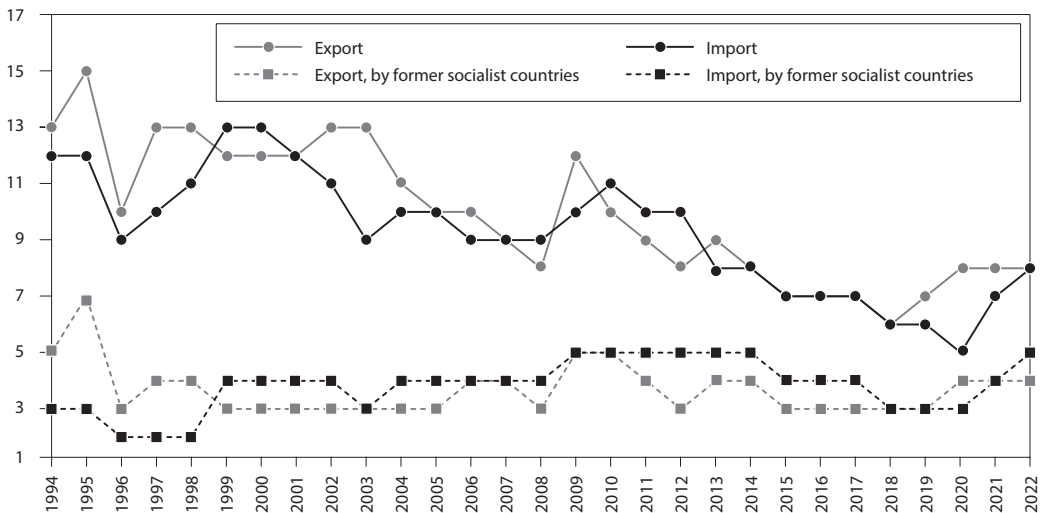
At the time when Hungary joined the EU close to 150 industrial customs free zones existed in the country, these ceased automatically with the accession.

Following the accession, the role of Czechia in the trade turnover to Hungary grew, its share surpassed each year 4% since 2014.

Czechia has continuously a larger share in Hungary's external trade in goods than in that of services. In the case of the latter geographical distances have a smaller importance, as such our turnover is rather targeting several western countries with highly developed service sectors (USA, United Kingdom, Switzerland).

Czechia was, during the 2011–2022 period, among the ten most important partners of Hungary in terms of trade in goods, in both directions, an improvement compared especially to the situation preceding the EU accession.

Figure 2 Czechia's place in Hungary's partners in external trade in goods (ranking place)



Source: Own calculations based on HCSO data

Hungary exports – in relation with the former Eastern Bloc countries – in larger values than into Czechia to the neighbouring Slovakia, to Poland, representing significantly larger market, and in Romania. In our import ranking China and Poland come before Czechia on a regular basis, Slovakia and Russia is occasionally a more significant partner, the value of import coming from the latter country is linked to energy price changes.

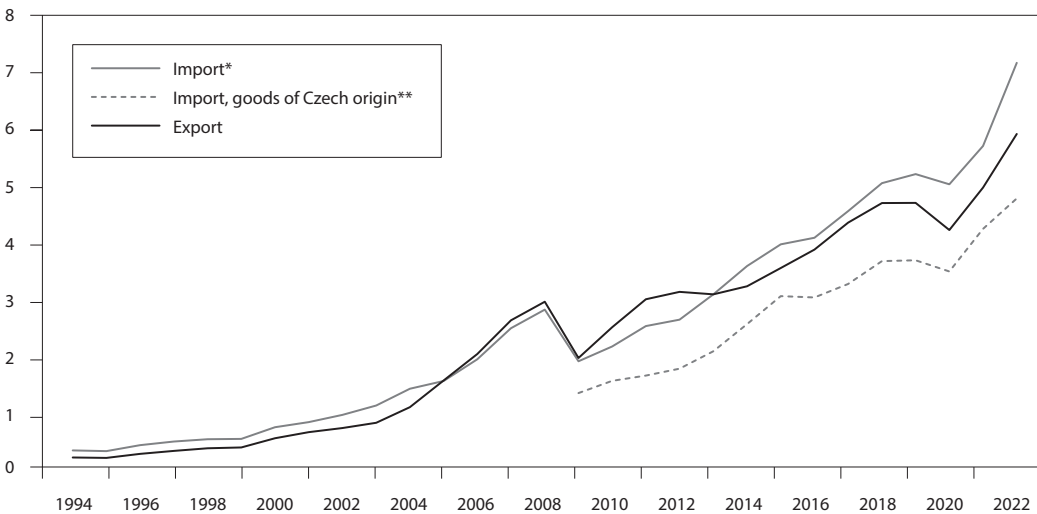
Credits, as they became more expensive during the 2009 financial crisis had a negative impact on demand, turnover shrunk from EUR 5.7 billion to 3.8 billion. Recovery was slow, aggregated trade flows only surpassed the 2008 level in 2013 (EUR 6.1 billion), after the eurozone crisis died out.

Table 1 Hungary's most significant trade partners in the external trade in goods, in 2022*

Export				Import			
Ranking	Country	Value, billion EUR	Change in value compared to 2021, %	Ranking	Country	Value, billion EUR	Change in value compared to 2021, %
1. (1.)	Germany	35.7	12.5	1. (1.)	Germany	31.9	14.4
2. (2.)	Italy	8.0	15.5	2. (3.)	Austria	10.8	50.5
3. (3.)	Romania	7.6	20.1	3. (2.)	China	10.2	23.5
4. (4.)	Slovakia	7.2	17.2	4. (4.)	Slovakia	10.0	44.6
5. (5.)	Austria	6.4	18.0	5. (11.)	Russia	9.3	157.2
6. (6.)	Poland	6.1	19.4	6. (5.)	Poland	8.4	25.3
7. (7.)	France	6.0	20.5	7. (6.)	The Netherlands	7.2	23.8
8. (8.)	Czechia	5.9	19.2	8. (7.)	Czechia	7.2	25.9
9. (9.)	The Netherlands	5.1	30.0	9. (8.)	Italy	6.1	17.8
10. (11.)	USA	5.0	43.4	10. (10.)	Korean Republic	5.8	59.4
	Total	142.2	19.3		Total	150.8	28.2

Note: * the number in bracket represents the 2021 ranking of the given country.
Source: HCSO

Figure 3 Hungary's external trade in goods with Czechia (billion EUR, ECU until 1998)



Note: * good of Czech origin up until 2002, from 2003, in connection with the EU accession, goods arriving from Czechia.

** in the years during the 2009–2022 period, 4.6–8.5% of Hungarian import had no country of origin, which might have included Czech turnover as well.

Source: For the 1994–1998 period calculations based on the HCSO Statistical Yearbook of External Trade, for the 1999–2022 period on HCSO databases

In 2020, when the Covid-19 pandemic spread worldwide, another setback occurred, in this case, however, turnover dropped only from EUR 9.9 billion to 9.2 billion. This drop was impacted by factory closures as well, therefore the crisis was supply based this time. It is worth mentioning, however, the so-called “crisis

expectations” showing up as early as 2019, which can be experienced the Czech-Hungarian turnover, too, in form of a mere 2% growth rate, the slowest one of the 2010s. Finally, recession materialised as the pandemic reached worldwide dimensions, although no one expected a “great lockdown”. Total turnover grew by 16% in 2021, to EUR 10.6 billion, surpassing already the pre-pandemic 2019 level. The pace of the turnover growth speeded up to 23% in 2022, the value of commodity exchange reached EUR 13.1 billion. The significant current price growth pace of the last two years has been impacted by the overall price hike on the world market, too. According to a study (Bod et al., 2020: 321–351) the introduction of the euro could markedly lower business expenses at external trade oriented companies, generating, first of all, additional external trade opportunities at smaller “domestic” companies. As in 2014–2021 Hungary registered a deficit in 2022, too, in the external trade of goods with Czechia, its amount grew in a year by more than half a billion EUR, reaching EUR 1.3 billion. The deficit to export ratio increased to 21%, showing its most unfavourable state from Hungary’s point of view since joining the EU.

According to data calculated from the latest, 2018 data of the OECD Trade in Value Added database the domestic added value content in the Hungarian export (goods and services) had a 54% share, while the proportion was 58% for Czechia. (OECD average for this year was 72%). In the Hungarian export toward Czechia as well as in the Czech export to Hungary the domestic added value ratio was somewhat lower (2 percentage points).

Table 2 The domestic added value content of export in the bilateral turnover, 2018 (%)

	Hungarian export to Czechia	Czech export to Hungary
Manufacturing	44.4	50.6
out of this:		
manufacture of transport equipment	35.1	42.6
chemical products and non-metallic mineral products	52.0	49.0
Services	76.5	78.8
Export total (goods + services)	52.0	56.3

Source: Calculations performed according to the OECD „Trade in Value Added (TiVA) 2021 edition, Principal indicators” database

The structure of the trade in goods with Czechia underwent a big change before joining the EU. Up until 2001 manufactured goods represented the most significant main commodity group in both trade directions, their share in turnover characteristically surpassed 40% (at the same time fuels, electric energy main commodity group had the largest share, 43%, in the 1996 import). Between 1994–1997 (except for 1996) the second largest main commodity group on the import side was fuels, electric energy, the food, beverages, tobacco was on the export side, by and large in a proportion of one-third and one-fourth in the corresponding trade direction. When looking to a level lower, to the actual commodity groups, turns out that pharmaceuticals and pharmaceutical products have consecutively been among the five commodity groups with the largest turnover, while paper, cardboard, pulp and products manufactured from these, furthermore vegetables and fruits did not make into this group in one year only. Regarding import, iron and steel was continuously among the five commodity groups having the largest turnover between 1994 and 2012, this was true for coal, coke and briquettes up until 2002, for organic chemical products until 2000.

Machinery and transport equipment became the largest main commodity group on the export side in 2002, on the import one in 2005, with turnover shares of 44% (this was only 9% and 17% in 1994). Machinery and transport equipment are the most important main commodity group ever since, except for a few years, representing in both trade directions more than half of the turnover (their share, together with manufactured goods is close to 90% in the average of the export and import).

The commodity group with the largest turnover is unchanged in export since 2009, as can be seen on Table 3, while on the import side the telecommunications, sound recording and reproducing apparatus and equipment surpassed in 2022 the previous 23 years' number one, namely road vehicles' turnover.

Table 3 Commodity groups with the largest turnover in the trade of goods between Hungary and Czechia (based on the UN Standard International Trade Classification (SITC) double-digit groups)

Year	Export	Import
1994	Petroleum and petroleum products	Coal, coke and briquettes
1995–1997	Medical and pharmaceutical products	
1998	Power generating machinery and equipment	Iron and steel
1999–2007		
2008	Telecommunications and sound recording and reproducing apparatus and equipment	Road vehicles
2009–2021		
2022	Electrical machinery, apparatus and appliances	Telecommunications and sound recording and reproducing apparatus and equipment

Source: For the 1994–2002 period the HCSO Statistical Yearbook of External Trade, for the 2003–2022 period the HCSO databases

Lithium-ion batteries for electric cars represented in 2022 the volume boosting products of the electrical machinery, apparatus and appliances commodity group, the most important one on the export side. Within the commodity group recording the largest turnover on the import side, i.e. the telecommunications and sound recording and reproducing apparatus and equipment, smart phones showed the most significant trade volume in 2022. Hungary had in the road vehicles group, including parts and accessories, too, a larger import only with Germany than with Czechia in 2022 as well. The importance of this commodity group is important also on the export side, being constantly since 2013 on the second place of the turnover. Within the group vehicle parts and accessories' trade value was in 2022 more than one-and a half times larger than that of road vehicles in both directions of the turnover. This structure is significantly different than in the case of all countries, where the situation is essentially reversed: export value of passenger cars surpassing by 57% that of parts and accessories. However, there is no surprise in the fact that Hungary is exporting a relatively small number of vehicles to Czechia, as in 2022 the four car factories in Czechia (Hyundai, Toyota and two Volkswagens) produced 1.2 million cars, placing Czechia, following Germany and Spain, in the third place regarding car manufacturing in the EU. The leading commodity group in export between 1997–2007, that of power generating machinery and equipment is worth mentioning, too, as being closely linked to car manufacturing, and it contains internal combustion engines. Cars related turnover is not limited to the machinery and transport equipment main commodity group however; it does include manufactured goods, too, for example car tires from the rubber manufactures group.

The bilateral trade consists almost exclusively of goods produced by manufacturing industry, their proportion in 2022 was 96% in both trade directions. The bulk of the turnover, however, is not executed by industrial, rather by commercial companies, their share from the total import was 58%, from the export 42% in 2022. In the last years commercial companies represented a larger proportion in our import, namely 57% in the average of the 2019–2022 period, in contrast with the 44% of the 2010–2018 one.

Two import data sets are available since 2009 (see Figure 3) as the HCSO is gathering data not only about the import coming from Czechia (this is used for calculating the balance) but (once again) about the goods originating from Czechia.⁴ Regarding the years of the 2009–2022 period, the value of goods

⁴ Goods are of Czech origin if they have been produced, extracted or processed in Czechia. If goods have been manufactured in several countries, they are considered of Czech origin if the last main processing operation took place in Czechia.

Table 4 The structure of the external trade with Czechia based on product as well as company's division classification, averages of 2019–2022 (%)

	Export		Import	
	Product	Company	Product	Company
Manufacturing (C)	96.9	55.6	97.4	39.1
out of this:				
Manufacture of food products, beverages and tobacco products (CA)	7.5	5.0	5.8	2.4
Manufacture of chemicals and chemical products (CE)	6.9	3.2	8.7	2.9
Manufacture of pharmaceuticals, medicinal chemical and botanical products (CF)	6.7	2.6	1.0	0.6
Manufacture of rubber and plastics products, and other non-metallic mineral products (CG)	5.8	3.8	7.3	2.9
Manufacture of basic metals and fabricated metal products, except machinery and equipment (CH)	6.4	5.8	9.3	3.1
Manufacture of computer, electronic and optical products (CI)	7.3	1.9	18.3	1.7
Manufacture of electrical equipment (CJ)	20.4	12.1	8.5	1.4
Manufacture of machinery and equipment n.e.c (CK)	5.1	1.8	8.5	1.1
Manufacture of transport equipment (CL)	21.7	17.0	20.9	20.0
The other (5) manufacturing subsections total	9.1	2.4	9.1	3.0
Wholesale & retail trade; repair of motor vehicles (G)	–	42.7	–	57.3
Other sections	3.1	1.7	2.6	3.6

Source: HCSO database

dispatched from Czechia to Hungary was at least 30%, at most 54% more than that of the ones based on origin, considering the average of 14 years the difference is 42%. (This difference is partly moderated by the fact that the HCSO could not always obtain country of origin-based data. If we allocate the missing turnover between countries according to the ratio by available data, then in the average of 2009–2021 our Czech import by sending country was not 40% but 32% more compared to the country of origin consideration.) The value of Hungarian import from Czechia (of any origin) in 2022 was EUR 2.4 billion (50%) more than the value of Czech origin goods coming from any country in the world. The largest value of goods Czechia is distributing to Hungary are goods of Chinese origin (EUR 847 million in 2022), which is more in itself than Czech origin goods delivered to Hungary from all countries in the world (EUR 393 million). (In conclusion only 8% of Czech origin goods came from other country into Hungary than from Czechia). The difference between the two import datasets was less prior to 2022, about EUR 1.5 billion. Table 5 enlists the commodity groups showing the largest value differences in 2022.

Figures 4–5 show the main characteristics of the BEC (Broad Economic Categories) Rev. 4. nomenclature based structure of the commodity exchange with Czechia. Four among the approximately twenty BCE groups are worth mentioning regarding both trade directions, these represent jointly two-thirds on the export side and close the same size on the import side of trade. The “parts and accessories of transport equipment” was the group with the largest turnover in the Hungarian export toward Czechia in 2020–2022, similarly to the 2002–2008 period. Their export fell back from the EUR 670 million in 2007 to EUR 333 million in 2009 and only the 2016 results (EUR 689 million) surpassed the pre-crisis level. The 2022 export value was EUR 1.7 billion, the average growth rate for 2014–2022 was 16%, 2022 showing the largest increase (31%). An opposing example is the “capital goods (except transport equipment)” category

Table 5 Commodity groups where the import arriving from/originating from Czechia shows a difference of at least EUR 100 million in 2022* (based on the UN Standard International Trade Classification (SITC) double-digit groups)

Commodity group	Import from Czechia	Import of Czech origin
	(million EUR)	
Telecommunications and sound recording and reproducing apparatus and equipment	1 170	410
Office machines and automatic data processing machines	332	30
Electrical machinery, apparatus and appliances	758	497
Road vehicles	1 150	903
Essential oils, perfume materials, cleaning preparations	217	95

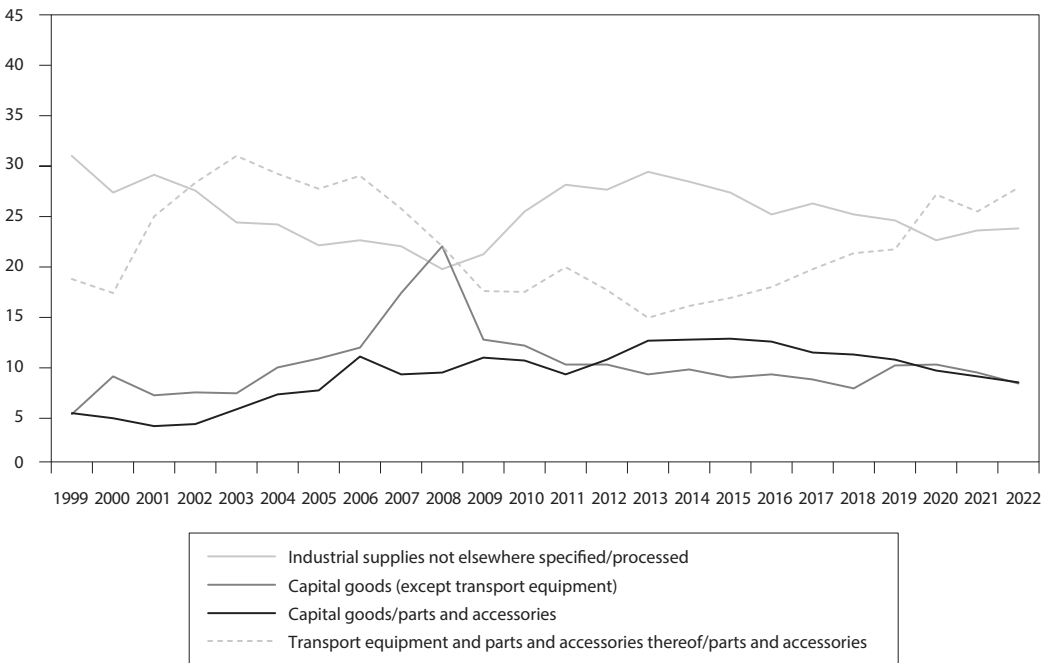
Note: * there is no data available regarding the country of origin in 2022 for 6.8% of the total Hungarian import or EUR 10.2 billion in value. Part of this missing data may increase the Czech origin turnover of the commodity groups from the table.

Source: HCSO database

where the export grew from EUR 54 million to EUR 637 million between 2003 and 2008, however a sharp decrease came about in 2009 and it reached only EUR 475 million in 2022. The export of “non-durable consumer goods”, - not on the diagram, - broadened by 35% in 2022, reaching a turnover share (8%) as large as one of the “capital goods” groups, represented on the chart.

The turnover of the third most significant group on the import side “parts and accessories of transport equipment” grew in 2022 by 52% to EUR 1.4 billion, a record high flow of goods. In spite of the import

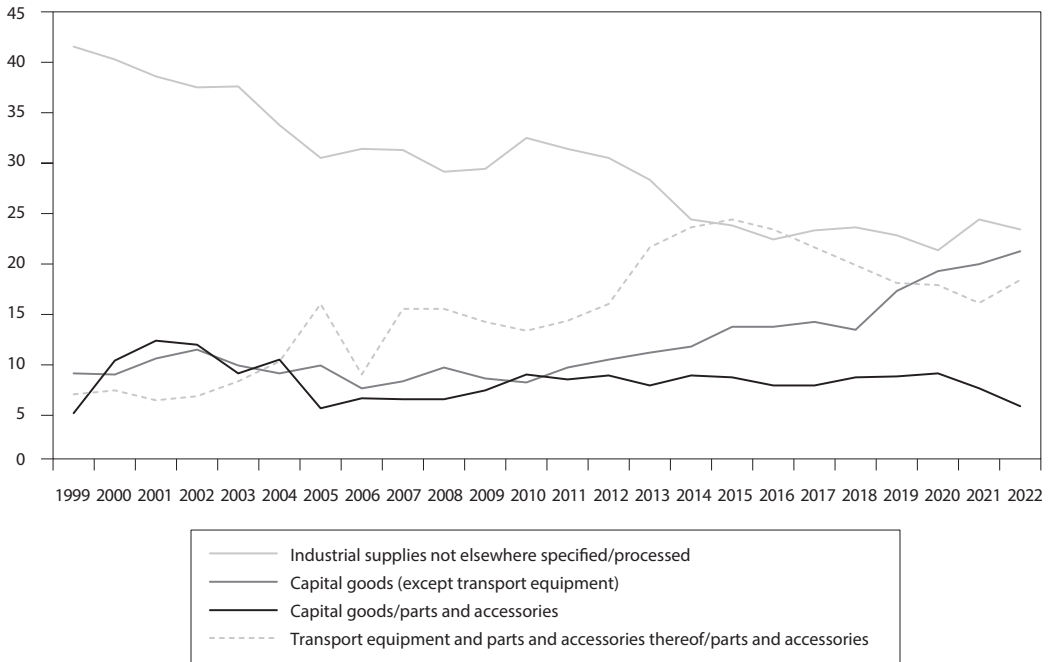
Figure 4 The structure of the Hungarian export to Czechia by the groups of the BEC Rev. 4 nomenclature (percentage share of the main groups in the export of the given year)



Source: Own calculations based on „DS-057555 – EU trade since 1988 by BEC/rev.4“ Eurostat database

hike there was still an EUR 307 million Hungarian surplus, the largest among the BEC groups. In the case of the second largest import group from turnover point of view the “capital goods (except transport equipment)” the value of arrivals grew by 40% in 2022, as a result its balance deteriorated in the largest extent (EUR 432 million) and its deficit was also the largest among the groups (EUR 1.1 billion). The most significant import group in 2022, too, was the “industrial supplies, processed, n.e.s.” with a turnover growth from EUR 1.4 billion in 2021 to EUR 1.7 billion in 2022.

Figure 5 The structure of the Hungarian import* dispatched from Czechia by the groups of the BEC Rev. 4 nomenclature (percentage share of the main groups in the import of the given year)



Note: * data by origin for 1999–2002.

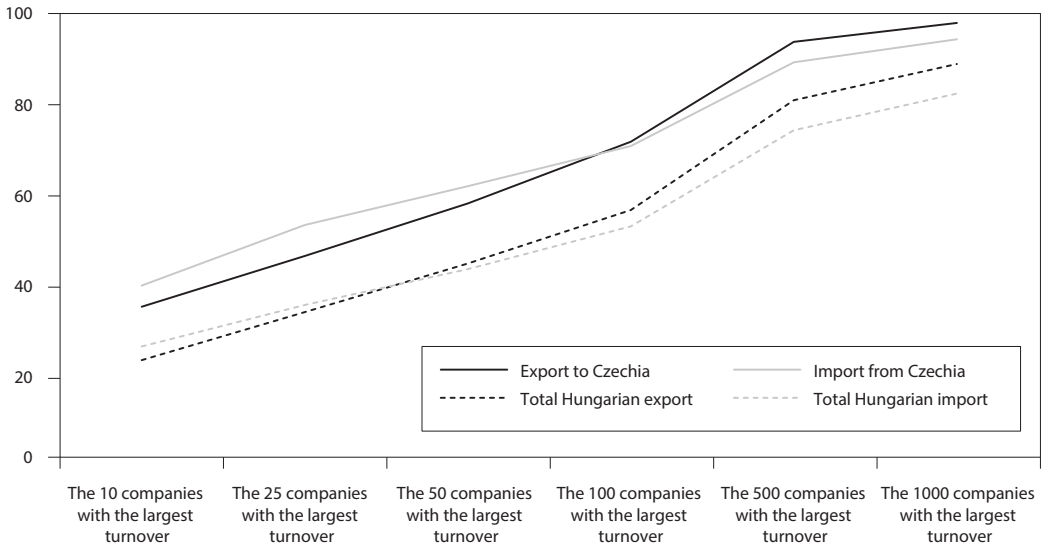
Source: Own calculations based on „DS-057555 – EU trade since 1988 by BEC/rev.4” Eurostat database

Corporate concentration is significantly stronger in the external trade of Hungary with Czechia than in the total turnover. This fact contradicts our expectations, as the vicinity of the two states gave the impression that smaller Hungarian dealers may reach a greater share in this relation than in the total export or import. Interestingly the concentration of export overtakes that of import in both the Czech and the world context after taking into account a relatively small number of enterprises. The shift occurred in 2022 after the corporation with the 86th and the 39th largest turnover, respectively.

The Hungarian external trade in services with Czechia is one order in magnitude smaller in value than the external trade in goods. The value of our 2019 turnover with Czechia was 2.6 times the 2008 one, while the average growth rate of all countries of the world is 1.8-fold. The Czech turnover – in contrast with the total turnover – increased even in the 2009 crisis year.

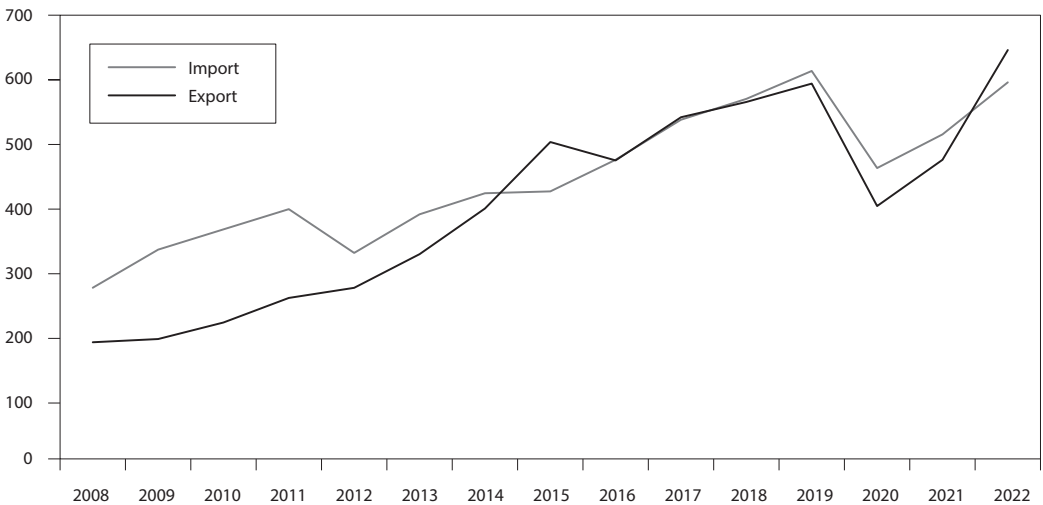
We observed a significant setback in 2020, a year loaded with the Covid19 pandemic, the bilateral turnover shrunk from EUR 1.2 billion to EUR 857 million. This change, surpassing the total turnover decrease, is in line with the fact that tourism has a more significant role in the turnover with Czechia

Figure 6 Company concentration in Hungarian external trade of merchandises, 2022 (%)



Source: Own calculations based on HCSO data

Figure 7 Hungary's external trade in services with Czechia (million EUR)



Source: The HCSO database

than in the average of all countries, and this division was severely affected by the pandemic related restrictions. Turnover expanded in 2021, however, it still lagged behind considerably the pre-pandemic 2019 level. Trade was 3% larger than its three years earlier amount, this pace, however, is 4 percentage points less than the growth in relation to all partner countries. In 2022, tourism had a 20% share in our external trade in services with Czechia, this was 8 percentage points less than in 2019, and 5 percentage points more regarding total turnover.

Table 6 Distribution of the external trade in services with Czechia by groups of services (% , calculated from EUR data)

Group of services	Export		Import	
	2012	2022	2012	2022
Transportation	21.4	28.9	23.0	33.6
out of this:				
maritime transportation	0.1	5.5	0.5	8.0
air transport	8.0	5.9	10.5	2.0
road transport	9.1	10.1	7.7	13.2
Tourism	34.0	26.2	28.8	12.6
Business services	43.3	44.3	47.4	51.6
out of this:				
other business services	29.6	28.5	32.2	34.6
out of this:				
management consultancy and PR-services	14.3	14.8	13.9	12.9
personal, cultural and entertainment services	4.8	7.5	5.8	4.4

Source: HCSO database

2 DEVELOPMENT OF THE CZECH-HUNGARIAN FDI (FOREIGN DIRECT INVESTMENT)

The European Union's framework (the base principle of free movement of capital, people, goods and services) is an unprecedented historical opportunity for the Central-European economic cooperation. Although Czech-Hungarian economic relations are evolving, there are still untapped potentials in this respect in comparison with other countries of the region.

In addition to trade relations the economic interconnection of two states is realised by FDI, too. The OECD definition states: Foreign direct investment (FDI) is a category of cross-border investment in which an investor resident in one economy establishes a lasting interest in and a significant degree of influence over an enterprise resident in another economy (OECD, 2008: 17). HCSO defines FDI as a long term, lasting investment realised in a different country than the direct investor's one (in an enterprise operating through direct investment). The lasting interest is long term and means a close relation between the direct investor and the company, significantly impacting the company management (HCSO).

There are many studies regarding the impact on FDI receiving countries, with diverging results, there is no consentaneity in the international literature. The literature does, however, highlight the major importance of technology.

A great number of studies concluded that FDI has a beneficial impact on the economy, as the capital arriving in the receiving country brings high-tech, which, in its turn, comes into general use in the given economy, increasing productivity and output, by more efficient use of the resources (Tőkés, 2021). Blomström–Kokko (1997) also concluded that foreign owned enterprises may have a positive influence on the economic performance of the receiving economy. Borensztein et al. (1998) studied developing countries and stated that technological catching up may – in part – bring about their development. Convergence may be speeded up if developed countries hand their high tech over to the developing ones through FDI. Large multinational corporations (MNC) spend usually a lot on research and development (R&D), their technological development is advanced and productivity is higher than that of their smaller competitors. MNCs are able to “export” their knowledge to the receiving countries (Borensztein et al., 1998). This knowledge flows through vertical and horizontal connections and by participating in the R&D, into the host country's economy (OECD, 2002).

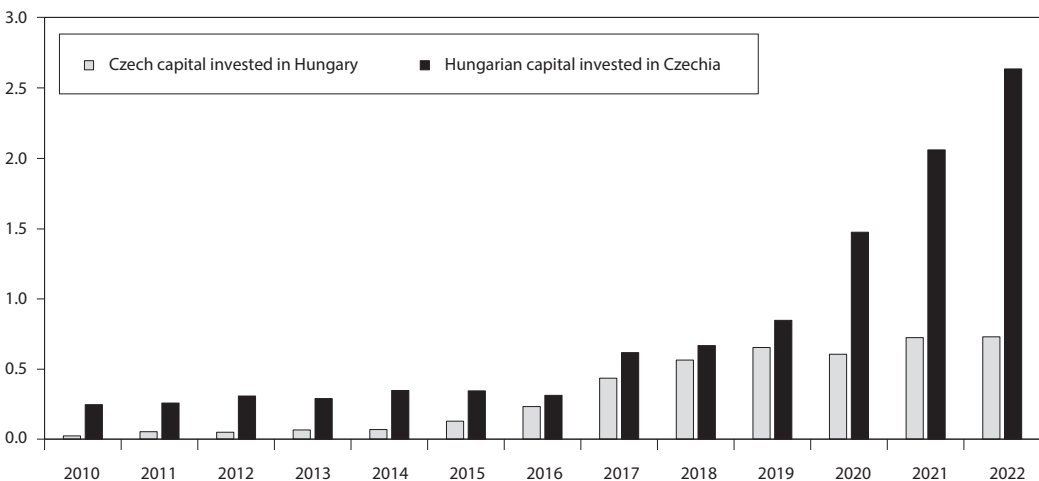
According to Lankes–Venables (1996) FDI may increase the production capacity of capital- and investment-poor receiving countries, could improve productivity and may speed up their economic development, could bring technology and know-how into the receiving economy, management and marketing knowledge, techniques to local companies by cooperating with these. May develop markets, the attitude and culture of local economic actors. These positive impacts, however, are not self-acting. Foreign owned companies may become isolated islands in the local economy, having few contacts with local economic actors. Also, these may “freeze” the low local technological development by activities of shallow added value. Excessive specialisation may occur in the receiving economy if only a few products are manufactured locally, increasing economic vulnerability from world economic processes and business cycles points of view.

Borensztein et al. (1998) stated that FDI was a major tool in transfer of technology, however, its potentials could only be used if the receiving country’s human potential reaches a certain level, as new technologies require human knowledge and qualification.

All in all, many studies deal with FDI’s impact on the economy. European central banks, overseeing financial markets, and statistical authorities offer reliable data for performing valid examinations based on international standards. The next part of this study reviews the Czech-Hungarian FDI development starting from 2008 based on these data, information.

Czech FDI stock has been growing continuously in Hungary since 2008⁵ (except for 2012 and 2020), considering the country of the final investor, in 2022 it came close to EUR 728 million, being 32 times more than in 2010. The stock grew most dynamically in 2011, 2015 and 2017. In spite of the increasing volume still only 0.8% of Hungary’s 2021⁶ FDI came from Czech enterprises (this ratio was 0.1% ten years ago), placing it on the 15th place in the European countries’ ranking.

Figure 8 Direct investment stock (at the end of the year) in billion EUR



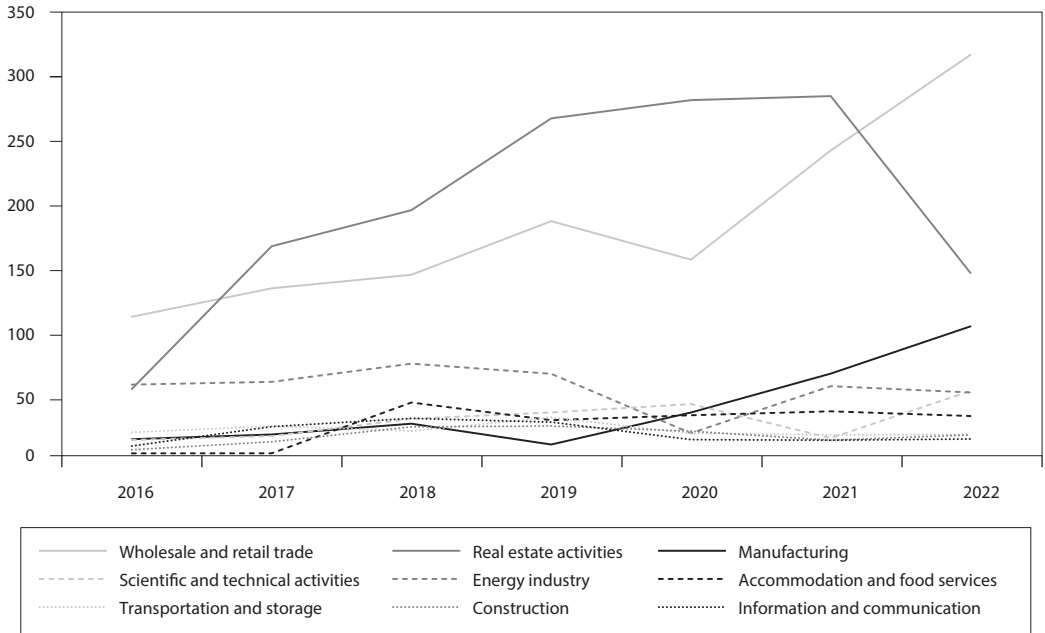
Source: Own design based on the data of the National Bank of Hungary

⁵ The examination of the data at the sector-level is based on TEÁOR’08, introduced in 2008 and valid ever since. The period under study is starting with 2008, as previous data are based on earlier TEÁOR versions and their comparability is restricted.

⁶ The 2022 value of the total FDI stock in Hungary was not available at the time.

By the end of 2022 Czech enterprises invested 78% of their capital in the services sections in Hungary. Trade took up 43% of their capital stock, real estate activities one-fifth, manufacturing 14% of it. Food industry, part of manufacturing, represented 9.9% of the Czech capital. 6.8% went into science and engineering activities, 6.6% into energy industry.

Figure 9 Changes in the Czech direct investment stock in Hungary by sections (in million EUR)

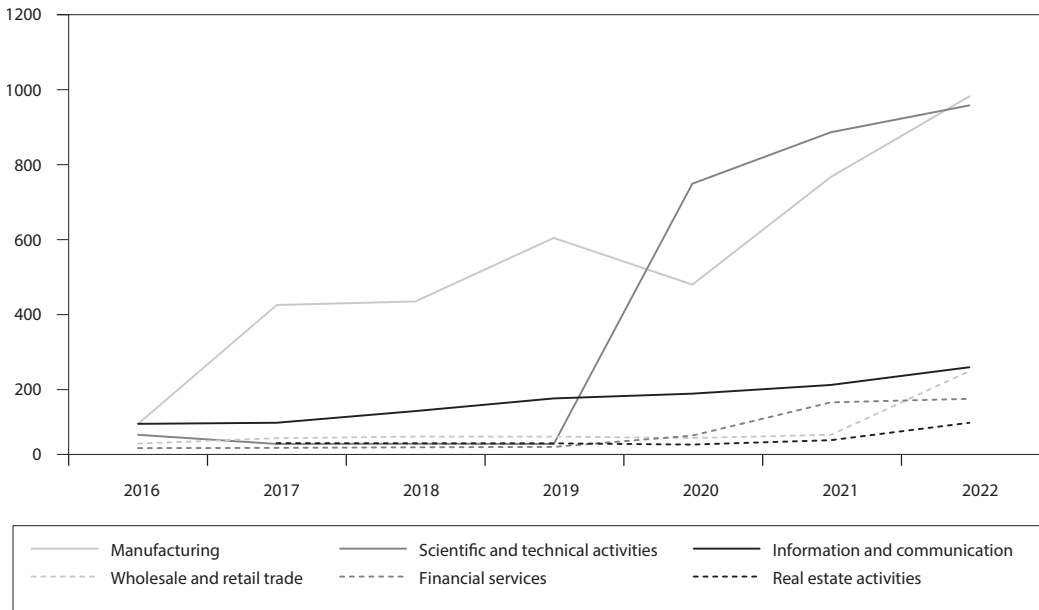


Source: Own design based on the data of the National Bank of Hungary

Hungarian enterprises' FDI stock in Czechia has also grown continuously since 2008 – except four years of setback – and surpassed by the end of 2022 EUR 2.6 billion. This was 3.6 times more than the Czech enterprises' FDI stock in Hungary and represented a 11-fold increase compared to the 2010 value. The stock almost doubled in 2017, year-on-year, also surpassed in 2020 by almost three quarters the 2019 one. Czechia was the country of destination for 5.9% of Hungarian owned FDI stock in 2021⁷ (this ratio was only 1.2% ten years ago), granting among the European countries' ranking the honourable 5th place. Only the Netherlands, Cyprus, Croatia and Slovakia showed a larger capital investment amount than Hungary.

Based on the capital size of 2022, Hungarian enterprises invested 63% of their capital placed in Czechia in services sections. The remaining 37% served manufacturing development, where the stock, more than doubling since 2020, came close to EUR one billion. Within manufacturing the production of computers, electronics and optical products, production of chemicals as well as vehicle production were the most appealing investments for Hungarian companies. Scientific and technical fields were close behind manufacturing, where 2020 was a year of very significant investments and Hungarian capital investments are outstanding ever since.

⁷ The value of the total Hungarian FDI stock for 2022 was not available at the time.

Figure 10 Changes in the Hungarian direct investment stock in Czechia by sections (in million EUR)

Source: Own design based on the data of the National Bank of Hungary

3 CZECH SUBSIDIARIES IN HUNGARY

The weight of Czech subsidiaries is not significant in the Hungarian economy on its own, among foreign controlled companies, however, their importance is non-negligible.

There were 284 companies controlled from Czechia in Hungary at the end of 2008. Their number shrunk to 210 by the end of 2010, then starting to increase once again reached 351 by the end of 2020, representing 2.3% of the total subsidiaries controlled from abroad, compared to 1.5% in 2008.

Turnover of Czech enterprises operating in Hungary – at current prices – surpassed each year, except two, the previous year's level in the period starting in 2008, at the highest extent (by 65%) in 2014. There was, however, a 23% setback in 2009 and 2020. While Czech companies' turnover represented in 2008 only 0.4% of the total of all foreign controlled enterprises operating in Hungary, this ratio reached 1.1% in 2020, its value surpassing EUR 1.7 billion.⁸

Production value at the very same companies changed in a similar way with the turnover, but in this case, there were four years of setback. Czech companies generated 0.8% of the production value of foreign controlled enterprises operating in Hungary in 2020, representing a 0.6 percentage points growth compared to 2008. Production value in 2020 was EUR 819 million, falling back by almost one-third in proportion to 2019.

The value added of Czech companies operating in Hungary – at factor cost – changed in a similar way as did the turnover and the production value. Their 2008 performance was only 0.3% of all foreign controlled companies' value added, growing by 2019 to 1.4%, and decreasing in the next year by a half. The 2020 value added realised by Czech companies, EUR 236 million, fell, at current price, by 46% compared to 2019.

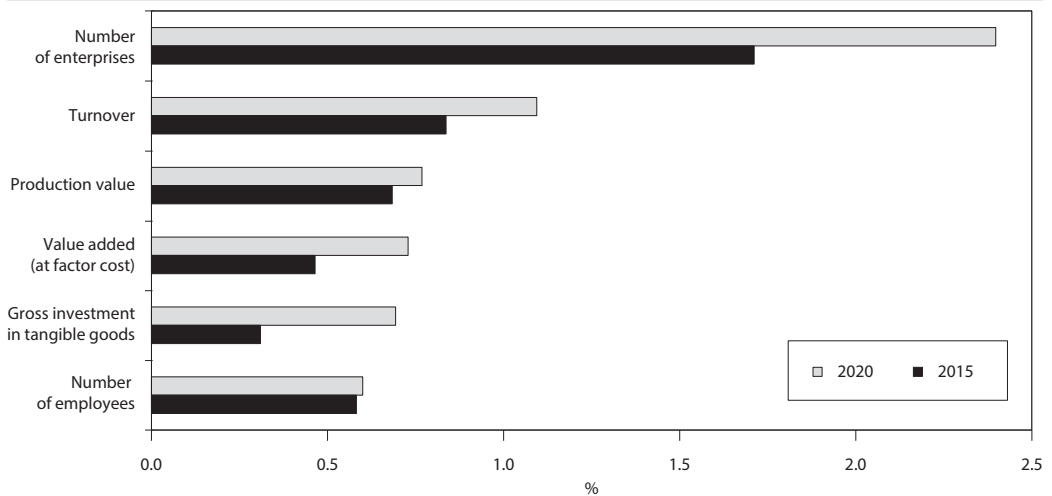
⁸ Calculated at the 2020 average exchange rate of HUF 351.17/EUR of the National Bank of Hungary.

Their value added producing capability, at value added per employee index, was still higher (EUR 53.550) than the average of foreign subsidiaries (EUR 46.413). The 15% positive difference is a great improvement considering the base year of the data series, when the performance of Czech subsidiaries lagged behind the average by 45%.

Czech companies participated in 2008 in the gross investment in tangible goods of foreign enterprises by 0.1% only. This ratio increased to 0.7% by 2020. Czech companies operating in Hungary spent about EUR 68 million on development in 2020, at current prices 22% more year-on-year.

The number of employees at Czech enterprises, being more and more active in Hungary, grew from 2 975 people in 2008 to 4 409 in 2020 (coming close in 2018 to 5 500). The 48% increase in employee numbers at Czech companies excelled the foreign enterprises' 12% headcount-growth average. They gave by this 0.6% of the employees of foreign controlled companies in 2020, 0.1 percentage point more than in 2008. A foreign controlled enterprise in Hungary employed 33 people on average in 2008, this number at a Czech one was 10 on average. The foreign average reached 46 people in 2020, the Czech one grew to 12. The difference is due to the fact that Czech companies operating in Hungary are usually small and medium size.

Figure 11 Share of Czech-controlled subsidiaries in Hungary within total foreign-controlled enterprise population*



Note: * based on data of non-financial enterprises operating in Nace rev 2 sections B.

Source: Own design based on the data of the Hungarian Central Statistical Office

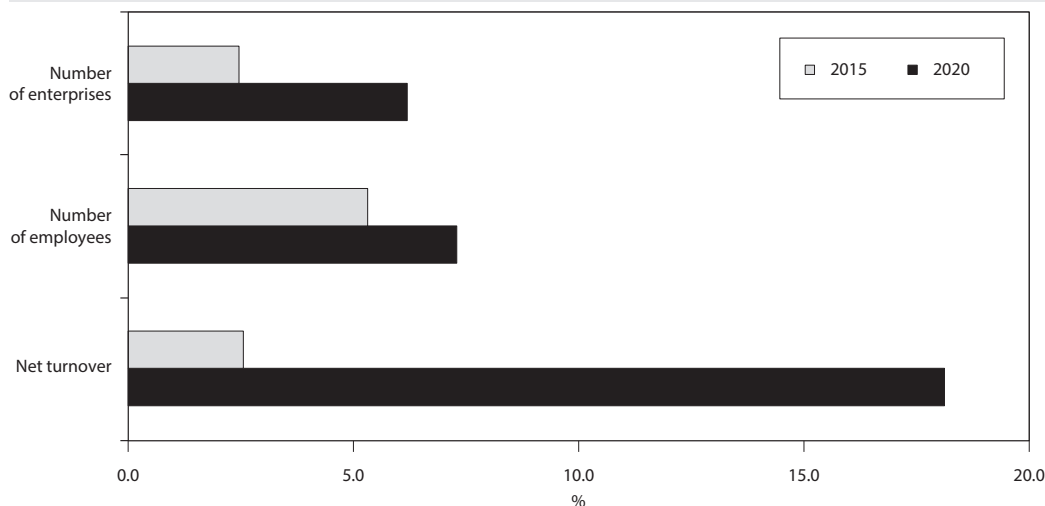
4 HUNGARIAN SUBSIDIARIES IN CZECHIA

Czechia had as of late in 2018 the largest number of Hungarian controlled subsidiaries, approximately 18 (6.2% of the total number of Hungarian controlled subsidiaries abroad by legal units), twice as many as in 2008, the start year of the period under study. 4 of them were active in the information and communication, and 3 in the field of scientific and technical activity. The number of Hungarian controlled subsidiaries did not grow in a calculated way, as statistics only registered three of them in 2019.

The previously mentioned 18 subsidiaries employed 1 722 people in 2020, the most of them (2 026 people) joined the 10 then existing enterprises in 2009. Their proportion in all those working at Hungarian controlled subsidiaries operating abroad was the highest in 2010 (8.8%), during the period under study and reached 7.3% in 2020. One quarter of employees performed scientific and technical activities, 19% have been employed by the energy industry.

Subsidiaries operating in Czechia, under Hungarian control reached EUR 2.6 billion⁹ turnover in 2020, representing 18% of the total turnover realised by all Hungarian controlled subsidiaries operating abroad. This ratio was only 5.8% in 2008, and 6.9% on average between 2008 and 2020. (Based on available data, Hungarian companies operating in Czechia had an extremely low turnover in 2019, compared to the previous years.) Turnover of Hungarian companies working in Czechia came from the energy industry in a proportion of 52%, and from trade, 43% during 2020.

Figure 12 Share of Hungarian-controlled subsidiaries operating in Czechia within all Hungarian-controlled subsidiaries operating abroad*



Note: * based on data of non-financial enterprises operating in sections B-N based on TEÁOR'08 as well as in division S95.

Source: Own design based on the data of the Hungarian Central Statistical Office

The investments of the MOL are outstanding among the Hungarian enterprises' investments in Czechia, operating more than 300 gas stations, while MVM – through its subsidiary – provides natural gas and electricity for about 1.6 million Czech consumers.

Considering announced future investments, further increases may be expected in economic relations and investments, the Czech Nymwag Hungary Kft.'s railway vehicle manufacturing company in Nagykanizsa, a brownfield project stands out among these. It is going to provide employment to close to 1 500 people. The group of companies is also placing a research and development base near the factory equipped with high-end technology, this investment will be worth close to EUR 156 million;¹⁰ according to plans 1800 freight cars and 4 800 railway carriages are going to be built here yearly. This development may be of great importance as the next 10 years could be the great decade of European railway development, being significantly more energy efficient and environmentally friendly than road transport. More than that, economic success of a country is highly dependent on logistics, inconceivable without modern railway.

The two countries' relations broaden in the arms industry, too. A joint handgun company has been established by the state owned Hungarian N7 Holding and the Czech Colt Group in Hungary. The factory is going to provide the Hungarian Army with firearms.

⁹ Calculated at the 2020 average exchange rate of HUF 351.17/EUR of the National Bank of Hungary.

¹⁰ Calculated at the February 2023 average exchange rate of HUF 384.91/EUR of the National Bank of Hungary.

In the light of direct investments and the operation of subsidiaries it may be stated that the Czech-Hungarian economic relations are continuously growing, developing. Given the relatively small number of subsidiaries there are significant fluctuations in the bilateral economic relations, unfortunately. The appearance or disappearance of a larger weight carrying economic actor may induce hectic movements. This is the reason why the diversifying of relations would be of tremendous significance in the stability of economic connections.

CONCLUSION

The first part of the study is dealing with the trends of the external trade between Czechia and Hungary, based on the data of the Hungarian Central Statistical Office, considering the last three decades regarding the trade in goods and the last one-and a half one in the case of the trade in services. Processes are examined in EUR throughout the study, evaluation is therefore exempt from HUF exchange rate changes – devaluation, characteristically. Following the regime change both countries suffered transformation setback, as a result Czechia participated in a small, 2% proportion in the goods turnover of Hungary during the 90s. Its share grew to 4.5% by the 2020s, and it is among the 10 most significant partners of Hungary in both trade directions. The structure of goods underwent a major change in time, the “machinery, transport equipment” main commodity group outrun the manufactured goods. Car industry products, occasionally not even from the “machinery, transport equipment” main commodity group, carry a big proportion in the trade of goods as such the crises affecting automotive industry have a greater impact on the Czech-Hungarian turnover than on the total Hungarian trade. Turnover in parts and accessories carries a greater value within car industry commerce than that of cars. It has been stated that the four largest turnover producing commodity groups, based on the BEC nomenclature, are the same in both trade directions. According to the most recent OECD data the Czech manufacturing industry exports to Hungary has a greater added value content than the Hungarian exports to Czechia (51% and 44% in 2018). Concentration of enterprises is stronger in relation with Czechia than in the average of all relations, this fact – considering the closeness of the markets – gives scope for a greater participation for SMEs in the commerce. In the average of 2019–2022 trade in goods consisted in 97% products of manufacturing industry, however, based on the classification of foreign trade enterprises, the role of the commerce division is significant (43% in exports, 57% in imports). As far as imports is concerned: the 2022 turnover coming from Czechia surpassed considerably (by EUR 2.4 billion or 50%) the Czech origin imports (coming from any country in the world). Czechia mediated to Hungary in greatest value Chinese origin goods last year. External trade in services with Czechia has a one order of magnitude smaller value than that of goods, its expansion between 2008 and 2022, however, had a faster pace than the total service trade of Hungary and surpassed the growth of the turnover of goods in relation with Czechia as well.

According to the data of National Bank of Hungary the Hungarian FDI stock invested in Czechia was EUR 2.6 billion, the Czech FDI in Hungary EUR 0.7 billion at the end of 2022. 37% of the Hungarian FDI in Czechia was invested in manufacturing, 43% of the Czech one in Hungary in trade. Based on business demography data at the end of 2020 there were 354 enterprises in Hungary controlled from Czechia. These had 4.4 thousand employees, value added per employee (EUR 53.6 thousand) was already 15% more than that of an average foreign subsidiary. Also at the end of 2020 there were only 18 subsidiaries in Czechia managed from Hungary, where 1.7 thousand people were employed. Their net sales revenue was EUR 2.6 billion in 2020, representing 18% of all revenues from Hungarian subsidiaries operating abroad. More than half of their sales revenue in Czechia came from the energy industry, 43% from trade. The MVM energy company, through its Czech subsidiary, provided natural gas and energy services for approximately 1.6 million consumers.

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