

12 August 2024

# Development of international trade in goods price indices in the Q2 2024

In the Q2 2024, compared to the Q1 2024, export prices increased by 0.6%. In the year-onyear (y-o-y) comparison, export prices increased by 3.7% in the Q2 2024. Import prices increased by 0.1% in the Q2 2024 compared to the Q1 2024. In the y-o-y comparison, import prices increased by 3.0% in the Q2 2024. The terms of trade reached the value of 100.5% in the Q2 2024 compared to the Q1 2024. In the y-o-y comparison, the terms of trade reached the value of 100.6% in the Q2 2024.

## Export prices

**Quarter-on-quarter** (q-o-q; in the Q2 2024 compared to the Q1 2024), export prices increased by 0.6%. Prices of electricity, gas, steam and air conditioning increased the most, by 5.3%. Prices of both wood and products of wood and cork, except furniture and prices of other transport equipment increased the same by 3.3%. The following decreased rather significantly: prices of coke and refined petroleum products by 2.2%, of other non-metallic mineral products by 1.7%, and prices of food products by 1.0%.

**Year-on-year**, in the Q2 2024, export prices increased by 3.7% (in the Q1 2024 by 0.7%). Prices of the following considerably increased: other transport equipment by 14.9%, furniture by 14.8%, and waste collection, treatment and disposal services by 9.4%. Mainly prices of the following decreased: electricity, gas, steam and air conditioning by 10.2%, products of forestry, logging and related services by 7.2%, and products of agriculture, hunting and related services by 4.9%.

## Import prices

**Quarter-on-quarter** (in the Q2 2024 compared to the Q1 2024), import prices increased by 0.1%. Especially increased the following: electricity, gas, steam and air conditioning by 3.3%, basic metals by 2.8%, and paper and paper products by 1.6%. Mainly prices of the following decreased: coke and refined petroleum products by 2.9%, leather and related products by 2.1%, other manufactured goods by 1.8%, and prices of other non-metallic mineral products by 1.6%.

**Year-on-year**, in the Q2 2024, import prices increased by 3.0% (in the Q1 2024 they decreased by 1.7%). The most considerable price increases were in other transport equipment by 13.3%, beverages by 10.7%, crude petroleum and natural gas by 9.0%, and coke and refined petroleum products by 8.1%. Significant price decreases were in electricity, gas, steam and air conditioning by 18.2%, wood and products of wood and cork by 3.3%, and other manufactured goods by 1.7%.

## The terms of trade

**Quarter-on-quarter** (in the Q2 2024 compared to the Q1 2024), the terms of trade reached the value of 100.5%. A significant positive value was reached by other transport equipment (104.4%), a negative value mainly by food products (98.3%).

**Year-on-year**, in the Q2 2024, the terms of trade increased to the value of 100.6% (in the Q1 2024 the value was 102.5%) and for the sixth successive quarter they sustained positive values – see the Chart No 2. A significant positive value was recorded by electricity, gas, steam and air

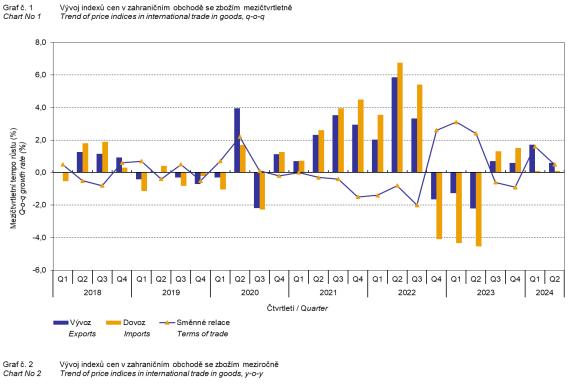
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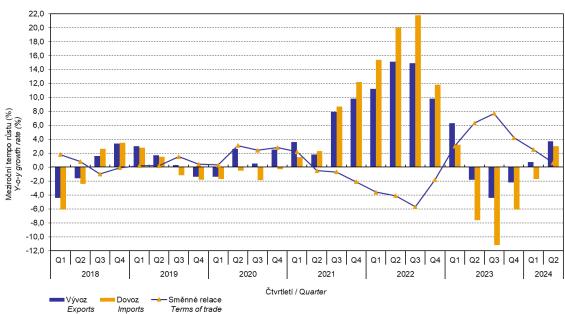


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# **ANALYSIS**

conditioning (109.8%) and a negative value mainly by fabricated metal products, except machinery and equipment (95.5%).





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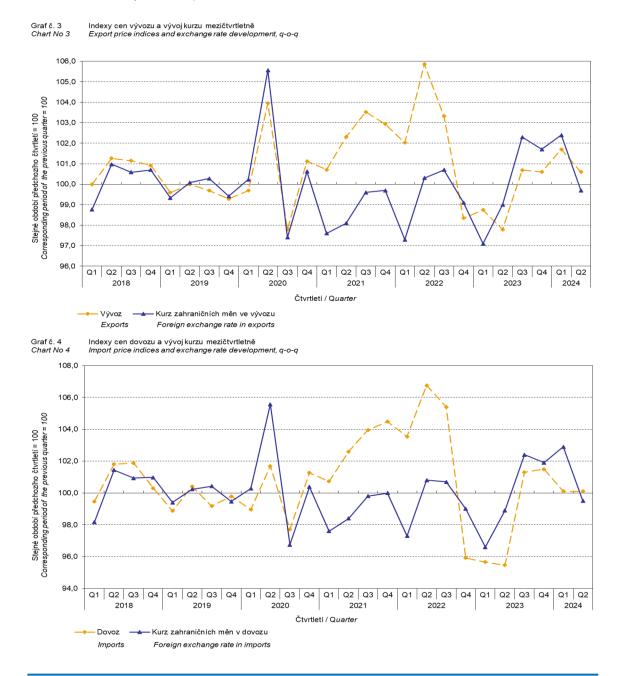
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The international trade in goods (change of ownership) price development was also significantly influenced by the CZK exchange rate to the major foreign currencies. All monitored foreign currencies have been included in the quarter-on-quarter exchange rate index. Q-o-q indices of the CZK exchange rate to these currencies were weighted by the respective weight, which pertains to those foreign currencies in the export price index and in the import price index (before the Q3 2023, only two most important currencies, i.e. EUR and USD, have been included; as of the Q3 2023, the calculation was refined by the inclusion of all currencies and it was calculated backwards to the year 2021).



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It is apparent from the Chart No 3 and the Chart No 4 above that in both exports and imports, international trade in goods prices have a relation to exchange rate effects. Contracts with foreign entities are usually concluded for a longer period of time and the longer the contract period is, the stronger the relation to exchange rates is.

# International trade in goods price indices, year-on-year, adjusted for exchange rate influence

The Czech Statistical Office (CZSO) also calculates year-on-year international trade in goods price indices adjusted for exchange rate effects. It is carried out as follows: prices in foreign currencies reported in the current month are **converted** to Czech crowns **by the exchange rate** of the same month **of the previous year**. Afterwards, they are used for the weighted mean calculation together with prices reported in CZK. This exchange rate adjusted base price index of a month is related to the non-adjusted base price index of the corresponding month of the previous year and thus the year-on-year adjusted price index for a month is calculated.

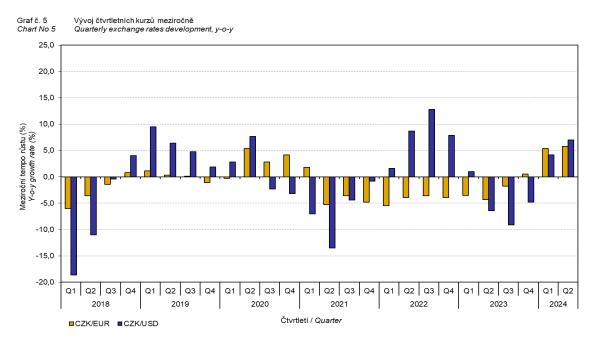
Since 2017, adjusted quarter-on-quarter price indices have been calculated similarly, too. **Differences between adjusted and non-adjusted price indices may be considerable**. They are obvious in the Chart No 6 and the Chart No 7, for example, in the Q1 2018 and in the Q2 2021. The employed method does not enable to make a 100% exchange rate adjustment because not all trade transactions made in foreign currencies are also reported in foreign currencies; the proportion does not exceed 30%. It follows from the aforementioned that **at the full exchange rate adjustment, differences** between the published price indices and the exchange rate adjusted price indices **would** probably further **increase**.

The exchange rate adjusted indices described above can also be used to make the exchange rate adjusted breakdown of increments of price indices. The Table 1 gives the **published and exchange rate adjusted breakdown of increments** of export and import price indices. The breakdown illustrates well how many percentage points each of the groups "exchange rate contributed" to the index.

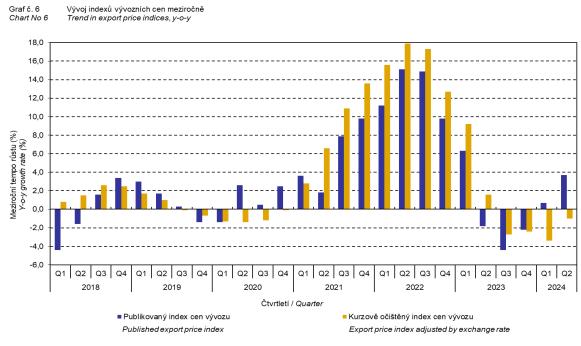
It is generally true that the exchange rate effect decreases the value of price indices in international trade in goods if CZK is strengthening to foreign currencies in total. Conversely, the exchange rate effect pushes the price indices up if CZK is weakening to foreign currencies in total.



The Chart No 5 below illustrates the CZK exchange rate to the two most important foreign currencies, i.e. to EUR and USD.

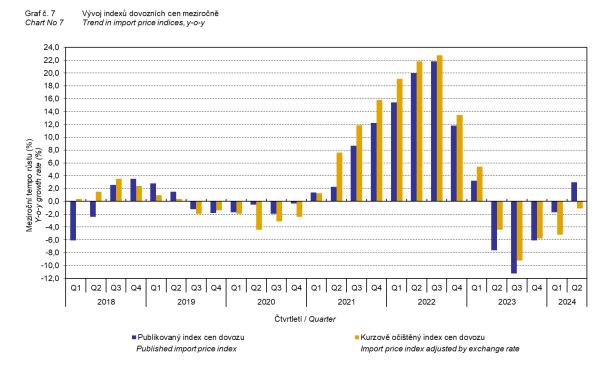


It is apparent from the Chart No 6 and the Chart No 7 below how significant the exchange rate influence of all monitored foreign currencies on the value of the export and import price indices was.

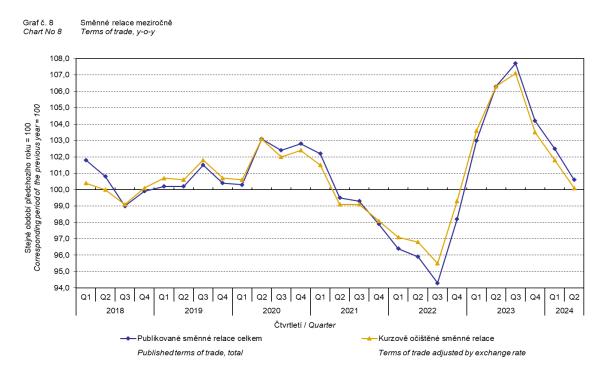


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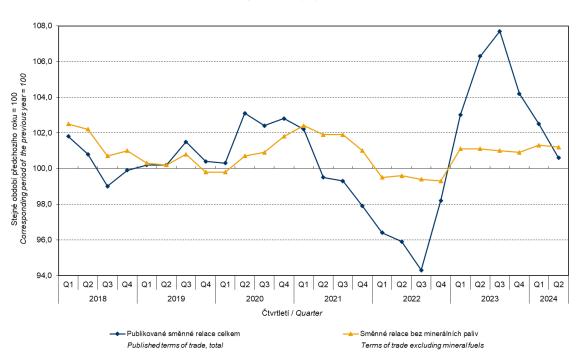


The Chart No 8 shows the exchange rate influence on the value of the year-on-year terms of trade.



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Graf č.9 Publikované směnné relace a směnné relace s vyloučením minerálních paliv meziročně Chart No 9 Published terms of trade and terms of trade excluding mineral fuels, y-o-y

The Chart No 9 shows the development of the value of the terms of trade when mineral fuels are excluded, i.e. two-digit divisions 05, 06, 19, and 35 of the CPA classification (which correspond to the 'mineral fuels, lubricants and related materials' = the SITC 3 section). In this chart, the effect of mineral fuels can be observed, which has an influence on the total value of the y-o-y terms of trade. Since the Q1 2023, mineral fuels were increasing the value of the terms of trade. However, in the Q2 2024, there was a turnabout and mineral fuels started to decrease the value of the terms of trade. Naturally, it is related to the world market price development, especially as for petroleum prices. Import prices, which have a higher proportion of crude materials (compared to export prices), respond in a more sensitive way to price turbulences. That is why the terms of trade are usually increasing when prices of crude materials are decreasing, and, vice versa, when prices of crude materials are increasing, the terms of trade are decreasing.

### **Final summary**

In the Q2 2024, the exchange rate effect increased, **year-on-year**, both the export price index and the import price index. Export prices were increasing faster than the import ones; therefore, the terms of trade reached positive values, **year-on-year**. After elimination of the exchange rate effect, the terms of trade were lower than the published terms of trade. Values free of the exchange rate effect correspond to the exchange rate adjusted indices – see the Charts Nos. 6, 7, and 8.



### Tabulka 1 Rozklad přírůstků publikovaných a kurzově očištěných indexů cen vývozu a dovozu za 2. čtvrtletí 2024 Table 1 Breakdown of increments of export and import price indices - published and exchange rate adjusted for Q2 2024

		Publikované				Očištěné o kurzové vlivy □					
CZ-CPA	Název		Published				Exchange rate adjusted				
	Name	Meziroční					Meziroční⊡				
	Wante	Year-on-year				Year-on-year					
		Q1/2024				Q2/2024	Q1/2024				Q2/2024
		Rozklad přírůstků indexů vývozních cen									
		Breakdown of increments of export price indices									
	Celkem										
	Total	0,7	4,9	3,3	2,9	3,7	-3,4	-1,5	-0,7	-0,8	-1,0
Α	Produkty zemědělství, lesnictví a rybářství										
A	Products of agriculture, forestry and fishing	-0,2	0,0	-0,1	0,0	0,0	-0,3	-0,1	-0,2	0,0	-0,1
в	Těžba a dobývání										
	Mining and quarrying	0,0	0,0	-0,1	-0,2	0,0	0,0	-0,1	-0,1	-0,2	-0,2
с	Výrobky zpracovatelského průmyslu										
	Manufactured products	2,6	5,6	3,6	3,2	4,1	-1,2	-0,2	-0,1	-0,2	-0,1
р	Elektřina, plyn, pára a klimatizovaný vzduch										
	Electricity, gas, steam and air conditioning	-1,9	-1,0	-0,2	-0,3	-0,5	-2,1	-1,3	-0,4	-0,5	-0,7
	Zásobování vodou; čin. souv. s odpad. vodami,										
E	odpady a sanacemi										
-	Water supply; sewerage, waste management and										
	remediation services	0,1	0,2	0,1	0,2	0,1	0,1	0,1	0,1	0,2	0,1
J	Informační a komunikační služby										
	Information and communication services	0,1	0,1	0,0	0,0	0,0	0,1	0,1	0,0	-0,1	0,0
		Rozklad přírůstků indexů dovozních cen									
		Breakdown of increments of import price indices									
	Celkem										
	Total	-1,7	3,5	2,7	2,9	3,0	-5,2	-2,2	-0,8	-0,4	-1,1
A	Produkty zemědělství, lesnictví a rybářství										
	Products of agriculture, forestry and fishing	-0,1	-0,2	-0,2	-0,2	-0,2	-0,2	-0,3	-0,3	-0,3	-0,3
в	Těžba a dobývání										
В	Mining and quarrying	-1,9	-0,1	0,5	0,8	0,3	-2,2	-0,8	0,1	0,4	0,0
с	Výrobky zpracovatelského průmyslu										
	Manufactured products	0,8	3,9	2,4	2,4	2,9	-2,2	-0,9	-0,6	-0,3	-0,6
D	Elektřina, plyn, pára a klimatizovaný vzduch										
	Electricity, gas, steam and air conditioning	-0,6	-0,3	-0,2	-0,2	-0,2	-0,7	-0,4	-0,2	-0,3	-0,3
J	Informační a komunikační služby										
	Information and communication services	0,1	0,2	0,2	0,1	0,2	0,1	0,2	0,2	0,1	0,1

Poznámka / Note:

V tabulce nejsou publikovány všechny sledované sekce CZ-CPA. / Only some selected sections of CZ-CPA are published.

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### The closing table gives published **non-adjusted** international trade in goods price indices.

# Tabulka 2 Indexy cen vývozu a dovozu ve 2. čtvrtletí 2024

Table 2 Export and import price indices in Q2 2024

CZ-CPA	Název Name	Stálé váhy roku 2021 (‰) 2021 constant	Stejné období předchozího roku = 100 Corresponding period of the previous year = 100					
		weights (%)	Q1/2024	04/2024	05/2024	06/2024	Q2/2024	
			Indexy vývozních cen Export price indices					
	Celkem							
	Total	1000,0	100,7	104,9	103,3	102,9	103,7	
Α	Produkty zemědělství, lesnictví a rybářství Products of agriculture, forestry and fishing	20,5	85,7	95,0	92,6	100,2	95,9	
в	Těžba a dobývání Mining and quarrying	3,2	89,6	89,5	83,6	83,4	85,5	
с	Výrobky zpracovatelského průmyslu Manufactured products	943,6	102,8	106,2	104,0	103,6	104,6	
D	Elektřina, plyn, pára a klimatizovaný vzduch Electricity, gas, steam and air conditioning	16,0	70,9	81,7	95,6	92,7	89,8	
E	Zásobování vodou; čin. souv. s odpad. vodami, odpady a sanacemi Water supply; sewerage, waste management and remediation services	12,0	103,3	103,8	109,5	115.4	109,4	
J	Informační a komunikační služby Information and communication services	4,7	100,0	103,7	99,1	95,5	99,3	
			Indexy dovozních cen Import price indices					
	Celkem Total	1000,0	98,3	103,5	102,7	102,9	103,0	
A	Produkty zemědělství, lesnictví a rybářství Products of agriculture, forestry and fishing	15,6	92,0	87,9	86,4	86,0	86,8	
в	Těžba a dobývání Mining and quarrying	52,5	81,0	98,1	106,6	111,3	105,1	
с	Výrobky zpracovatelského průmyslu Manufactured products	919,1	101,0	104,5	102,8	102,9	103,4	
D	Elektřina, plyn, pára a klimatizovaný vzduch Electricity, gas, steam and air conditioning	6,4	61,6	74,5	86,9	84,3	81,8	
J	Informační a komunikační služby Information and communication services	2,7	135,6	145,8	143,0	121,7	135,8	

Poznámka / Note:

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Note: For internal reasons, the Czech decimal comma is used instead of the English decimal point as a decimal separator in tables and charts of this analysis.

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