

5. Prices

Total price level sharply hiked up in the economy last year.

Total price level gauged by the GDP deflator rose by 8.4% in the Czech economy in year 2022. It represents the highest increase since year 1998. Prices of consumer goods were by 11.9% higher, while large differences prevailed between the household consumption (increase of price level by 16.3%) and government institutions (3.3%). Prices of capital goods were by 12.0% higher last year. The terms of trade were negative and attained 95.8%. Terms of trade with goods were 94.8%, while they were positive for services and reached 102.4%. The growth of the price level strengthened during the year and the year-on-year addition to price level arrived at 10.7% in Q4. In that prices of consumption rose by 12.7% (it was 18.0% for household consumption, 3.8% for consumption of government institutions). Prices of capital goods hiked up by 14.0% year-on-year. The terms of trade were negative in Q4 (97.3%) – terms of trade with goods totalled 96.9% and it was 99.1% in case of services. The price level declined by 0.5% quarter-on-quarter. Prices of consumption were by 0.9% lower compared to Q3, prices of capital goods stagnated (0.1%) and quarter-on-quarter terms of trade were slightly positive (100.1%).

Consumer prices were raised the most since year 1993.

The Consumer price index jumped by 15.1% in total in year 2022 and compared to year 2021 (3.8%) its growth sharply accelerated. It comprised the largest increase since year 1993. The growth of prices was all encompassing and in 7 out of 12 divisions of the consumer basket it was double-digit. Increase of cost of housing, water, energies and fuels (housing and energies), which contributed to the total increase from one third, impacted the price development the most in the last year. Food and non-alcoholic beverages featured the second highest contribution. There the price growth accelerated mainly in the second half of the year and it was focused into the areas of the most basic food. The strong increase of prices of transport and restaurants and hotels also had a considerable effect. Prices of goods were in total raised by 16.8% and services by 12.3% last year.

Year-on-year increase of the consumer prices slowed down in Q4.

Year-on-year growth of the consumer prices accelerated from Q1 to Q3 (11.2%, 15.8% and 17.6%) and mildly slowed down only at the end of the year. Consumer prices increased by 15.7% year-on-year in Q4 2022 itself. Compared to Q3 however they stagnated in total. Sharp jump of prices of food and non-alcoholic beverages added the most to the year-on-year growth. Prices of housing and energies, restaurants and hotels and transport also had a significant effect. Slowdown of the year-on-year contribution compared to Q3 was the result of moderation of the growth of prices of transport and also inclusion of the saving tariff and waiving the fee for the supported sources of energy into the cost of housing and energies. Notable strengthening of the dynamics of prices of food and non-alcoholic beverages prevented larger slowdown of the total growth. Prices of goods increased by 17.4% in total year-on-year in Q4 and prices of services by 12.9%.

Year-on-year growth of prices of energies as well as imputed rentals reduced towards the end of the year.

Prices of housing and energies increased by 19.0% in year 2022. In that prices of electricity, gas and other fuels grew the most (30.9%). Cost of maintenance and repair of dwelling also sharply hiked up (19.4%) and the imputed rentals also did not stay far behind¹ (16.1%). Rentals for housing went up by 4.9% last year, similarly to other services related to the dwelling. Year-on-year growth of prices in this division culminated in Q3 and weakened to 14.9% in Q4. Prices lowered here by 5.6% quarter-on-quarter. After inclusion of the effect of the saving tariff and waiving the fee for the supported sources of energies the year-on-year growth of prices of electricity, gas and

¹ Imputed rentals expresses the cost of owner living. Apart from prices of housing themselves, it also contains the cost of construction and renovation and further fees. More at: <https://www.czso.cz/csu/czso/methodological-note-to-consumer-price-index-imputed-rentals>.

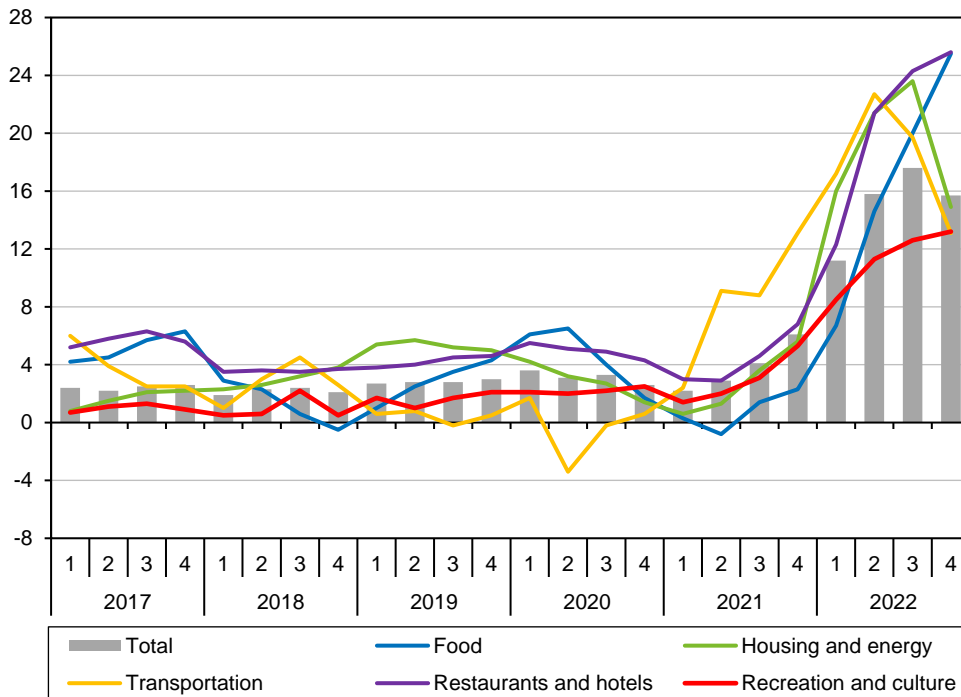


other fuels slowed down to 23.8%. Imputed rentals also grew slower in comparison to the preceding quarter (12.3%). Prices of regular maintenance and small repairs of the flat went up by 20.8% year-on-year, growth of rentals for housing mildly strengthened to 5.7% and prices of other services associated with housing were by 5.1% higher.

Year-on-year growth of prices of food considerably strengthened during the entire year and this division also contributed the most to the total growth of consumer prices in Q4.

Prices of food and non-alcoholic beverages went up in total by 16.7% last year. Because the fast growth of prices in the agricultural production was sensitively reflected in their development during the entire last year. The trio meat (growth of 16.7%), bread and cereals (21.7%) and milk, cheese and eggs (20.8%) thus the most contributed to the total increase of the consumer prices. Prices of oils and fats also rose steeply (38.6%). Fast acceleration of the year-on-year pace of the growth of prices manifested for food and non-alcoholic beverages during the whole year (6.7%, 14.6% and 20.0% in Q1, 2 and 3). The year-on-year addition then reached 25.5% in Q4. The prices of food and non-alcoholic beverages increased by 4.7% quarter-on-quarter. The development mainly of prices of milk, cheese and eggs (growth of 32.9%), bread and cereals (30.5%) and meat (27.4%) contributed to the acceleration of the year-on-year growth in Q4. Price dynamics of the majority of types of food was however accelerating. Similarly to the annual view, the prices of oils and fats also sharply increased year-on-year in Q4 (43.0%).

Chart 11 Prices in the selected divisions of the consumer price index (year-on-year in %)



Source: CZSO

Moderation of the growth of prices of motor fuels reduced the year-on-year increase of prices of transport.

Prices of transport increased by 18.1% last year. Cost of operation of a personal transport equipment grew the most (23.9%) under the influence of prices of motor fuels. Prices of purchase of vehicles nevertheless also strongly increased (12.9%) and the abolition of reduction of prices of fares stimulated the increase of the prices of transport services (14.2%). Prices of transport rose the most year-on-year last year in Q2 and then the dynamics started to slow down. Their year-on-year increase reached gradually in individual quarters 17.2%, 22.7% and 19.7%. In Q4 2022, they were by 13.1% higher year-on-year. Prices of transport lowered by 1.2% compared to the previous quarter. Together with the motor fuels, the year-on-year growth of the prices of operation of a personal transport equipment also considerably slowed down (13.6%) at the end of the

year. Increase of the prices of purchase vehicles was also smaller (11.7%). Prices of transport services thus increased the most year-on-year (16.6%).

Growth of prices was all encompassing.

In the view of the contribution to the total growth of consumer prices, prices of restaurants and hotels, which went up by 21.0% last year also came to the forefront. Their year-on-year growth sharply accelerated in Q2 and it was further strengthened for the rest of the year. The prices of restaurants and hotels increased by 25.6% year-on-year in Q4. In that prices of catering services were by 26.2% higher and accommodation services by 20.7%. The year-on-year dynamics of the prices of catering services was higher than accommodation throughout the whole year. Growth of prices of recreation and culture, which were in total by 11.4% higher, also accelerated. Mainly package holidays (12.1%) stood behind the pace strengthening. Price of other recreational items and equipment, gardens and pets (16.7%) grew the most for the entire year. Prices of recreations and culture rose by 13.2% year-on-year in Q4 itself. Prices however dropped by 1.1% quarter-on-quarter.

Prices of wearing apparel, footwear and household items further strongly increased.

Strong growth of prices of clothing and footwear, whose strengthening is obvious since the post-pandemic revival of demand combined with the disruption of the supply chains in year 2021, also continued last year. Prices of clothing and footwear went up in total by 18.6% last year. Prices were by 18.2% higher year-on-year in Q4 itself. Prices of clothing and footwear went up by 7.1% quarter-on-quarter, the most of all divisions of the consumer basket. The situation was similar for the furnishings, households equipment and maintenance. The disruption of the supply chains influenced the acceleration of the growth of prices already in year 2021 and prices increased here in total by 12.0% last year. Furniture and furnishings, carpets and other floor coverings (addition of 13.4%) participated the most on the total growth, prices of household textiles also grew strongly (16.0%). In Q4 2022, the prices of furnishings, households equipment and maintenance increased by 13.3% year-on-year and by 2.4% quarter-on-quarter.

Prices of postal services and telecommunication went up for the first time since year 2006 last year.

The growth of prices of miscellaneous goods and services² accelerated under the effect of financial and personal services for the whole year. Prices increased by 10.1% here for the whole year and it was by 12.7% year-on-year in Q4 itself. The growth of prices of alcoholic beverages and tobacco reduced in the last year. They were in total higher by 6.2%. Prices of alcohol went up by 3.2% and tobacco by 8.2%. Price of alcoholic beverages and tobacco were by 6.0% higher year-on-year and by 0.9% higher quarter-on-quarter in Q4. Their prices however followed a varied development during the year. The year-on-year dynamics for alcohol tended to accelerate up to 5.4%, while for tobacco it moderated to 6.5%. Prices of health, which usually do not have more significant effect on the total index due to their weight, were raised markedly (8.5%). Their year-on-year growth accelerated up to 9.6% in Q4. Prices of education increased in total by 3.8% last year, in that they increased by 7.5% year-on-year in Q4. Prices of post and telecommunication (0.7%) grew the slowest year-on-year last year. It represented first growth since 2006 for them. Since the prices in this division are traditionally mildly falling. The development of prices of telephone and telefax equipment (9.3%) stood behind the price increases. Prices of post and telecommunication grew by 2.1% year-on-year in Q4, the most since Q1 2007. Prices of telephone and telefax equipment were by 8.6% higher, telephone and telefax services by 1.4% higher and postal services by 2.7%.

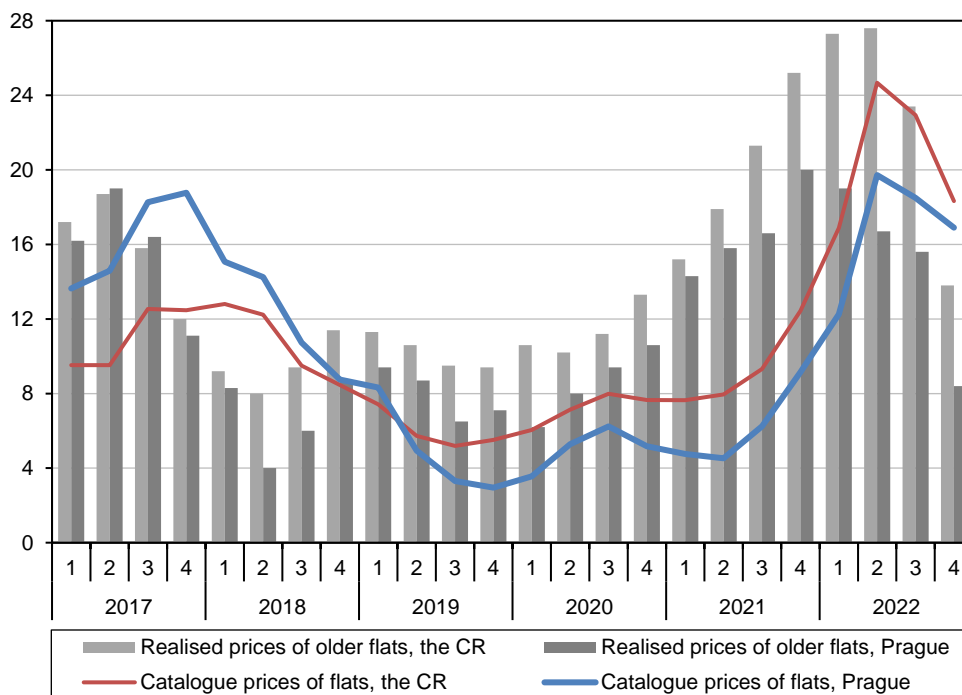
² Consists of personal care services and personal needs and supplements, social care, insurance and further financial services etc.



Year-on-year growth of the consumer prices was accelerating in the EU throughout the entire year.

Harmonised index of consumer prices (HICP)³ increased in total by 9.2% in the European Union last year. It presents a record increase (previous maximum was 3.7% from year 2008). Price growth continued across the whole consumer basket, but the dynamics acceleration was the most apparent for prices of food and non-alcoholic beverages, housing and energies, transport and restaurants and hotels. HICP grew the most in Estonia (19.4%), Lithuania (18.9%) and Latvia (17.2%) last year. The CR ranked fifth with the increase of 14.8%. The increases were very high also in case of countries with the most moderate dynamics. HICP went up by 5.9% in France, 6.1% in Malta and 7.2% in Finland. The year-on-year dynamics of consumer prices was accelerating in the EU during the year and HICP was thus higher by 11.0% year-on-year in Q4. In Q4, the consumer prices grew the most year-on-year in Hungary (23.3%), Latvia (21.4%) and Lithuania (21.2%). Estonia also crossed the twenty percentage level (20.4%) and the CR ranked behind only with a distance (16.5%). Spain (6.5%), France (7.0%) and Malta (7.3%) recorded the smallest year-on-year increase. Consumer prices increased by 2.5% in the EU compared to Q3. They grew the most in Hungary (6.5%), Italy (5.8%) and Lithuania (3.7%). In contrast the quarter-on-quarter decreases were recorded in Malta (-2.4%), Cyprus (-0.5%), Spain (-0.2%) and Estonia (-0.1%).

Chart 12 Prices of real estate (year-on-year change, in %)



Source: CZSO

Growth of the catalogue prices of flats slowed down at the end of the year...

The rapid year-on-year surge of prices of flats peaked in year 2022. The Index of the catalogue prices of flats in the CR increased by 20.7% for the whole year. Prices of flats outside Prague went up by 25.2%, while the increase reached 16.9% in Prague. Both the year-on-year and quarter-on-quarter dynamics peaked in Q2 and increases were weakening from then on. Catalogue prices of flats in the CR expanded year-on-year by 18.3% in Q4, prices outside Prague by 19.9% and by 16.9% in Prague. Quarter-on-quarter increase of the catalogue prices weakened to 0.5% in the CR in Q4. It was caused exclusively by the plunge of catalogue prices by 1.2% outside Prague, the first quarter-on-quarter decrease since Q1 2017. Catalogue prices of flats increased by 2.1% in Prague. In case of realised prices of older flats, the slump of pace was more

³ Contrary to the consumer price index, which is compiled by the CZSO for the Czech economy, HICP does not consists of imputed rentals, which is the main reason for the difference between the HICP and Consumer price index.

pronounced at the end of the year. The realised prices of older flats went up by 22.6% in the CR year-on-year for the whole year, mainly due to the rapid surge of prices outside Prague (24.9%).

...year-on-year increases of the realised prices of older flats however dived notably, which indicates cooling of the real estate market.

Realised prices of older flats were by 14.7% higher in Prague year-on-year last year. The year-on-year dynamics of flats outside Prague however attacked 30% mainly in the first half of the year and the increase maintained its hold high above 20% still in Q3. The realised prices of older flats in the CR however increased by 13.8%, by 15.3% outside Prague and by 8.4% in Prague in Q4 itself. Quarter-on-quarter the realized prices of older flats in the CR recorded decrease of 1.0%, first since Q4 2013. Realised prices of older flats outside Prague were by 1.4% lower compared to Q3 (first decrease since Q3 2013). Small growth of 0.4% manifested only in case of Prague. Realised prices of new flats, which are available only for Prague, describe similar development – their year-on-year increase dived to 2.9% in Q4 and prices lowered quarter-on-quarter by 4.3%. A sharp plunge of demand can be seen from the development described above, associated with the rapid increase of price of mortgage financing. This situation again enables the buyers to negotiate regarding the price after long years. Growth of the catalogue prices did slowdown; the market reality is however mirrored more in the plunge of the realised prices. It can also be observed that the sharp hike of prices of flats outside of Prague, which was evident in the last two years, more profoundly encountered the ceiling of the financial capabilities of the buyers as well as the interest of potential investors.

Prices of industrial producers were affected by the sharp surge of prices of materials as well as energies.

Prices of industrial producers hiked up by 24.3% last year. Very strong increase was affected by the development of prices of materials and energies, which practically hit the whole industry spectrum. Year-on-year growth of prices of industrial producers peaked in Q2 of the year and then weakened. Increases attained gradually 21.8%, 27.7% and 25.9% in individual quarters. Prices rose by 21.8% year-on-year in Q4 itself.

Increase of the prices of food products exerted the highest influence on the prices of products and services of manufacturing at the end of the year.

Prices of manufactured products contributed the most to the total growth last year (19.5%). These were influenced mainly by the sharp surge of prices of coke and refined petroleum products⁴. Food products, beverages and tobacco (19.2%) had the second largest impact on the growth of prices of industrial producers and prices of basic metals and fabricated metal products (22.3%), rubber and plastic products, other non-metallic mineral products (19.7%) and chemicals and chemical products (35.2%) also strongly contributed. Prices of wood, paper and printing (24.8%), textiles, clothes and leather (13.1%) and machinery and equipment (11.6%) also grew strongly last year. Increase of prices of furniture and other manufactured products (8.9%), computer, electronic and optical products (6.9%), electrical equipment (6.3%), basic pharmaceutical products (6.0%) were relatively milder. Prices of manufactured products rose by 16.0% year-on-year in Q4 2022, which was the weakest increase within the last year. The strong basis from the end of year 2021, when the sharp hike of prices of materials was already apparent, also had partially effect on the weakening. Still growing increase of prices of food products, beverages and tobacco (25.7%) added the most to the growth. The influence of coke and refined petroleum products in contrast notably weakened. Rubber and plastic products, other non-metallic mineral products (20.1%) maintained a strong effect. Similarly to the prices of petroleum, the year-on-year growth of prices of basic metals and fabricated metal products weakened (13.1%).

Year-on-year increase of prices of electricity mildly slowed down at the end of the year.

Prices of electricity, gas, steam and air conditioning hiked up by 50.7% last year. Year-on-year growth of prices accelerated here for the entire year until Q3. The year-on-year increase slightly slowed down to 54.3% in Q4, it was however partially the effect of

⁴ Precise values of the indicator are not given due to the protection of individual data.

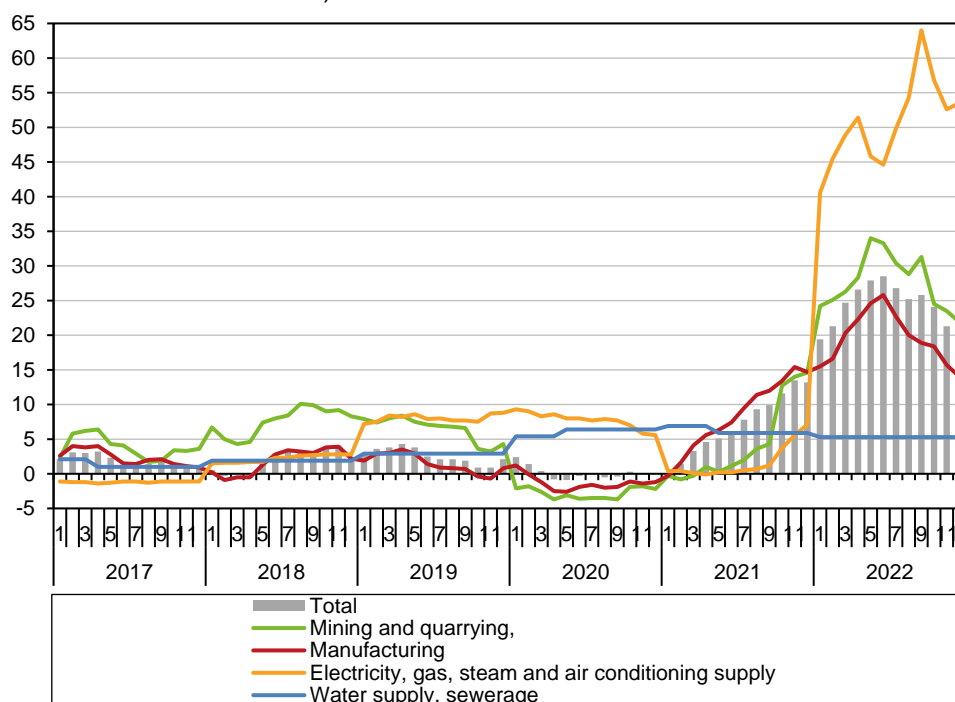


comparative basis from the preceding year, when the acceleration dynamics of prices of electricity was already strongly evident. Prices of mining and quarrying were in total higher by 27.5% last year. It was mostly the result of the surge of prices of crude petroleum and natural gas (70.4%), but prices of other materials, e.g. the building materials, which were included into other mining and quarrying products also grew strongly (17.9%). The increase weakened also for prices of mining and quarrying year-on-year in Q4 (23.3%).

Prices of industrial producers went sharply up in the EU.

Industrial producer prices⁵ jumped up by 34.3% in the EU last year, while they continued in the very high increase of 12.4% from year 2021. Prices of mining and quarrying were by 69.7% higher, manufactured products by 17.6% and electricity, gas, steam and air conditioning by 94.9%. Prices of industrial producers grew the most in Romania (58.1%), Hungary (53.1%) and Latvia (49.5%) last year. Prices in Malta (8.8%), Sweden (20.4%) and Portugal (20.6%) featured the lowest increase. The year-on-year dynamics of prices of industrial producers was strengthening until Q3 and the increase weakened to 27.9% in Q4. At the same time the prices dropped quarter-on-quarter for the first time since Q2 2020 (-0.3%). The slowdown of the year-on-year increase concerned all divisions. Prices of mining and quarrying were by 39.9% higher year-on-year, manufactured products by 15.3% and electricity, gas, steam and air conditioning by 64.0%. Prices of industrial producers in Hungary (64.7%), Latvia (53.1%) and Romania (46.6%) grew the most year-on-year at the end of the year. In contrast, the prices fell year-on-year in Ireland (-6.1%) and the smallest increases were recorded in Malta (8.1%) and in Portugal (10.8%).

Chart 13 Prices of main groups of industrial producers (year-on-year change, in %, based on CPA classification)



Source: CZSO

Prices of construction works grew strongly last year.

Prices of construction works went up in total by 12.3% last year. In that prices of material inputs of construction output rose by 20.7%. Year-on-year growth of prices of construction works peaked in Q2 and then slightly weakened. Prices of construction works grew by 12.0% year-in-year and by 1.2% quarter-on-quarter in Q4. Prices of

⁵ Excluding prices of water supply and waste management.

material inputs of construction output were by 16.7% higher year-on-year and stagnated quarter-on-quarter.

Prices of market services grew strongly under the influence of land transport services and transport services via pipelines and warehousing and support services for transportation.

Prices of market services expanded in total by 5.8% last year. The increase gained pace markedly compared to the previous year, which was mainly caused by the prices of warehousing and support services for transportation, land transport services and transport services via pipelines and then advertising and market research services. Rise of prices of warehousing and support services for transportation (15.1%) contributed the most to the total increase of prices of market services. Higher prices of advertising and market research services by 17.4% and land transport services and transport services via pipelines by 6.2% was also significant. Increase of prices in the area of computer programming, consultancy and related services (5.1%), employment services (15.1%), real estate services (3.1%), architectural and engineering services and technical testing and analysis (4.2%), rental and leasing services (8.7%) or legal and accounting services (5.5%) also had an effect. The growth of prices was strengthening nearly in all areas and only prices of telecommunication services decreased (-0.7%).

Acceleration of price dynamics continued for market services in Q4.

The year-on-year increases of prices of market services accelerated during the year and the increase reached 6.7% in Q4. Prices of land transport services and transport services via pipelines (7.7%) and warehousing and support services for transportation (15.2%), advertising and market research services (15.0%) and services in the area of computer programming and related consultancy (7.7%) provided the largest influence on the total year-on-year growth. Among other areas, prices of employment services (18.5%), architectural and engineering services and technical testing and analysis (5.6%) or real estate services (3.2%) also contributed significantly.

Prices of agricultural products grew rapidly last year.

Prices of agricultural products including fishes hiked up by 31.8%. Very strong growth was the result of large surge of costs on energies, fuels or also the prices of fertilisers. Owing to the geopolitical situation, considerable growth of prices of some agricultural commodities also occurred on the world markets. The year-on-year growth of prices peaked in Q2 and then weakened also in case of the crop products. Prices grew here by 28.0% year-on-year in Q4.

Year-on-year dynamics moderated for the crop production at the end of the year.

Prices of crop products were by 37.1% higher last year. Prices of cereals went up by 48.9%, in those prices of soft wheat by 50.8%, rye by 67.8%, barley by 46.7% and grain maize by 38.8%. Prices of industrial crops also surged rapidly (33.0%), especially due to the effect of prices of oil seeds (40.2%). Prices of forage plants rose by 7.7%, vegetables and horticultural products by 19.0% and potatoes by 28.4%. On the contrary prices of fruits (-2.4%) as well as wine (-1.0%) fell. The year-on-year price growth of the crop products reached the highest level in Q2 and then slowed down. Prices swelled by 23.5% here year-on-year in Q4. Prices of cereals jumped up by 41.8%, in that soft wheat by 41.6%, rye by 61.1%, barley by 43.6% and corn by 36.0%. Year-on-year dynamics moderated to a large extent for the industrial crops (11.4%), mostly under the effect of the development of prices of oil seeds (17.4%). Growth of prices of the forage plants slowed down to 3.1%. Prices of vegetables and horticultural products rose by 18.6% year-on-year and potatoes by 30.6%. Prices of fruits on the contrary considerably fell (-12.8%) and prices of wine were also lower (-4.3%).

Year-on-year growth of the prices of animal products accelerated during the year.

Prices of animals and animal products swelled by 24.4% last year. Strong growth struck the whole category. Prices of animals increased by 22.8%, in that they grew by 23.5% for cattle, by 24.4% for pigs and piglets and prices of poultry were by 19.5% higher. Prices of animal products increased by 25.7% last year. Prices of milk went up by 25.4% and eggs by 28.2%. Year-on-year growth of the prices of animals and animal products was



accelerating for the entire year up to 36.6% in Q4. Prices of animals were 35.8% higher year-on-year at the end of the year, in that price of cattle by 21.7%, pigs and piglets by 49.4% and poultry by 33.7%. Prices of animal products jumped by 37.3% year-on-year in Q4. Prices of milk hiked up by 35.5% and eggs by 58.1%.

Prices of export strongly grew year-on-year throughout the whole year.

Prices of export of goods increased in total by 12.7% last year. The exchange rate forces hampered the year-on-year growth of prices of export throughout the entire year because the koruna foreign exchange per euro appreciated year-on-year⁶. Prices of mineral fuels and lubricants strengthened the most on average for the entire year 2022 (120.1%), followed by food and live animals (21.3%), semi-finished products⁷ (18.9%) and other materials⁸ (18.0%). The year-on-year dynamics of prices of export peaked in Q2 and the increase shrank to 9.8% in Q4. Prices of mineral fuels surged the most in Q4 (64.3%), increase for food and live animals (20.8%), semi-finished products (14.0%), chemicals and related products (12.1%) and beverages and tobacco (11.3%) was strong. Prices of miscellaneous manufactured articles (4.3%) and machinery and transport equipment (2.3%) were higher. Prices of other materials were falling year-on-year (-1.6%).

The terms of trade were negative for the whole year.

Import prices increased by 17.2% last year. Prices of import of mineral fuels and lubricants (104.4%) surged the most, followed by beverages and tobacco (16.6%) and semi-finished products (16.6%). Prices of food and live animals (14.7%), chemicals and related products (12.3%) and other materials (10.8%) also featured a double-digit increase. Year-on-year dynamics of prices of import strengthened until Q3. The increase then moderated to 11.8% in Q4. Prices of mineral fuels (46.8%) and further food and live animals (21.5%), beverages and tobacco (20.6%), miscellaneous manufactured articles (11.6%) and semi-finished products (10.0%) grew the most year-on-year in Q4. Increase for other materials (6.6%) and chemicals and related products (5.9%) was also large and prices of machinery and transport equipment were also slightly higher (2.4%). Terms of trade of the foreign trade with goods were markedly negative last year and arrived at 96.2%. Terms of trade with beverages and tobacco (91.0%) and miscellaneous manufactured articles (96.7%) were markedly negative last year. In contrast they were strongly positive for mineral fuels (107.7%), other materials (106.5%) and food and live animals (105.8%). The terms of trade attained 98.2% in Q4 itself. Terms of trade were negative for trade with beverages and tobacco (92.3%), other materials (92.3%), miscellaneous manufactured articles (93.5%), food and live animals (99.4%) and machinery and transport equipment (99.9%). On the contrary the terms of trade were positive in case of mineral fuels (111.9%), chemicals and related products (105.9%) and semi-finished products (103.6%).

⁶ Based on the CNB data, the average koruna foreign exchange per euro reached 24.387 CZK/EUR in Q4 2022. It was 25.377 CZK/EUR in year 2021. The average was 24.565 CZK/EUR for the whole year 2022 (25.645 CZK/EUR in the preceding year). Koruna foreign exchange per dollar depreciated year-on-year. The average was 22.192 CZK/USD in Q4 2021 and 23.923 CZK/USD this year. Last year's total average attained 23.360 CZK/USD and 21.682 CZK/USD in year 2021.

⁷ SITC 6 – manufactured goods classified chiefly by material.

⁸ SITC 2 – crude materials inedible, except fuels.