METHODOLOGICAL NOTES

The development of consumer price indices (cost of living) is observed on consumer baskets based on the set of selected kinds of goods and services paid by the population. These baskets are updated annually (always since January of the given year).

The new revised consumer baskets (index schemes) and the methodology of the consumer price index processing were determined on the base of the requirements of Eurostat resulting from the consumer price indices harmonization and comments and suggestions of the Consulting Commission for the Consumer Price Statistics consisting of representatives of ministries, the CNB, research institutes, the Economic University Prague, trade unions, organisations of the retired and selected departments of the CZSO.

A new weighting system was constructed for the consumer baskets within a revision, which took place for individual price areas in 2019. Starting from January 2018, detailed consumer price indices are calculated based on the new ECOICOP classification (European Classification of Individual Consumption according to Purpose), which replaced the original classification (CZ-COICOP – Classification of Individual Consumption by Purpose). The ECOICOP introduced a more detailed breakdown into the consumer basket; the classification of products and services into **12 divisions** remains. This change occurred according to the Regulation (EU) 2016/792 of the European Parliament and of the Council.

1. **Food and non-alcoholic beverages** – comprises all food including non-alcoholic beverages.

2. **Alcoholic beverages and tobacco** – comprises alcoholic beverages and tobacco products.

3. **Clothing and footwear** – comprises clothing materials, garments, clothing accessories, haberdashery, footwear including hire and repair.

4. **Housing, water, electricity, gas and other fuels** – comprises rentals including imputed rentals, payments for the use of cooperative dwellings, miscellaneous services relating to the dwelling, materials and services for the maintenance and repair of the dwelling, water supply and sewage collection, refuse collection, all kinds of energy (gas, electricity, heat), solid fuels.

5. **Furnishings, household equipment and routine household maintenance** – comprises furniture and furnishing, carpets and other floor coverings, household textiles including bed linen, household appliances, glassware, porcelain, tableware and household utensils, goods and services for routine household maintenance, different tools and equipment for house and garden.

6. **Health** – comprises pharmaceutical and other medical products, dental products, services of optometrists, services of physicians, thermal bath care, regulatory fee per using a medical emergency facility.

7. **Transport** – comprises personal transport equipment including repair and spare parts, automotive fuel, transport services (by railway, by road, by air, local), school transport services.

8. **Communication** – comprises postal services, telephone equipment (mobile phones), telephone services.

9. **Recreation and culture** – comprises radio and television receivers, tape and cassette recorders, computer technology, musical instruments, sport equipment including repair, books, periodicals, toys, stationery, cultural services, sporting services, domestic and foreign holiday, flowers and flower products, pets and related products including veterinary services.

10. **Education** – comprises all levels of education including language teaching and art education.

11. **Restaurants and hotels** – comprises meals and drinks provided by restaurants, dinners in works canteens, catering services of canteens in schools and universities, accommodation services of hotels, boarding houses, chalets, accommodation in boarding schools and universities.

12. **Miscellaneous goods and services** – comprises personal care services, electrical appliances for personal care, beauty products, jewellery, clocks, leather fancy goods, insurance (insurance

connected with the dwelling, insurance connected with health, insurance connected with transport), social and financial services, administrative fees.

Selection of representatives

The price representatives are especially products and services which have a significant share in population's expenditure and cover the entire sphere of consumption.

The numbers of price representatives in the new consumer basket for calculation of the consumer price indices are as follows:

Group of goods and services	Number of representatives
Total	690
1. Food and non-alcoholic beverages	156
2. Alcoholic beverages and tobacco	24
3. Clothing and footwear	67
4. Housing, water, electricity, gas and other fuels	40
5. Furnishings, household equipment and routine household maintenance	76
6. Health	20
7. Transport	87
8. Communication	7
9. Recreation and culture	111
10. Education	12
11. Restaurants and hotels	41
12. Miscellaneous goods and services	49

The selection of representatives is the same for all types of indices but some products and services are not represented in particular social groups of households.

Consumer price survey method

Prices of individual kinds of goods and services are collected monthly, directly in selected shops (about 8 500) by statistical staff in 35 chosen districts across the Czech Republic and in the Capital City of Prague.

The **average price** of individual representatives for the Czech Republic is calculated from the collected prices, which is involved in the calculation of all types of consumer price indices except indices for households living in the Capital City of Prague. Average prices of representatives involved in the calculation of indices for households living in the Capital City of Prague are the same as average prices collected in the Capital City of Prague for the calculation of consumer price indices for the Czech Republic. For some representatives, the average consumer prices for the Czech Republic are taken account (e.g. therapeutic stays at a spa, ski lift ticket, catering services in the university canteen, accommodation services of universities, and the majority of representatives with centrally surveyed prices.

Since 2019, the prices from the local price survey of selected representatives from 5 divisions of the ECOICOP ('food and non-alcoholic beverages', 'alcoholic beverages and tobacco', 'furnishings, household equipment and routine household maintenance', 'recreation and culture', 'miscellaneous goods and services') have been partially replaced by prices, which are based on data scanner (data from retail chain cash registers). These are nationwide unit prices of selected products of the monitored chains.

Weighting system

A revision of the weighting system was carried out in 2019. Starting from January 2020, the weights are updated using the national accounts statistics in 2018. The weights of elementary aggregates are updated using data from the 2018 Household Budget Survey extended by other available sources and surveys. Starting from January 2020, the published price indices are counted according to revised index patterns.

The weights are calculated for the following groups of households: **households in total, households of pensioners, households living in the Capital City of Prague.**

The consumer price index has weights based on the structure of average expenditure of all households; the consumer price indices for the Capital City of Prague are based on the structure of expenditure of households living in the Capital City of Prague and indices for households of pensioners are based on the structure of expenditure of households of pensioners.

Households of pensioners – for the purposes of the household budget statistics they have been defined as households without economically active members, i.e. households with the head, who receives any type of pension (except the orphan pension) or who is at pensionable age not entitled to any kind of pension, who does not work at all or has only a limited range of work activities; also any other member of the household does not work.

Computation of indices

Calculation of the consumer price indices (cost-of-living) is based on constant weights according to the Laspeyres formula:

$$I = \frac{\sum \frac{p_1}{p_0} * p_0 q_0}{\sum p_0 q_0} * 100$$

p_1 = *the price of goods (service) in the reference (current) period.*
p_0 = *the price of goods (service) in the base period.*
$p_0 q_0$ = *constant weight: household expenditure on goods (service) in the base period.*

Starting from January 2020, the price reference period of December 2017 for the price indices is changed to December 2019. Indices calculated with the new base December 2019 = 100 are chained at all levels of the consumer basket to the current index time series on the base average of 2015 = 100. Thereby, a continuation of the current index time series, from which indices to other bases are derived (previous month = 100, corresponding period of previous year = 100 and annual rolling average, i.e. the average of index numbers over the last 12 months to the average for the previous 12 months) is ensured.