

## 28. INTERNATIONAL COMPARISONS

The chapter contains selected statistical indicators, which provide an instrument for comparisons among economies of countries of the European Union and some other countries. These indicators are compiled by Eurostat from data transmitted regularly by national statistical institutions, some data are provided by international organisations (e.g. the OECD, the European Central Bank).

The countries indicators of which are compared in the tables are listed alphabetically by their names in Czech. A Czech-English list of names of the countries is given in the end of the methodological notes to the chapter. Data for the European Union and the Eurozone are, provided that they were available, in the beginning of the tables above individual countries.

The **European Union (EU28)** is an economic and political grouping of 28 countries of Europe. The table below briefly summarises development of the EU from 1993, when the Maastricht Treaty came into force.

Countries which joined the EU	Date of joining	Abbreviations				
Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, United Kingdom	1 November 1993 (the Treaty on European Union)	EU	EU15			
Austria, Finland, Sweden	1 January 1995			EU25		
Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia, Slovenia	1 May 2004				EU27	
Bulgaria, Romania	1 January 2007					EU28
Croatia	1 July 2013					

The **Eurozone (the euro area, EA19)** is the territory of those Member States of the European Union, which introduced the euro as their common currency in accordance with the Treaty Establishing the European Community. The Eurozone had 19 members as at 1 January 2015. The table below gives an overview of dates when the countries introduced the euro.

Countries where the euro was introduced	Date of introduction	Abbreviations						
Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain	1 January 2002	EA12						
Slovenia	1 January 2007		EA13					
Cyprus, Malta	1 January 2008			EA15		EA16		
Slovakia	1 January 2009							
Estonia	1 January 2011							
Latvia	1 January 2014							
Lithuania	1 January 2015							EA19

Under "Other" tables are extended by the European Free Trade Association (EFTA) countries, countries wanting to join the EU (Macedonia (the former Yugoslav Republic of) and Turkey), and countries with a mature economy from other continents (Japan, the United States), for which comparable data are available.

### Notes on Tables

#### Table 28-1 Area, population, and population change in 2014

The total area is including inland waters; it is expressed in km<sup>2</sup>, at 1 January. The average population is calculated as the arithmetic mean of the population on 1 January of two consecutive years.

The natural change per 1 000 persons is the ratio of the natural increase/decrease during the year (live births minus deaths) to the average population in that year. A positive natural change, also known as natural increase, occurs when live births outnumber deaths. A negative natural change, also named as natural decrease, occurs when live births are less numerous than deaths. Total population change per 1 000 persons is the ratio of the population increase/decrease during the year to the average population in that year. The population change consists of two components: natural change and net migration.

#### **Table 28-2 GDP per capita in Purchasing Power Standards (PPS)**

Gross domestic product (GDP) is a measure for the economic activity. It is defined as the value of all goods and services produced less the value of any goods or services used in their creation. The volume index of GDP per capita in Purchasing Power Standards (PPS) is expressed in relation to the European Union (EU28) average set to equal 100. If the index of a country is higher than 100, this country's level of GDP per head is higher than the EU average and vice versa. Basic figures are expressed in PPS, i.e. a common currency that eliminates the differences in price levels between countries allowing meaningful volume comparisons of GDP between countries. Please note that the index is intended for cross-country comparisons rather than for temporal comparisons.

#### **Table 28-3 Real GDP growth rate**

The calculation of the annual growth rate of GDP volume is intended to allow comparisons of the dynamics of economic development both over time and between economies of different sizes. For measuring the growth rate of GDP in terms of volumes, the GDP at current prices are valued in the prices of the previous year and the thus computed volume changes are imposed on the level of a reference year; this is called a chain-linked series. Accordingly, price movements will not inflate the growth rate.

#### **Table 28-4 Real labour productivity per person employed**

Labour productivity is measured as a ratio of GDP (gross domestic product, chain-linked volumes reference year 2010 in PPS) per person employed (total employment, all industries, in persons). "Persons employed" does not distinguish between full-time and part-time employment.

#### **Table 28-5 General government gross debt**

General government gross debt is defined in the Maastricht Treaty as consolidated general government gross debt at nominal value, outstanding at the end of the year in the following categories of government liabilities (as defined in ESA2010): currency and deposits, debt securities and loans. The general government sector comprises the subsectors: central government, state government, local government, and social security funds.

#### **Table 28-6 Gross domestic expenditure on R&D (GERD)**

GERD (gross domestic expenditure on R&D) as a percentage of GDP. "Research and experimental development (R&D) comprise creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of man, culture and society and the use of this stock of knowledge to devise new applications" (Frascati Manual, 2002 edition, § 63).

GERD includes expenditure from business enterprise, higher education, government and private non-profit expenditure on R&D. The indicator measures the key R&D investments that support future competitiveness and result in higher GDP.

#### **Table 28-7 Inflation rate**

Annual average rate of change in Harmonized Indices of Consumer Prices (HICPs). HICPs are designed for international comparisons of consumer price inflation. HICP is used for example by the European Central Bank for monitoring of inflation in the Economic and Monetary Union and for the assessment of inflation convergence as required under Article 121 of the Treaty of Amsterdam. For the United States and Japan national consumer price indices are used in the table.

#### **Table 28-8 Comparative price levels**

Comparative price levels of final consumption by private households including indirect taxes. Comparative price levels are the ratio between Purchasing power parities (PPPs) and market exchange rate for each country. PPPs are currency conversion rates that convert economic indicators expressed in national currencies to a common currency, called Purchasing Power Standard (PPS), which equalises the purchasing power of different national currencies and thus allows meaningful comparison. The ratio is shown in relation to the EU average (EU28 = 100). If the index of the comparative price levels shown for a country is higher/lower than 100, the country concerned is relatively expensive/cheap as compared with the EU average.

#### **Table 28-9 Employment rate**

The employment rate is calculated by dividing the number of persons aged 15 and more in employment by the total population of the same age group. The indicator is based on the EU Labour Force Survey.

**Table 28-10 Unemployment rate**

Unemployment rates represent unemployed persons as a percentage of the labour force. The labour force is the total number of people employed and unemployed. Unemployed persons comprise persons aged 15 to 74 who were:

- a) without work during the reference week,
- b) currently available for work, i.e. were available for paid employment or self-employment before the end of the two weeks following the reference week,
- c) actively seeking work, i.e. had taken specific steps in the four weeks period ending with the reference week to seek paid employment or self-employment or who found a job to start later, i.e. within a period of, at most, three months.

**Table 28-11 Long-term unemployment rate**

Long-term unemployed (12 months and more) as a percentage of the total active population. The total active population (labour force) is the total number of the employed and unemployed population. The duration of unemployment is defined as the duration of a search for a job or as the period of time since the last job was held (if this period is shorter than the duration of the search for a job).

**Table 28-12 At-risk-of-poverty rate after social transfers**

The share of persons with an equivalised disposable income below the risk-of-poverty threshold, which is set at 60% of the national median equivalised disposable income (after social transfers).

**Table 28-13 Public expenditure on education**

Generally, the public sector funds education either by bearing directly the current and capital expenses of educational institutions or by supporting students and their families with scholarships and public loans as well as by transferring public subsidies for educational activities to private firms or non-profit organisations. Both types of transactions together are reported as total public expenditure on education. Education expenditure data use respectively ISCED 97 (all levels of education combined) until 2011 data, and ISCED 2011 (all levels excluding early childhood educational development) as from the 2012 reference year.

**Table 28-14 Lifelong learning**

Lifelong learning refers to persons aged 25 to 64 who stated that they received education or training in the four weeks preceding the survey (numerator). The denominator consists of the total population of the same age group, excluding those who did not answer to the question 'participation in education and training'. Both the numerator and the denominator come from the EU Labour Force Survey. The information collected relates to all education or training whether or not relevant to the respondent's current or possible future job.

**Table 28-15 Total fertility rate**

Total fertility rate (the sum of age-specific fertility rates): the average number of children that would be born alive to a woman provided age-specific fertility rates recorded in a reference calendar year will remain unchanged during her childbearing period (age 15–49 years).

**Tables 28-16 and 28-17 Life expectancy at birth – males, females**

Life expectancy at birth is defined as the mean number of years still to be lived by a person at birth, if subjected throughout the rest of his or her life to the current mortality conditions.

**Table 28-18 Municipal waste generated**

Municipal waste consists to a large extent of waste generated by households, but may also include similar wastes generated by small businesses and public institutions and collected by the municipality; this part of municipal waste may vary from municipality to municipality and from country to country, depending on the local waste management system. For areas not covered by a municipal waste collection scheme the amount of waste generated is estimated.

**Table 28-19 Energy intensity of the economy**

This indicator is the ratio between the gross inland consumption of energy and the gross domestic product (GDP) for a given calendar year. It measures the energy consumption of an economy and its overall energy efficiency. The gross inland consumption of energy is calculated as the sum of the gross inland consumption of five energy types: coal, electricity, oil, natural gas and renewable energy sources. The GDP figures are taken at chain linked volumes with reference year 2010. The energy intensity ratio is determined by dividing the gross inland consumption by the GDP. Since gross inland consumption is measured in kgoe (kilogram of oil equivalent) and GDP in 1 000 EUR, this ratio is measured in kgoe per 1 000 EUR.

**Table 28-20 Industrial production index**

The industrial production index shows the output and activity of the industry sector (mining and quarrying; manufacturing; electricity, gas, steam and air conditioning supply – sections B, C, and D according to the NACE

Rev. 2 classification). It measures changes in the volume of output on a monthly basis. Industrial production is compiled as a fixed base year Laspeyres type volume index. The current base year is 2010 (index 2010 = 100). The index is presented in calendar, not seasonally adjusted form.

\* \* \*

Further data can be found on the website of the Czech Statistical Office at:

– [www.czso.cz/csu/czso/european\\_data\\_esds\\_eu](http://www.czso.cz/csu/czso/european_data_esds_eu)

A complete database of comparison indicators for the EU can be found on the website of Eurostat at:

– [ec.europa.eu/eurostat](http://ec.europa.eu/eurostat)

*Czech and English names of the countries:*

Belgie	<i>Belgium</i>	Kypr	<i>Cyprus</i>	Rakousko	<i>Austria</i>
Bulharsko	<i>Bulgaria</i>	Litva	<i>Lithuania</i>	Rumunsko	<i>Romania</i>
Česká republika	<i>Czech Republic</i>	Lotyšsko	<i>Latvia</i>	Řecko	<i>Greece</i>
Dánsko	<i>Denmark</i>	Lucembursko	<i>Luxembourg</i>	Slovensko	<i>Slovakia</i>
Estonsko	<i>Estonia</i>	Maďarsko	<i>Hungary</i>	Slovinsko	<i>Slovenia</i>
Finsko	<i>Finland</i>	Makedonie	<i>Macedonia (the former Yugoslav Republic of)</i>	Spojené státy	<i>United States</i>
Francie	<i>France</i>	Malta	<i>Malta</i>	Španělsko	<i>Spain</i>
Chorvatsko	<i>Croatia</i>	Německo	<i>Germany</i>	Švédsko	<i>Sweden</i>
Irsko	<i>Ireland</i>	Nizozemsko	<i>Netherlands</i>	Švýcarsko	<i>Switzerland</i>
Island	<i>Iceland</i>	Norsko	<i>Norway</i>	Turecko	<i>Turkey</i>
Itálie	<i>Italy</i>	Polsko	<i>Poland</i>	Velká Británie	<i>United Kingdom</i>
Japonsko	<i>Japan</i>	Portugalsko	<i>Portugal</i>		