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 (EU28 or EU27) and the Eurozone (EA17 or EA18) 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.*

<table>
<tr><th>Countries which joined the EU</th><th>Date of joining</th><th colspan="5">Abbreviations</th></tr>
<tr><td>Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, United Kingdom</td><td>1 November 1993 (the Treaty on European Union)</td><td rowspan="2">EU</td><td rowspan="2">EU15</td><td rowspan="4">EU25</td><td rowspan="5">EU27</td><td rowspan="6">EU28</td></tr>
<tr><td>Austria, Finland, Sweden</td><td colspan="2">1 January 1995</td></tr>
<tr><td>Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia, Slovenia</td><td colspan="3">1 May 2004</td></tr>
<tr><td>Bulgaria, Romania</td><td colspan="4">1 January 2007</td></tr>
<tr><td>Croatia</td><td colspan="5">1 July 2013</td></tr>
</table>

*The **Eurozone (the Euro area, EA18)** 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 18 members as at 1 January 2014. The table below gives an overview of dates when the countries introduced the euro.*

<table>
<tr><th>Countries where the euro was introduced</th><th>Date of introduction</th><th colspan="6">Abbreviations</th></tr>
<tr><td>Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain</td><td>1 January 2002</td><td>EA12</td><td rowspan="2">EA13</td><td rowspan="3">EA15</td><td rowspan="4">EA16</td><td rowspan="5">EA17</td><td rowspan="6">EA18</td></tr>
<tr><td>Slovenia</td><td colspan="2">1 January 2007</td></tr>
<tr><td>Cyprus, Malta</td><td colspan="3">1 January 2008</td></tr>
<tr><td>Slovakia</td><td colspan="4">1 January 2009</td></tr>
<tr><td>Estonia</td><td colspan="5">1 January 2011</td></tr>
<tr><td>Latvia</td><td colspan="6">1 January 2014</td></tr>
</table>

*Under "**Other**" tables are extended by the 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. **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****-2.* ***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****-3.* ***Labour productivity per person employed***

GDP per person employed is intended to give an overall impression of the productivity of national economies expressed in relation to the European Union (EU27) average. If the index of a country is higher than 100, this country's level of GDP per person employed 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 'persons employed' does not distinguish between full-time and part-time employment.

Table ***28****-4.* ***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 ESA95): currency and deposits, securities other than shares excluding financial derivatives, and loans. The general government sector comprises the sub-sectors: central government, state government, local government and social security funds. GDP used as a denominator is the gross domestic product at current market prices. Data expressed in national currency are converted into euro using end-year exchange rates provided by the European Central Bank.

Table ***28****-5.* ***Foreign direct investment***

Average of inward and outward foreign direct investment (FDI) flows divided by gross domestic product (GDP). The index measures the intensity of investment integration within the international economy. The direct investment refers to the international investment made by a resident entity (direct investor) to acquire a lasting interest in an entity operating in an economy other than that of the investor (direct investment enterprise). Direct investment involves both the initial transactions between the two entities and all subsequent capital transactions between them and among affiliated enterprises, both incorporated and unincorporated. Data are expressed as percentage of GDP to remove the effect of differences in the size of the economies of the reporting countries.

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).

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 to 64 in employment by the total population of the same age group. The indicator is based on the EU Labour Force Survey. The survey

covers the entire population living in private households and excludes those in collective households such as boarding houses, halls of residence and hospitals. Employed population consists of those persons who during the reference week did any work for pay or profit for at least one hour, or were not working but had jobs from which they were temporarily absent.

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. Long-term unemployed comprise persons aged at least 15, who are not living in collective households, who will be without work during the next two weeks, who would be available to start work within the next two weeks and who are seeking work (have actively sought employment at some time during the previous four weeks or are not seeking a job because they have already found a job to start later). 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.

Table ***28****-14.* ***Total fertility rate***

The mean number of children that would be born alive to a woman during her lifetime if she were to pass through her childbearing years conforming to the fertility rates by age of a given year. This rate is therefore the completed fertility of a hypothetical generation, computed by adding the fertility rates by age for women in a given year (the number of women at each age is assumed to be the same). The total fertility rate is also used to indicate the replacement level fertility; in more highly developed countries, a rate of 2.1 is considered to be the replacement level fertility rate.

Tables ***28****-15 and* ***28****-16.* ***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****-17.* ***Greenhouse gas emissions***

This indicator shows trends in total man-made emissions of the "Kyoto basket" of greenhouse gases. It presents annual total emissions in relation to 1990 emissions. The "Kyoto basket" of greenhouse gases includes: carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and the so-called F-gases (hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride (SF_6)). These gases are aggregated into a single unit using gas-specific global warming potential (GWP) factors. The aggregated greenhouse gas emissions are expressed in units of CO_2 equivalents. The indicator does not include emissions and removals related to land use, land-use change and forestry (LULUCF); nor does it include emissions from international maritime transport. It does however include emissions from international aviation. CO_2 emissions from biomass with energy recovery are reported as a Memorandum item according to UNFCCC Guidelines and not included in national greenhouse gas totals. The EU as a whole is committed to achieving at least a 20% reduction of its greenhouse gas emissions by 2020 compared to 1990. This objective implies: a 21% reduction in emissions from sectors covered by the EU ETS (emission trading scheme) compared to 2005 by 2020; a reduction of 10% in emissions for sectors outside the EU ETS. To achieve this 10% overall target each Member State has agreed country-specific greenhouse gas emission limits for 2020 compared to 2005 (Council Decision 2009/406/EC). Data Source: European Environment Agency.

*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 2005. 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. **Electricity generated from renewable sources – % of gross electricity consumption***

This indicator is the ratio between the electricity produced from renewable energy sources and the gross national electricity consumption for a given calendar year. It measures the contribution of electricity produced from renewable energy sources to the national electricity consumption. Electricity produced from renewable energy sources comprises the electricity generation from hydro plants (excluding pumping), wind, solar, geothermal and electricity from biomass/wastes. Gross national electricity consumption comprises the total gross national electricity generation from all fuels (including autoproduction), plus electricity imports, minus exports.

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

- www.czso.cz/eng/redakce.nsf/i/european_data_esds_eu

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

- epp.eurostat.ec.europa.eu/portal/page/portal/eurostat/home

Czech and English names of the countries

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