HUNGARIAN CENTRAL STATISTICAL OFFICE

Indicators of sustainable development for Hungary

2014

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Background

Environmental movements, emerging from the 1950s, realized the conflicts arising between economic production and the state of the environment. Following the publication of the powerful works titled *"Silent Spring"* (1962), *"Tragedy of the Commons"* (1968) or *"Limits to Growth"* (1972), the interpretation of sustainable development, as adopted today, was outlined decades later in the report titled *"Our Common Future"* (1987). The 1992 UN Conference on Environment and Development held in Rio de Janeiro gave the impetus due to which sustainable development has been integrated into national and global policies. Besides the UN the different countries and groups of countries (e.g. the European Union) elaborated, too, strategies and – to measure the realization of objectives – indicators or sets of indicators. After two decades it is established that favourable and unfavourable processes are parallelly present, in addition to the success of some positive environmental measures (e.g. reduction of ozone depleting compounds) there is a growing pressure on our resources (e.g. rising consumption of increasing population).

The further conference in Rio (Rio+20 in 2012) had already been moderately awaited. The main subject of the summit was green economy and the development of the institutional system, however, its closing document, titled *"The future we want"*, did not bring about a serious step forward in representing more efficiently the matter of sustainability. Its critics formulate the lack of strong political will, ambitious goals and legal commitment to those. A convention defining global sustainable development goals is one of the greatest achievements.

Hungary's strategy

The National Council for Sustainable Development, established in 2007, elaborated Hungary's new National Framework Strategy on Sustainable Development,[1] which was adopted by Parliament on 25 March 2013.[2] The goal of the framework strategy is to provide a long-term direction, uniting the whole nation, for individual and collective actions. In comparison with the strategy of the European Union, it interprets the concept of sustainability in a considerably narrower sense. In its interpretation, sustainable development policy is first of all a long-term resource management activity.[3] The framework strategy distinguishes four resources: human, social, natural and economic resources. The choice and finalisation of the final indicator system following up the realization of the strategy is still under way.

About the present publication

The Hungarian Central Statistical Office has published the indicators of sustainable development every two years since 2007. The first 3 volumes adopted the indicator system of Eurostat, and the aim in the first few years was its domestic adaptation and its completion with domestic peculiarities. It was in the volume issued in 2013 that the indicators were first presented in the thematic breakdown applied in the current volume as well. The 3-level hierarchical structure used by Eurostat is no more applied in our publication, but the majority of the usual indicators are invariably included. The comparability with the EU indicator system and the previous publications of HCSO is ensured by the summary table in Annex 1 at the end of the publication. We hope that with this change the resource approach of the publication strengthened and its manageability and clarity increased. In the present volume 100 indicators are disclosed, 33 present the state of environment, 44 that of society and 23 the state of economy. 78 of these can be considered as real **indicators,**[4] which are suitable for

1 The first domestic strategy was adopted by government in 2007, and the interpretation of the two differ significantly from each other.
2 For more, see: Resolution 18/2013 (28th March) of the Parliament on National Framework Strategy on Sustainable Development.
3 Bartus, Gábor (2013): A fenntartható fejlődés fogalom értelmezésének hatása az indikátorok kiválasztására. *(Impact of interpretation of sustainable development concept on choice of indicators.)* [Statisztikai Szemle], Vol. 91, No. 8–9, pp. 842–869.
4 See their evaluation in the sub-chapter titled „Evaluation of indicators".

AT — Austria
BE — Belgium
BG — Bulgaria
CY — Cyprus
CZ — Czech Republic
DE — Germany
DK — Denmark
EE — Estonia
EL — Greece
ES — Spain
EU-28 — European Union
FI — Finland
FR — France
HU — Hungary
IE — Ireland
IT — Italy
LT — Lithuania
LU — Luxembourg
LV — Latvia
MT — Malta
NL — the Netherlands
PL — Poland
PT — Portugal
RO — Romania
SE — Sweden
SI — Slovenia
SK — Slovakia
UK — United Kingdom

comparison over time, can present the positive and negative changes of phenomena.[5] A part of the further 22 **background indicators** provide structural information (e.g. *structure of consumption, death rate by major causes of death),* and another part of them are proxy indicators which can be associated with sustainable development but their precise role and judgement are not clarified (e.g. *tourism, atypical employment).* And in certain cases the evaluation of the time series is not possible (e.g. *areas exposed to drought, natural vegetation assets of Hungary).* By presenting them we wished to ensure the possibility of deeper understanding of the particular theme.

The indicators refer in general to the period after 1995, but some indicators span a different interval. In case of each indicator, keywords help the targeted search meeting users' demands, and search is helped by an **index.** The sustainable development strategy of the European Union and the Europe 2020 strategy fixed exact targets for some indicators. Besides EU objectives, the latter also formulates country-specific recommendations for the member states. These values are presented in figures as well as under **relevance.** The source of domestic data is basically the Hungarian Central Statistical Office, while that of EU data is Eurostat. Only the sources differing from these are indicated in figures.

Each indicator is analysed in a uniform structure. The part **relevance** presents the relation of the indicator to sustainability, and the related findings of the National Framework Strategy on Sustainable Development (NFSSD)[6] are also included there. The part **commentary** provides information on domestic trends (on the data of the first figure in each case), while the **international outlook** depicts the trends in the European Union. The **'thermometers'** on the edge of the pages present the situation of the member countries, and among them of Hungary, through comparative data. The part details contains further dimensions of the indicator or further indicators connected to the subject. Definitions at the end of each indicator section help clarity. The text after **!** under figures summarizes the most important message.

Further information is available in HCSO's **Stadat tables (http://www.ksh.hu/engstadat),** which are directly accessible from the electronic version of the publication.

Evaluation of indicators

The ultimate aim of indicators measuring sustainable development is to evaluate trends. Knowing tendencies enables decision-makers to create strategies, it may promote interventions and serve as a feedback on the tasks already completed.

It makes evaluation more difficult that the majority of indicators cover only one dimension of sustainability: e.g. a change which is favourable in respect of economy may be harmful to environment and vice versa. Increasing the sales of pesticides is against environmental aspects, however, it would be difficult to increase the performance of agriculture without that. On the other hand, economy and society have an interest just in the expansion of agriculture, since, along with its increasing performance, employment, food supply security, the population retaining capacity of rural areas and trade opportunities may increase among others. In many cases, decreasing carbon dioxide emissions are due to closing down heavy industrial factories. However, along with decreasing soil degradation and air pollution, these processes may involve, in any particular case, growing unemployment, impoverishment and long-lasting social problems.

Evaluation covers only the indicator in the first figure in each indicator section. As a matter of principle, evaluation is based on 2000 (or a later year in the lack of this) and the year of the last available data.

Three types of indicators[7] can be distinguished, which influenced the methodology of evaluation, too:

Type 1: a target value to be achieved by a particular year is set for the indicator.

Type 2: a target value with no target date is set for the indicator.

Type 3: no target value is set for the indicator, but the desirable direction of change can be determined.

The typification of indicators is available in Annex 2.

5 See indicator concept in: Havasi, Éva (2007): Az indikátorok, indikátorrendszerek jellemzői és statisztikai követelményei. (Characteristics of and statistical requirements on indicators and indicator systems.) [Statisztikai Szemle], Vol. 85, No. 8, pp. 678–689.

6 Referred to in the publication with the abbreviation NFSSD or as framework strategy. In all cases the National Framework Strategy on Sustainable Development, as adopted by the resolution of the Parliament, is meant by this.

7 Only the 78 real indicators in the publication were evaluated, the 22 background indicators were not.

Type 1[8]

In this case the value of the indicator is to reach a given level in a particular year. Such an indicator is for example *expenditures on research and development*. Hungary's commitment was that expenditures as a proportion of GDP should reach 1.8% by 2020. Evaluation is based on the comparison of the observed evolution with the desired evolution of increase/decrease, which is described by the following equation:

$$\text{Quotient of observed and desired evolution} = \frac{\frac{\text{last available value} - \text{base value}}{\text{last available year} - \text{base year}}}{\frac{\text{target value} - \text{base value}}{\text{target year} - \text{base year}}}$$

There are two limit values (0.9 and 0), therefore three evaluation categories can be established:

- Evaluation is positive if the rate is 0.9 or higher, which means that the indicator changes in the targeted direction and the last available value approaches the value of the desired evolution to the extent of at least 90% in a particular year.
- Evaluation is neutral if the rate falls between 0 and 0.9. The indicator changes in the desired direction and the last available value approaches the value of the desired evolution to an extent lower than 90%.
- Evaluation is negative if the rate is lower than 0, i.e. the evolution of the indicator is opposite to the desired direction.

Type 2[9]

For these indicators an agreed target value is set, but the year when it should be achieved is not determined. Such an indicator is for example *general government consolidated gross debt*.

Evaluation can be accomplished based on the simple comparison of the last available value and the target value, with two possible categories:

- Evaluation is positive if the desired evolution is growth, and the last available value is higher than the target value, or if the desired evolution is decrease, and the last available value is lower than the target value.
- Evaluation is negative if the desired evolution is decrease, and the last available value is higher than the target value, or if the desired evolution is growth, and the last available value is lower than the target value.

Type 3[10]

The majority of indicators in HCSO's indicator set belongs to this type. In this case the evolution of the indicator is compared with the desired evolution. It was applied for the indicators for which no target value is agreed, but the direction deemed to be favourable can be determined. The values for the base year and the last available year were taken into account only, so the method applied left out of consideration the evolution for the years in between. To calculate the observed evolution the percentage change was used, its equation being:

$$\text{Percentage change} = \frac{\text{last available value} - \text{base value}}{\text{base value}} * 100$$

Based on two limit values (3% in the desired direction and 3% in the opposite direction compared to the base value) the 3 categories below can be established:

- Evaluation is positive if the change goes in the right direction and its absolute value is no less than 3%.
- Evaluation is neutral if the absolute value of the change is below 3%.
- Evaluation is negative if the change goes in the direction opposite to the desired one and its absolute value is no less than 3%.

In some cases different evaluation was applied. In the case of *Annual mean temperature,* the *amount of precipitation* and *the number of heat days and freezing days* the complete time series was evaluated, according to the criterion under type 3, while *dependency ratio* on the basis of the projection for between 2013 and 2060.

8 See its detailed methodological descriptions in Eurostat (2014): Getting messages across using indicators. Publication Office of the European Union, Luxembourg, pp. 21–22.
9 Ibid, pp. 27–28.
10 Ibid, pp. 33–34.

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Hungarian Meteorological Service
Institute of Ecology and Botany of the Centre for Ecological Research of the Hungarian Academy of Sciences
Institute of Geodesy, Cartography and Remote Sensing
Ministry of Agriculture
Ministry of Human Capacities
National Bank of Hungary
National Directorate General for Disaster Management
National Food Chain Safety Office, Hungarian Forest Management
Research Institute of Agricultural Economics

Budapest, 2015

HUNGARIAN CENTRAL STATISTICAL OFFICE

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1. *Environment*

1. Environment

Changes in state of the environment

Air

- In 2012, greenhouse gas emissions in Hungary met both the domestic commitment for 2012 and the EU target value for 2020, and was lower than those in EU-28 countries compared to 1990.
- Ozone precursors emissions correlate closely with the decreasing EU trend. The 51% decline of nitrogen oxides emissions has mostly been due to the reductions of emissions from transport (58%) and industry (62%) since the regime change.

Climate

- Though the weather changed year by year over the time span of 113 years, the temperature rose. Warming reached 1 °C in Budapest from 1901.
- In Budapest the long time series of annual precipitation from 1901 indicate a decrease.

Water

- In Hungary, the annual public water production per capita gradually decreased by 15% between 2000 and 2013.
- Between 2000 and 2013, the value of the municipal wastewater treatment index decreased by 44 percentage points as a result of putting into service sewage treatment plants of high efficiency (at least biological stage).

Land

- In Hungary the quantity of fertilizers sold grew almost continuously until 2007, however, fell considerably in 2008. As a result of a permanent increase in the subsequent years, the quantity per hectare of agricultural area was the highest in 2013 when examining the past 14 years.
- Though the quantity of pesticides sold in Hungary fell by 15% between 2008 and 2010, it has been increasing ever since. The sold quantity rose by 114% between 2000 and 2013.
- Between 2000 and 2013, the size of organic farming areas increased by nearly 146%. Since 2005, the share of bio-farming areas has grown dynamically in the EU and only slightly in our country.

Wildlife

- In Hungary, the population of farmland birds has been decreasing since 2005. Their lowest value was measured in 2012.
- Between 2007 and 2013, the proportion of asymptomatic forests ranged between 49% and 62%, and it was 55.6% in 2013.

Waste

- Between 1995 and 2012, the amount of municipal waste per capita in Hungary was below the average of the EU-27. From 2008, it declined sharply, partly as a result of a consumption reduction triggered by the economic crisis; in 2012 it grew to the level measured in 2010.
- Primarily due to the spread of selective collection, the proportion of municipal wastes used in recycling and composting has been growing steadily since 2005; however, it is still significantly below the EU average.

Environment control

- The proportion of environmental investments in the national economy declined compared to all investments: in 2013, it was 1.7 percentage points lower than in 2005.
- The ratio of environmental taxes to all taxes decreased from a share of over 7.5% in 2005-2006 to around 6.5% in the subsequent years.

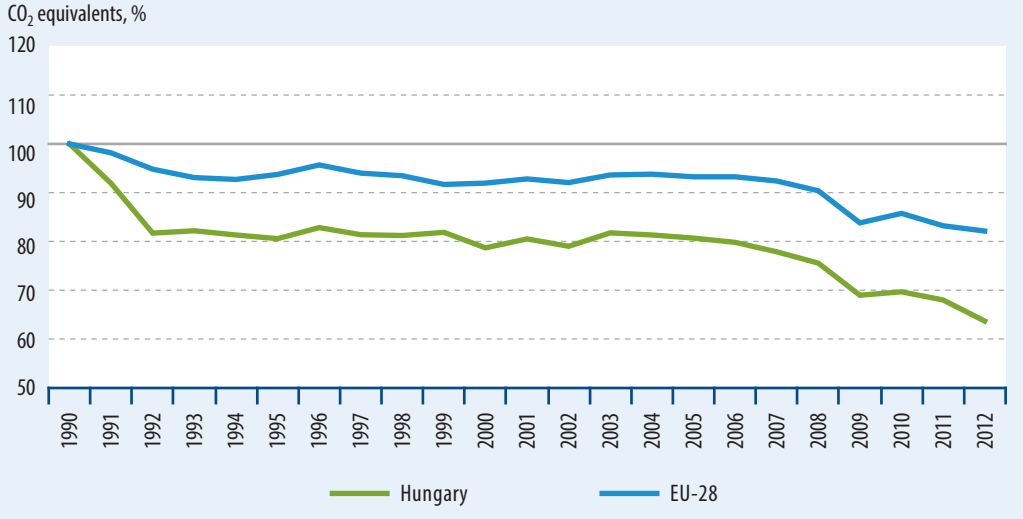
Greenhouse gas (GHG) emissions

Keywords greenhouse gas emissions, carbon dioxide (CO_2) emissions, transport, road transport

MT 156.9
CY 147.7
ES 122.5
PT 114.9
IE 107.0
EL 105.7
AT 104.0
SI 102.6
LU 97.5
NL 93.3
IT 89.7
FR 89.5
FI 88.1
PL 85.9
HR 82.7
BE 82.6
EU-28 82.1
SE 80.7
UK 77.5
DK 76.9
DE 76.6
CZ 67.3
HU 63.7
SK 58.4
BG 56.0
RO 48.0
EE 47.4
LT 44.4
LV 42.9

Greenhouse gas emissions in CO_2 equivalents in the European Union, 2012 *(1990=100.0), %*

Figure 1.1.1. Greenhouse gas emissions (1990=100.0)



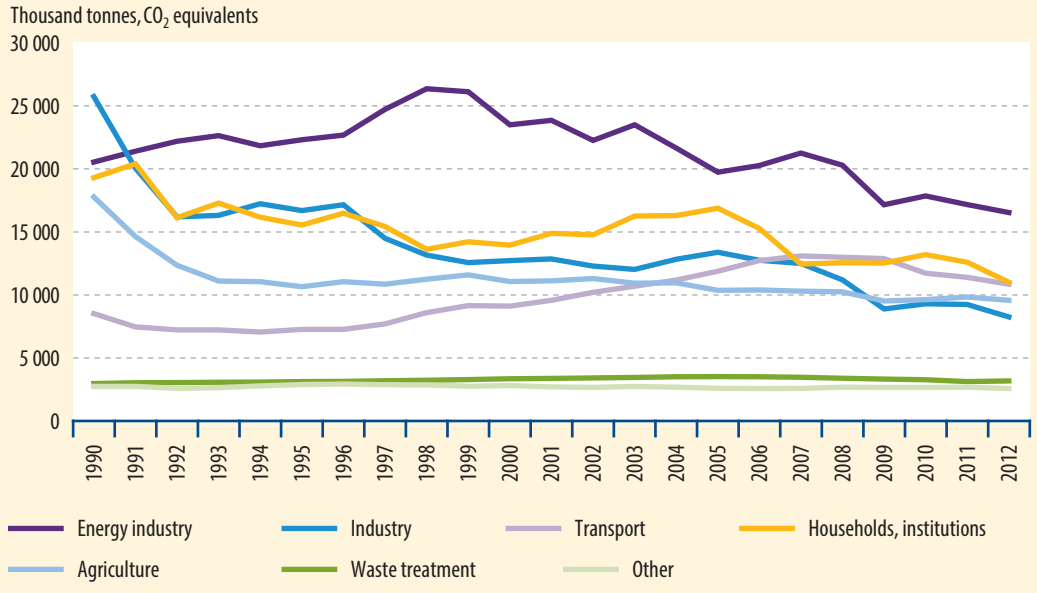
GHG emissions in Hungary are lower than emissions in EU-28 countries compared to 1990.

Relevance One of the most important actions in the area of climate change is to regulate greenhouse gas (GHG) emissions. Climate change is a realistic danger for humanity, and its biological, economic and social disadvantages all can be detected. According to the National Framework Strategy on Sustainable Development the capacity of environment has to be a barrier to economic activity. It is necessary to decrease the environmental load on humanity and to economise on non-renewable resources. These aims can only be reached by partnership covering the whole society, and by the universalisation of education and environmentally sound behaviour of enterprises and families. In parallel with reducing environmental load we have to prepare to save ourselves from the harmful effects of climate change: adaptation is unavoidable.

The sustainable development strategy of the European Union and the Europe 2020 strategy set a goal of decreasing GHG emissions by 20% compared to 1990. In a longer time horizon the EU plans a reduction of 40% by 2030 and of 80% by 2050 compared to the level of emissions in 1990. The greenhouse gas emissions indicator contributes to the EU target that global warming could not exceed the average temperature of pre-industrial times by more than 2 degrees Celsius.

Commentary With the exception of Cyprus and Malta all Member States in the European Union have individual targets to moderate greenhouse gas emissions under the Kyoto Protocol. In accordance with Article 4 of the Kyoto Protocol (KP) the EU-15 agreed to a collective 8% reduction of its greenhouse gas emissions between 2008 and 2012 compared to the 1990 level. Eastern European Member States are required under the KP to lower their GHG emissions by 6%–8%. Hungary's own commitment requires a 6% reduction in the emissions of six greenhouse gases between 2008 and 2012 compared to the base period of 1985–1987 (and of the year 1995 for fluorine gases). In 2012 Hungary's GHG emissions met both the domestic commitment for 2012 and the EU target for 2020. The EU's emission trading system places economic pressure on economic actors to reduce greenhouse gas emissions. In the 2 years following the regime change GHG emissions fell drastically in Hungary as a consequence of the reduction of

Figure 1.1.2. Greenhouse gas emissions by sectors



Source: Hungarian Meteorological Service.

GHG emissions by the transport sector have increased dynamically since the regime change.

heavy industry, and stagnated in the subsequent more than one decade.

The fact that GHG emissions did not change substantially within this period can be rated basically positively. Between 2005 and 2009, emissions were reduced relatively significantly again, which was initially due to milder winters, higher energy prices and the modernisation in chemical industry, then decisively to the financial crisis in 2008 and the following economic crisis. Emissions slightly rose in 2010 in line with GDP growth, then decreased again in 2011, mainly as a consequence of lower electricity production and mineral extraction and the substantial fall of natural gas consumption by the household sector. The decrease continued in 2012 because of a decrease in electricity production and the significant reduction of natural gas consumption by other sectors, and GHG emissions reached their minimum until now in the examined period.

International outlook From the middle of the 1990s GHG emissions in Hungary correlated with the trend of the later EU-28. Emission reductions compared to 1990 exceeded the EU-28 level mostly in the Baltic states and Romania by 2012. Emissions fell to less than the half of the 1990 level in these countries. GHG emissions increased the most significantly in Malta, Cyprus and Spain compared to the base year.

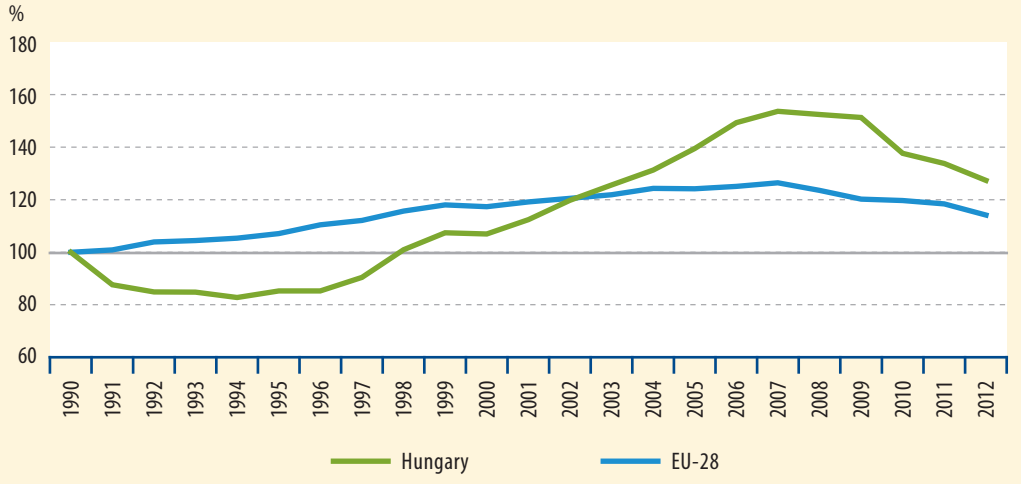
Details The total volume of GHG emissions by the different economic branches in Hungary decreased from 98 thousand to 62 thousand tonnes of CO2 equivalents from 1990 to 2012. 27% of the volume of GHG emissions came from energy industry in 2012.

GHG emissions per capita in Hungary were continuously below the EU-28 average between 2000 and 2011, reaching merely 73% of that in 2011.

Emissions were cut in all the examined sectors except transport and waste treatment. In the former section an increase of 27% was registered between 1990 and 2012.

GHG emissions from transport in Hungary stagnated at a relatively low level in 1991–1996 compared to the 1990 value, and started to grow dynamically, mainly due to the growing number of motor vehicles and parallelly increasing goods transport performances. Emissions almost doubled by 2007 compared to the beginning of the examined period, however, they substantially decreased from 2010, which mostly stemmed from the decrease of motor spirit and gasoline consumption in 2010 principally because of the long-term effect of the economic crisis and price rises caused by higher tax load. From 1990, motor spirit consumption was the lowest in 2011 and 2012, and gasoline consumption also fell in this period, though to a lesser extent. Transport

Figure 1.1.3. Greenhouse gas emissions from transport (1990=100.0)



! *The growth dynamics of GHG emissions from transport in Hungary exceed the EU level.*

is an ever more significant source of GHG emissions in Hungary too: it contributed by only 9% to total emissions in 1990, compared with already 18% in 2012. The proportion of GHG emissions by road transport in total transport in the examined period was permanently above 90% in Hungary as well as in the EU. The weight of transport rose significantly in the EU too in the examined period. In 1990 this section accounted for 14% of total GHG emissions in the EU-28, compared with already one-fifth in 2012. GHG emissions by transport have more than doubled in Luxembourg, Poland, the Czech Republic, Ireland and Slovenia since 1990.

The European Commission set goals in 2011 that require a 60% reduction of GHG emissions by transport within the EU by 2050 compared to the 1990 level of emissions. The Commission intends to reach this goal in such a way that in parallel with the reduction of emissions, transport and mobility should broaden, vehicles with traditional fuels should not operate in towns and the oil dependency of transport should drop in general as well.

Definitions

The greenhouse gas (GHG) emissions indicator shows the emissions of six greenhouse gases (CO_2 – carbon dioxide, CH_4 – methane, N_2O – dinitrogen oxide, HFC – hydrofluorocarbons, PFC – perfluorocarbons, SF_6 – sulphur hexafluoride), converted into CO_2 equivalents. In general, the base year is 1990 for non-fluorinated gases and 1995 for fluorinated gases.

The greenhouse gas emissions per capita indicator does not include emissions by and sequestration in the land use, land use change and forestry (LULUCF) sector, emissions by international air and sea transport, and carbon dioxide coming from biomass.

Greenhouse gas emissions by transport show the trends of emissions by transport (road transport, rail transport, inland waterway transport and domestic air transport).

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5.3.3. Emission of carbon-dioxide (CO_2) by industries
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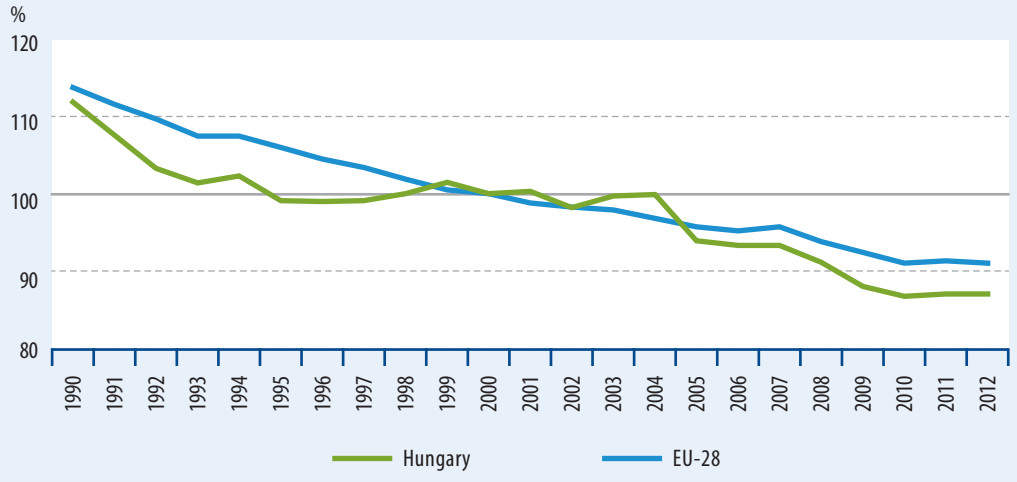
5.3.10. Emission of sulphur hexafluoride (SF_6) by industries

Greenhouse gas intensity of energy consumption

Keywords **greenhouse gas intensity, energy use**

Figure 1.2.1. **Greenhouse gas intensity of energy consumption** (2000=100.0)



! *The greenhouse gas intensity of energy consumption decreases and correlates with the average of the EU-28 countries.*

Relevance The indicator provides information on the extent to which the tools and methods of energy use are a burden on the environment and human health, however, it is also characteristic of the environment-consciousness of social and economic actors. The switch to low or lower carbon-content fuels helps achieve a number of objectives of the EU Sustainable Development Strategy. Using lower carbon-content fuels and renewable energy sources reduces greenhouse gas emissions and thus contributes to the decrease of greenhouse gas intensity of energy consumption. To put into daily practice efficient energy use and thus to create more sustainable energy management it is necessary to increase the share of biomass, geothermal, hydroelectric, solar and wind energy, agricultural by-products as well as agrofuels and biogas within energy use. One of the targets of the Europe 2020 Strategy is to increase energy efficiency and the share of renewable energy sources within final energy consumption by 20% by 2020 in the EU. And measures in connection with these targets help further decrease the greenhouse gas intensity of energy consumption.

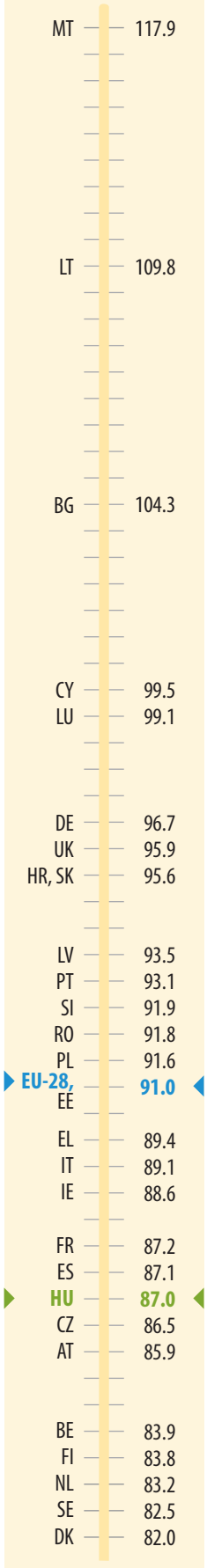
Commentary GHG emissions per unit of energy use are declining both in Hungary and in the European Union. In Hungary this is caused first of all by the economic re-structuring after the regime change and by the decrease of industrial production, but the increasing proportion of switching from solid fuels to gas and renewable energy sources and the growing environment-consciousness of social and economic actors also play a part.

International outlook From 1990 to 2012, GHG emissions per unit of energy use decreased in the EU as well as in Hungary. With the exception of Malta, Lithuania and Bulgaria, most of the EU countries reduced the value of the indicator from 2000 to 2012.

Definition The greenhouse gas intensity of energy consumption is the ratio of greenhouse gas emissions of energy use to gross domestic energy use.

Stadat tables
5.3.2. Emission of greenhouse gases by industries

Greenhouse gas intensity of energy consumption in the European Union, 2012 *(2000=100.0), %*



MT 126.9
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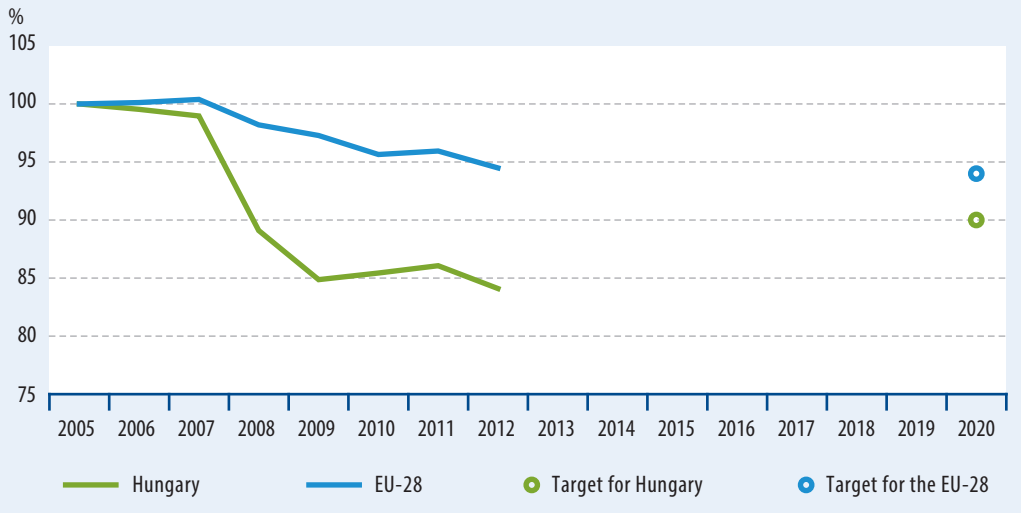
SI 102.3
PL 96.6
LT 92.5
LV 88.8
DE 85.0
BG 80.2
SK 79.5
SE 79.0
ES 77.5
NL 77.0
EU-28 76.9
AT 76.8
CZ 76.7
FI 75.5
LU 74.4
HU 74.2
UK 73.5
RO 73.1
FR 72.8
PT 72.7
HR 72.0
IT 71.5
BE 69.6
DK 64.3
EL 63.2
IE 60.0

Ammonia emissions – acidifying compounds

Keywords **acidifying compounds, nitrogen oxides, sulphur dioxide, ammonia**

Figure 1.3.1. Emissions of ammonia (2005=100.0)



Source: European Environment Agency.

Ammonia emissions decreased in the European Union as well as in Hungary, and the value of ammonia emissions in Hungary is already below the 2020 target.

Relevance The emission of substances causing acidification damages the ecosystem, especially the soil, forests and water reservoirs. Nitrogen oxides in the atmosphere, getting far from the originating source, are deposited, thus they play a role in acidification, eutrophication[1] as well as through their increased concentration in the development of photochemical smog.

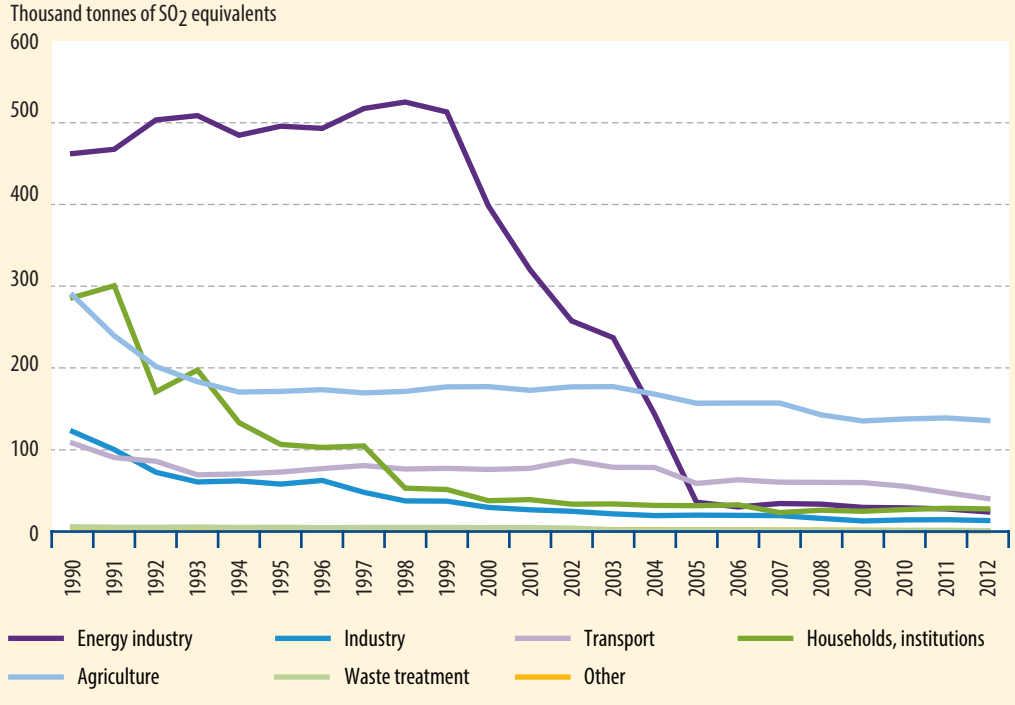
Emitted sulphur dioxide is responsible for the development of winter smog, while nitrates leaching into waters during ammonia emissions together with phosphates mainly account for the excess growth of algae.

Commentary To regulate acidifying compounds a number of laws were formulated including the Gothenburg Protocol of the Geneva Convention on Long-range Transboundary Air Pollution of 1979 (CLRTAP). EU member states made new commitments in connection with the Gothenburg Protocol in Geneva in May 2012. They agreed to cut emissions of sulphur dioxide, nitrogen oxides and ammonia by 59%, 42% and 6% respectively for the EU as a whole by 2020 and beyond compared to the level of emissions in 2005. Based on year 2012 data, emissions at the level of the EU were reduced by 48% in the case of sulphur dioxide, by 27% in respect of nitrogen oxides and by 5.5% in the case of ammonia. Hungary committed to reduce emissions by 46%, 34% and 10% in the case of sulphur dioxide, nitrogen oxides and ammonia respectively. Emissions in Hungary fell by 26% in the case of sulphur dioxide, by 26% for nitrogen oxides and by 16% in the case of ammonia by 2012 compared to 2005. The quantity of emitted sulphur dioxide is on the decrease, the main reasons for which are a decrease in the sulphur content of fuels, the utilisation of desulphurisation equipment when using coal, furthermore, the declining proportion of heating by coal. With the 96% decrease of sulphur dioxide emissions from 1990 to 2012, ammonia and nitrogen oxides emissions of the economy became more substantial factors of the acidification of the environment. Ammonia and nitrogen oxides emissions decreased in a few years right after the regime change, after which they essentially stagnated until the beginning of the 2000s and decreased following that. Hungary

***Emissions of nitrogen oxides in the European Union, 2012** (2005=100.0), %*

[1] A process in which the excess volume of phosphorus and nitrogen in wastewater leads to the excess growth of algae in water.

Figure 1.3.2. **Emissions of acidifying compounds by sectors**



Source: Hungarian Meteorological Service.

! *Emissions from energy industry fell considerably.*

has been emitting less ammonia in the last few years than the target for 2020. The main sources of ammonia emissions are the activity of manure storage, slurry spreading and the use of synthetic nitrogenous fertilisers. Ammonia emissions equalled 125 thousand tonnes of SO_2 equivalents in 2012, which was 52% of total emissions of acidifying compounds.

International outlook In 2012 the emissions of nitrogen oxides in the EU were 77% of the base value for 2005, in comparison with which Hungary's emissions were slightly more favourable (74%). In the examined year, emissions in Malta, Estonia, Cyprus and Slovenia exceeded the value of the base year. Ireland is in the most favourable position, where emissions have been cut by 40% since 2005. The reduction of EU emissions can mostly be explained by EU legislation favouring reduction, which mainly covered emissions from motor vehicles (European emission standards) as well as the combustion of industrial fuels and production by power plants. However, the fact that a substantial proportion of motor vehicles operate invariably using traditional technology (not reaching European emission standards) shows that there is still a further significant potential in reducing nitrogen oxides emissions. Combustion modification technologies and switching fuel from coal to gas helped further decrease nitrogen oxides emissions.

Details The aggregate SO_2 equivalents of acidifying gases emitted by the Hungarian economy declined dramatically, from 1 million 279 thousand tonnes in 1990 to 243 thousand tonnes in 2012. This was largely due to technological changes in energy industry. With the substantial decrease in emissions from energy industry, agriculture became the primary source of emission of acidifying gases, which had a share of 56% in 2012.

Definition The indicator of emissions of acidifying compounds monitors the total annual emissions of nitrogen oxides from human activities, sulphur dioxide and ammonia.

Stadat tables

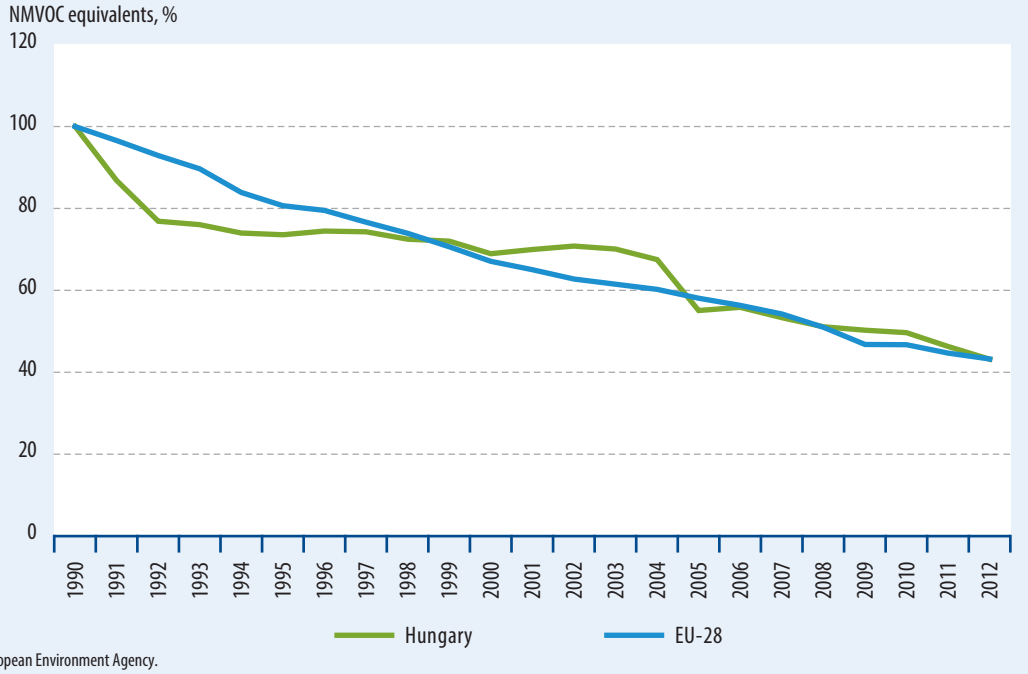
5.3.11. Emission of acidificators by industries
5.3.12. Emission of nitrogen oxides (NO_x) by industries
5.3.13. Emission of sulphur dioxide (SO_2) by industries
5.3.14. Emission of ammonia (NH_3) by industries

CY 88.8
MT 83.6
RO 70.2
EL 65.6
AT 63.0
ES 62.8
SI 62.4
PL 60.6
PT 60.3
HR 59.1
LU 57.6
IE 54.4
LV 51.2
EE 49.3
SE 49.1
LT 49.1
FI 48.8
DK 45.0
BE 43.8
EU-28 43.3
HU 43.1
IT 41.2
SK 39.9
NL 39.2
FR 37.8
DE 36.2
UK 32.3
CZ 32.1
BG 26.4

Ozone precursors emissions

Keywords **ozone precursors, transport, ozone concentration**

Figure 1.4.1. Ozone precursors emissions (1990=100.0)



Source: European Environment Agency.

! *Ozone precursors emissions in Hungary correlate closely with the decreasing EU trend.*

Relevance Ozone precursors are substances that contribute to the formation of ground-level ozone. Tropospheric[2] ozone is harmful to health, is a component of smog, and hits mostly cities with high traffic. It is an extremely reactive gas, which causes serious health problems and damage to the eco-system and agricultural crops. Human exposure to elevated ozone concentrations can give rise to respiratory problems and decreased lung function. Tropospheric ozone arises from the energy use of transport, industry and households.

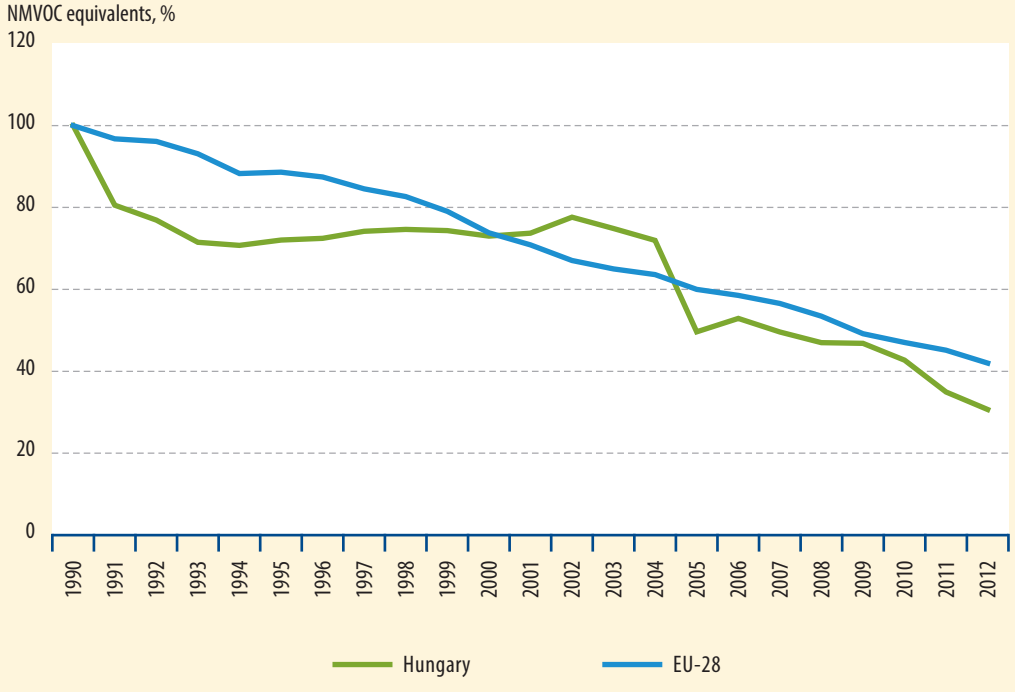
Together with nitrogen oxides, non-methane volatile organic compounds (NMVOCs) are referred to as photo-oxidants. These contribute to the formation of photochemical smog, especially in summer. With the aid of up-to-date technologies, a part of loads can be reduced, e.g. by operating catalysers and more fuel-economical engines. Though cleaner vehicles and alternative fuels do not in themselves resolve the basic sustainability problems of transport, their use is indispensable to decrease the environmental load of transport. In addition to rationalising demand for transport, it is also necessary to have an increasing proportion of demand satisfied by environment-friendly alternative modes of transport, using environment-friendly alternative fuels.

EU members made commitments for nitrogen-oxides and volatile organic compounds in May 2012 in Geneva. The EU as a whole committed to reduce its emissions of nitrogen oxides by 42% and volatile organic compounds by 28% compared to the 2005 emission levels by 2020 and beyond. Hungary's commitment was a 34% reduction of nitrogen oxides emissions and a 30% reduction of volatile organic compounds emissions.

Population exposure to air pollution by ozone in the European Union, 2012, *micrograms/m³*

[2] Troposphere is the lowest layer of the Earth's atmosphere, where most of weather phenomena occur.

Figure 1.4.2. Ozone precursors emissions from transport (1990=100.0)



Source: Hungarian Meteorological Service; European Environment Agency.

Ozone precursors emissions from transport in Hungary correlates with the decreasing EU trend.

The use of stratospheric ozone depleting compounds dropped drastically by today, seeing that their production ceased and only their recycling is possible.

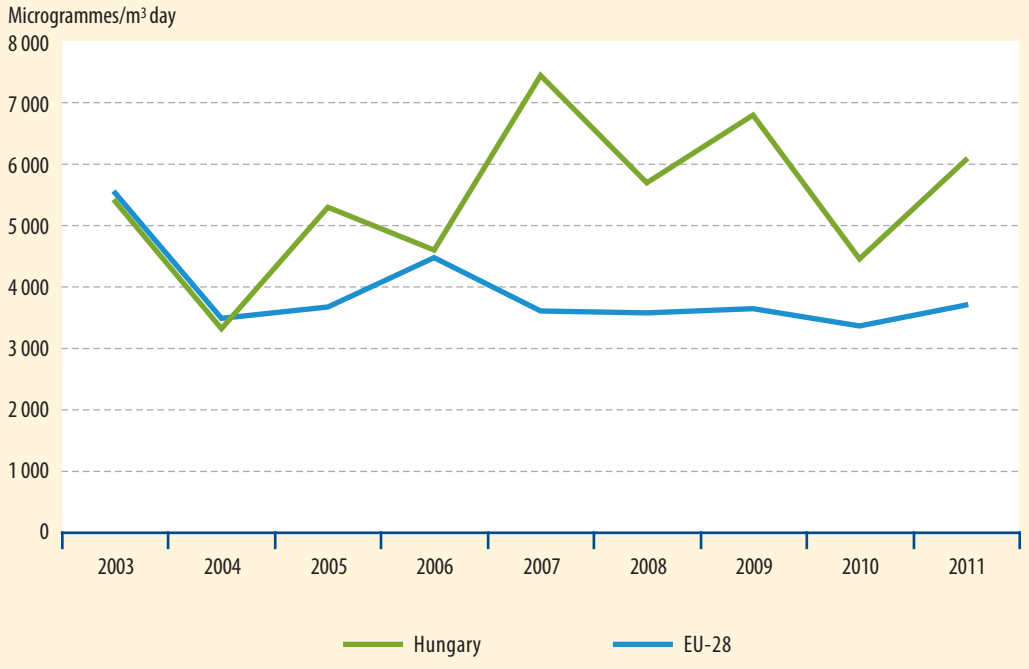
Commentary Ozone precursor emissions steadily decreased in Hungary in the examined period. Emissions were down from 694 thousand tonnes of NMVOC equivalents recorded for 1990 to 300 thousand tonnes of NMVOC equivalents in 2012. The most substantial ozone precursors in 2012 were nitrogen oxides (50%), the respective shares of non-methane volatile organic compounds, carbon monoxide and methane in ozone precursors emissions were 35%, 14% and 2%. The 51% fall of nitrogen oxides emissions was mostly due to the reductions of emissions from transport (58%) and industry (62%) in the examined period. Non-methane volatile organic compounds emissions dropped by 58% from 1990 to 2012, which can principally be explained by considerably high falls of emissions from transport and households, reaching 82% and 50% respectively.

International outlook Hungary's ozone precursors emissions in 2012 compared to 1990 (43.1%) were similar to the EU figure (43.3%). Within the EU only Bulgaria reduced its ozone precursor emissions by more than 70%, while Cyprus and Malta by less than 20% compared to 1990.

Details Ozone precursor emissions from transport in Hungary did not reach even a third of what was measured at the regime change. Their share of total ozone precursor emissions declined from 47% in 1990 to 33% in the examined period.

The main sources of ozone emissions are nitrogen oxides, coming from industrial combustion and transport, and volatile organic compounds, emitted from vegetation. Population exposure to air pollution by ozone varies between countries, partly due to differences in climate and vegetation. In southern countries with higher summer temperatures (e.g. Italy and Slovenia) population exposure to pollution

Figure 1.4.3. Population exposure to air pollution by ozone



The indicator does not show a clear trend because of the unpredictability of weather, but population exposure to air pollution by ozone in Hungary is above the EU-28 average.

by ozone is higher in general than in cooler northern countries (e.g. Norway and Ireland). The effect of hotter summers in 2003 and 2006 is seen in higher EU-28 figures.

More than 10% of all measured data of ozone concentration in Hungary in 2013 exceeded the "long term target[3]" only at the measuring station at Boszorkány út in Pécs and at the Oszlár measuring station.

Definitions

The ozone precursor emissions indicator shows trend of nitrogen oxides, non-methane volatile organic compounds (NMVOC), carbon monoxide and methane emissions, expressed in NMVOC equivalents. The ozone precursor emissions from transport indicator signals the trend of nitrogen oxides, carbon monoxide, methane and non-methane volatile organic compounds emissions from transport, expressed in NMVOC equivalents.

Population exposure to air pollution by ozone shows the ozone concentration to which people living in a particular area are potentially exposed to, weighted by the number of people living there.

Stadat tables

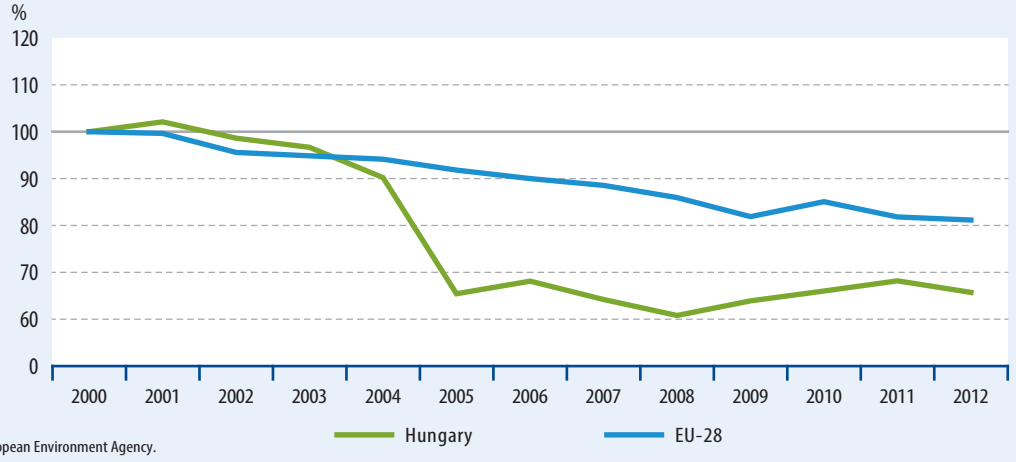
5.3.7. Emission of methane (CH_4) by industries
5.3.12. Emission of nitrogen oxides (NO_X) by industries
5.3.15. Emission of ozone precursors by industries
5.3.16. Emission of non-methane volatile organic compounds (NMVOC) by industries
5.3.17. Emission of carbon monoxide (CO) by industries

[3] 120 µg/m³, maximum of an 8-hour moving average daily concentration measured in a calendar year.

Particulate matter emissions

Keywords particulate matter emissions, air pollution by particulate matters, PM_{10}, transport, particulate matter concentration

Figure 1.5.1. PM_{10} emissions (2000=100.0)



Source: European Environment Agency.

! *From 2004 the decline of Hungary's PM_{10} emissions exceeds that of the EU-28 compared to 2000.*

Relevance The main sources of particulate matter emissions in towns are diesel-powered vehicles, as well as industrial, household and other combustion. Particulate matter emissions in the transport sector stem from imperfect combustion and are significant mainly in the case of diesel-powered motor vehicles. The wear of tyres and brakes also enhance particulate matter emissions. Reducing pollutant emissions from transport to levels that minimise effects on human health or the environment is a specific objective of the Sustainable Development Strategy of the European Union. The natural sources of particulate matter emissions are dust, sand and smoke from forest fires. At high levels of sulphur dioxide concentration and in the case of slow air motion and low temperature, particulate matters are the generators of winter smog. Increased attention to PM_{10}[4] is due to their harmful effects on health. Breathing in these substances plays a role in the formation of several heart and respiratory diseases.

Commentary Total PM_{10} emissions in Hungary were down by 34%, from 65 thousand tonnes to 43 thousand tonnes from 2000 to 2012. Households were the largest particulate matter emitters in Hungary in 2012, with a share of 56%.

International outlook PM_{10} emissions in the EU declined by 19% in 2012 compared to 2000. This indicator signals a 34% decrease in Hungary. The situation was the most favourable in Cyprus, where emissions in 2012 were 54% lower, and the least favourable in Luxembourg, where they were 81% higher than emissions in the year 2000. Population was mostly exposed to air pollution by particulate matters in Bulgaria (58 micro-grammes/m^3) and the least in Finland (12 micrograms/m^3) and Estonia (13 micrograms/m^3) within the EU in 2011. Severe summer heat waves and the hot and dry weather conditions led to the accumulation of pollutants in 2003 and 2006. The high values in 2003 were also due to forest fires in south-western Europe, as a result of which the northern and eastern parts of Europe were exposed, too, to higher pollution by particulate matters.

Details The transport sector in the EU emitted 21% less particulate matters in 2012 than in 2000. Decreasing PM_{10} emissions were induced by more and more rigorous emission standards for passenger cars and lorries, the spread of fuels with low sulphur content, and the growing introduction of diesel oxidation catalytic converters and diesel particulate

[4] It refers to suspended particulate matter particles with a diameter of less than 10 micrometres.

PM_{10} emissions in the European Union, 2012
(2000=100.0), %

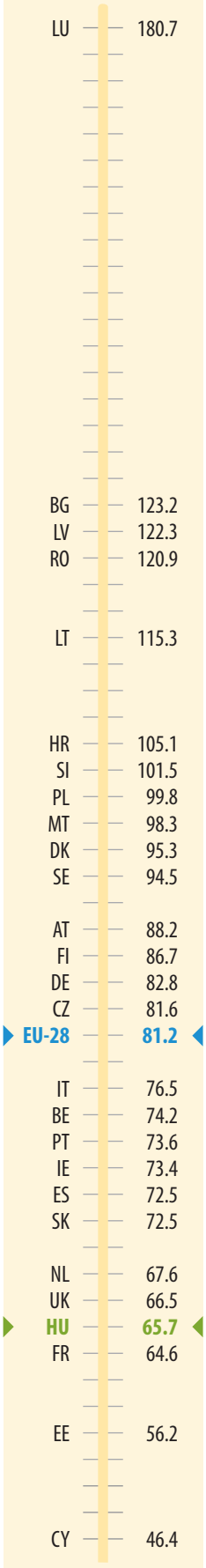
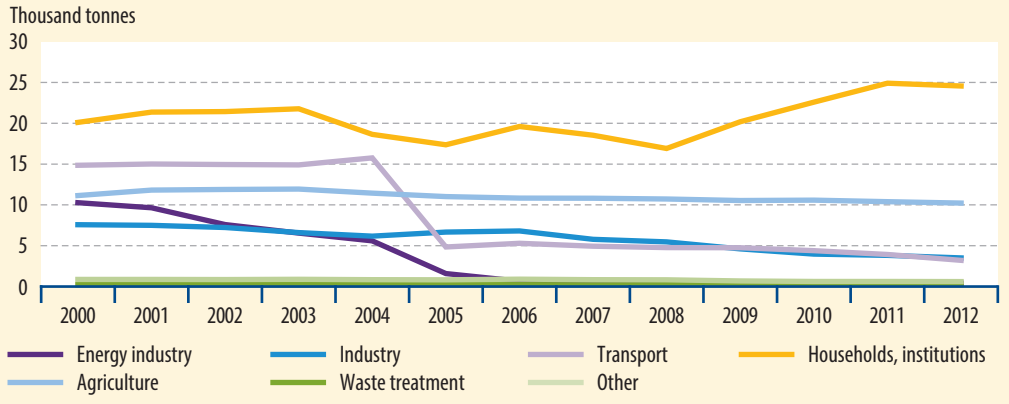


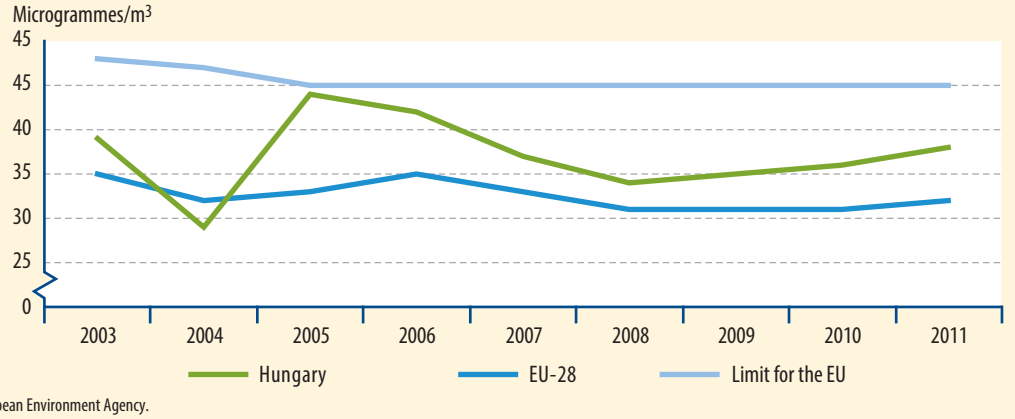
Figure 1.5.2. PM_{10} emissions by sectors



Source: Hungarian Meteorological Service.

! *PM_{10} emissions from households and institutions were up, while those from the rest of the sectors decreased in the examined period.*

Figure 1.5.3. Population exposure to air pollution by particulate matters



Source: European Environment Agency.

! *The exposure of the population in Hungary to air pollution by particulate matters was typically higher than the EU average between 2003 and 2008.*

filters. Directive 2008/50/EC of the European Parliament and of the Council of 21 May 2008 on ambient air quality and cleaner air for Europe specified from the day when it entered into effect an annual PM_{10} limit value of 40 micrammes/m^3 in the EU, and average population exposure was below this in the EU as well as in Hungary in the examined period. There were values that exceeded this limit value at certain measuring stations both in the EU and in Hungary in this period. In 2013, air pollution by particulate matters with a diameter of below 10 micrammes/m^3 exceeded the 24-hour limit value in more than 20% of the measured cases at measuring stations on Kosztolányi Dezső tér in Budapest, in Putnok and on Búza tér in Miskolc. The annual limit values were not surpassed at any of the measuring stations.

Definitions The indicator of PM_{10} emissions signals the annual quantity of particulate matters – with a diameter of less than 10 micrometres – emissions from anthropogenic activities. The indicator of particulate matter emissions from transport shows the annual quantity of total particulate matter emissions from transport. The indicator of population exposure to air pollution by particulate matters shows the annual mean concentration of pollution by particulate matters, measured at monitoring stations in different agglomerations, weighted with the number of people living there.

Stadat tables

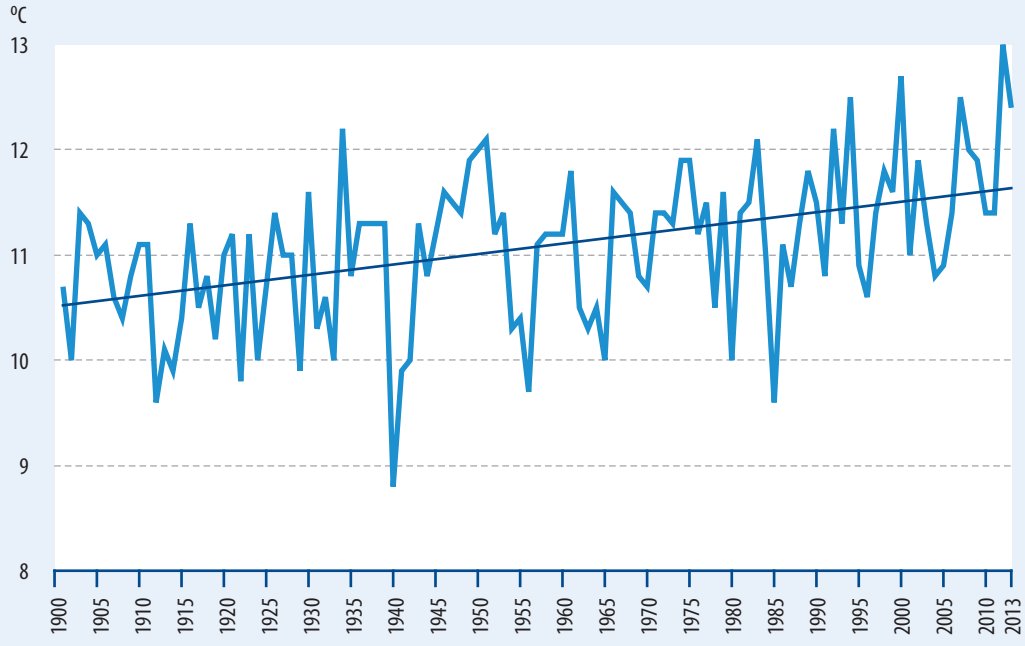
5.3.18. Emission of particulate matter with a diameter of 10 micrometres or less (PM_{10}) by industries

5.3.28. Concentrations of particulate matter with a diameter of 10 µm or less (PM_{10}) according data of the monitoring network

Annual mean temperature

Keywords **temperature, weather**

Figure 1.6.1. **Annual mean temperature in Budapest**



Source: Hungarian Meteorological Service.

! *Warming reached 1 °C in Budapest from 1901.*

Relevance One of the objectives of the EU is that the global mean temperature is not to rise by more than 2 °C compared with the pre-industrial level. To meet this objective greenhouse gas emissions should be reduced significantly. One of the priorities of sustainability in Hungary is also to combat climate change, which puts a high emphasis on reducing greenhouse gas emissions and starting to adapt to changing weather and climatic conditions.

Commentary Though the weather changed year by year over the time span of 113 years, the temperature followed a rising trend. According to the linear trend fitted to the series of annual mean temperatures in Budapest, warming reached 1 °C in the examined period due to the increasing effects of urbanisation. The highest temperature in Budapest was measured in 2007 (40.1 °C). In spite of the volatility a general rise in temperature can be clearly seen in the last 30 years.

International outlook From the beginning of the 20th century to 2010 the global mean temperature rose by 0.74°C. The rise is more intensive over land areas than over the oceans, which is true for the northern hemisphere too, more densely covered by land areas. Between 2001 and 2010 the average mean temperature on Earth was 0.46 °C higher than the mean measured for 1961–1990. This decade has been the warmest ever recorded.

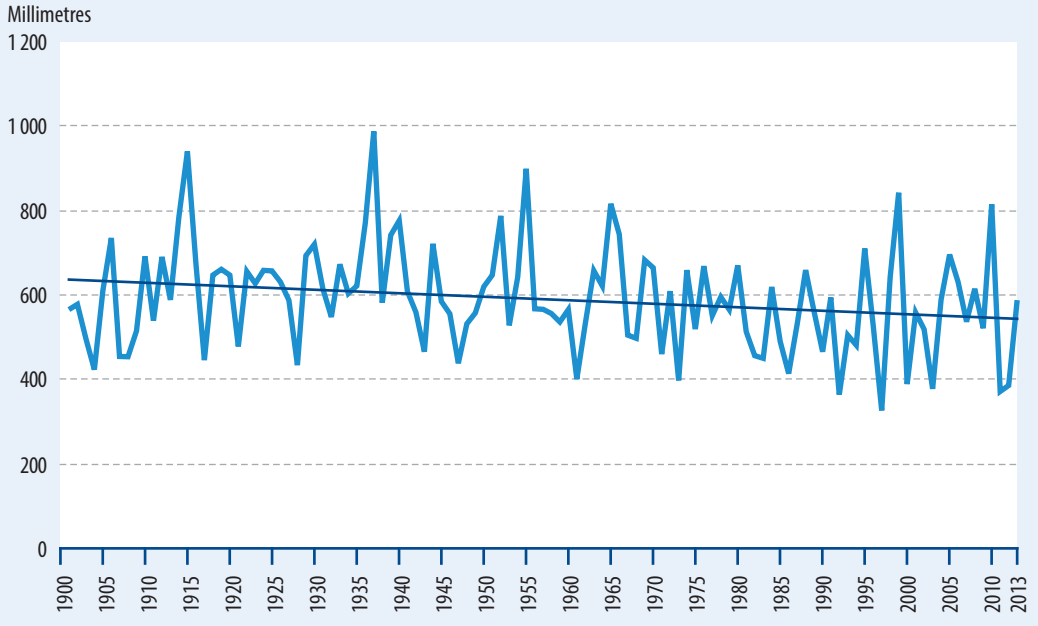
Definition The annual mean temperature is the average of the monthly mean temperatures of the 12 months (averages of daily mean temperatures).

Stadat tables
5.10.3. Extreme weather values
5.10.4. Main data of meteorological observation stations

Amount of precipitation

Keywords **precipitation, weather**

Figure 1.7.1. Annual amount of precipitation in Budapest



Source: Hungarian Meteorological Service.

! ***In Budapest the long time series of annual precipitation indicate a decrease.***

Relevance Combating climate change implies the rational planning of water management. In water management, preparations should be made principally for extreme hydro-meteorological events and extreme conditions of precipitation, which may lead to increased exposure to floods on the one hand and to droughts on the other. Flood safety must be improved, including protection against flash-floods in smaller watershed areas and municipalities. It is needed to make efforts and create more efficient irrigation systems, and to increase the quantity of water held back, to enhance water retaining capacities in the area of Hungary and to ensure the high-level protection of water resources.

Commentary The most precipitation in Hungary is in May and June, and the least in January and February. The quantity of precipitation varies from year to year, even three times more precipitation might fall in the wettest years than in the driest ones. The volatile annual amount of precipitation decreases. Between 1901 and 2013 the largest amount of precipitation in Budapest was measured in 1937 (988 millimetres) and the smallest in 2011 (273 millimetres).

International outlook Drought and other weather extremities such as sudden rainfalls that could cause flood, are a substantial ecological and economic problem in a long term in the world. That is why it is crucial possibly for each country or area to have water management strategy.

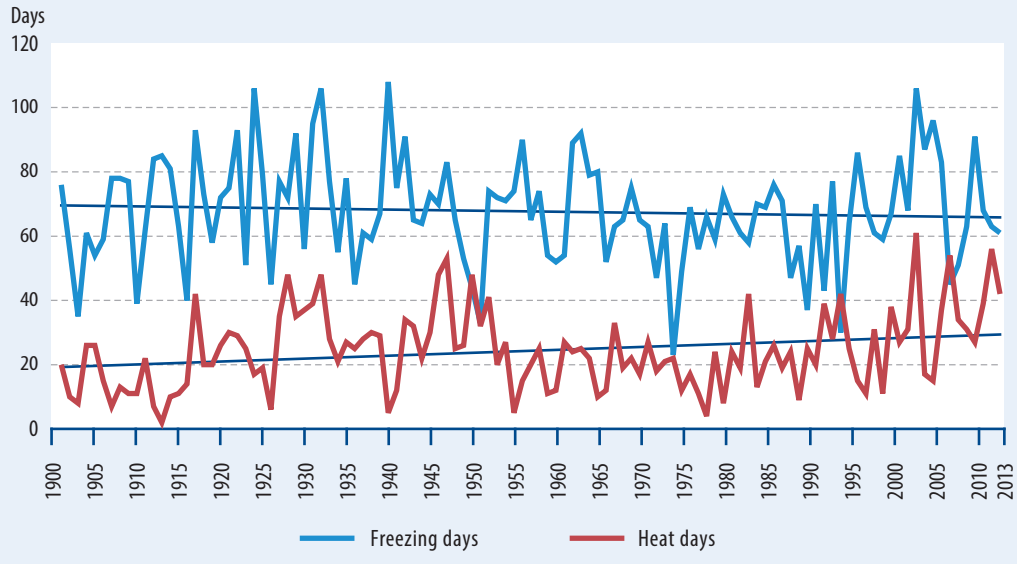
Definition The amount of atmospheric precipitation is measured with the height (millimetres) that rainwater (or melted snow) would reach if it did not evaporate or leak away.

Stadat tables
5.10.3. Extreme weather values
5.10.4. Main data of meteorological observation stations

Number of heat days and freezing days

Keywords heat days, freezing days, heat waves, weather

Figure 1.8.1. Number of heat days and freezing days in Budapest

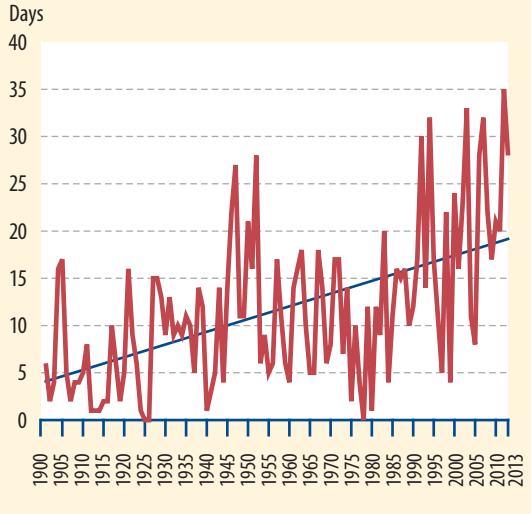


Source: Hungarian Meteorological Service.

! *The number of freezing days fell, while that of heat days increased during the examined period.*

Relevance Changes in the number of freezing days and heat days are a major indicator of global warming. The global rise in temperature can lead to changes in the environment, a rise in the sea level, changes in the amount and spatial distribution of precipitation, as well as to extreme weather conditions.

1.8.2. Number of days when there were heat waves in Budapest



Source: Hungarian Meteorological Service.

! *The number of days when there were heat waves was rising in the last few decades along with substantial fluctuations.*

Commentary Information from average mean surface temperature data is completed by the analysis of extreme temperatures (heat days and freezing days) and temporal range (e.g. heat waves). In the examined period the number of freezing days slightly declined and the number of heat days rose.

Definitions The days when the daily maximum temperature reaches or exceeds 30 °C are referred to as heat days. On days when there are heat waves the daily mean temperature reaches or exceeds 25 °C. The days when the daily minimum temperature is below 0 °C can be referred to as freezing days.

Stadat tables
5.10.3. Extreme weather values
5.10.4. Main data of meteorological observation stations

Areas exposed to drought

Keywords **drought, Pálfai drought index (PDI)**

Figure 1.9.1. Proportion of areas exposed to drought

+ Preliminary data.

Source: General Directorate of Water Management.

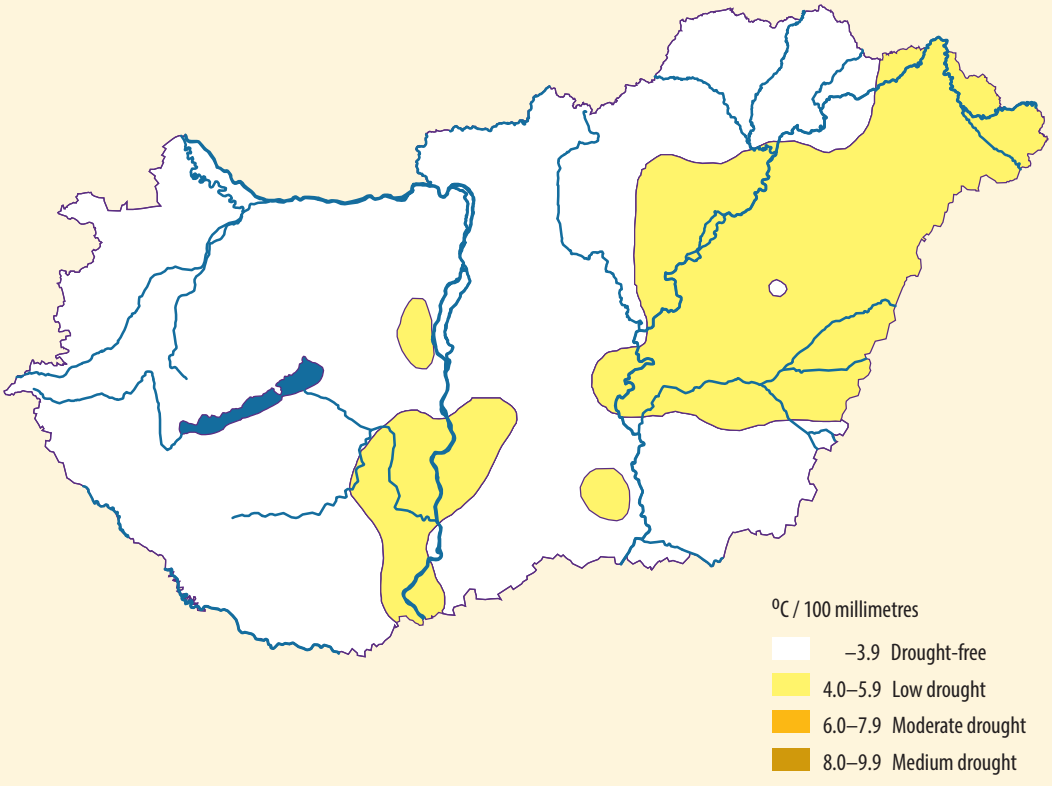
! ***In 2014, according to preliminary assessments, Hungary's territory was not hit by drought.***

Relevance As a result of climate change, weather extremes - including droughts - are on the rise both in our country and around the world. The adverse effects of drought are most notably quantifiable through agricultural losses. Due to the drought and the lack of irrigation, the Hungarian agriculture, the whole living world, the cultivated and uncultivated as well as the protected areas and in this way the society itself sometimes suffer serious damage.

Commentary The proportion of areas exposed to drought often significantly exceeded 50% in Hungary in 2000–2012. 2000, 2003, 2007 and 2012 were years of severe drought. This was the consequence of extreme heat, the lack of precipitation, and the combination of the two. In 2013, the extent of drought (the proportion of drought affected areas was 80%) was lower than the 2012 value (87%). This is mainly due to the considerably wetter than average spring weather. According to preliminary assessments, 2014 was a drought-free year, the areas of Tiszántúl and the Lower Danube Valley were characterized by conditions approximating the lower threshold of drought.

Definition The size of areas exposed to drought is determined by the Pálfai drought index (PDI). This index is the quotient of mean temperatures in the period between April and August and the weighted precipitation amount of the period between October and August. The index takes into account the number of hot days, the length of period with low precipitation, the depth of ground water, and the water demand of agricultural plants changing over time. Areas not exposed to drought are those where the PDI is under 6°C/100 millimetres; areas exposed to extreme drought are those where the PDI is above 12°C/100 millimetres.

Figure 1.9.2. **Territorial distribution of drought index (PDI) values, 2014**



Stadat tables
5.6.1. Areas exposed to drought

Public water abstraction

Keywords **water production, water utility, surface and ground waters**

Figure 1.10.1. Per capita water abstraction of public utilities

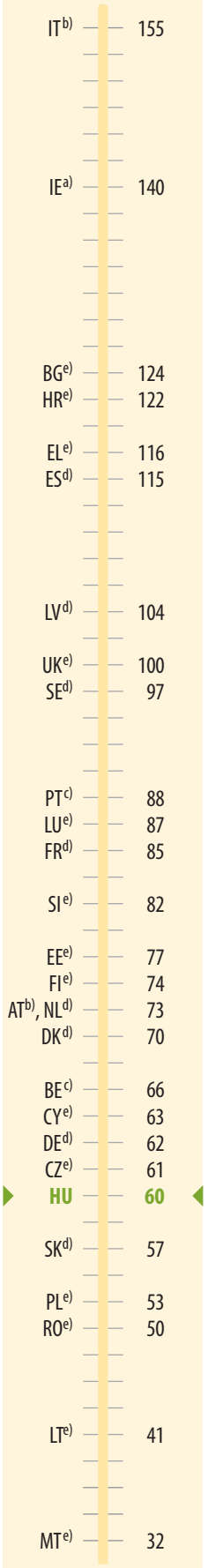
In Hungary, the annual per capita water abstraction of public utilities gradually declines.

Relevance The qualitative and quantitative protection of water resources give priority tasks, which are carried out in the EU Member States in accordance with the objectives set out in the framework of the Environmental Action Programmes (the current one is the seventh) as well as of the Water Framework Directive. Among other things water conservation and the prevention of water pollution are key objectives. To this end, the following major activities can be distinguished: wastewater treatment and remediation, i.e. the larger-scale collection and standards-compliant cleaning of the consumed-potable water generated wastewaters before releasing them into the surface water system under strict control. The feasibility plan adopted in Johannesburg draws attention to the introduction of prevention and protection measures in order to promote sustainable water use and the management of water shortages. Sustainable water use allows the maintenance of groundwater levels, thus it contributes to the survival of associated ecosystems (e.g. wetlands) and economic activities (e.g. agriculture). The tools of catchment area management planning and stakeholder involvement are to ensure the good state of waters.

Commentary In Hungary, the annual public water production per capita gradually decreased by 15% between 2000 and 2013. It mainly resulted from the high water fees and, in case of sewered areas, from the high sewage fees.

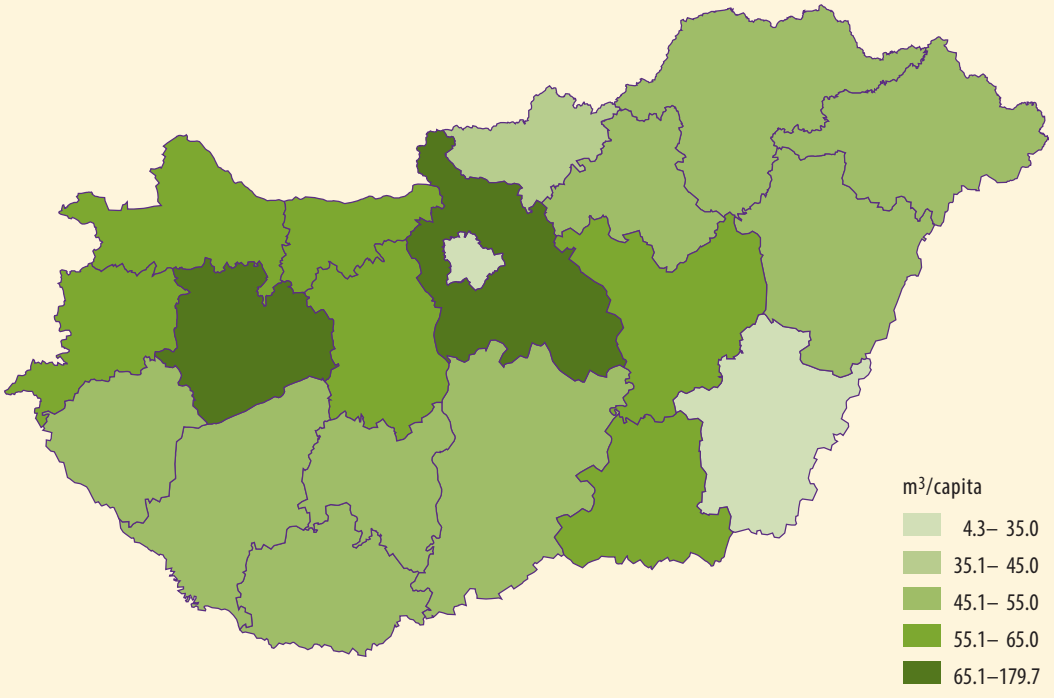
International outlook In Hungary, the per capita volume (60m³/head in 2013) of water put into public water supply was in the second lowest fifth compared with the member states of the EU, which refers to water saving. Generally, this figure is lower in the new member states than in the old ones. These discrepancies may result from the different technologies of water abstraction, the availability of water and sewage facilities, the climatic conditions, the ownership of the water works (government/private), the price of water, the significant role of private water abstraction (through a well), etc.

Per capita public water production in the European Union, 2013, m³/person



a) 2007.
b) 2008.
c) 2009.
d) 2010.
e) 2011.

Figure 1.10.2. **Per capita water abstraction of public utilities by counties, 2013**



! *Public water abstraction per capita was the highest in Pest County (180 m³).*

Details On a county basis, the per-capita volume of water abstraction was outstandingly high at nearly 300% and 150% of the national average (60m³) in Pest county and in Veszprem county respectively and very low in Budapest (4.3 m³) and Békés county (20.1 m³). Regional discrepancies result from the different technologies of water abstraction, the availability of water and sewage facilities as well as, with the exception of Budapest and the large cities, from private (free) water abstraction, which is especially significant in the Great Hungarian Plain.

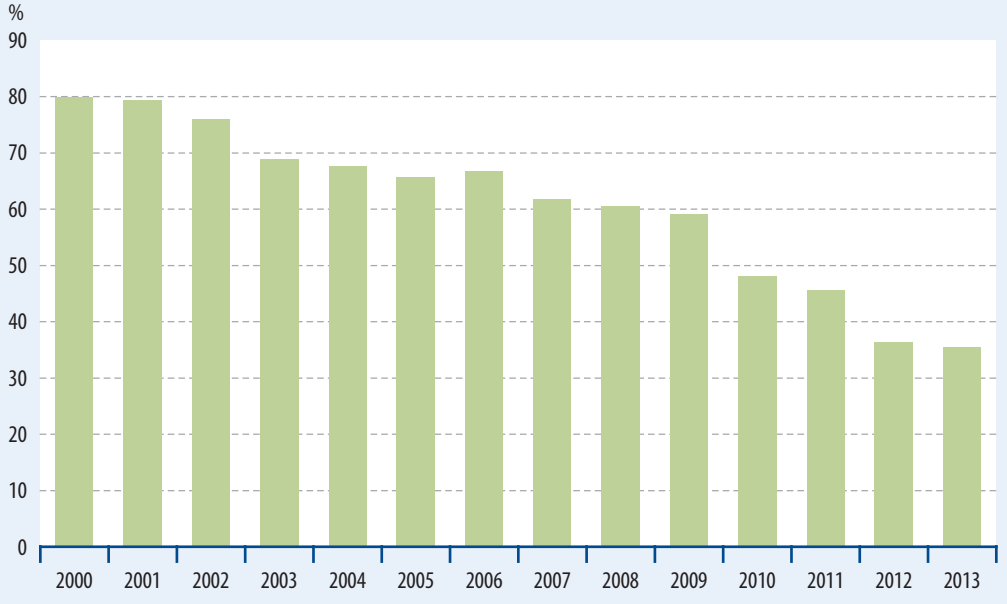
Definition The indicator of annual per capita water abstraction of public utilities contains the volume of water abstracted from surface and ground water bodies.

Stadat tables
5.4.2. Public water abstraction and supply

Municipal wastewater treatment

Keywords **municipal sewage, public water utility, stages of sewage treatment**

Figure 1.11.1. Municipal wastewater treatment index



In Hungary, the municipal wastewater treatment index significantly improved between 2000 and 2013.

Relevance Water utilities play an outstanding role in reducing freshwater pollution, preserving the quality of water assets as well as in protecting water bases through the professional operation of their sewage collection and treatment facilities.

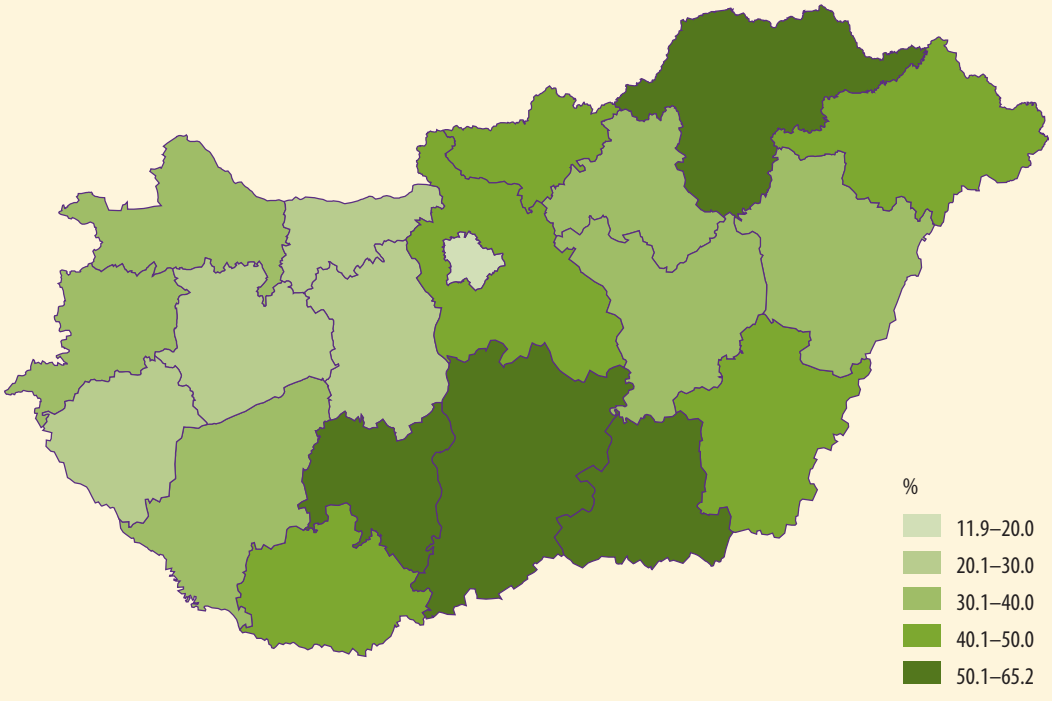
Commentary In Hungary, the index of municipal sewage treatment decreased by 44 percentage points between 2000 and 2013 as a result of the installation of high-performance sewage treatment facilities (at least biological sewage treatment).

Details Apart from Budapest, the index of municipal wastewater treatment was the best in Veszprem (21%) and Fejér (23%) counties. During the previous years, the figure of Budapest (12%) significantly improved as a result of major sewage treatment investments. The index value was the worst in Tolna (65%) and Bács-Kiskun (64%) counties. There were significant differences at the county level mainly as a result of the following: the estimated proportion of population connected to wastewater treatment plants with at least biological treatment was high in the regions of Western Transdanubia, Central Transdanubia and Central Hungary (80, 79 and 82% respectively), while the proportion of tertiary treatment was low in Southern Great Plain.

Definitions

The municipal sewage treatment index, which takes into account the efficiency of treatment, shows how developed the municipal sewage treatment is. The indicator on municipal wastewater treatment shows the efficiency of stages in wastewater treatment based on average weighting factors developed by Eurostat: untreated wastewater: 1.00; only primary (mechanical) treatment: 0.86; secondary (biological) treatment: 0.49; tertiary treatment 0.00. An index on municipal wastewater treatment is 100% if there is no wastewater treatment; and 0% if all municipal wastewaters are purified by tertiary treatment.

Figure 1.11.2. **Municipal wastewater treatment indices by counties, 2013**



! *After Budapest, the index of municipal sewage treatment was the lowest in Veszprém County.*

Stadat tables
5.4.3. Municipal waste water discharge and treatment

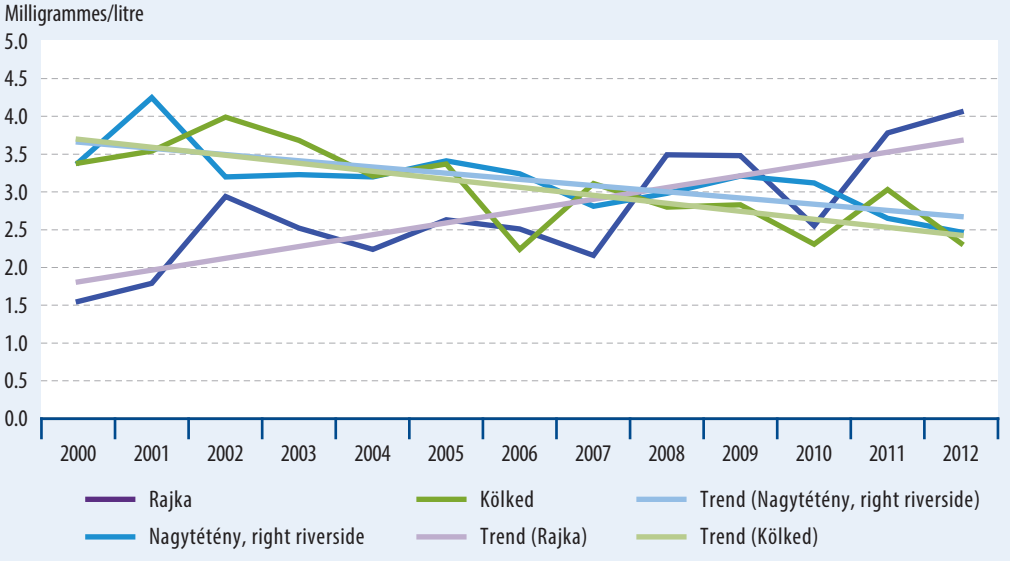
RO[c] 4.5
CY[c] 4.3
EL[b] 3.9
BE[c] 3.8
LT[a] 3.6
BG[c] 3.3
IT[c] 3.2
PL[c] 3.2
CZ[c] 2.9
PT[c] 2.8
ES[c] 2.7
HU 2.6
SK[c] 2.5
DE[c] 2.2
LU[c] 2.1
HR[c] 1.7
UK[c] 1.7
LV[c] 1.5
FR[c] 1.4
NL[c] 1.2
DK[c] 1.2
IE[c] 1.1
AT[c] 1.1
SI[c] 0.9

a) 1995.
b) 2004.
c) 2008.

Biochemical oxygen demand of rivers

Keywords **biochemical oxygen demand, water quality, surface water, river water**

Figure 1.12.1. Biochemical oxygen demand (BOD_5) of the Danube



Source: Database of National Environmental Information System (OKIR).

! *Sampling done at Nagytétény (through-flow point) and Kölked (outflow point) indicates a decline in the BOD_5 values.*

Relevance Human sewage discharge exerts a direct impact on the quality of surface waters and rivers. Better cleaning technologies and treatment methods as well as a decline in water use are needed to reduce the impact on the environment.

Commentary The water quality of the Danube at Rajka, Nagytétény and Kölked is characterized with data measured by environmental protection authorities. Based on the classification of the Hungarian Standard MSZ 12749:1993 and the BOD_5 figure, the water quality of the Danube was in water quality class II (good) at Rajka, and in water quality class I (excellent) at Nagytétény and Kölked in 2012.

The water quality was better at Nagytétény as a result of sewage treatment investments and a decline in water use and sewage discharge in Budapest.

International outlook Based on the non-full scale EU data of 2008 on BOD_5 figures in rivers, the most polluted rivers were in Romania (4.53 mg / l) and Cyprus (4.30 mg / l), while the cleanest ones in Slovenia (0.86 mg / l) and Austria (1.07 mg / l). Hungary was at the end of the mid-range (2. 59 mg/l).

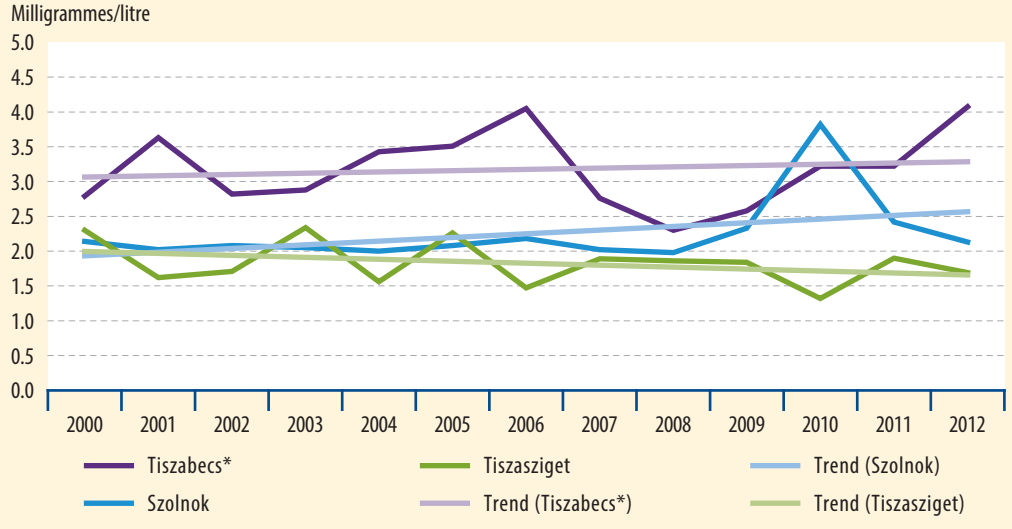
Details The water quality of the Tisza River was classified on the basis of data measured at Tiszabecs, Szolnok and Tiszaliget. According to the above mentioned, BOD_5 based standard the water quality of the Tisza was in water quality class II (good) at Tiszabecs and in water quality class I (excellent) at Szolnok and Tiszaliget in 2012.

The water quality of the Dráva River was classified on the basis of data measured at Barcs and Drávaszabolcs. According to the BOD_5 based MSZ standard the water quality of the Dráva was in water quality class I (excellent) at Barcs and Drávaszabolcs in 2012.

Definitions This indicator is to show the quality of water at the given river section based on the annual average value of BOD_5 measured in a given year. Biochemical oxygen demand is the amount of dissolved oxygen needed by aerobic biological organisms in a body of water to break down organic material present in a given water

BOD of rivers in the European Union, 2012, milligrams/litre

Figure 1.12.2. Biochemical oxygen demand (BOD_5) of the Tisza

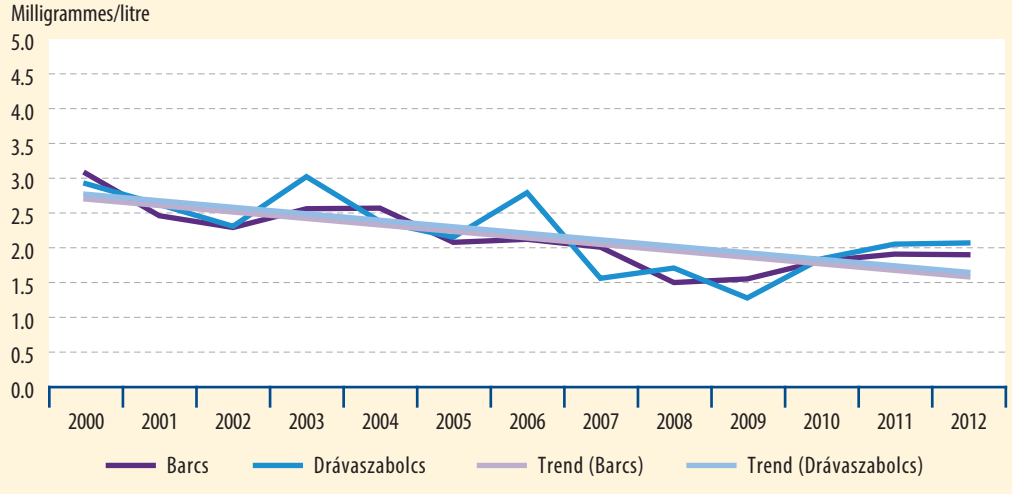


* The value for Tiszabecs for the year 2012 is estimated.

Source: Database of National Environmental Information System (OKIR).

! *The water quality of the Tisza was in the first two water quality classes in line with the measurement points.*

Figure 1.12.3. Biochemical oxygen demand (BOD_5) of the Dráva



Source: Database of National Environmental Information System (OKIR).

! *The water quality of the Drava River is excellent.*

sample. The lower the value the better the quality of the river water.

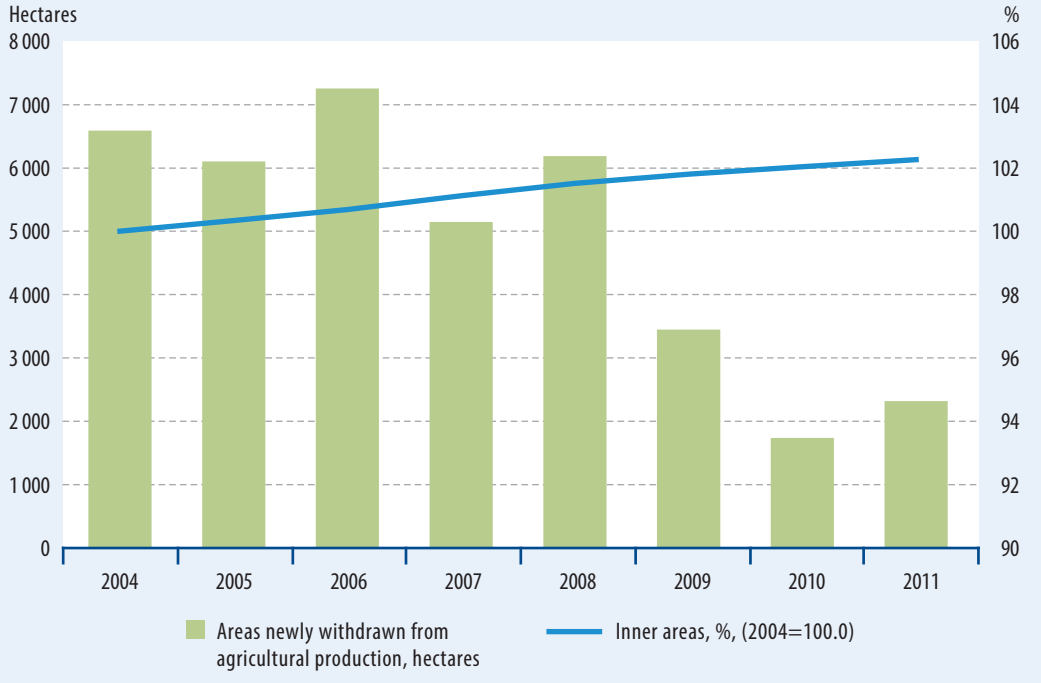
Water classes are as follows:
class I.: excellent water,
class II.: good water,
class III.: acceptable water,
class IV.: polluted water,
class V.: heavily polluted water.

Stadat tables
5.4.4. Main surface water quality parameters of Hungarian rivers

Change in land use

Keywords **land use, proportion of built-up areas, agricultural production**

Figure 1.13.1. **Inner areas**



Source: Institute of Geodesy, Cartography and Remote Sensing.

In Hungary the size of inner areas grows year by year, while the size of land areas permitted to be permanently withdrawn yearly from agricultural production decreased markedly after 2008.

Relevance The increase of the size of built-up and inner areas is an almost irreversible process. The process leads to the long-lasting closure of land surface and the fragmentation of ecosystems, endangers habitats and biodiversity. In establishing artificial areas there may be disturbances in the circulation of water: the closed surface area cannot absorb precipitation, water flows away from it in large quantities, thus it may cause soil erosion elsewhere.

Commentary The size of inner areas grew linearly, by 2.3% in total between 2004 and 2011. Between 2004 and 2008, areas were permitted to be permanently withdrawn from agricultural production mainly to be used as inner areas in industry / mining and for the purposes of road / railway constructions. Withdrawals decreased substantially from 2009, equalling 2,322 hectares in 2011.

International outlook In the framework of the LUCAS survey (Land Use/Cover Area frame Statistical survey) a land cover survey was conducted in the 27 countries of the European Union in 2012. According to the results 41% of the area of the EU is occupied by forests and other wooded areas, one-quarter by arable land and one-fifth by grassland areas. The proportion of built-up and other artificial areas is the highest in Malta (32.9%) and the lowest in Finland and Latvia (1.6% each). This indicator for Hungary is 3.7%, not reaching the EU-27 average (4.6%).

Proportion of built-up and other artificial areas in the European Union, 2012, %

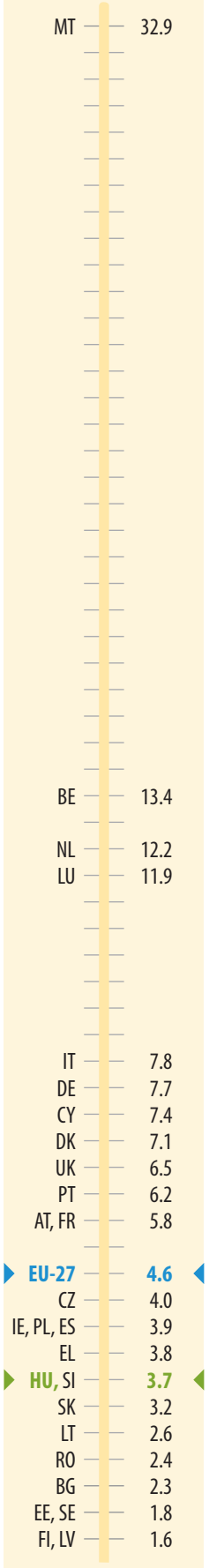
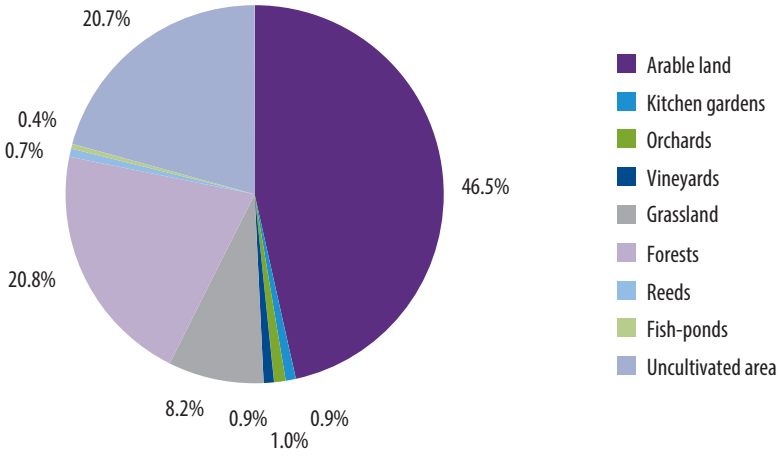


Figure 1.13.2. **Distribution of land use, 2013**



! *57% of the area of the country is agricultural area.*

Details In 2013, 57% of the area of Hungary was agricultural area, a large part (81%) of which was arable land. The size of forest areas and uncultivated land areas was 21% each of the area of the country. The share of agricultural area was over 60% in Northern and Southern Great Plain, and the proportion of forest areas was the highest in Northern Hungary (30%). The share of uncultivated land areas was the highest in Central Hungary (25%).

Definition The proportion of inner areas is the quotient of the size of inner areas and the total area of the country. Agricultural areas are the total of arable land areas, kitchen gardens, orchards, vineyards and grassland areas.

Stadat tables
6.4.1.1. Land area by land use category, 31 May

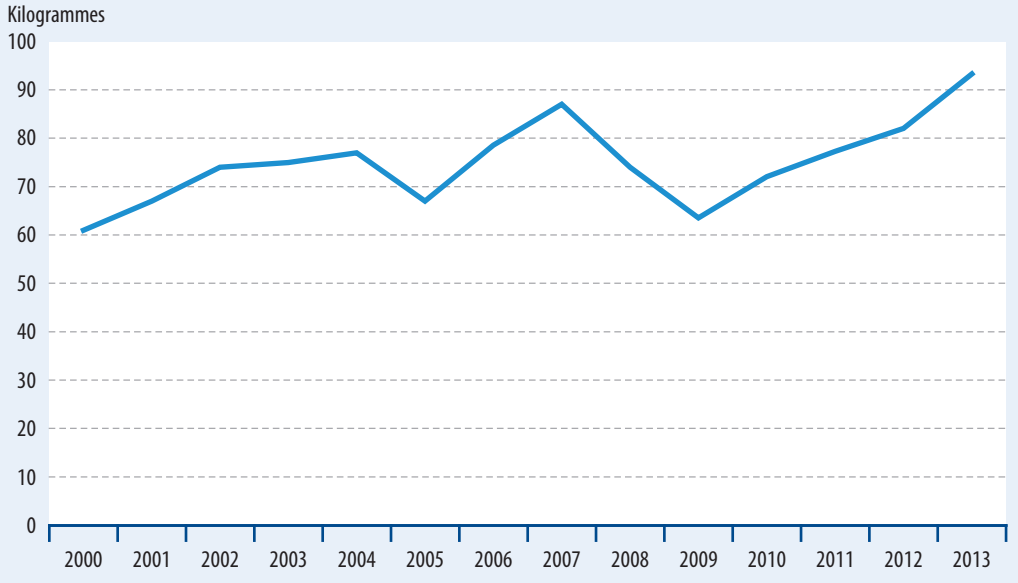
NL 148.0
DE 123.7
PL 108.5
IE 99.4
CZ 96.2
FR 94.4
SI 89.5
DK 88.3
FI 79.8
UK 75.5
SK 74.1
LT 71.6
HU 66.3
SE 66.3
CY 60.3
IT 57.1
EE 56.0
EL 55.9
ES 50.4
AT 47.4
BU 42.8
LV 34.7
RO 31.7
PT 28.4

Active ingredients in fertilizers per hectare of agricultural area in the European Union, 2011, kilogrammes/hectare

Sales of fertilizers

Keywords **fertilizer, nutrient, nitrate, groundwater**

Figure 1.14.1. Volume of active ingredients in fertilizers per hectare of agricultural area



Source: Research Institute of Agricultural Economics.

Following a total fall of 27% from 2007 to 2009, active ingredients in fertilizers per hectare started to grow again in the past few years, and have increased by 47% since 2009.

Relevance The National Framework Strategy on Sustainable Development sets maintaining soil productivity as an important target (C3.5). Nitrogen in fertilizers oxidized into nitrate causes the acidification of the soil, while by leaching into deeper soil layers it causes the groundwater's nitrate level to rise. It results in the eutrophication of surface waters, and may cause poisoning in drinking water. When producing nitrogenous fertilizers, substantial volumes of greenhouse gases are emitted to the air.

Commentary In Hungary the quantity of fertilizers sold grew almost continuously until 2007, however, fell considerably in 2008. As a result of a permanent increase in the subsequent years, however, the quantity per hectare of agricultural area was the highest in 2013 when examining the past 14 years. The share of nitrogen of total quantity of active ingredients was 69% in 2013.

International outlook According to the estimation of Fertilizer Europe, the European organisation of fertilizer producers, the quantity of active ingredients per hectare of agricultural area was the highest in the Netherlands and Germany, 148 kilogrammes/hectare and 124 kilogrammes/hectare respectively, and the lowest in Romania and Portugal, with values of 32 kilogrammes/hectare and 28 kilogrammes/hectare respectively in 2011. They estimated the value for Hungary at 66 kilogrammes per hectare.

Definitions

The quantity of active ingredients in fertilizers per hectare is the quotient of sold quantity (N, P_2O_5, K_2O) and agricultural area.

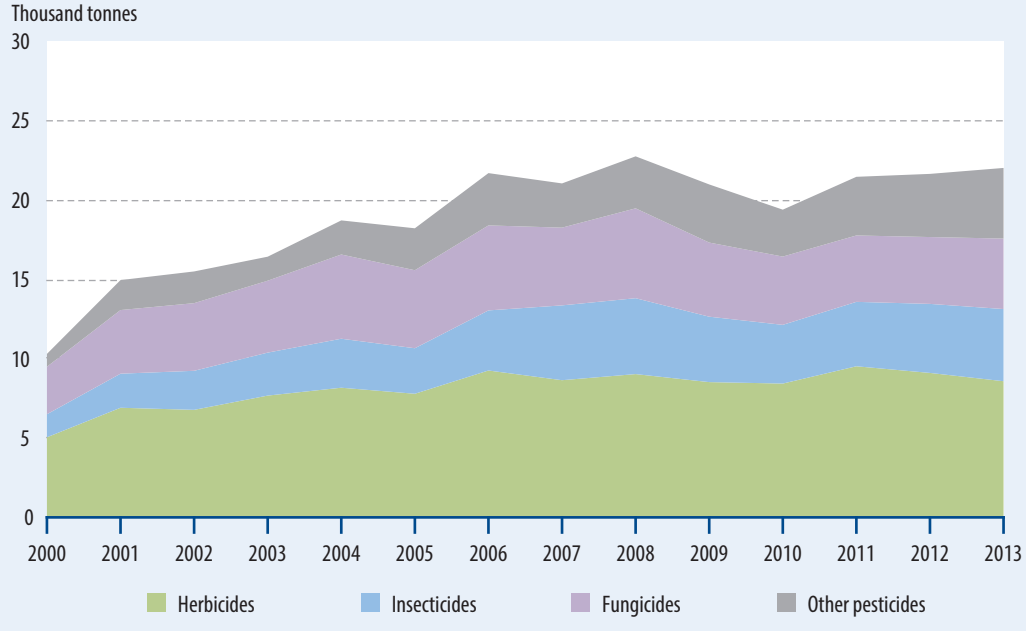
Eurostat figures are the quotient of sold quantity (N, P, K), as estimated by Fertilizer Europe, and the agricultural area of a particular member state. It could only be calculated in cases where both data were available for the particular country.

Stadat tables
4.1.7. Quantity of sold fertilizers
6.4.1.2. Manure and fertilizer application, irrigation

Sales of pesticides

Keywords **food safety, food production, agri-environmental measures**

Figure 1.15.1. Quantity of sold pesticides by groups of pesticides



Source: Research Institute of Agricultural Economics.

The quantity of sold pesticides rose almost continuously in Hungary apart from the fall in the years 2009–2010.

Relevance Using inappropriate pesticides is a risk to both the environment and health, since certain marketed pesticides are degraded in a slow and difficult way. They can get into the food chain, the eco-system, the soil and waters, where they can accumulate and cause serious damage. The National Framework Strategy on Sustainable Development sets supporting environment-friendly technologies and land use types as an important target (C3.4).

Commentary The quantity of pesticides sold in Hungary fell by 15% between 2008 and 2010, and has been increasing ever since. The sold quantity rose by 114% between 2000 and 2013. 39% of the quantity of pesticides sold to agricultural producers was herbicides in 2013.

International outlook Member states in the European Union have been obliged to report on the quantity of distributed pesticides since 2011. Hungary is in the middle of the EU ranking of the use of active ingredients of pesticides per hectare of agricultural area. The quantity of active ingredients per hectare of agricultural area is 1.5 kilogrammes on average.

Definition The indicator of sales of pesticides shows the sales of pesticide producing and distributing enterprises, expressed in tonnes. Sales figures are considered as use, since in Hungary the latter is not covered by regular data collection for statistical purposes.

Active ingredients of pesticides per hectare of agricultural area in the European Union, 2012, *kilogrammes/hectare**

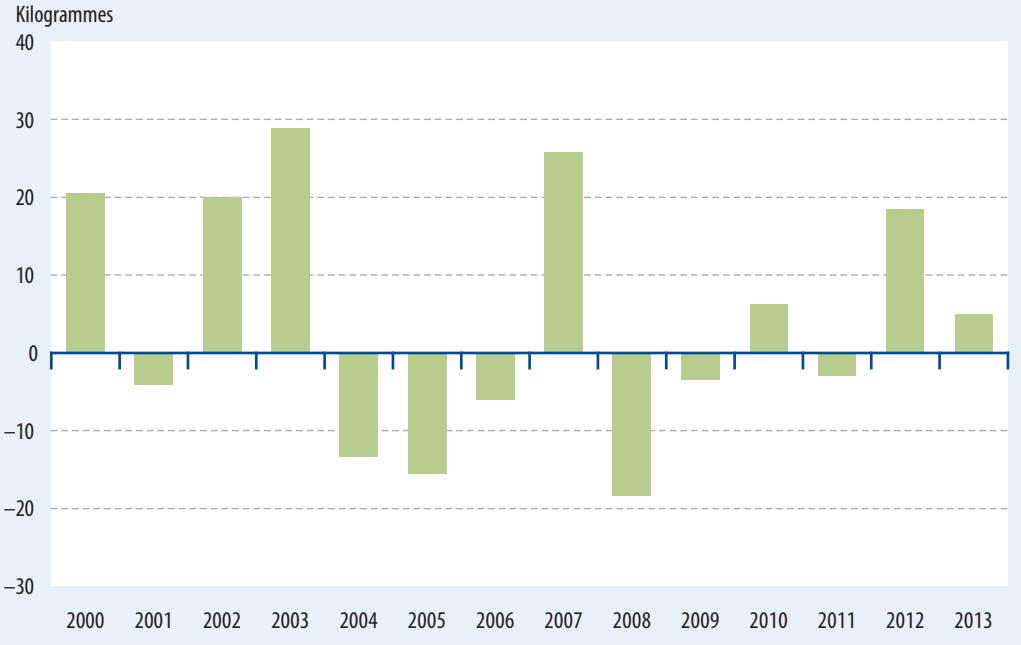
MT	13.8
NL	6.4
BE	4.9
IT	4.7
PT	3.5
DE	2.7
ES	2.6
DK	2.2
SL	2.2
FR	2.2
CZ	1.9
HU	**1.5**
PL	1.5
EL	1.5
FI	1.4
AT	1.2
UK	1.2
SK	1.1
LT	1.0
RO	0.8
SE	0.8
LV	0.7
IE	0.6
EE	0.6
LU	0.5
BG	0.3

** Using land area data for 2011.*

Nutrient balance

Keywords **soil, nutrient, nitrate, eutrophication, groundwater, nutrient component**

Figure 1.16.1. Nitrogen balance per hectare of agricultural area



! *The nitrogen balance was 5 kilogrammes in 2013.*

Relevance Gross nutrient balances demonstrate the changes in the state of nutrient components of the soil as well as the cycle of major minerals vital for crops. A permanently and significantly positive nutrient balance results in a high risk of nutrient leaching and of the water contamination as a consequence. And a long-term negative balance indicates potential problems of sustaining the applied agricultural methods. Nutrient intake in line with soil type and status is important since too much nitrogen leaching into still waters may cause eutrophication. The targets of the National Framework Strategy for Sustainable Development includes, too, preventing the degradation of biodiversity, soil productivity as well as ecosystem services (C3.5). The application of inorganic fertilizers and organic manure may result in the atmospheric emissions of nitrogen dioxide and ammonia.

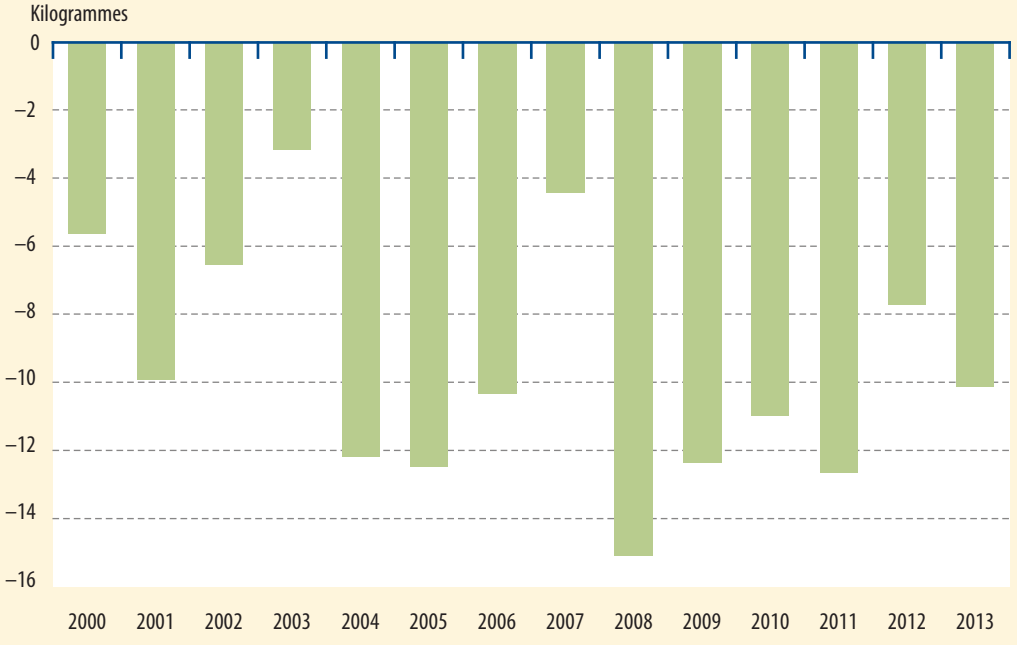
Commentary According to data calculated based on the Eurostat/OECD methodology the quantity of input was about the same in Hungary in 2000–2013. The quantity of fertilizers' nitrogen input into the soil slightly grew, while the quantity of manure's nitrogen input decreased as a result of the falling number of livestock. The nitrogen balance varied mainly as a function of crop output from the area.

International outlook Nutrient balances cannot be compared completely across countries, since the different member states estimate the nitrogen content of manure and crop products in differing ways, however, in general the quantity of nitrogen input in Hungary can be considered lower than the EU average, while active ingredients in the crop output exceed that. As a consequence, the balance here is much less favourable compared to the rest of the member countries, and both nitrogen and phosphorus balances were the lowest in Hungary in 2008. The nitrogen balance was the highest in the Netherlands (188 kilogrammes/hectare),

Nitrogen balance per hectare of agricultural area in the European Union, 2008, *kilogrammes/hectare*

NL	188
CY	122
MT	120
BE	118
DK	95
UK	93
DE	92
LU	89
CZ	86
PL	63
FI	54
SE	53
IE	50
FR	49
EU-27	**48**
SI	47
LT	36
ES	35
IT, AT	33
EE	29
SK	28
BG	18
LV	16
EL	15
PT	12
RO	4
HU	**–18**

Figure 1.16.2. Phosphorus balance per hectare of agricultural area

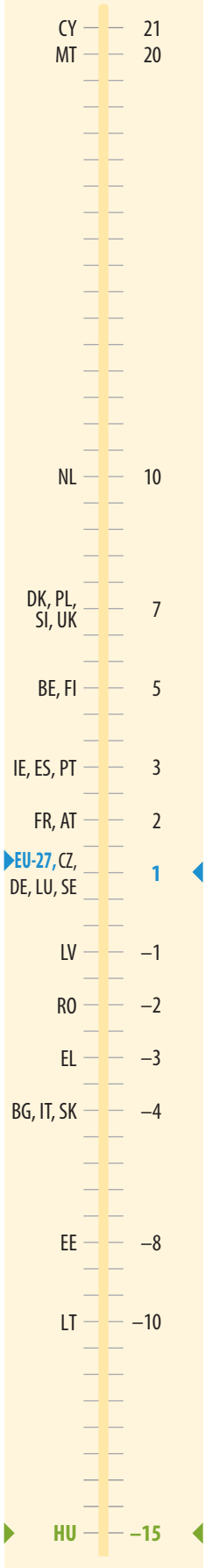


! *The phosphorus balance was –10 kilogrammes in 2013.*

Cyprus (122 kilogrammes/hectare), Malta (120 kilogrammes/hectare) and Belgium (118 kilogrammes/hectare), while the phosphorus balance in Cyprus (21 kilogrammes/hectare) and Malta (20 kilogrammes/hectare).

Details As phosphorus is less mobile than nitrogen, the surplus remaining in the soil is accumulated year by year, increasing the dissolved and total phosphorus content of the soil. Nevertheless, the phosphorus balance of soils was negative in all years between 2000 and 2013 in Hungary, which may threaten already the sustainability of production.

Definition The nutrient balance is the difference between nutrient input by applying fertilizers and manures and in other ways and nutrient output due to crop output. A major component of the input side of the balance is the nutrient input of fertilizers. The output side is determined by the quantity of production, and depends significantly among others on weather conditions in a particular year.

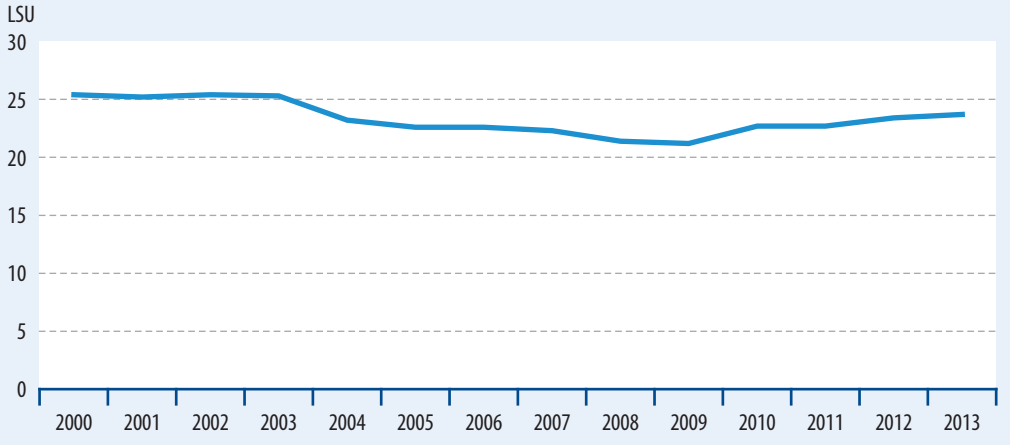


Phosphorus balance per hectare of agricultural area in the European Union, 2008, *kilogrammes/hectare*

Livestock density

Keywords **livestock density, nitrate pollution, greenhouse gas emissions**

Figure 1.17.1. Livestock units per hundred hectares of agricultural area



The number of livestock units per hundred hectares of area decreased between 2000 and 2009, and grew from 2010.

Relevance Intensive livestock rearing – especially in the case of pig and poultry production – is the main source of farmyard manure, and is a dominant component of potential nutrient surpluses. These nutrient surpluses make a remarkable pressure on aquatic systems. In addition, the number of cattle and other livestock has a considerable influence on greenhouse gas concentration and on other harmful emissions from agriculture.

Commentary Following the dramatic fall after 1990, livestock density per hundred hectares of agricultural area was essentially unchanged between 1995 and 2003 (25–26), but started to decline in 2004. The value of the indicator has been rising again since 2010, due to the growth of livestock. In 2013 there were 23.7 livestock units per hundred hectares of agricultural area.

International outlook According to the agricultural census conducted in 2010, livestock density was the highest in Malta (364), the Netherlands (358) and Belgium (280), and the lowest in Latvia (26) and Bulgaria (26). The value of the indicator for Hungary is low in a European context (53).

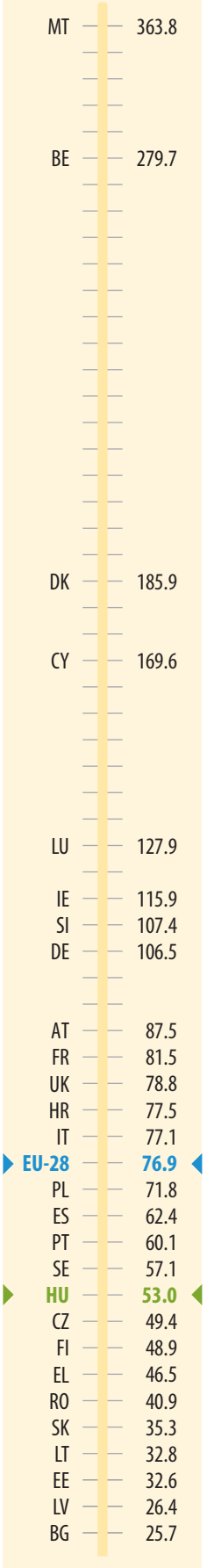
Definitions

The value of the livestock density indicator shows the number of livestock (LSU – livestock unit) per hundred hectares of agricultural area. LSU is an equivalent of total livestock, used for the aggregation of animals of different ages and sexes of various animal species. The livestock unit for Hungary was calculated taking into account the following animal species: cattle, pigs, sheep, horses and poultry.

The indicator of the European Union contains goat and rabbit stocks in addition to cattle, pig, sheep, horse and poultry stocks, and uses an index number different from that applied in Hungary's indicator.

Stadat tables
4.1.23. Livestock, December
6.4.1.19. Cattle, 1 December
6.4.1.20. Pigs, 1 December
6.4.1.21. Sheep, 1 December
6.4.1.22. Chickens, hens, cocks, 1 December

Livestock density in the European Union, 2010,
livestock units/hundred hectares*

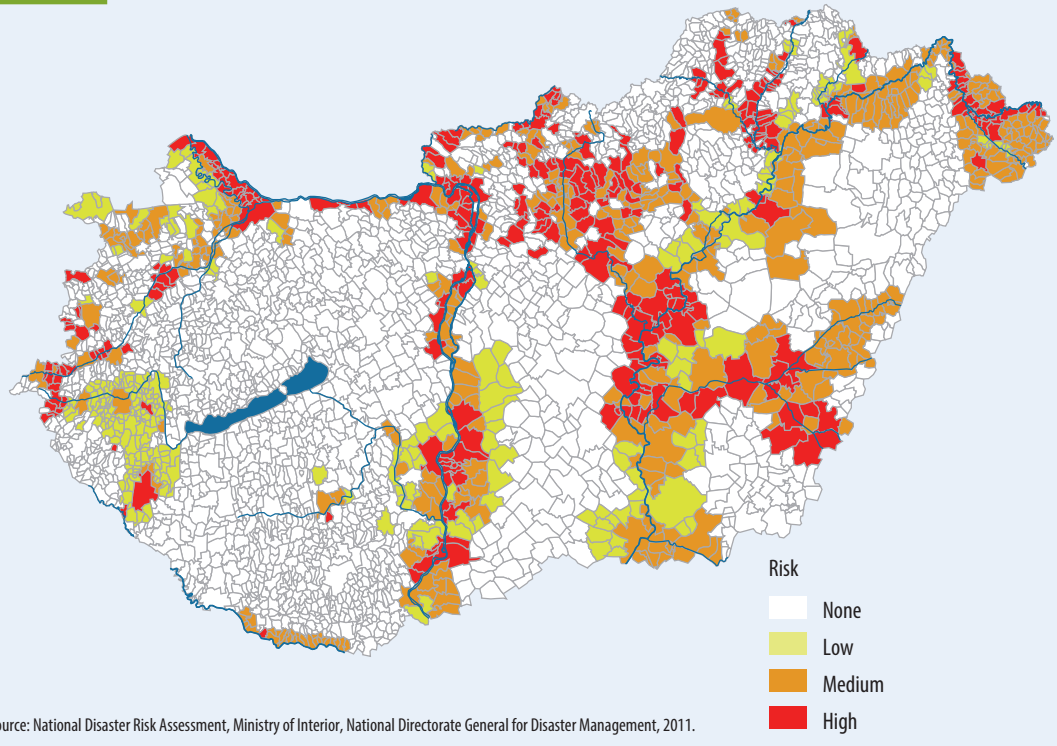


* Livestock calculations by HCSO are not identical with the methodology applied by Eurostat. The EU methodology uses factors differing by animal species and takes into account goat and rabbit stocks, too.

Floods and inland inundation

Keywords **flood, inland inundation**

Figure 1.18.1. **Flood risk classification of settlements in Hungary, 2011**



Source: National Disaster Risk Assessment, Ministry of Interior, National Directorate General for Disaster Management, 2011.

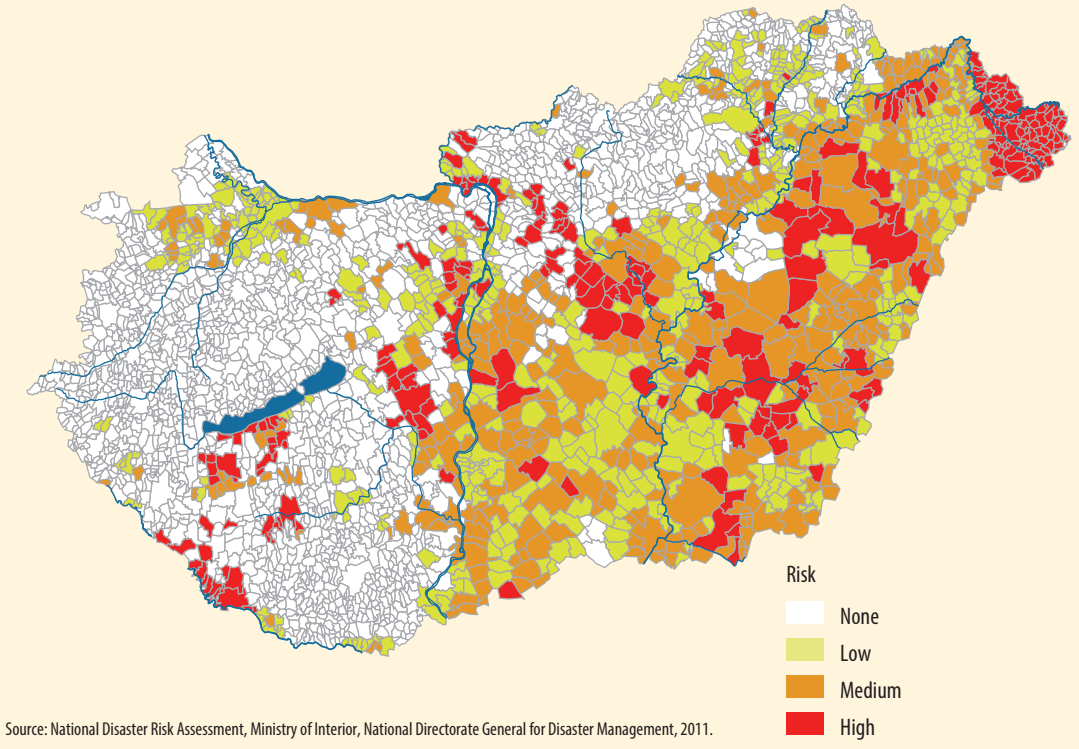
! *In Hungary, an area of over 20,000 km² is exposed to floods.*

Relevance In respect of floods and inland inundation, Hungary is a significantly threatened area in the Carpathian Basin. The temporal and spatial distribution of our water resources is very extreme. Generally there are two main periods of floods on rivers in Hungary. Floods in early spring are caused by runoff from snowmelt, while floods in early summer are the consequences of maximum precipitation at the beginning of summer. Nearly the half of Hungary is plain area (44,500 km²), with endorheic lowlands having a significant share. More than 20,000 km² are exposed to floods, of which 5,610 km² belong to the river basin of River Danube, and 15,641 km² to the river basin of River Tisza.

Commentary In Hungary, the protection from floods and inland inundation has an over 150-year-old tradition. An about 4200-km-long flood protection system was built along the rivers. The extreme weather conditions in the last decades (floods and droughts) have made it necessary to change the former water management practices (rapid channelling of water in the river bed). During floods a substantial part of water should be led into reservoirs, and this reserved water should be used for irrigation during droughts.

Details One-quarter of the area of Hungary is plain lowlands, from where water does not flow away in a natural way. Some 10%–15% of the regularly used, nearly 5 million hectares of arable land area is often covered annually by inland inundation, about 130 thousand hectares of area for 2–4 months per year on average.

Figure 1.18.2. **Inland inundation risk classification of settlements in Hungary, 2011**



Source: National Disaster Risk Assessment, Ministry of Interior, National Directorate General for Disaster Management, 2011.

! *Around 60% of lowlands in Hungary are periodically exposed to inland inundation.*

Definitions

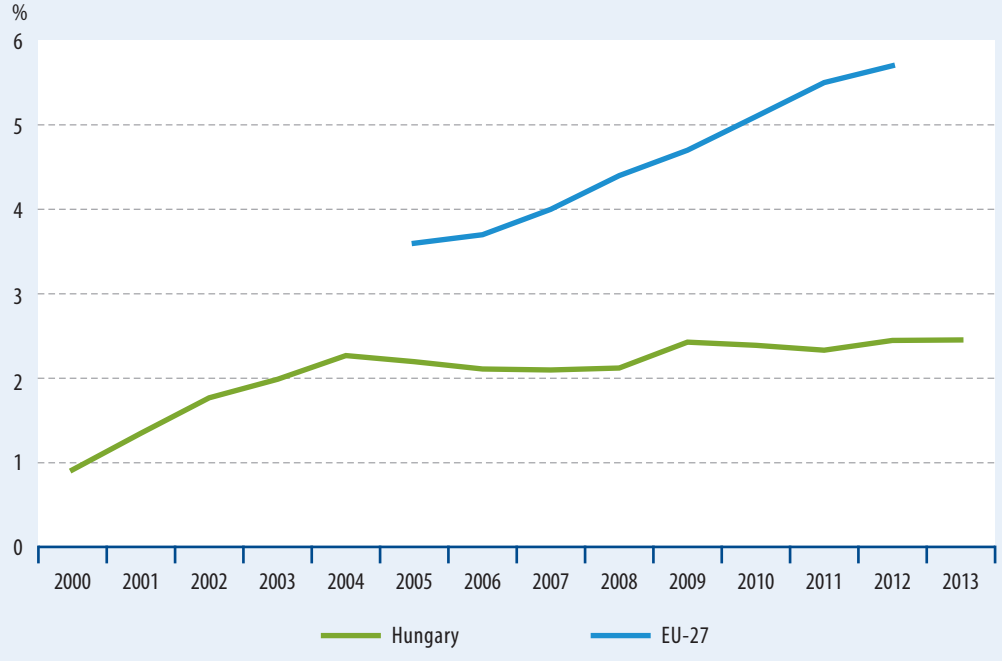
Flood: water exceeding the edge of or exiting the mean-stage bed of a river or watercourse.

Inland inundation: it is generated in the upper layer of soil when the free pores of soil are impregnated with water, typically it develops on the spot as an effect of unfavourable meteorological and hydrological factors, from sudden melting of snow, precipitation activity, but it can also be a result of a high level of groundwater, when groundwater exits onto the surface.

Organic farming

Keywords **organic farming**

Figure 1.19.1. **Areas under organic farming as a share of agricultural area**



During the reporting period, the proportion of areas under organic farming within agricultural areas in Hungary increased, but remained below the EU value.

Relevance Organic farming is a production method governed by EU regulations, laying high emphasis on protecting the environment, within which the soil, surface and sub-surface water reserves, maintaining biodiversity and promoting food safety. Considering that the Carpathian Basin is one of the EU regions with the richest biological diversity and that agriculture has a substantial impact on the state of natural environment, the support for environmentally sound technologies and land use forms (C 3.4.) is among the objectives of the National Framework Strategy on Sustainable Development.

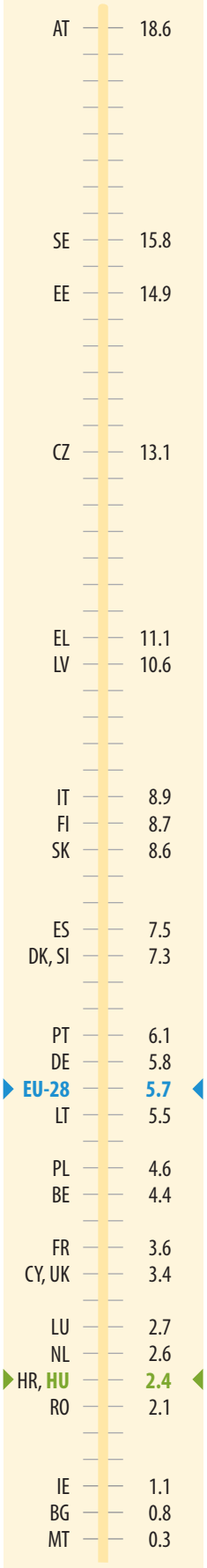
Commentary Areas under organic farming in Hungary accounted for 131 thousand hectares in 2013. Between 2000 and 2013, areas under ecological farming grew by nearly 146%. While in the EU, the proportion of organic agriculture areas has continued to dynamically grow since 2005, in Hungary it only slightly increased.

International outlook In 2012, the ratio organic farming area to agricultural area was 2.4% in Hungary which was less than half of the average value of 5.7% of the European Union. The proportion of areas under organic farming was the highest in Austria (18.6%), and it was also above 10% in Sweden, Estonia, the Czech Republic, Greece and Latvia. It was the lowest in Malta (0.3%) and Bulgaria (0.8%).

Definition The organic farming indicator shows the proportion of organic farming areas within the total agricultural area.

Stadat tables
4.1.6. Organic farming

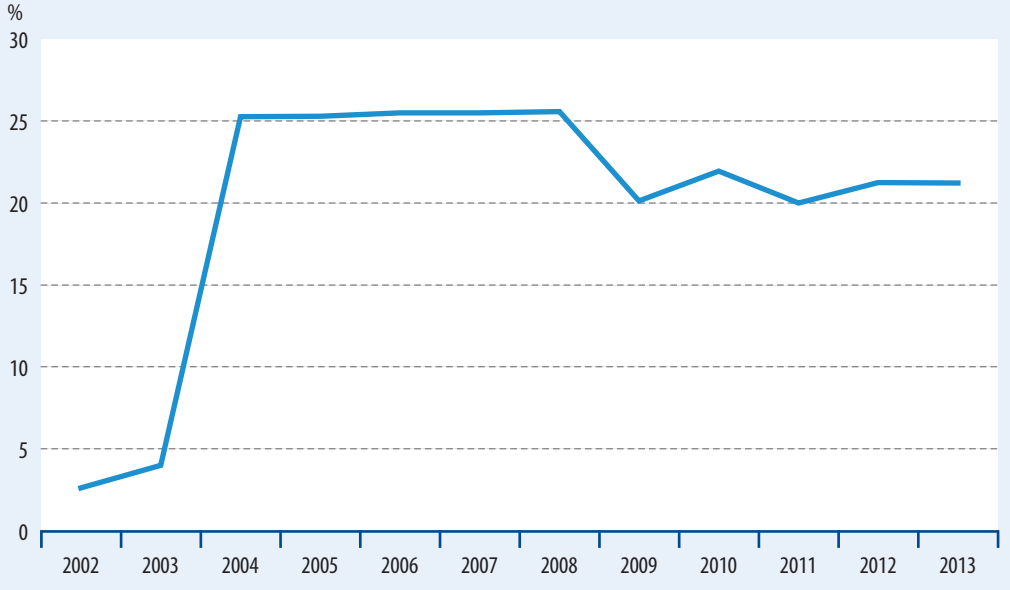
The proportion of organic farming areas within agricultural areas in the European Union, 2012,%



Proportion of areas subject to agri-environmental measures

Keywords agri-environmental measures, common agricultural policy (CAP), rural development

Figure 1.20.1. The ratio of agri-environmental aid recipient areas to agricultural areas



Source: Agricultural and Rural Development Agency.

! *In Hungary, the proportion of areas participating in agri-environmental programmes was typically greater than 20% in the last few years.*

Relevance Since the reform of the Common Agricultural Policy (CAP) in 1999, agri-environmental measures are a compulsory element of the rural development programmes of member states; their role is to ensure cross compliance as well as to integrate environment protection aspects into CAP. The main goals of the measures are to protect soil and nature, to promote food safety, to support animal husbandry, and landscape management as well as changes in land use. Farmers undertaking agri-environmental commitments on a voluntary basis for five years or in case of grassland development for environmental protection purposes for ten years receive support under this measure. This support is to cover additional costs associated with the fulfilment of the requirements as well as the loss of revenues.

Commentary The agri-environment measure has a five-year time span; farmers can enrol in the year when the programme is started. Agri-environmental measures started from 2009, implemented within the framework of the "New Hungary" Rural Development Programme, comprise higher-level objectives, developed especially towards quality, covering a smaller area in proportional terms compared to the period of 2004–2009. In 2013, 21% of the agricultural area was subject to agri-environmental measures.

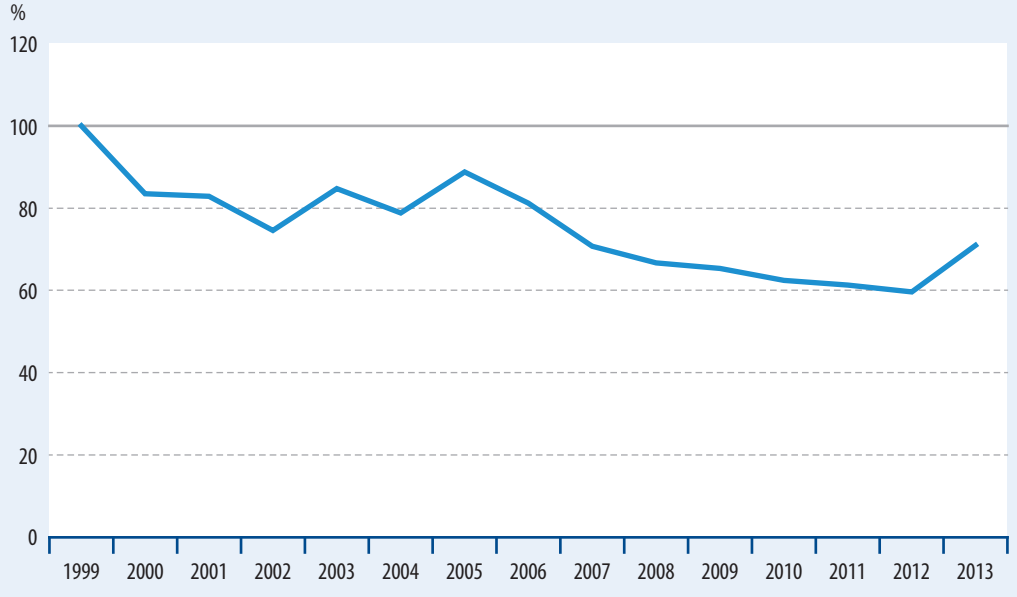
International outlook In the European Union, an area of 38.5 million hectares, 21% of the agricultural area was subject to agri-environmental measures in 2009, when the new rural development programme was started. In case of the older Member States (EU-15), this proportion had a higher average of 25% and it was 9.7% for the EU-12. In four member states, i.e. in Luxembourg (92%), Finland (91%), Sweden (82%) and in Austria (70%), agri-environmental support was claimed for more than two-thirds of the agricultural land.

Definition The indicator is the quotient of areas subject to agri-environmental programmes and total agricultural area.

Changes in the population of farmland birds

Keywords **biodiversity, agri-environmental measures**

Figure 1.21.1. Change in the population of farmland birds in Hungary (1990=100.0)



Source: MME / BirdLife Hungary – Monitoring Centre

In Hungary, the population of farmland birds saw no significant change until 2005, then started to decrease.

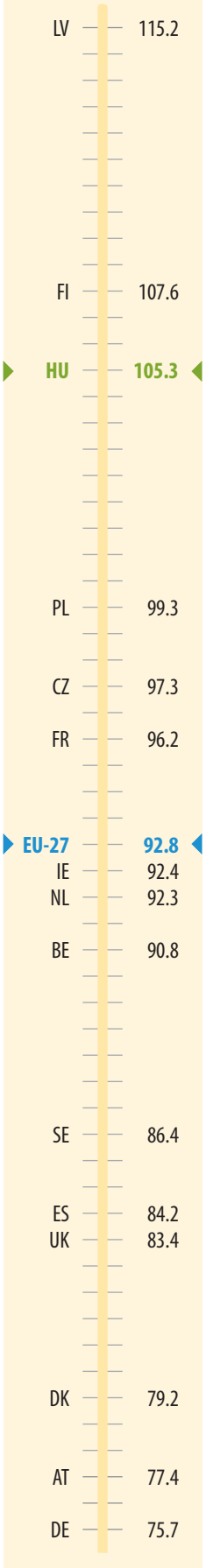
Relevance In Hungary, the program of monitoring 'everyday' birds, managed by the Hungarian Birdlife (MME), has been providing data on changes in the population of farmland birds since 1999. The survey covers 2% of the country's area in every year reflecting the state of farmland habitats as well as the sustainability of farming.

Commentary Concerning the majority of the monitored species, the index remained stagnant until 2006, and then showed a declining tendency in the last years. In 2012, it hit an all-time low.

International outlook According to figures based on other methodologies and published by the Eurostat, the population of farmland birds in Hungary stood at 105.3% in 2008 compared with the base figure of 2000. Based on the available data of 15 EU countries, the EU average was 92.8%, the situation was the best in Latvia (115.2%) and Finland (107.6%) and the worst in Germany (75.7%) and Austria (77.4%).

Definition This indicator is an aggregate index. It is based on the results of the monitoring program of common bird species associated with agricultural habitats from nutritional and reproductive aspects. Its value gives how the population of farmland bird species changes. The Hungarian index is based on the data of 16 such species, which, based on 1999-2012 data, well represent the common bird species of domestic agricultural habitats (based on habitat use and preference). The EU index is based on the aggregated data of 39 species.

Change in the population of farmland birds in the European Union,* 2008 *(2000=100.0), %*

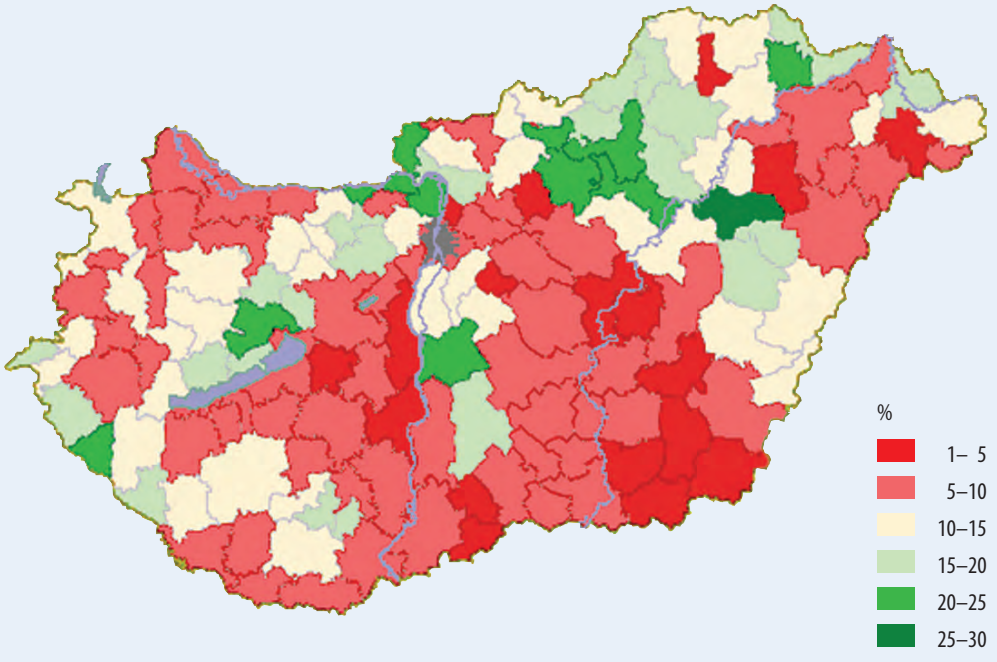


* *The Hungarian index is based on the data of 16 species, while the EU index is based on the aggregated data of 39 species.*

Natural vegetation assets of Hungary

Keywords **natural vegetation assets, plant invasion in mesotrophic wet meadows**

Figure 1.22.1. **Natural vegetation assets (NVA) of the micro-regions in Hungary between 2003 and 2007**



Source: Institute of Botany of the Hungarian Academy of Sciences (HAS)

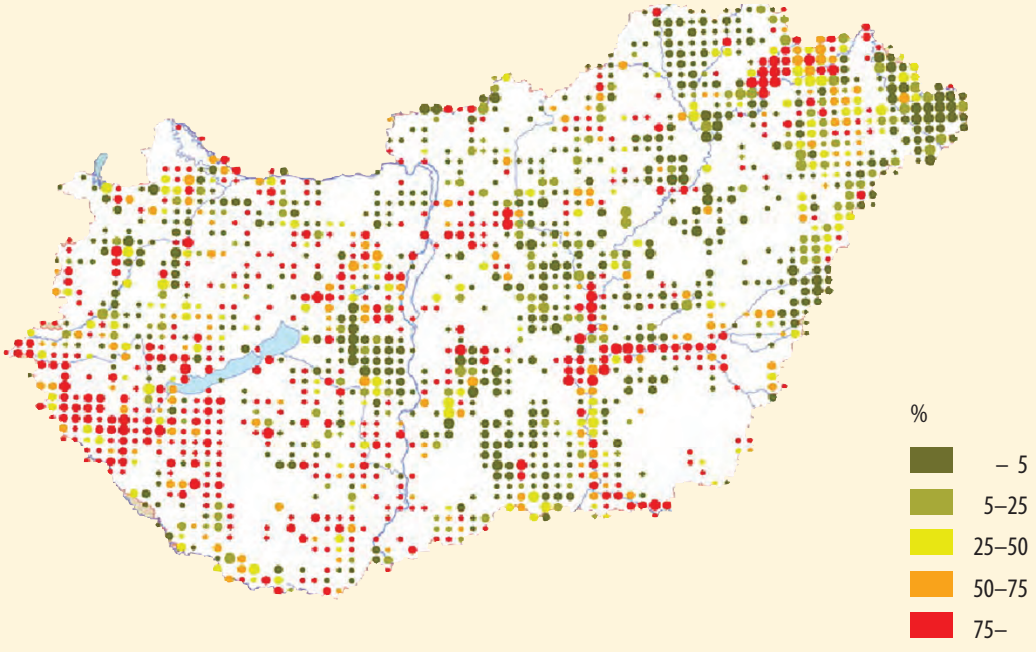
! *The forested areas of our mountain ranges, the Hortobágy as well as the natural areas of the Kiskunság sand region are characterized by higher values.*

Relevance Habitats with the largest natural assets are the most important in preserving "site ecological health", i.e. ecological operational ability for any domestic sites. Natural vegetation assets (NVA) characterize the landscape based on the naturalness (vegetation condition) of the different habitat patches. This evaluation reflects the capability of the landscape to supply fundamental ecosystem services for the society, which are economically highly significant yet hard to evaluate in monetary terms. The natural and quasi-natural areas contribute more to the supply of such services, as e.g. regulating runoff regimes, soil formation, erosion control, pollination or maintaining biological diversity, than the degraded, anthropogenetic areas.

Commentary The different regions of Hungary can be characterized by considerably different NVA (natural vegetation asset) values, due to the differences in historical and actual land use patterns. The higher the NVA index in a landscape unit, the area is larger and has more natural vegetation. Our national NVA index is nearly 10%, with the highest index values (28%) occurring in the Balmazújváros and the lowest index values (0.9%) in the Mezőkovácsháza micro regions. The forested areas of our mountain ranges, the Hortobágy as well as the natural areas of the Kiskunság sand region are characterized by higher values. As opposed to this, the value of this index is quite low in the major part of the country, especially where intensive agriculture plays a near exclusive role in land use (e.g. lowland loess plateaus).

Details In Hungary, our natural vegetation heritage is highly endangered. On the one hand, changes in cultivation types (ploughing, mining, creating artificial lakes, classifying as a garden), modes of using grasslands and woodlands (overuse, forest management with an industrial character, game damage, in other cases the

Figure 1.22.2. **Plant invasion in mesotrophic wet meadows, 2008**



Source: Institute of Botany of the Hungarian Academy of Sciences (HAS).

As a result of their spontaneous invasion, the proportion of non-indigenous species increases in the biomass of vegetation, while the diversity of indigenous species declines.

end of traditional farming) and in lowlands the changes in groundwater hydrology endanger the vegetation. At the same time, during the last two or three decades a spontaneous invasion of non-indigenous species (e.g. black locust /Robinia pseudoacacia/, goldenrod species /Solidago spp./, milkweed /Asclepias syriaca./, false indigo / Amorpha fruticosa/) became one of the most important risk factors. With their mass invasion, these species oppress the native ones, thus these Asian and North-American species account for an increasing proportion in the biomass of vegetation, while the diversity of indigenous species declines.

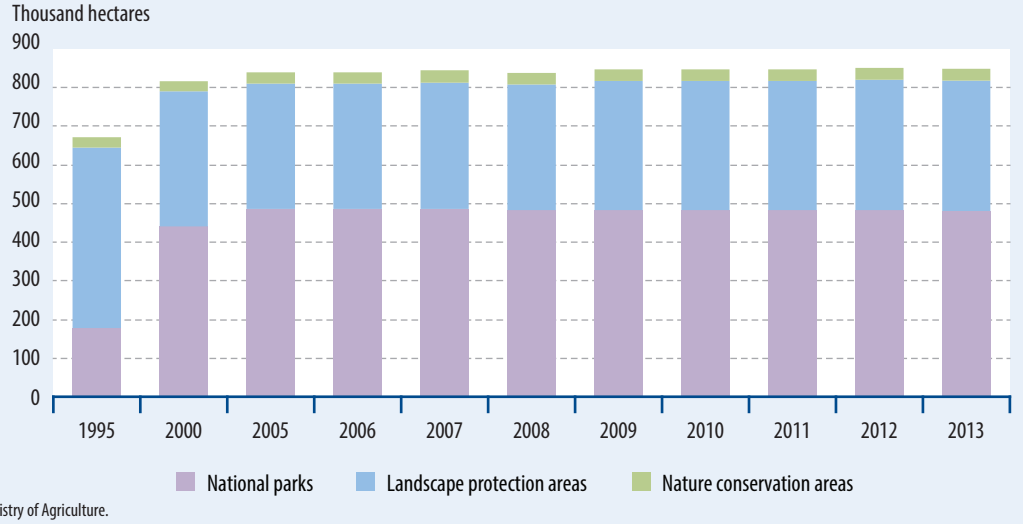
Definition The natural vegetation assets (NVA) index provides a general overview of the ecological state of an area, as a percentage distribution. Published data are originating from the database of the Hungarian national vegetation mapping (MÉTA project), performed between 2003 and 2007.

IE, HU 100
DK 99
BG 98
FI, SE, UK 97
EE, FR 96
NL 95
BE, LU 94
ES, MT 92
DE, LV 90
IT 88
EU-27 87
AT 86
EL, PT 85
RO 82
CZ 79
PL 72
SK 71
LT 63
SI 51
CY 44

Protected natural areas

Keywords **national park, landscape protection area, nature protection area, NATURA 2000**

Figure 1.23.1. Natural areas of national importance protected by separate legislation



Source: Ministry of Agriculture.

The size of areas belonging to the protected category of national importance was 848 thousand hectares in 2013, 23% of these were located in Northern Hungary.

Relevance According to the National Framework Strategy on Sustainable Development it is necessary to maintain the biodiversity, which is unique in Europe, to preserve the scenery and the natural values as well as to prevent the exhaustion of the ecosystem services. The vegetation-based natural-capital index detailed in the strategic framework is 9.9% in Hungary; it shows that we have lost 90% of the natural ecosystem services. The wildlife richness oriented natural-capital index is only 3.2%.

Commentary 57% of the protected areas are national parks, 20% of them are part of Southern Great Plain. The number of national parks representing the most versatile nature conservation area category was unchanged compared to previous years (10), their area of 481 thousand hectares decreased by 0.5% compared to 2012. In 2013, the size of highly protected national park areas was 90 thousand hectares, i.e. it was unchanged compared to the previous year. Within protected natural areas, the proportion of landscape protection areas and nature conservation areas was nearly 40% and 3.6% respectively in the current year showing rates unchanged compared to the previous year. Within protected natural areas, the size of specially protected areas has not changed.

International outlook In 2012, areas designated under the Habitats Directive in Hungary were suitable in 100% to cover all habitat types as well as plant and animal species of Community interest in the country. Only Ireland has such excellent (100%) endowments as Hungary within the EU. Cyprus has the smallest coverage (44%) well below the EU average (87%).

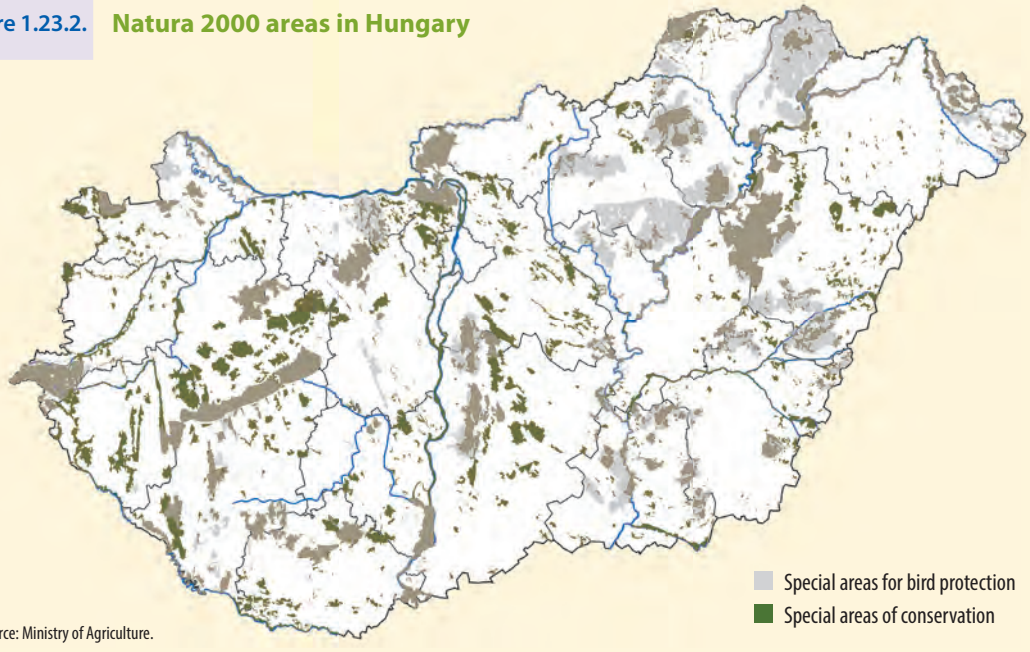
Details The major part of the more than 43 thousand animal species in Hungary, around 40,000 species, is arthropods. Of vertebrates, in Hungary 83 species are fish, 18 amphibian, 15 reptilian, 373 bird and 83 mammal species.

In line with the international practice, most of the mammal species are protected by a separate law. Of 476 protected vertebrate species 129 are strictly protected.

The purpose of the designation of Natura 2000 areas is the protection of biodiversity, as well as the restoration and protection of the natural state of the affected areas. The network contains special bird conservation and other special conservation areas, the designation of the former ones were made under the Birds Directive, while the latter

Suitability of areas designated by the EU Habitats Directive in the European Union, 2012, %

Figure 1.23.2. **Natura 2000 areas in Hungary**

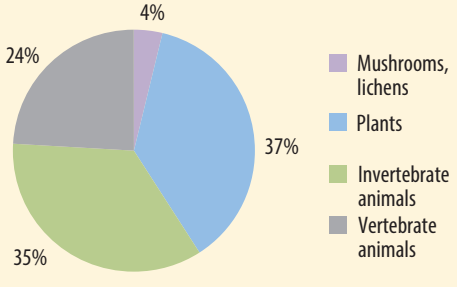


Source: Ministry of Agriculture.

! ***105 animal, 36 plant species and 46 habitat types have been identified in the designated Natura 2000 areas.***

ones under the Habitats Directive. 56 special bird protection areas on 1 million 375 thousand hectares are to ensure the protection of bird species of European importance living in our country as well as passing through the country in a large crowd. The number of special areas of conservation is 479, their area is 1 million 444 thousand hectares and there is a substantial overlap with the special bird conservation network. The combined size of the mentioned areas is about 1 million 995 thousand hectares, 39% of them includes already existing protected areas.

Figure 1.23.3. **The proportion of natural values protected without area, 2013**



! ***37% of protected species are plants.***

Definitions

National park: such larger landscape of the country with no significant change in its natural endowments where the presence of plant and animal species, geomorphologic features and the whole of these have a special significance from the point of view of science, public education and recreation.

Landscape protection area: a larger area or piece of landscape to preserve and maintain natural assets as well as favourable natural endowments.

Nature conservation area: an area to preserve and maintain nature protection values as well as a cave with its surface areas.

The Natura 2000 network involves areas designated on the basis of the two directives of nature protection of the European Union (special areas for bird protection designated in line with the EEC directive 79/409 on the conservation of wild birds as well as special areas of nature protection designated in line with EEC directive 43/92).

The natural-capital index expresses the deviation of a complex landscape consisting of different habitats from the former natural state using numerical data: the higher the value, the greater the extent and the more natural the state of the remained habitats. The indicator estimates that proportionally how much was left from the wildlife originally inhabiting the surface of the landscape, and to this it characterizes the degree of the relative presence of wildlife with the proportion and naturalness of the natural cover.

Stadat tables

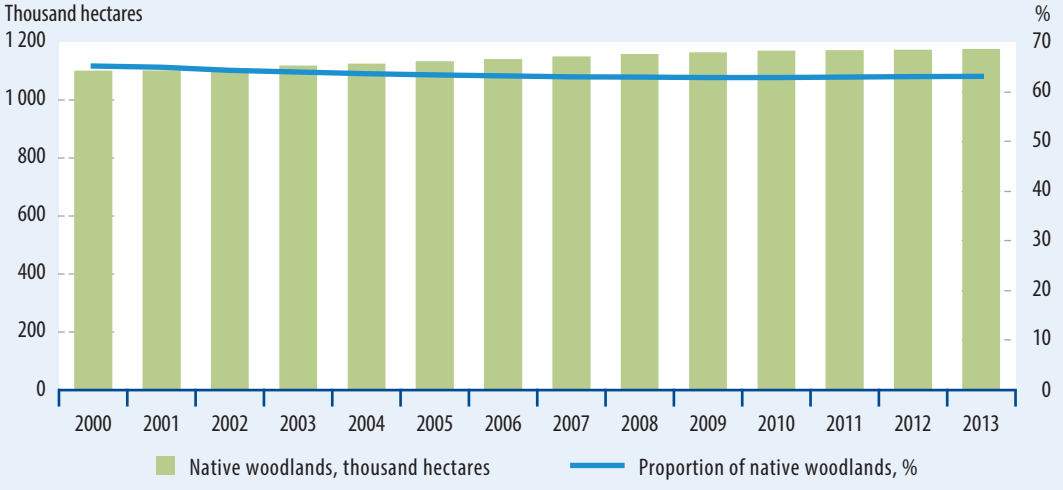
5.2.2 Protected natural areas

5.2.3 Natural values protected

Proportion of native tree species

Keywords population of indigenous tree species, population of tree species

Figure 1.24.1. Stock of indigenous tree species



Source: National Food Chain Safety Office, Hungarian Forest Management.

! *In 2013, areas covered with indigenous tree species accounted for 63% of the Hungarian forests.*

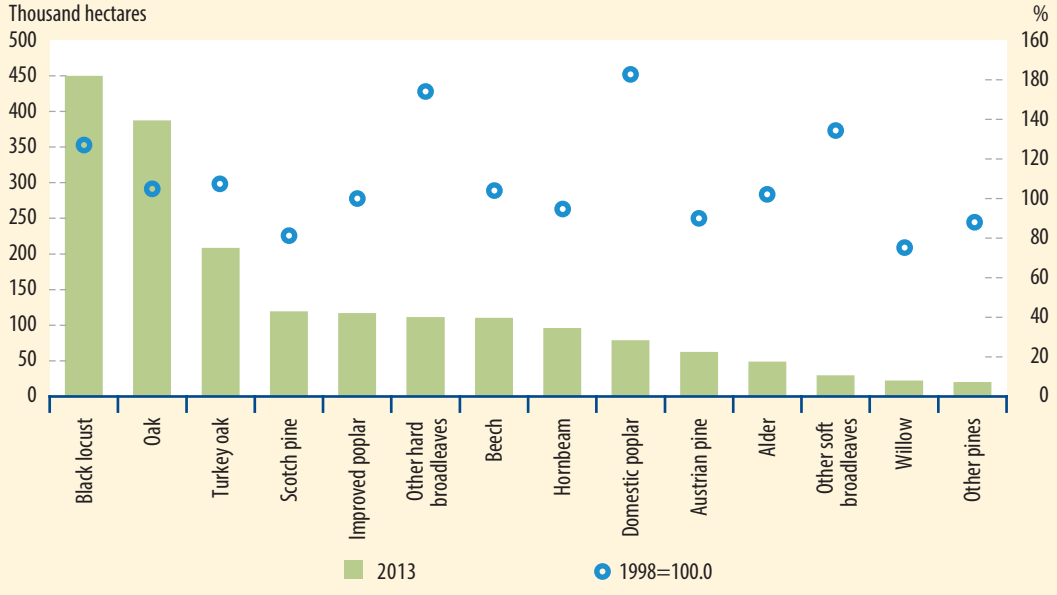
Relevance Non-indigenous species were frequently planted to replace the felled natural forests, which resulted in harmful long-term effects. On the one hand, our climatic endowments are not suitable to our ecological needs; on the other hand, the coniferous litter alters the structure of the soil. After the early death of forests, the barren area may become unfit for the restoration of the original natural association due to the altered soil conditions. The black locust tree introduced from North America at the end of the 18th century had a similar result concerning its impact on the ground. It fully exploits the nutrient content of the soil; however, its humus formation is insignificant. The majority of the Hungarian black locust groves grow old within 5-15 years.

As a consequence of these, one of the main tasks of the domestic nature conservation and forest management is to protect native communities and forests, i.e. to protect the plant and animal population of forests as well. Proper forest management and afforestation are other important conservation goals. A fundamental requirement of afforestation and renewal is to approximate the characteristics of native tree communities. The conservation of the association's animal populations may be guaranteed through the promotion of semi-natural shrubs and grass layers.

Commentary In Hungary, a total of around 1.9 million hectares is covered by forests, of which native species account for around 1.2 million hectares. Between 2000 and 2013, the proportion of native tree species decreased by about 2 percentage points, while the native wood species covered area grew by almost 7%. The proportion of native trees is 63%, forests dominated by these trees are similar to the natural tree communities. The size of the forest area occupied by invasive species is 688 thousand hectares, 37% of the forest area covered with tree stock.

Details In Hungary, 85% of living stock was made up by tree species belonging to the zone of the deciduous forests of the temperate zone. Among the indigenous species and various clones, oaks and beeches had an outstanding significance, while, the invasion of introduced, acclimatized tree species mainly resulted from their fast growth (e.g. improved poplar) and xerophilous features (e.g. black pine). Concerning the living stock of the broadleaves tree species, the tree species group of oaks had an outstanding proportion of 27%, while the relevant figures were 16%, 15% and 13% for black locust, turkey oak and beech trees respectively. 65% of the living stock of pines is made up by Scotch pine and 35% by Austrian pine and other pines.

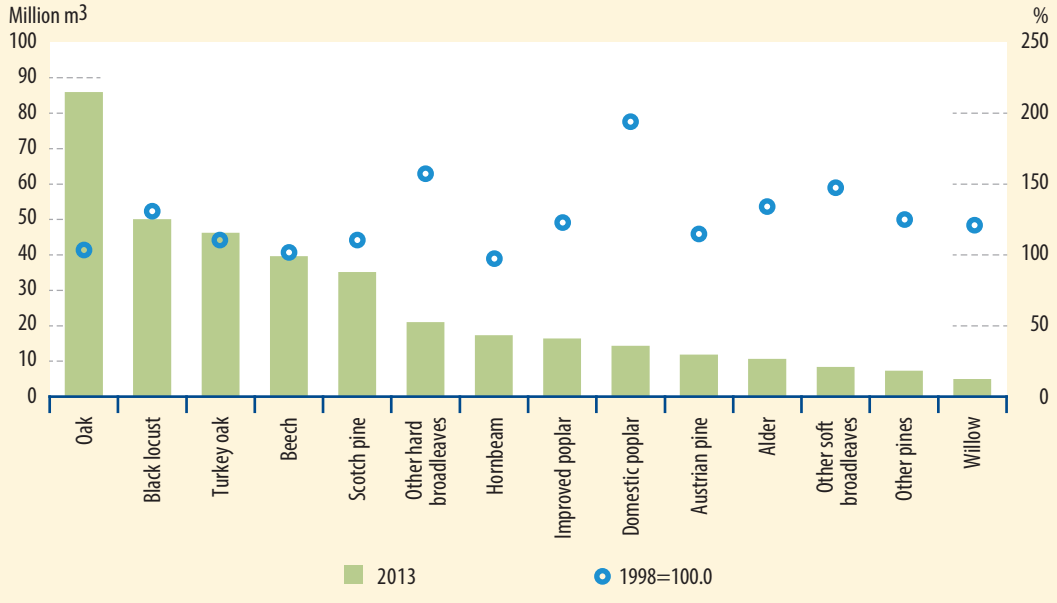
Figure 1.24.2. **Distribution of the forest area covered with tree stock according to tree species groups, 2013** (1998=100.0)



Source: National Food Chain Safety Office, Hungarian Forest Management.

! ***In 2013, non-native black locust trees constituted most of the forest area.***

Figure 1.24.3. **Distribution of the living stock by tree species, 2013** (1998=100.0)



Source: National Food Chain Safety Office, Hungarian Forest Management.

! ***After the native oak trees, the non-native black locust trees make up most of the domestic tree stock.***

Definitions Those species are called native species, which are natural elements in native tree communities. In Hungary, the most common native tree species are: pendunculate and sessile oak, turkey oak, beech, hornbeam, domestic poplar.

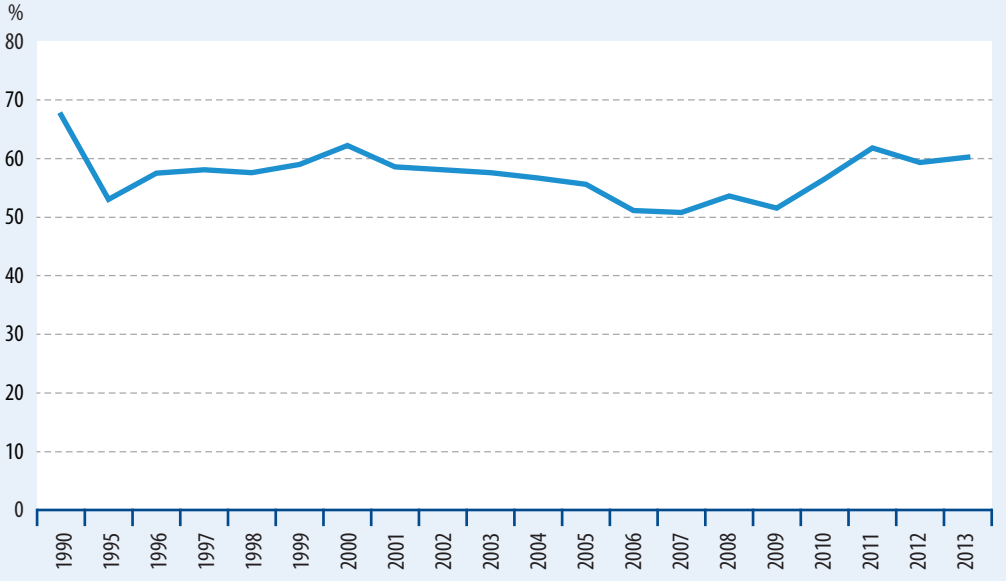
The introduction of non-native trees typically started from the 19th century to relieve the tree shortage and to carry out soil protection oriented afforestations. Best known are: Austrian pine, Norway spruce, black locust and improved poplar.

AT 93.54
SE 83.85
LT 80.00
SK 78.97
CZ 77.71
BE 72.83
NL 68.98
PT 68.33
FR 68.16
LV 67.75
FI 65.30
EU-28 62.69
HU 62.16
PL 59.39
DE 55.71
BG 53.01
HR 52.45
EE 51.01
UK 50.72
RO 50.70
DK 40.91
IT 39.19
LU 38.31
SI 37.11
ES 36.16
EL 32.43
CY 25.39

Logging and current increment

Keywords **rate of logging, logging, current increment, living stock**

Figure 1.25.1. **Changes in the rate of logging**



Source: National Food Chain Safety Office, Hungarian Forest Management.

! *In 2013, the logging rate was 60%.*

Relevance Of the diverse functions of forests, the economic function is the most important and it has the largest area needs. In recent decades, industrial scale forestry has been replaced by sustainable forest management. The enforcement of modern requirements is ensured if the current increment is greater than the volume of logging. Based on Act XXXVII of 2009 on forests, on the protection and management of forests, logging may only be made in accordance with standards set out in the forest plan taking into account the aspects of sustainable forest management activities. Due to the strict forest plan standards, today forestry companies not only focus on timber production but also on management corresponding to the requirements of sustainability. According to the principles adopted in the 1992 Conference on Environment and Development in Rio de Janeiro, Hungary, together with the other European states, ensures the maintenance of the viability of forest ecosystems, the preservation of biodiversity as well as the operation and development of the socio-economic functions.

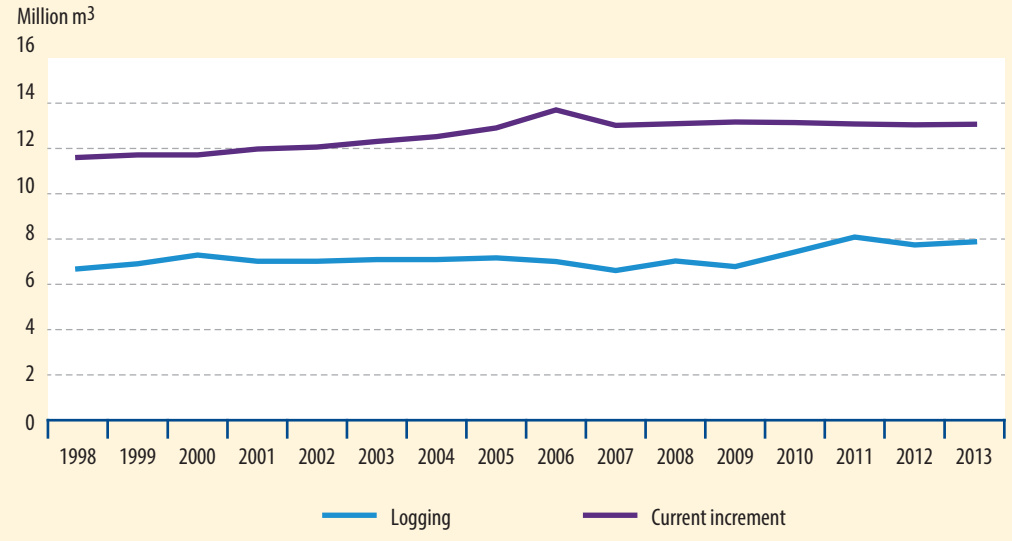
Logging rate in the European Union in 2010,%

Commentary During the period under review, the average annual increase in current increment increased from 11.7 million m^3 to 13.1 million m^3, while logging varied between 7-8 million m^3. Compared to the current increment, the proportion of logging decreased between 2000 and 2007 and increased between 2007 and 2013.

International outlook Managed forests with the purpose of wood production accounted for three quarters of the EU28 forests. In 2010, the volume of logging was lower than that of annual net current increment in the European countries. In 2010, Austria (94%), Sweden (84%), Lithuania (80%) and Slovakia (79%) were the top countries exceeding the EU average (63%) of the logging rate. Based on the low rates of logging of Greece (32%) and Cyprus (25%), an intensive growth in tree stock can be inferred. Among the EU Member States, many - but by no means all - exercise sustainable forest management focusing on long-term logging.

Details In 2013, living stock in Hungary, on a forest area of more than 2 million hectares,

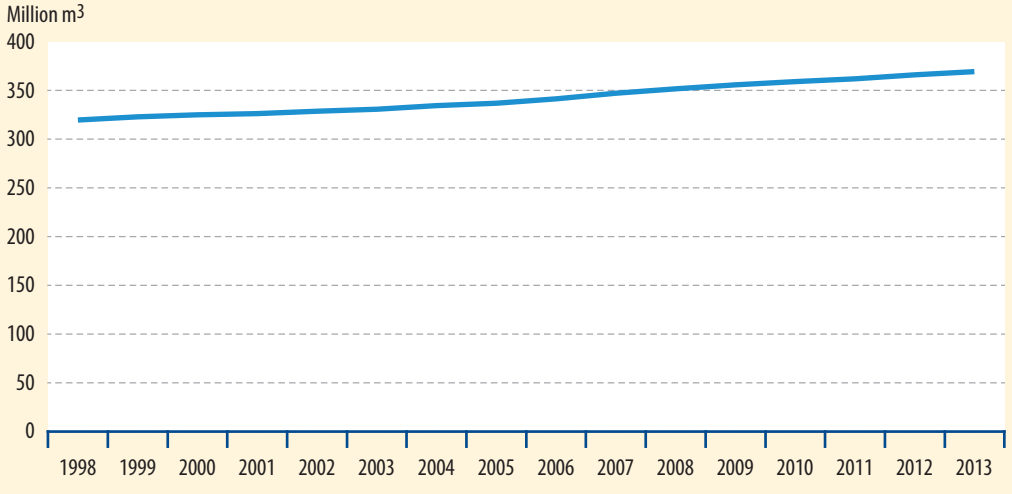
Figure 1.25.2. Changes in logging and current increment



Source: National Food Chain Safety Office, Hungarian Forest Management.

In 2013, logging approximated 8 million m³, while current increment exceeded 13 million m³.

Figure 1.25.3. Changes in living stock



Source: National Food Chain Safety Office, Hungarian Forest Management.

The amount of accumulated wood in our forests has increased from 320 million m³ to 370 million m³ since 1998.

amounted to 370 million m³, which has represented a 14% nationwide increase since 2000. In Hungary, economically usable forests represent more than 62% of the total forest area. In the affected areas, in the period since 1998, the amount of the yearly harvested timber has varied between 7 and 8 million m³ and, in 2013, it also remained within this interval (7.9 million m³).

Definitions The rate of logging shows how new increment replaces the annual volume of felled timber.

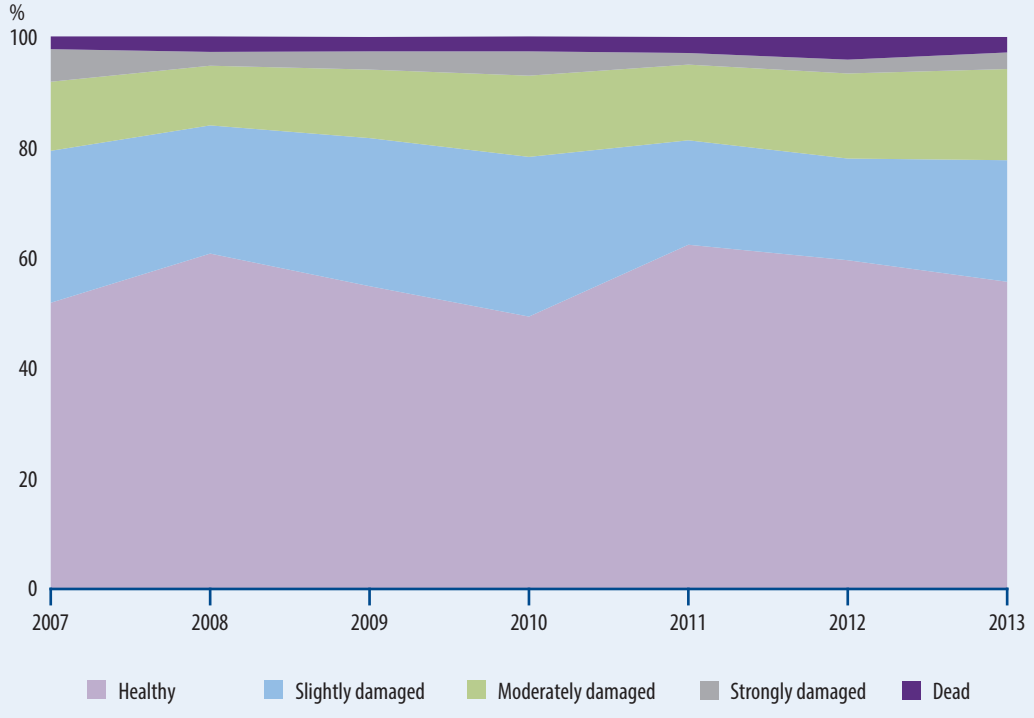
The annual volume of current increment is an annual average calculated on the basis of all increments in the previous ten years.

Stadat tables
5.1.2 Distribution of stocked forest area by tree species and age group
5.1.3 Logging by tree species

Health conditions of forests

Keywords **healthy forests, damaged forests**

Figure 1.26.1. **Health condition of forests based on total damage**



Source: National Food Chain Safety Office, Hungarian Forest Management.

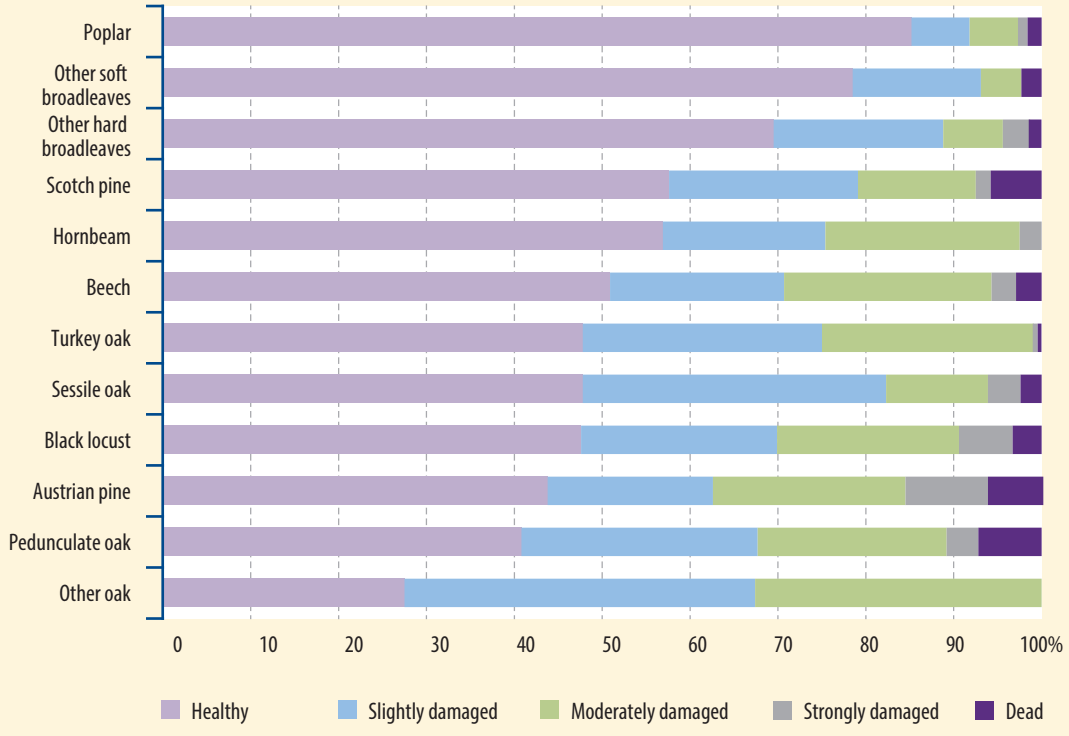
! *The proportion of healthy forests in Hungary was 55.6% in 2013.*

Relevance The accumulation of atmospheric pollutants as well as the climate change induced extreme weather conditions (mainly droughts) and the related insect and fungus invasions are among the hypothetical reasons of defoliation and tinted foliage.

Commentary Between 2007 and 2013, the proportion of asymptomatic forests varied in the 49-62% range. On the basis of defoliation best reflecting the general state of health, it can be stated that in 2013 the best state of health was shown by poplars and other soft broadleaved tree species.

Details Hungary's forests, in the ranking of European countries, are among the moderately damaged. In 2013, based on sampling results, among the trees 56% showed no symptoms, 22% were endangered (slightly damaged), 16% were moderately, 3% strongly damaged, while nearly 3% were dead. Among broadleaved trees the tree species the most affected in terms of damage was other oak in 2013, more than 72% of which was affected by some damage, while among pines, Austrian pine was the most affected (56%). Based on the processing of survey data covering the sample trees as a whole, the health of Hungarian forests continued to be good in 2013, although there was a mild deterioration in the last two years. Based on the damage affecting some tree species, the best health conditions were shown by the poplar (85% healthy) and the other soft broadleaved (79% healthy) tree species. The stocks of Austrian pine (44% healthy), black locust (48% healthy) and oak trees (48% of sessile oak, 41% of pedunculate oak and 28% of other oak trees were healthy) are in the poorest condition. Predominantly fungal and beetle damage, significant for decades, was observed in the case of Austrian pine and insect damage on oaks.

Figure 1.26.2. **Health condition of forests based on total damage, by tree species group, 2013**



Source: National Food Chain Safety Office, Hungarian Forest Management.

! *The least damaged tree species was poplar, while the most damaged one was other oak in Hungary in 2013.*

Definition On the state of health of forests, based on the total damage, all damages of the roots, stems, bark and foliage are meant. The damage-levels do not include losses due to clearly identifiable causes such as damages resulting from breakage or foliage-chewing.

Stadat tables
5.1.5 Health conditions of forests

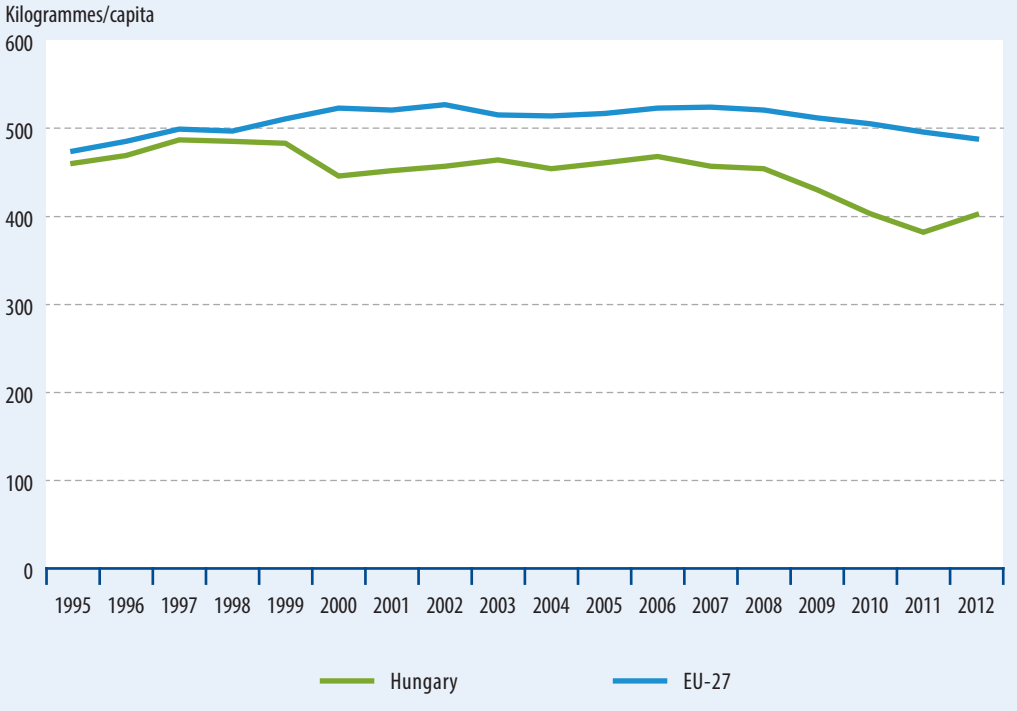
Municipal waste

Keywords **municipal waste, waste**

DK, CY 668
LU 662
DE 611
MT 589
IE 572
AT 552
NL 551
FR 534
IT 529
FI 506
EL 503
EU-28 487
UK 472
LT 469
ES 463
SE 462
BG 460
BE 456
PT 453
HU 402
HR 391
SI 362
SK 324
PL 314
CZ 308
LV 301
EE 280
RO 271

Per capita municipal waste in the European Union, 2012, *kilogrammes/capita*

Figure 1.27.1. Municipal waste per capita



Source: Ministry of Agriculture, Waste Management Information System.

In Hungary, the per capita volume of municipal waste is below the average of the EU-27.

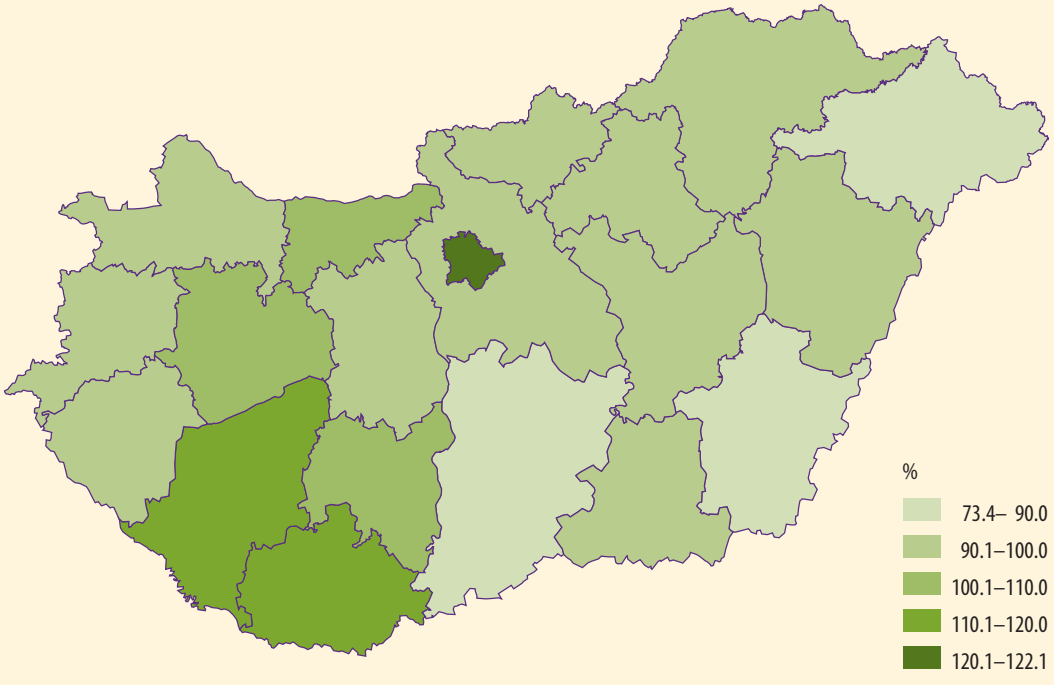
Relevance The purpose of waste management is to reduce waste generation through more efficient raw material use and a higher rate of recycling. Waste generation may also be reduced by assisting the coordination of economic activities along with material and energy flows: material and energy waste output from one production process should be the input for another industrial process (hence eliminating the concept of waste). It is important that the policies and other measures (e.g. designing logistics parks) should be aligned with this industrial, ecological approach.

Commentary In Hungary, the per capita volume of municipal waste was stagnant between 2000 and 2008. It significantly decreased after 2008, partly as a result of the crisis induced consumption slump; in 2012, it grew to the level of the 2010 value.

International outlook After 2000, similar processes were seen in the union as in Hungary. Of the member states, the Western European countries were in a worse state. The consumer habits were different in the new member states (in the Central and Eastern European countries) than in Western Europe, thus the per capita volume of municipal waste was lower than in the richer member states. In 2012, the amount of municipal waste per capita of our country was below the average of the EU-28. This indicator was the lowest in Romania, 33% lower than in Hungary. It was the highest in Denmark, 66% higher than the Hungarian value.

Details Compared to the national average, waste utilities collected the most municipal waste per capita in Budapest as well as in Baranya County, mainly because of the high proportion of waste material collected from other institutions (public institutions, shops).

Figure 1.27.2. **Per capita volume of municipal waste removed by public services as a percentage of national average, 2012**



! *5 Transdanubian counties and Budapest outperformed the national average.*

More waste was collected in the western counties than in the eastern ones.

Definitions

The indicator of the municipal waste per capita shows the per capita amount of waste similar to household and domestic wastes.

Household waste is mixed, separately collected as well as bulky waste waste generated in households including waste generated in homes, residential properties and premises used for the purpose of recreation and leisure as well as in the shared premises and areas of residential housing. The mixed and separately collected waste which is generated outside households and in its nature and composition similar to household waste is waste similar to household waste.

Stadat tables

5.5.3. Composition of municipal waste removed by public services
6.5.2. Municipal waste
6.5.3 Generation of municipal waste removed by public services

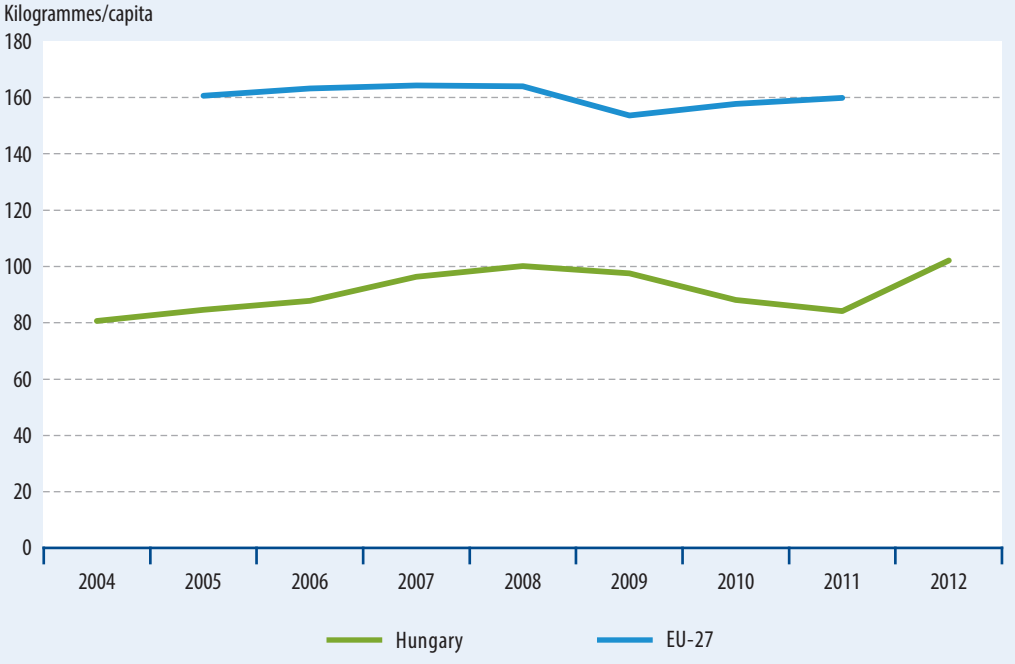
LU 216.16
DE 201.55
FR 196.68
IT 195.99
IE 188.69
UK 172.78
NL 164.62
EU-27 159.95
DK 158.53
BE 154.10
ES 152.90
PT 148.31
AT 146.57
EE 145.41
SE 137.03
FI 131.70
MT 127.93
PL 119.66
LV 104.91
SI 101.03
LT 96.54
CZ 90.06
CY 88.80
HU 84.08
SK 82.19
EL 78.25
RO 49.26
BG 42.82

Per capita packaging waste in the European Union, 2011, kilogrammes/capita

Packaging waste

Keywords **packaging waste, waste, waste recovery**

Figure 1.28.1. Packaging waste per capita



Source: Ministry of Agriculture, Waste Information System.

In 2012, in Hungary, the amount of packaging waste per capita increased by 21% compared to the previous year.

Relevance The purpose of waste management is to reduce waste generation through more efficient raw material use and a higher rate of recycling. We have achieved the target set out in Directive 2005/20/EC on packaging waste, according to which, in 2012, our country must recover at least 60% of packaging waste.

Commentary In Hungary, the per capita volume of packaging waste increased between 2004 and 2008, and then sharply turned down as a result of the crisis induced consumption slump between 2009 and 2011. In 2012, the total volume rose again, within this paper packaging waste increased significantly. Up to 2011, the average of the EU-27 also moved in a similar way, although at much higher levels than in Hungary.

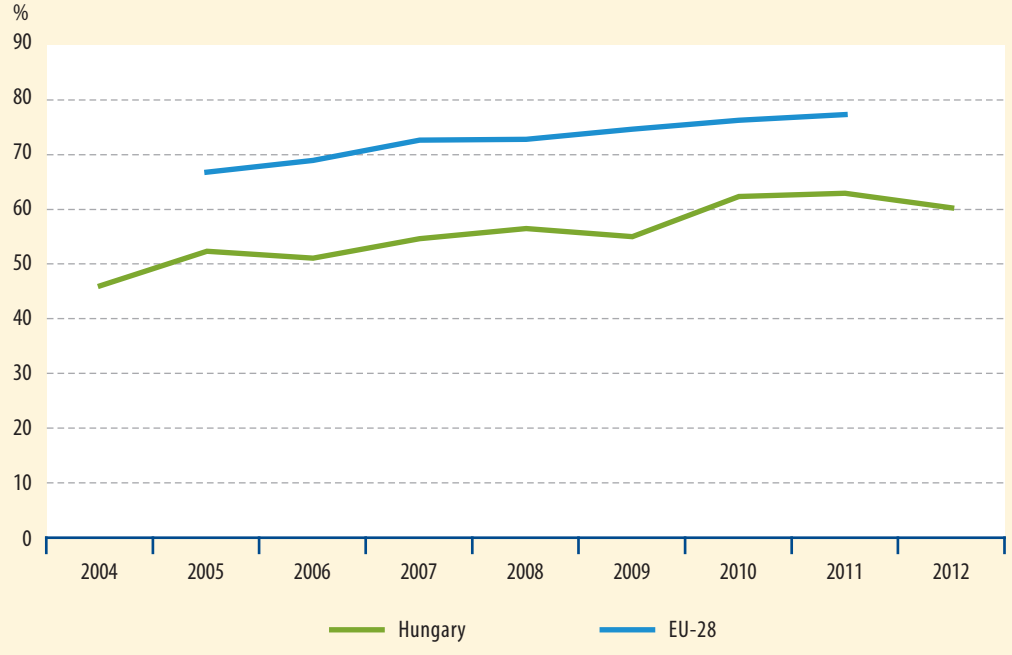
International outlook In Hungary, the amount of packaging waste per capita is below the average for the EU-27. The lowest value (Bulgaria) was half of the domestic value, while the highest one (Luxembourg) was more than two and a half times greater.

Details In our country, the rate of recovery of packaging waste grew steadily between 2004 and 2011 except for a slight decrease in two years. In 2012, a minor setback was seen. Between 2004 and 2011, the average of the EU-27 was also similar. The rate was the highest (over 90%) in Germany, the Benelux countries, Austria and Denmark and the lowest (under 52%) in Cyprus and Malta.

Definitions

The indicator of the per capita packaging waste shows the per capita volume of the generated packaging waste.

Figure 1.28.2. Changes in the rate of recycling of packaging wastes



Source: Ministry of Agriculture, Waste Information System.

In Hungary, the recovery rate of packaging wastes increased by 14 percentage points on 2004.

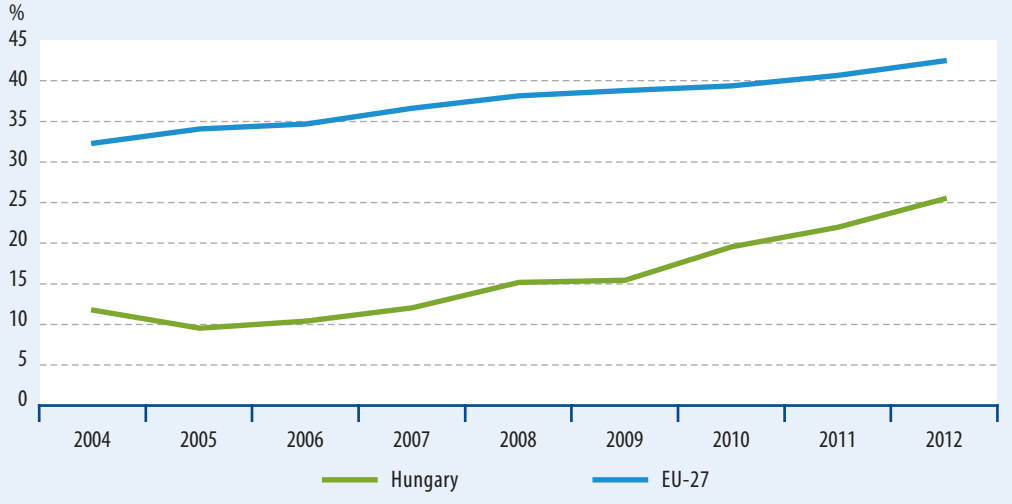
All products made of materials of any properties, which are used for holding, preserving, transferring, receiving, transporting and presenting goods are considered to be packaging material including all goods from raw materials to processed commodities, furthermore one-way goods used for the same purpose. Packaging and packaging materials that became waste are classified as packaging waste excluding manufacturing or residual wastes generated during industrial or production activities. [Government Decree No. 442/2012 (XII. 29.)]

DE 64.6
AT 62.0
BE 57.0
NL 49.5
SE 47.6
SI 47.5
LU 47.0
UK 46.2
DK 45.2
EU-28 42.3
EE 40.3
FR 38.7
IT 38.7
IE 38.3
FI 33.3
ES 27.1
BG 26.6
PT 26.1
HU 25.5
PL 24.8
CZ 23.2
CY 21.2
LT 20.5
EL 17.5
LV 15.8
HR 15.1
SK 13.4
MT 12.8
RO 3.2

Methods of municipal waste treatment

Keywords **waste treatment, waste, recycling, incineration, disposal**

Figure 1.29.1. The proportion of recycled and composted municipal waste



Source: Ministry of Agriculture, Waste Information System.

! ***The proportion of recycled and composted municipal waste has continued to rise since 2005; however, it significantly lagged behind the EU average.***

Relevance From the point of view of sustainability, it is important to strengthen reuse and recycling as well as to establish secondary raw material markets. The waste output should be reused and recycled. More durable consumer goods should be produced to facilitate recycling along with the negative discrimination of non-reusable products. In the interest of recycling, recycling technologies and secondary raw material markets should be promoted mainly through consumer price subsidies as well as production tax incentives.

The further extension of separate collection is an important future goal, because the EU Waste Framework Directive (2008/98/EC) and, in line with this, Act CLXXXV of 2012 on Waste determine that until 2020 paper, metal, plastic and glass wastes originating from households and as far as possible in case of wastes similar to the above waste streams originating from other enterprises an at least 50% recovery rate must be achieved. In turn, the amount of biodegradable organic material landfilled as part of the municipal waste should be reduced to 35% until 1 July 2016 compared to biodegradable organic matter, which is part of the municipal waste, produced at the national level in 1995.

The recycling rate of municipal waste in the European Union in 2012, %

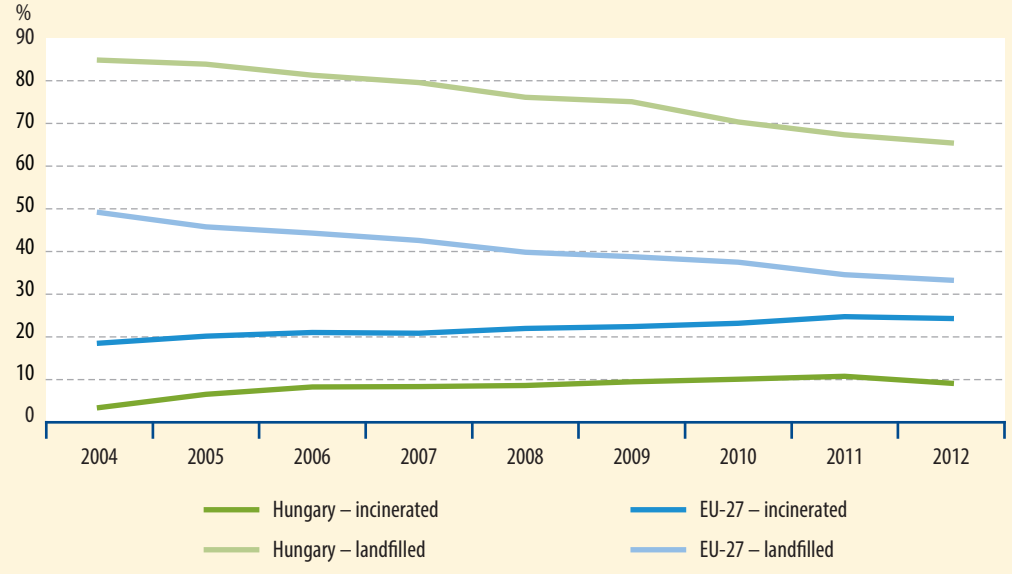
Commentary In Hungary, the proportion of recycled and composted municipal waste has risen since 2005. This is mainly due to the expansion of separate collection, since separate collection is available to an increasing number of people with the establishment of civic amenity sites and the location of waste collection points, and separately collected waste can be removed directly from houses in more and more settlements. From the point of view of environment protection, recycling is the most important mode of treatment as waste recovery reduces the impact on the environment.

International outlook The EU follows a similar trend: the proportion of recycled and composted municipal wastes has increased since 2004.

In the EU, the proportion of recycled waste is low in the Central and Eastern European countries. The rate was the highest in Germany (65%) and the lowest in Romania (3.2%).

Details As in Hungary, the average proportion of incinerated municipal waste steadily increased in the EU between 2004 and 2011 then fell slightly in 2012. However, the proportion of landfilling has declined for years both in Hungary and in the union. Concerning incineration, Hungary lagged behind the EU average with a figure of

Figure 1.29.2. Proportion of incinerated and landfilled wastes



Source: Ministry of Agriculture, Waste Information System.

The proportion of landfilling decreases from year to year in Hungary and in the EU as well.

less than half of that in 2012, while the opposite was true for landfilling, where Hungary's figure was double than the EU average in 2012.

Comparing the distribution of the three forms of treatment, it is apparent that landfill, which is the least environment friendly form of waste treatment, is the most common process of treatment in Hungary, mainly because it is cheaper than incineration or recycling. The disadvantages of landfill are the leaching of nutrients, heavy metals and other toxic compounds, the emissions of greenhouse gases, the loss of valuable land space and increased road transport. Landfill is harmful to air, soil and water, and is detrimental for human beings, as well as the flora and the fauna. Incineration is a more environmentally friendly treatment method than landfill, because it makes possible to recover energy and reduce waste volumes. On the other hand, it may lead to the emission of toxic gases such as dioxins, to the production of ashes, and to water pollution from gas cleaning.

Definitions

The indicator of municipal waste treatment shows the ratio of recyclable, incinerable and disposable wastes to all generated municipal wastes.

Recycling: a recovery operation, in which the waste is converted into product or material either for its original intended use or other purposes. This includes the processing of organic materials, but does not include energy recovery and the conversion to such materials, which are used in landfilling operations. The incineration of waste is the thermal treatment of waste in an incineration or co-incineration plant. The disposal of waste in conformity with determined legal requirements and technical safety prescriptions is qualified as landfilling.

Stadat tables

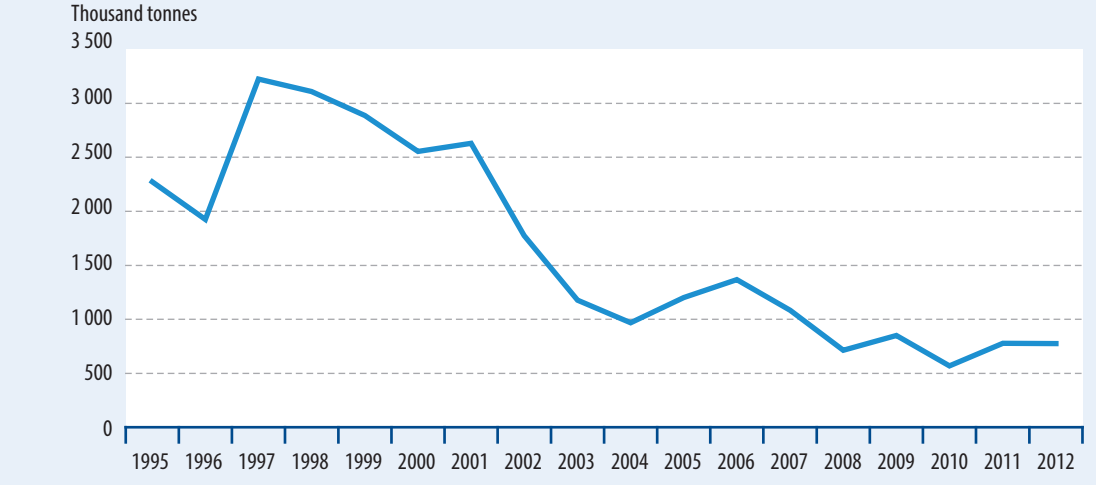
5.5.2. The volume of each type of waste by method of treatment

6.5.4. Municipal waste transported in the framework of public service by method of treatment

Generation of hazardous wastes

Keywords **hazardous waste, waste**

Figure 1.30.1. Changes in the volume of hazardous wastes



Source: Ministry of Agriculture, Waste Information System.

By 2012, the volume of hazardous wastes decreased to one quarter of the highest figure of 1997.

Relevance Sustainability requires the environmentally sound treatment of waste that cannot be recovered. Environmental and social damage caused by waste that cannot be recovered must be minimised. The size of land required for waste disposal must be reduced and the integration of waste in the natural environment (decomposition, lithogenesis) must be improved. Waste should be treated locally, as much as possible. With a view to balanced spatial development it is important that less advanced areas should be protected from being turned into the more developed regions' waste dumps.

Commentary The slag of certain power plants was classified as hazardous waste, resulting in a sharp increase in the volume of hazardous wastes in 1997. Although the decreasing tendency of the last decade resulted mainly from a fall in production, there were methodological changes as well. According to the European Waste Catalogue, applied in the records from 2002, several types of waste (e.g. those of animal origin, medical wastes) have not been qualified as hazardous waste. In certain years (2005, 2006), when hazardous wastes included polluted soil originating from remediation activities, interruptions were observed in this decrease. Compared to 2010, in 2011 and 2012, the amount of hazardous wastes was significantly higher, it was due to an increase in the amount of industrial or other economic or other hazardous wastes (e.g. agriculture, packaging).

International outlook The ratio of hazardous wastes to all generated wastes was outstandingly high in Estonia (47%), mainly due to the section of electricity, gas, steam and air-conditioning supply. In the case of Ireland, where the value of the indicator was 10% in 2010, a substantial quantity of waste considered as dangerous was generated in the services sector. Hungary's figure (3.4%) was near average, while this ratio was the lowest in Romania (0.3%) and Greece (0.4%).

Details The monitored period saw changes in the composition of hazardous wastes by solidity, but solid hazardous wastes accounted for the highest proportion in each year.

In Hungary, the presence of chemical industry and remediation activities resulted in above-average hazardous waste generation in certain regions. In 2012, Northern Hungary generated the least of them, while Central Transdanubia the most.

The proportion of hazardous waste in all generated waste in the European Union, 2010, %

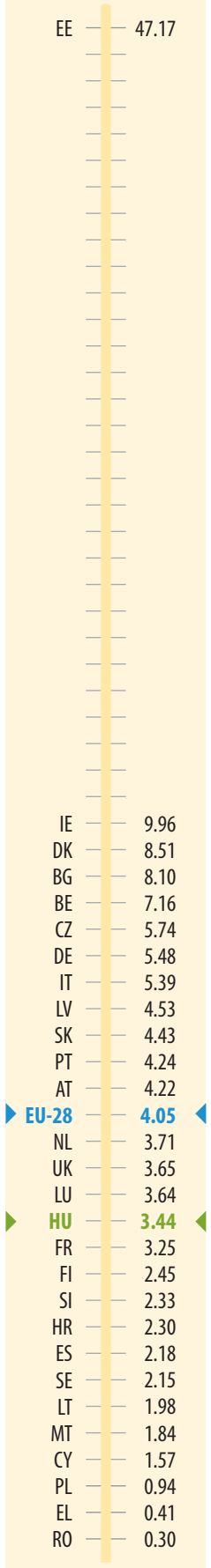
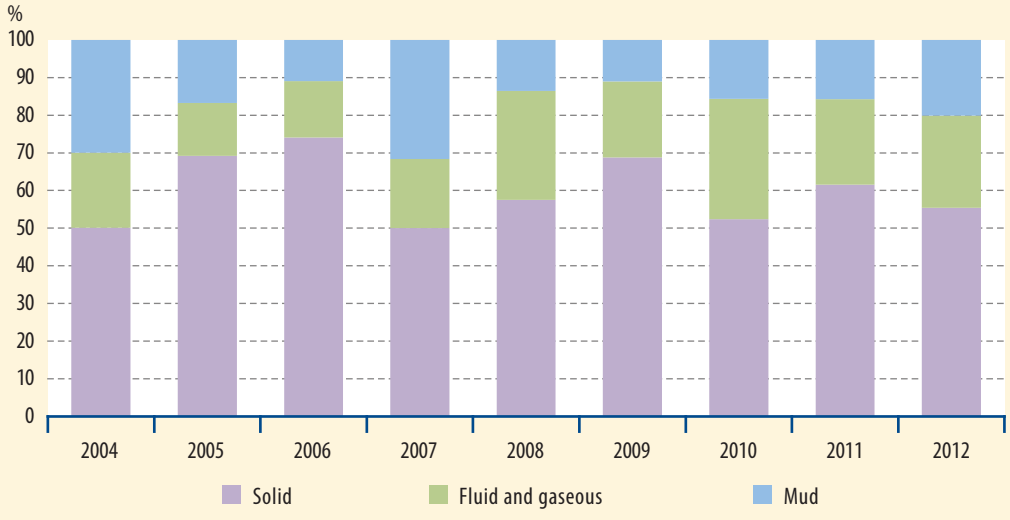


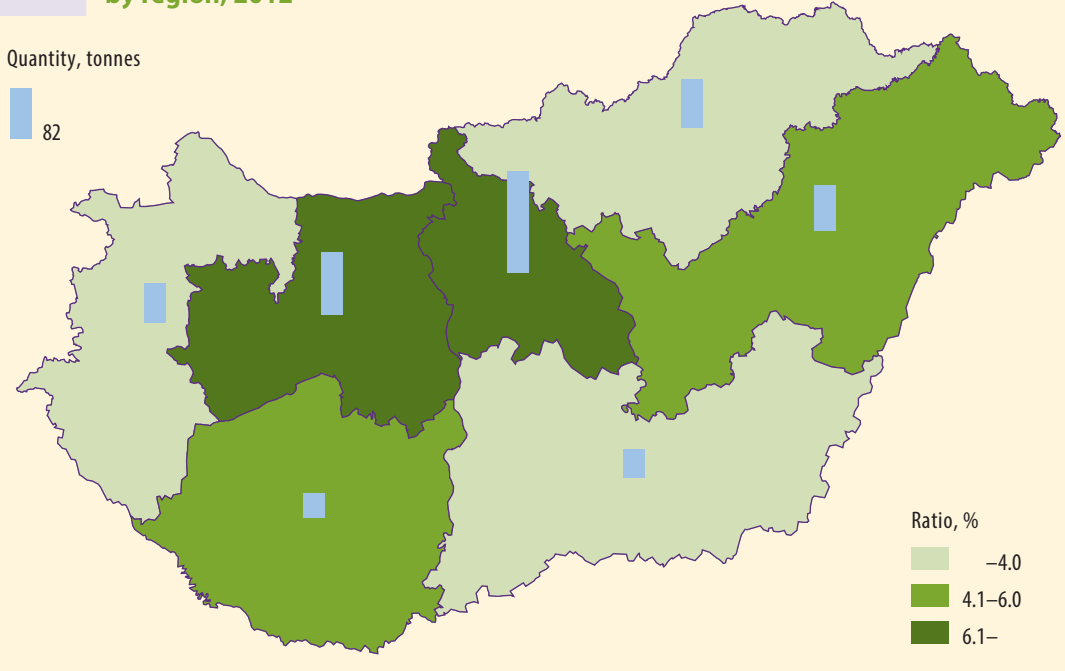
Figure 1.30.2. **The distribution of hazardous wastes by solidity**



Source: Ministry of Agriculture, Waste Information System.

There were year-on-year changes in the distribution of hazardous wastes by solidity. The proportion of solid wastes was the highest.

Figure 1.30.3. **The volume of generated hazardous wastes and their ratio to all wastes by region, 2012**



Source: Ministry of Agriculture. Waste Information System.

The proportion of hazardous wastes was the highest in Central Transdanubia (7.4%).

Definition

Any waste with at least one of the risk characteristics (explosive, oxidising, flammable, toxic, infectious, etc.) specified in Annex 1 of Act CLXXXV of 2012 on Waste is classified as hazardous waste.

Stadat tables

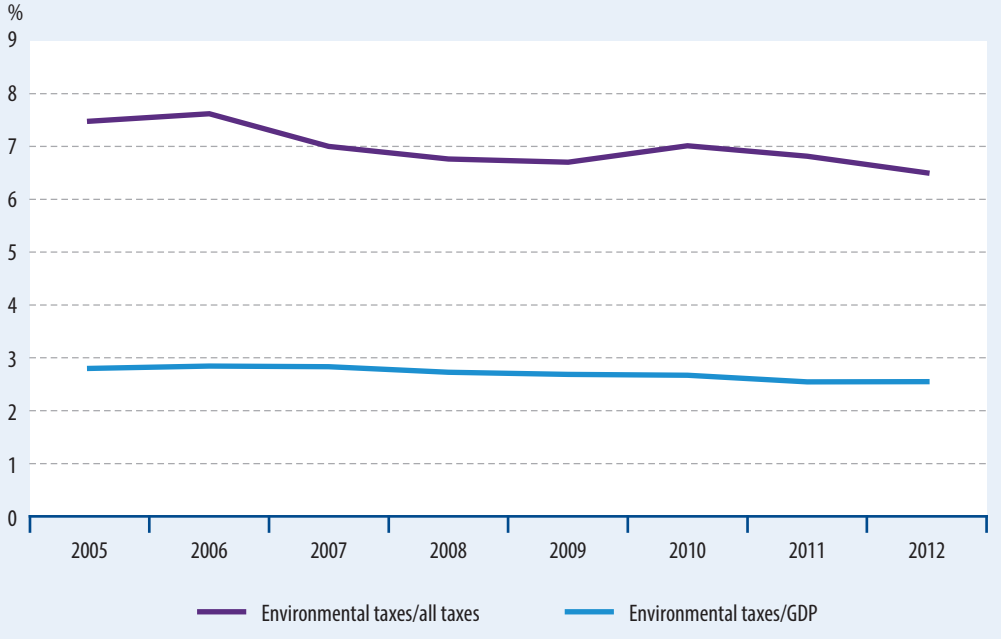
5.5.1. Amounts of hazardous waste by solidity

Proportion of environmental taxes

Keywords **environmental taxes, energy taxes, transport taxes, pollution taxes, resource taxes**

SI 10.2
BG 10.1
NL 9.1
HR, MT 8.9
IE 8.7
LV 8.7
EE 8.6
EL 8.5
DK 8.1
PL 7.8
CY 7.6
UK 7.4
FI 7.0
IT 6.9
RO 6.8
PT 6.7
CZ 6.7
HU 6.5
SK 6.2
LU 6.2
LT 6.1
EU-28 6.1
AT 5.7
SE 5.6
DE 5.6
ES 4.8
BE 4.8
FR 4.1

Figure 1.31.1. The ratio of environmental taxes to all taxes as well as to the GDP in Hungary



By 2012, the ratio of environmental taxes to all taxes decreased by nearly 1 percentage point on 2005. The decline of the ratio to GDP represented a lower rate than that.

Relevance This indicator is a tool of outstanding importance to measure how the tax systems become greener, i.e. how the goal of enhancing the proportion of taxes on environment degradation as well as on actual and potential environmental pollution gains ground in the tax system as a whole.

Commentary The ratio of environmental taxes to all taxes fell from a value of above 7.5% in 2005-2006 to around 6.5% in the subsequent years. The value relative to GDP decreased at a lower rate (from 2.8% in 2005 to around 2.5% in 2012).

International outlook Among the member states of the European Union, the ratio of environmental taxes to all taxes was the highest in Slovenia and Bulgaria (slightly over 10%) and the lowest in France (4%). Hungary is in the mid-range of the union with a figure of around 6.5%, which is nearly 0.5 % higher than the average of the EU-28.

The ratio of environmental taxes to total tax revenue in the European Union, 2012, %

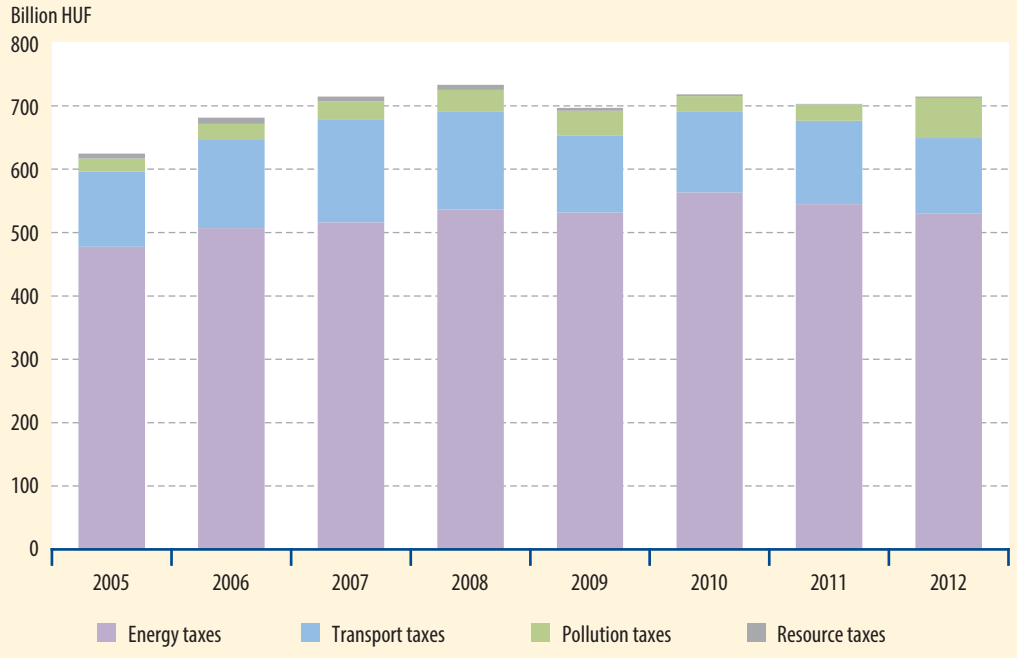
Details In Hungary, similarly to the Member States of the EU, taxes levied on energy have the largest weight, their proportion was 76% in 2005 and 74% in 2012. The largest part of this comes from the excise tax on fuel.

Definitions

In line with the definitions of OECD and Eurostat, such types of taxes are called environmental taxes whose tax base is a physical unit (or a proxy of it) that has a proven specific negative impact on the environment. This indicator shows the ratio of environmental taxes (all types of taxes regarded as environmental taxes in line with the common methodology of OECD/Eurostat) to all taxes (including social security contributions) as well as to GDP.

In most European countries the classification of environmental taxes is based on the OECD-Eurostat terminology in which four subsets are distinguished: energy taxes (including the carbon dioxide tax), transport taxes, pollution taxes and resources taxes.

Figure 1.31.2. **Grouping of environmental taxes in Hungary by type of tax**



! *Energy taxes accounted for more than three-quarters of all environmental taxes.*

The energy tax is a tax on fossil fuels used in power plants as well as in road, air, etc. transport (so the petrol tax is classified as an environmental tax not as a transport tax). Of transport taxes, the different kinds of vehicle taxes are typical of Hungary. As a third category, pollution taxes are on air and water pollution, waste generation and noise. In Hungary, the different environmental protection product fees can be classified here. "Resource taxes" are to be paid on the use of the different natural resources. Land use contribution among others is included in this group in Hungary.

Stadat tables
5.9.4. Environmental taxes

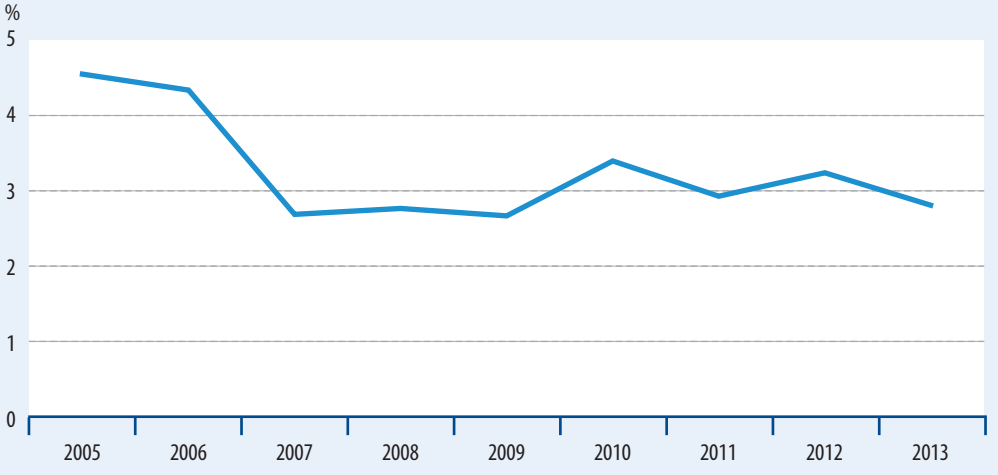
NL 1.44
MT 1.20
RO 0.95
LT, SI, UK 0.94
IT 0.88
LU 0.73
LV 0.71
BE 0.70
EU-28 0.68
BG 0.60
FI 0.59
FR 0.58
PL 0.53
DK 0.52
CZ 0.51
PT 0.48
HU 0.39
SE 0.33
HR 0.32
EE, SK 0.31
ES 0.26

Environmental protection expenditures (current expenditure and investment) of public administration as a percentage of GDP, 2011, %

Environmental protection expenditures

Keywords **environmental protection expenditures, current expenditures, environmental protection investment, investment**

Figure 1.32.1. Ratio of environmental protection investments to all investments in Hungary



In 2013, the ratio of environmental investments of the national economy to all investments was 1.7 percentage point lower than in 2005.

Relevance The fundamental goal of the environmental protection investments is to improve the state of the environment, to prevent future damages as well as to minimize detrimental effects.

Commentary The value of environmental protection investments at current prices was HUF 203 billion in 2005 and HUF 127 billion in 2013, which at constant prices was a 10% decrease compared to the previous year. The investments as a whole fell by 23% in the national economy.

International outlook In 2011, the public administration's environmental protection expenditures (investments and current expenditures), among the member countries of the EU-28, were the highest in the Netherlands at more than 1.4% of GDP, and the lowest in Spain (0.26%). The Hungarian figure (0.39%) was lower than the average of the EU-28 (0.68%).

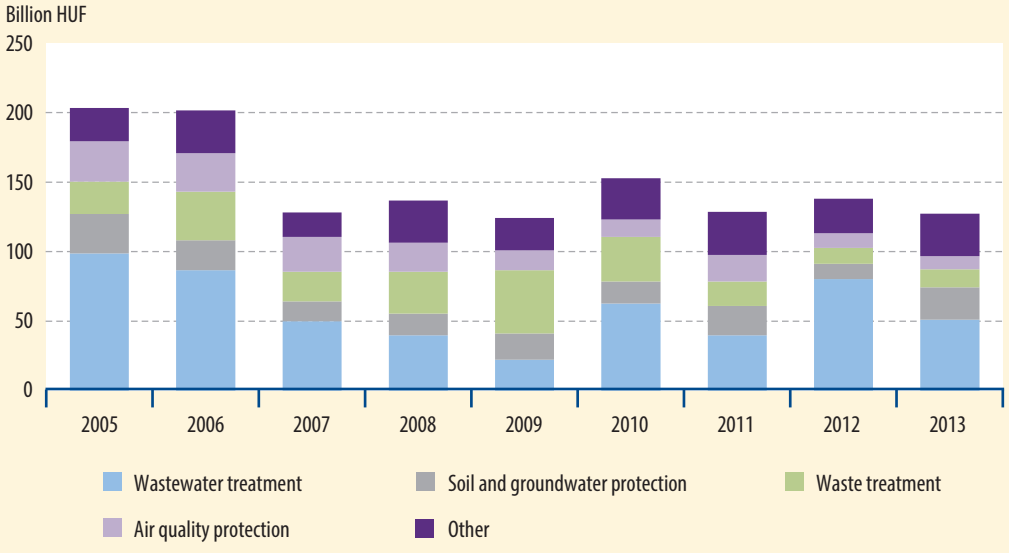
Details Until 2005, there was a rise in environmental protection investments, which was followed by an ongoing decline until 2009. In 2013, within the environmental protection investments of the national economy approximately 40% were spent on sewage treatment, 18% on the protection of soil and groundwater, 10% on waste management and 7% on the protection of air quality. In 2013, 49% of the total investments in environmental protection were given by the environmental protection investments of economic organizations listed in the public administration. Wastewater treatment and waste management had shares of 58% and 25% respectively in current expenses within the organization, while 8.3% of the expenses were directed at the protection of soil and groundwater.

Definitions

All investments with the primary aim of preventing, reducing and eliminating environment pollution or any other environmental degradation are regarded as environment protection investments. These investments are to tackle some environmental tasks, and are clearly and directly related to the implementation of the given task of environment protection.

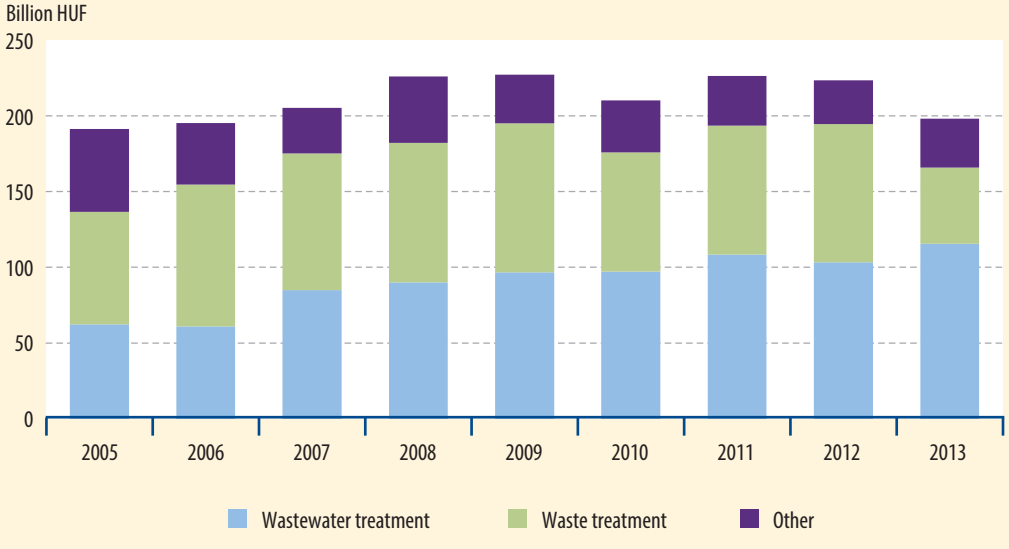
Internal current environmental expenditures include internal current expenditures aiming at the reduction of emissions to the environment.

Figure 1.32.2. **Environmental protection investments in Hungary by environmental area**



! *In 2013, the proportion of wastewater treatment-related environmental investments significantly decreased compared to the previous year.*

Figure 1.32.3. **Internal environmental protection expenditures in Hungary by environmental area**



! *There are only slight changes from one year to another in the proportion of the three main environmental areas in the case of current internal environmental expenditures.*

Stadat tables

5.9.1. Environmental protection investments by purpose

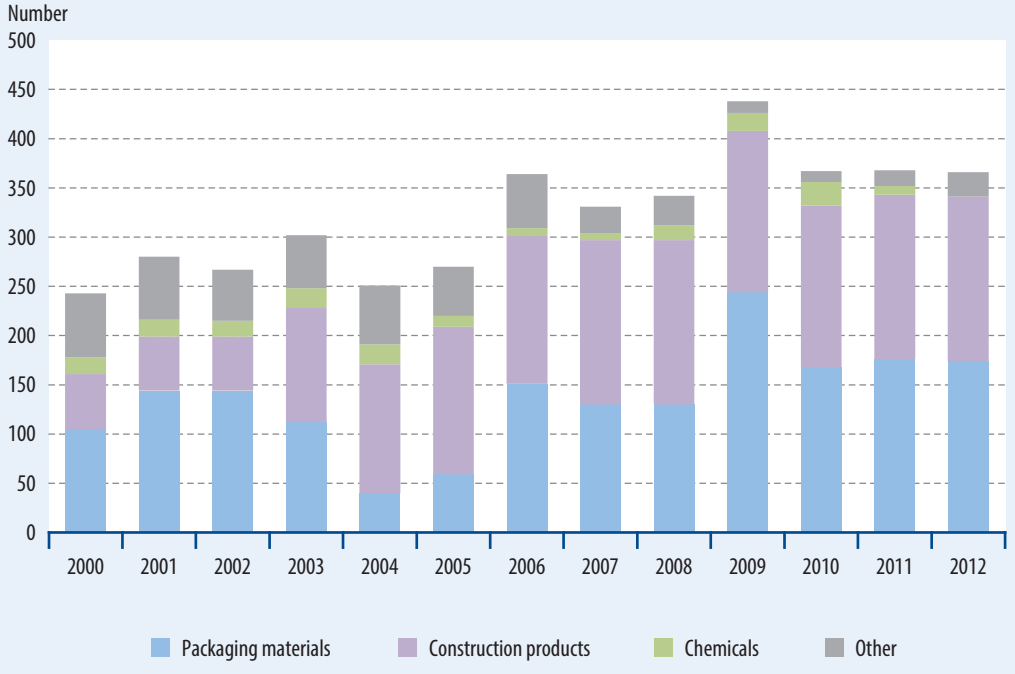
5.9.2. Environmental protection investments by branch of industry

5.9.3.Internal current environmental expenditures

Eco-labelled products

Keywords **environmentally friendly products**

Figure 1.33.1. **Eco-labelled products by product group**



Between 2000 and 2012, all in all, there was a 1.5-fold increase in the number of eco-labelled products.

Relevance On 9th September 1993, the Hungarian Government decided about the establishment of a compliance certification system to differentiate environmentally friendly products. In line with this – ahead of the politically and economically similar countries – the then Ministry of Environment and Regional Development established the Hungarian Eco-labelling Organisation to set up and co-ordinate a qualification-certification system.

The aim of environment friendly qualification and certification is to strengthen environment-consciousness, to encourage producers and distributors to introduce products and processes, having more favourable environmental properties, as well as to inform consumers about qualified products and services.

Commentary The number of eco-labelled products rose by 80% in Hungary from 2000 to 2009. The most important product groups were construction products, packaging materials and electrical appliances in the observed period. In the next year, there was a significant drop in the number of eco-labelled packaging materials, within this in that of biodegradable one-off plastic packaging materials. Between 2010 and 2012, the number of environmentally friendly products hardly changed.

Definition The indicator of eco-labelled products shows the number of eco-labelled products registered in Hungary, broken down by major product groups.

2. *Society*

Social trends

Demography

- Projections predict a continuous and significant rise in the total dependency ratio in the future. The value of the total dependency ratio is expected to be around 1.2 in 2060 according to the baseline variant of population projections, i.e. the number of people of inactive age per 1,000 people of active age may be 1,200.
- For a long time, the level of fertility has not ensured the replacement of the population. The total fertility rate in Hungary is much below the replacement level (2.1) and was 1.34 in 2013.

Employment

- The harmful effects of the global economic crisis beginning at the end of 2008 did not even spare Hungary, in parallel with the decrease of employment due to mass layoffs, the number of jobless people increased. After 2011 the indicators of employment improved. The number of the employed continually increased in the last 3 years.
- In 2010, the unemployment rate was more than 11%, then it started to slowly decrease, and in 2013 it was 10.2%.

Living conditions

- At-risk-of-poverty rate is more favourable in Hungary than the EU average, but in recent years, the value of the indicator increased in the country. However, taking into consideration that average income level is much lower in Hungary than in most EU member states this does not mean an advantage in absolute terms.
- Income inequality in Hungary rather showed a downward trend until 2010, but then, it started to increase.
- Since 1999, the gross debt-to-income ratio of households has increased continuously. In 2010, the ratio peaked at 69%. After 2010, the ratio began to decrease due to the continuous rise of income and the decrease of loans.

Consumption

- In Hungary, the annual water consumption per capita from public utilities decreased by about 12% between 2000 and 2013. Household electricity consumption increased after the turn of the millennium, and then fell again after several years of stagnation, in 2013 it was the same as the level of consumption in 2001. In the same period, the passenger vehicle fleet increased by 29%.

Health

- Between 2000 and 2013, life expectancy at birth rose by 5 years for men and 3 years for women. The gap between the two sexes has narrowed, but the disadvantage of men is still high in European terms.
- Diseases of the circulatory system are the most frequent, among them hypertension is the first in the ranking.

Education

- In recent years, the level of educational attainment increased and the rate of people with low educational attainment showed a decreasing trend.
- The share of students with low reading literacy in Hungary decreased gradually until 2009, but according to the last survey in 2012, the situation has significantly worsened.
- The rate of early school leavers decreased with minor interruptions in the period of 2000-2010, and then, contrary to the trends in the EU, it started to rise, thus moving away from the EU target value.

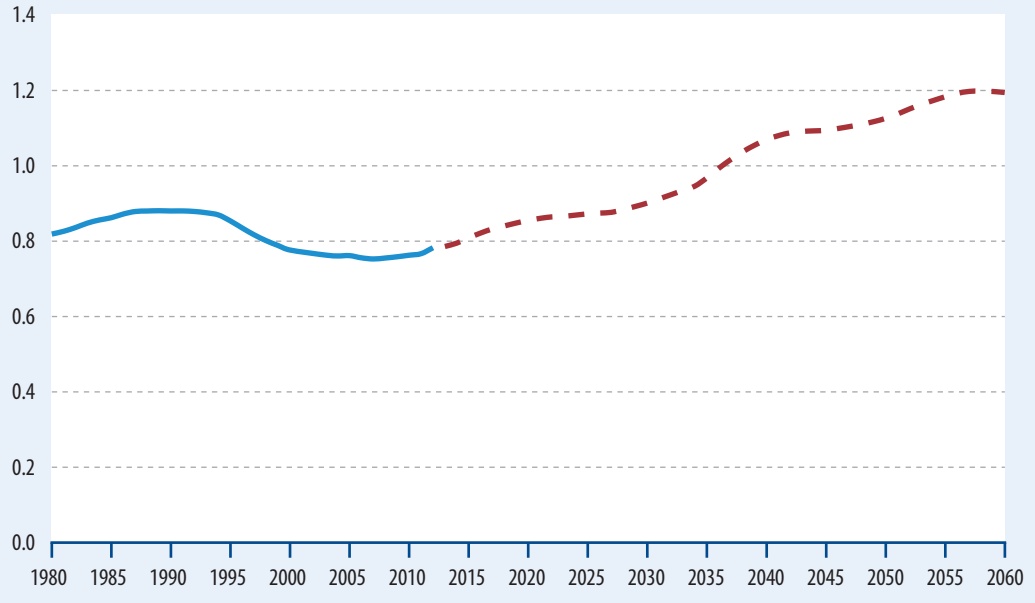
Social relations

- In 1990, the Hungarian non-profit sector was much smaller – in relative terms as well – than that of the developed Western European countries. Since that time, the number of organizations has significantly increased and their social and economic role has gradually strengthened. Regarding the number of organizations per capita, Hungary has approached the European average, but in terms of both economic power and employment, there is still a significant lagging behind.

Dependency ratio

Keywords **total dependency ratio, dependency ratios, age distribution, age pyramid**

Figure 2.1.1. **Total dependency ratio** (compared to population aged 20–59 years)



Source: Demographic Research Institute. HCSO.

After the nadir in 2007, the value of the indicator began to grow.

Relevance The dependency ratios are the most important indicators to illustrate the changes in the age distribution of the population. The value of the indicator is influenced in the long run by fertility, mortality and migration. The general trend in the historic change of the dependency ratio is a decrease from a high level due to the decline in the number of births, followed by a rise from a low level because of the extension of life expectancy. This latter trend develops strongly nowadays – especially in developed countries – and sets extraordinarily serious long-term challenges for societies. The value of the dependency ratio is basically influenced by the definition of working age. The present trend is the rise of the lower and upper limits of working age, the former because of longer time spent in education, while the latter due to improving life span. Keeping the balance of age groups is necessary for ensuring the sustainability of population development.

According to the National Framework Strategy on Sustainable Development, first of all measures which support families and having children may serve to mitigate the population decline. These include a stable and predictable family support system and the work-related legal protection of those raising children. In order to encourage having children, the individual efforts in child raising (number of children raised and their educational attainment) have to be taken into account in the rules of pension awards.

Commentary At the beginning of 1980, the dependency ratio was 0.819 in Hungary, i.e. there were 819 persons out of working age (aged 0–19 years and 60 years and older) per thousand persons of working age (aged 20–59 years). The fertility fall in the 1990s reduced the indicator value to under 0.8, and the lowest value was observed in 2007 (0.753). This was at the same time the

Dependency ratios of the population aged below 15 years and over 65 years in the EU member states, 2013, %

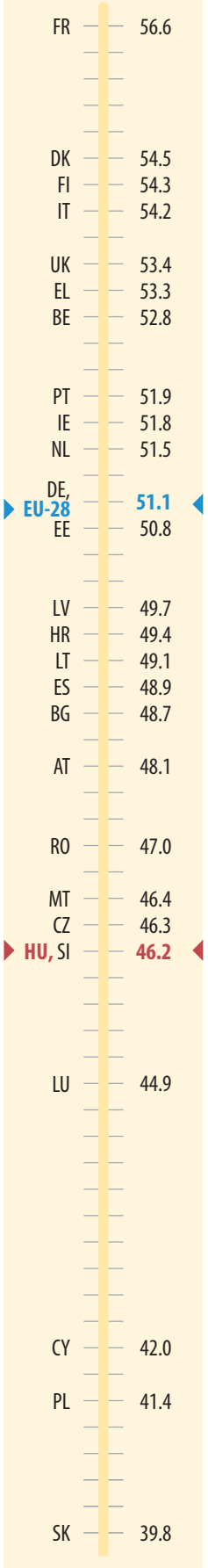
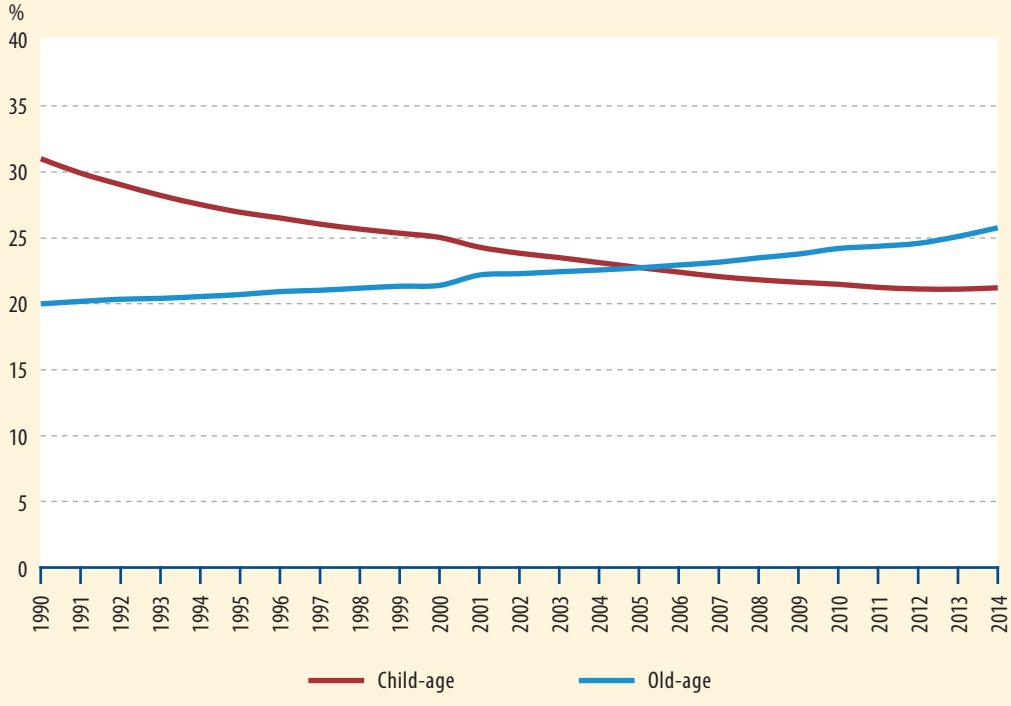


Figure 2.1.2. Child-age and old-age dependency ratios



! *The ratio of the 0–15 age group to the active aged population is steadily decreasing, while that of the 65+ age group is consistently increasing.*

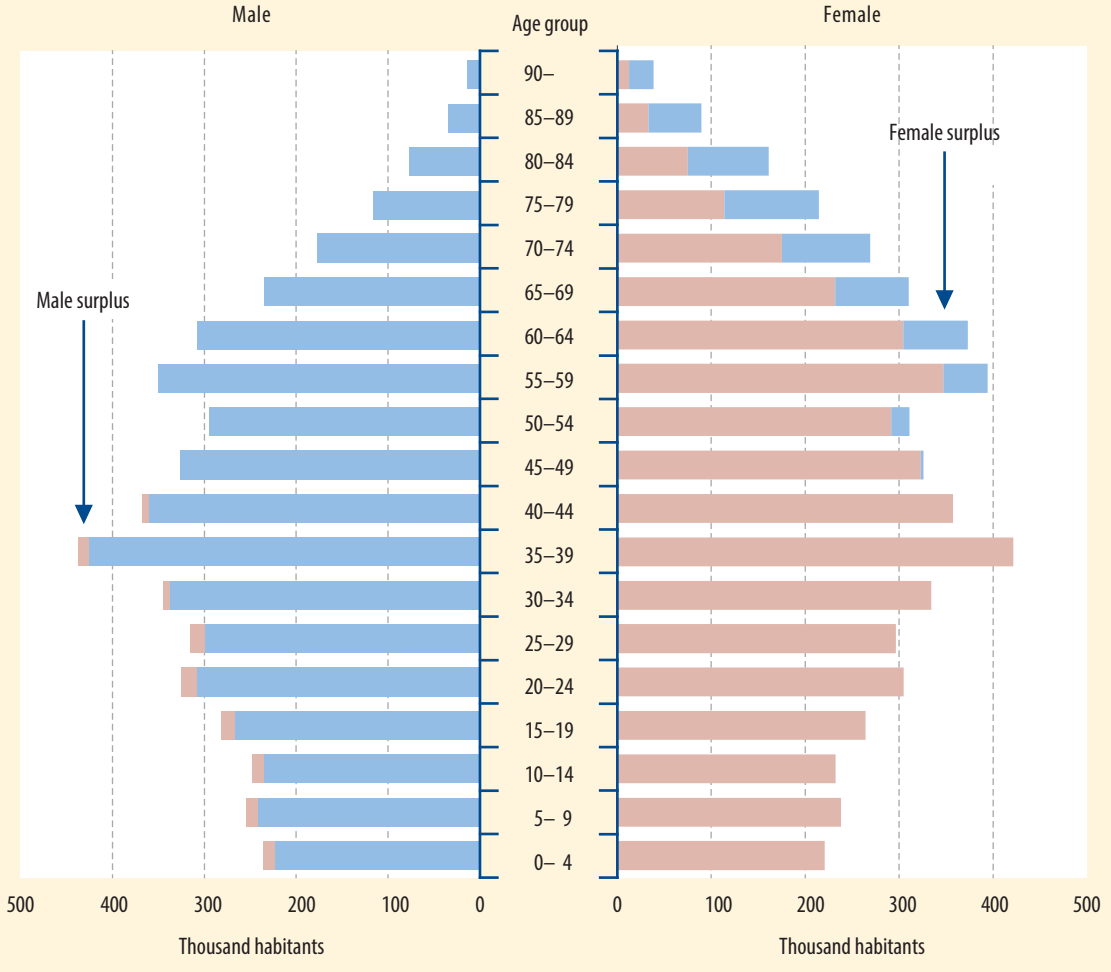
bottom of a long-term trend, since projections predict a continuous and significant rise in the future. The value of the total dependency ratio is expected to be around 1.2 in 2060 according to the baseline variant of population projections.

International outlook In 2013, the dependency ratio of the population aged 15 years and younger and 65 years and older was 51.1% in the EU. Higher than average values are mainly observed in economically developed countries, France, the United Kingdom and the Scandinavian countries, where fertility is above the EU average and life expectancy is high as well. Hungary with the value of 46.2 percent belongs to countries with low-level dependency ratio, which is primarily due to the lower life expectancy and fertility in European context.

Details When calculating dependency ratios, three main age groups are distinguished, and their proportion to each other shows the ageing of the society clearly, as well as the dependency conditions of each age group and projects the socio-economic impacts of changes. The three distinguished age groups are children (0–14 year-old), adults or active aged (15–64 year-old) and elderly people (65 year-old or older). The proportion of children compared to the active aged population steadily decreased over the past decades. The pace of the decline accelerated in the 1990s. While one fifth of the population was in child age in 1990, nowadays their ratio is below 15%. In parallel with this, the proportion of elderly people continuously increased from 13% to above 17%. The ageing process is indicated by the fact that the number of elderly people has exceeded the number of children since 2006. Meanwhile, the ratio of working age (15-64 years) population increased from 66% to 68% over the last more than twenty years, and the child and elderly population combined ratio decreased relative to the working age population. Thus, even if slightly, the demographic dependency burden on the working age population temporarily decreased.

The structure of the population is shown by the age pyramid that illustrates the number of men and women by age. The reason for the positive changes in the proportion of active and inactive aged people is that the greater number

Figure 2.1.3. Age pyramid of the population, 1 January 2014



! *The bottom of the age pyramid is 'slimmer' due to the decrease in the number of live births, the proportion of genders shifts from 46 years of age in favour of women.*

of generations born in the mid-1970s entered into working age over the past twenty years, and the similarly numerous generations born in the mid-1950s are still in working age. In parallel, the number of births declined more steeply than the number of elderly people increased. As the number of active aged people is still high, it gives chance to take the advantages of the change of age structure.

When the large generations born in the mid-1950s- reach the age of 65, the number of elderly people will increase rapidly and this will place an increasing burden on the shrinking working age population in the near future.

Definitions

The total dependency ratio expresses the support burden per person of working age. The child age dependency ratio: the child population (0–14 years) as a percentage of the population aged 15–64.

The old-age dependency ratio: the elderly population (65 year-old and older) as a percentage of the population aged 15-64.

The dependent population ratio (dependency rate): the child and elderly population as a percentage of the population aged 15-64.

Ageing index: the elderly population (65 year-old and older) as a percentage of the child population (0–14 years).

Stadat tables

1.1. Population, vital events

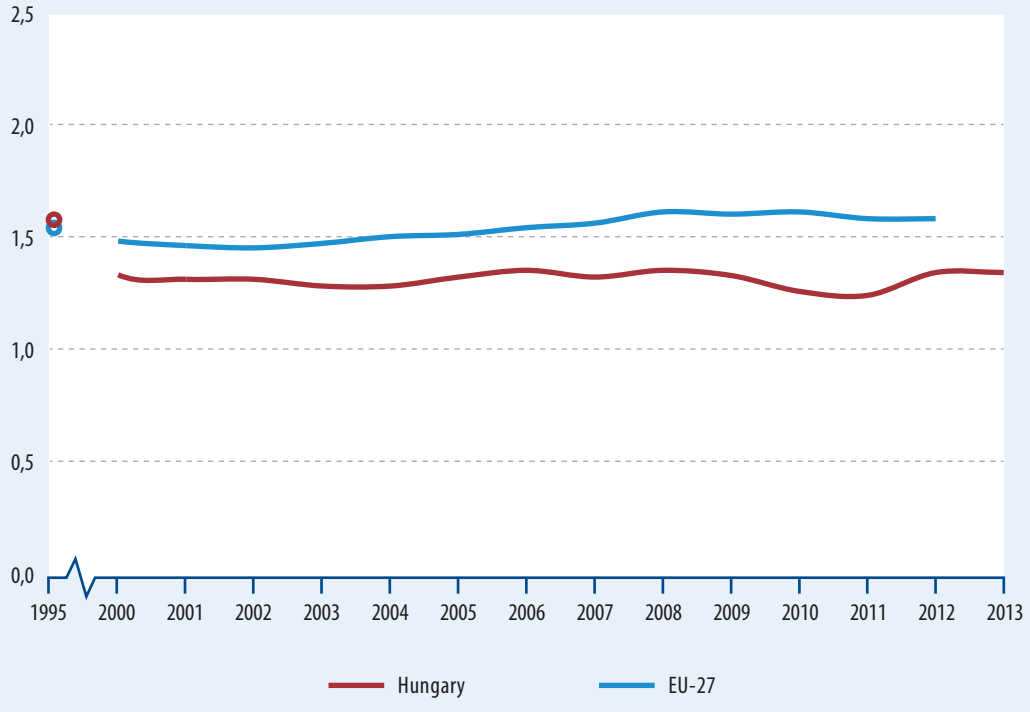
6.1.2. Resident population by age group, 1st January

6.1.6. Dependency ratios, ageing index, 1st January

Total fertility rate

Keywords total fertility rate, live births, childbearing, fertility, reproduction

Figure 2.2.1. Total fertility rate



! *For a long time, fertility rates have remained below the replacement level.*

Relevance The population number of a country is considered sustainable if the total fertility rate reaches 2.1. This is called the replacement level. If the fertility rate is permanently below the replacement level, the total population will be decreasing and ageing Fertility rate near the replacement level for a long time provides a population with a balanced age distribution, which is an essential criterion for the long-term sustainability of the pension and health care system. High fertility rates may lead to over-population and additional pressures on the environment and resource base. According to the National Framework Strategy on Sustainable Development, it is desirable and attainable in the medium term to increase the number of births and to decrease mortality which result in the deceleration of the population decrease and, on the long run, the stabilization of the population number. First of all measures which support families and having children may serve to mitigate the population decline.

Commentary Fertility strongly decreased in the 1990s and fluctuated at low levels in the 2000s. Total fertility rates fell from 1.84 to 1.24 between 1990 and 2011, then increased to 1.34 in 2012, and remained the same in 2013. In 1990, the fertility was by nearly 13%, while in 2013 by 36% below the replacement level. The low fertility level can be explained by the postponement of childbearing to older ages and giving birth to fewer children. Later child-bearing does not necessarily imply the drop of completed fertility of females, since they can make up for their postponed childbearing in their lifetime but they will more probably bear fewer children than originally envisaged. A fertility pattern evolved in the society influences the child - bearing behaviour of the younger growing-up generations as well.

Total fertility rate in the European Union, 2012,
number of children per women

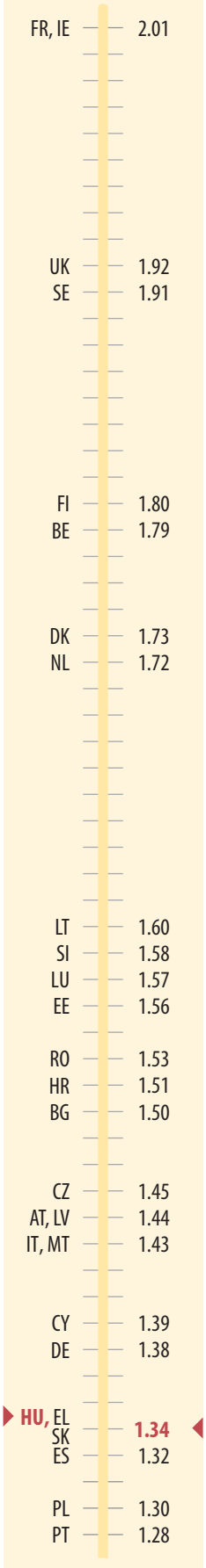
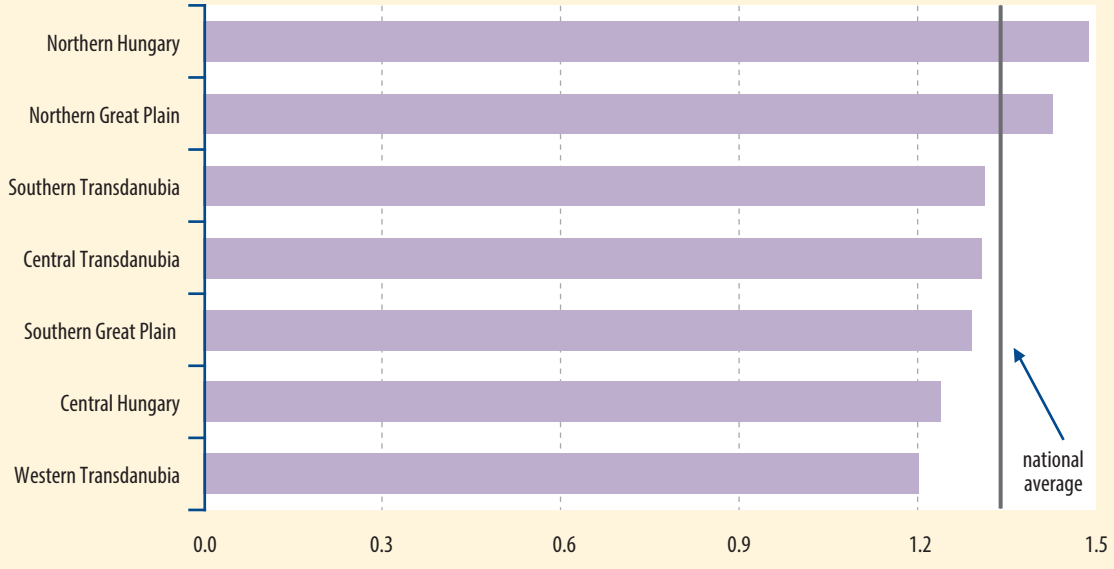


Figure 2.2.2. Total fertility rate by regions, 2013



! *The difference between the fertility of the Western and the Eastern parts of the country is considerable.*

International outlook In EU-28, the total fertility rate increased steadily between 2002 and 2008, from 1.45 to 1.61. In 2009-2010, the indicator fluctuated around 1.6, then, in 2011 it fell to 1.58, which did not change in 2012. This fertility rate is 25% below the replacement level. In 2012, Portugal (1.28), Poland (1.30) and Spain (1.32) had the lowest fertility rate. Hungary, Greece and Slovakia had the fourth lowest fertility level (1.34), while it was the highest in Ireland (2.01) and France (2.0). The differences between countries are influenced among others by labour market features, cultural factors and the different social care systems.

Details In 2013, even the region with the highest fertility did not reach the level of the region which had the lowest fertility in 1990. In 1990, the fertility rate was the lowest in Central Hungary (1.58), while it was the highest in Northern Hungary approaching the replacement level (2.08). In 2013, Northern Hungary still had the highest value (1.49), while fertility was the lowest in Western Transdanubia (1.20). The fertility rates in Northern Hungary and Northern Great Plain were significantly above the national average, while in the other regions they were below it. The differences between the territorial units of the country have not changed significantly over the past decade. The region with the lowest fertility is by around 43%, while the top fertility region is by 29% below the replacement level.

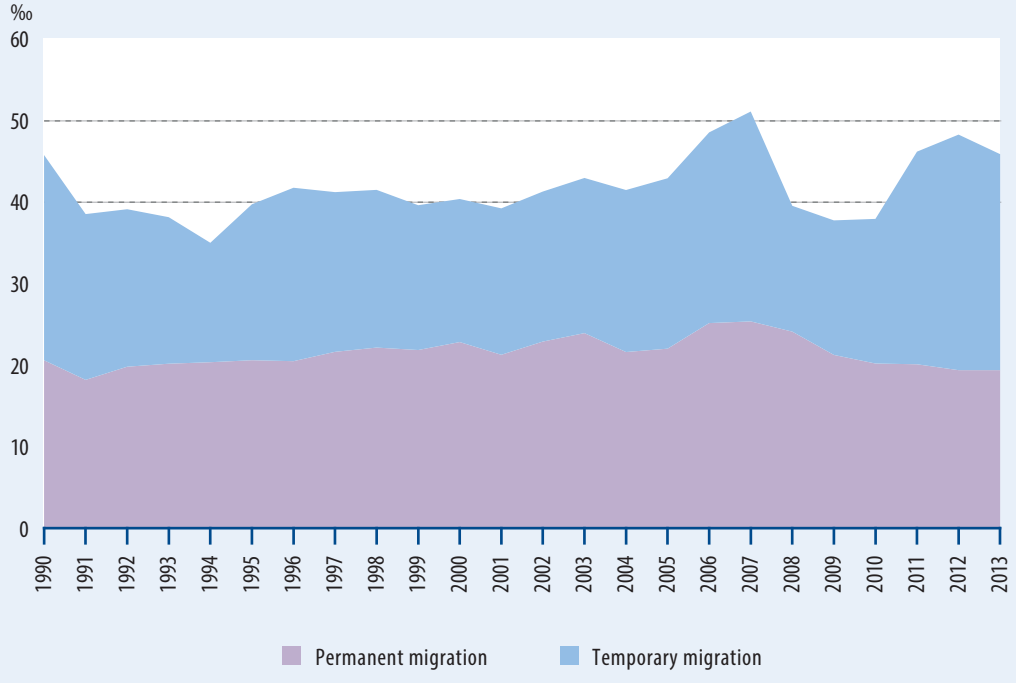
Definition Total fertility rate expresses the average number of children that would be born alive to a woman during her lifetime if she were to pass through her childbearing years conforming to the age-specific fertility rates of a given year. It indicates the completed fertility of a hypothetical generation, which is calculated by summing up the female age-specific fertility rates of a given year.

Stadat tables
1.1. Population, vital events

Internal migration

Keywords internal migration, migration, permanent migration, temporary migration, balance of migration

Figure 2.3.1. Internal migration by type of migration per thousand population



! *In 2013, the number of internal migration decreased slightly compared to the previous year.*

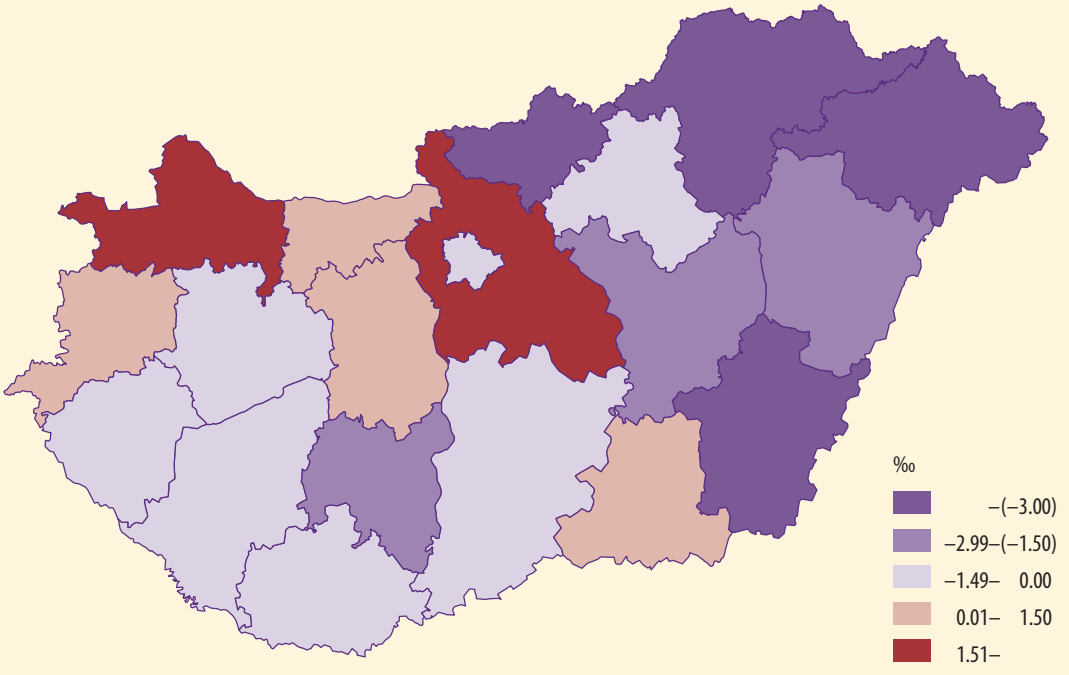
Relevance The socio-economic changes modify the level and the direction of internal migration. The level of participation in migration and the migration balance – which can be positive or negative - show how successful the particular region is. It can be winner or loser, target area or point of departure. Internal migration has a considerable effect on the age structure and human capital of a region, the highly qualified labour force generally moves to economically more developed regions.

Commentary After the peak in 2007, by the two years' decline, the level of internal migration dropped almost to the level of the 1994 nadir. In 2011, a significant increase occurred which can be traced back primarily to the change in the legal background of temporary migrations . The effect of the legal change emerged at first in 2008, but it has had no influence since 2013 any more. In 2013 the rate of change of residence per thousand population remained stable, while, concerning changes of temporary place of stay, a slight increase occurred compared to the previous year.

Details Contrary to the constantly varying trend of temporary migration, the number of permanent changes of dwellings was generally higher and more constant in the last two decades. However, since 2011 this trend has changed, i.e. in recent years more persons changed their temporary place of stay than their place of residence.

The steadily ascending trend of permanent migrations came to a halt in 2007 followed by a slow decrease, and the 192 thousand changed in permanent place of residence registered in 2013 was the lowest value in the last 20 years after the nadir in 1991. The decline of 63 thousand in the number of dwelling registrations during the last four years is exceptional considering the last 35 years. The last decrease of similar extent (44 thousand) occurred between 1988 and 1991.

Figure 2.3.2. **Balance of internal migration per thousand population by counties, 1990–2013**



During the last 20 years, Pest county's migration balance was exceptionally high while the vast majority of the other counties were characterized by out-migration.

Concerning temporary migrations the change in the legal background had a considerable effect on recent data. The significant, more than 100 thousand decline in 2008, as well as the fact that the number of registered changes in temporary dwellings exceeded 260 thousand again in 2011 can be attributed to this change. At the same time, the high number of temporary migrations stabilized in the recent years.

During the last 20 years, Pest county's migration balance was exceptionally high among counties. The majority of the counties are characterized by out-migration. The population preserving capability is the worst in the eastern, economically undeveloped counties (Borsod-Abaúj-Zemplén, Szabolcs-Szatmár, Nógrád, Békés) Only Csongrád county had a positive internal migration difference among the counties on the east side of the Danube (except for Pest county). Budapest is a special case: the balance of internal migration for Budapest was positive between 1990 and 1992, while the following period until the year 2006 was characterised by emigration because of suburbanization. From 2007, the tendency of Budapest has turned over and its migration balance is positive.

Definitions

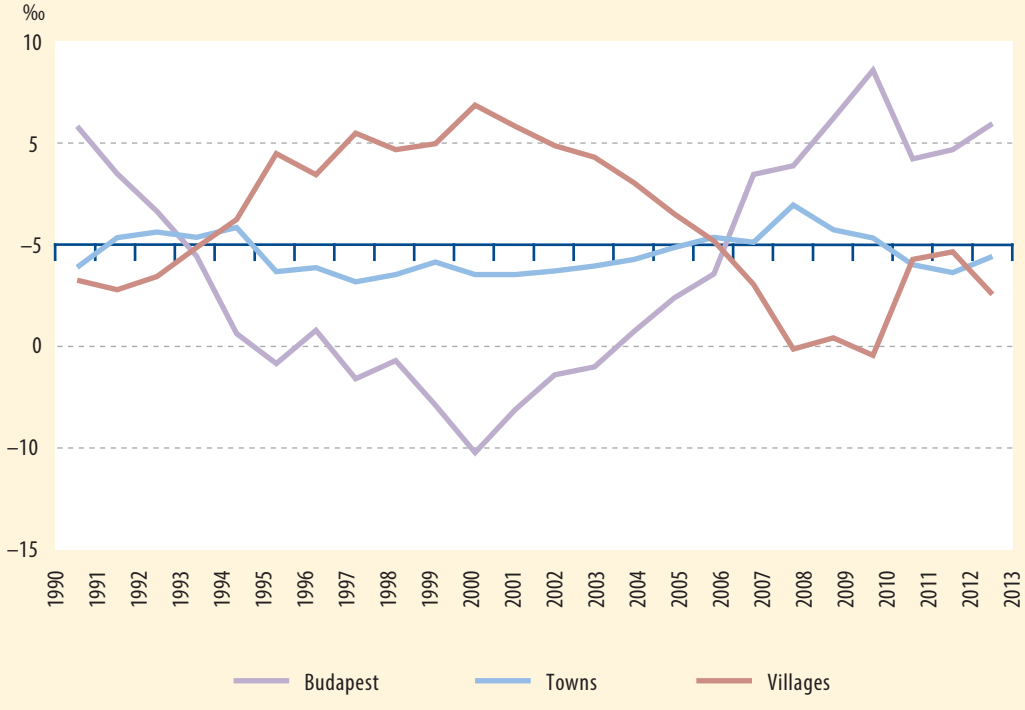
Internal migration follows the spatial, geographical movement of the population within the country, based on the registration system of home addresses.

Permanent migration: the change in the place of residence when the migrant leaving his/her place of residence indicates a dwelling in another settlement as another place of residence.

Temporary migration: the change in the place of dwelling crossing municipal boundaries when the migrant maintaining the place of residence changes a dwelling and indicates a new dwelling as a place of stay as well when he moves from one place of stay to another place of stay.

Difference in internal migration: the difference between the number of persons registered with a permanent or temporary character and temporary remigrants to the given administrative unit

Figure 2.3.3. **Balance of internal migration per thousand population by settlement types**



After a long period of out-migration, the balance of migration in Budapest became positive again in the last seven years at the expense of other towns and villages.

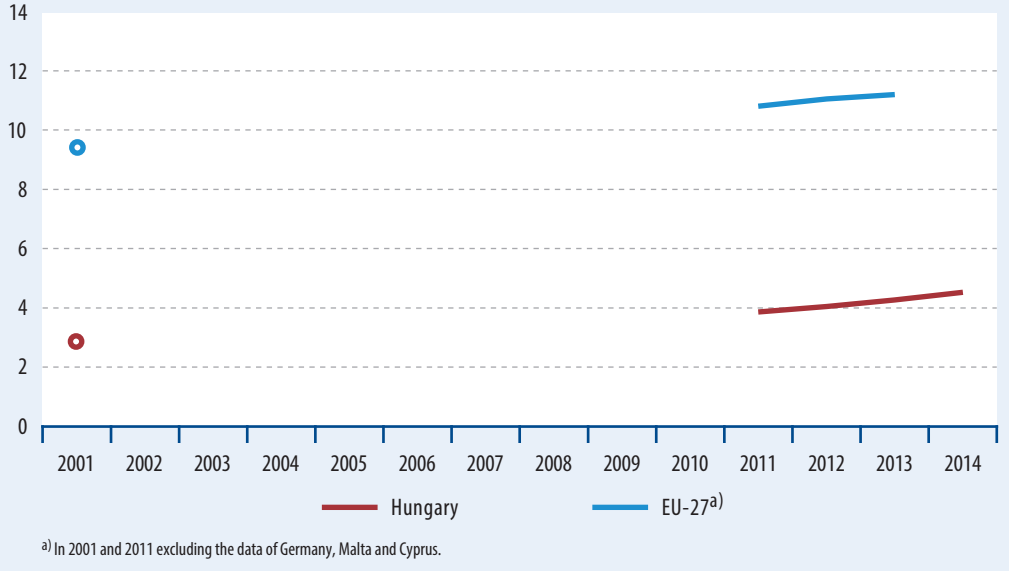
and the number of persons registered with a permanent or temporary character and temporary remigrants to an another administrative unit from the given administrative unit.

Stadat tables
1.6. Internal migration
6.1.4. Vital events
6.1.5. Main rates in vital statistics

International migration

Keywords international migration, rate of foreign-born population, country of birth, citizenship

Figure 2.4.1. Rate of foreign-born population to the total population



a) In 2001 and 2011 excluding the data of Germany, Malta and Cyprus.

The share of foreign-born population within the total population is growing, but it is still much below the EU average.

Relevance The rate of foreign-born population is an appropriate indicator to measure the long-term impact of immigration as it contains not only foreign-citizens who live in Hungary but also foreign immigrants who received Hungarian citizenship in the meantime and those who were naturalized abroad before the immigration. The Framework Strategy (NFSSD) states that the population of Hungary is decreasing at a dangerous pace, therefore, in addition to other measures the development of an immigration policy has to be started.

Commentary On 1 January 2014, 4.5 percent of the Hungarian population was born abroad. The majority of them (72%) were born in a neighbouring country, most of them in Romania. (44%) From more distant countries, Germany has an important role, where 7% of the examined population comes from. The foreign-born population has two main groups: nearly two third (70%) of them have Hungarian citizenship (mainly those coming from neighbouring countries), while approximately one third (30%) have only foreign citizenship. Among them, the proportions of those who arrived from Germany and China are the highest. The proportion of foreign-born population is constantly increasing. On the one hand, this is due to the positive migration balance of foreign citizens and, on the other hand, to the increasing number of immigrants with Hungarian citizenship who were naturalized abroad.

International outlook The increasing rate of foreigners is typical in most of the EU countries, however its average rate is more than twice as the one in Hungary. In 2013, an average of 11.2% of the EU population came from abroad. The proportion of migrants is extremely high – four times more than the EU average –in Luxemburg. Besides, the proportion of the foreign-born population is also significant in Cyprus (more than double of the EU average). The lowest proportions are observed in our Central and Eastern European neighbours. The proportion of the foreign-born population is below 4% in the Czech Republic, Slovakia, Poland, Bulgaria and Romania.

Details The highest proportion of the foreign-born population lives in Central Hungary; within

Rate of foreign-born population to the total population, 2013, %

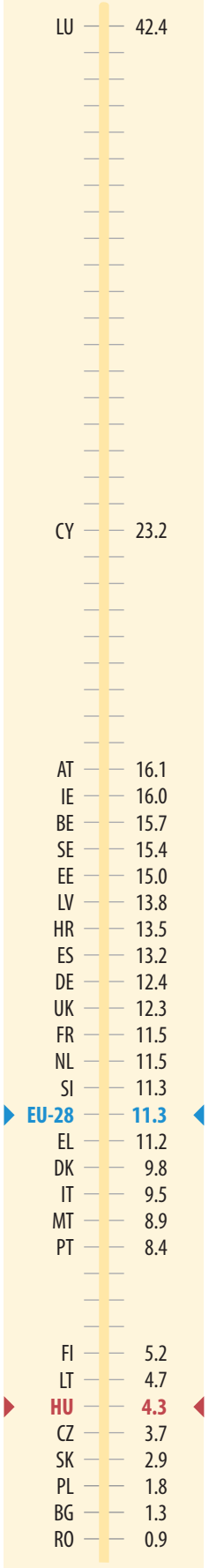
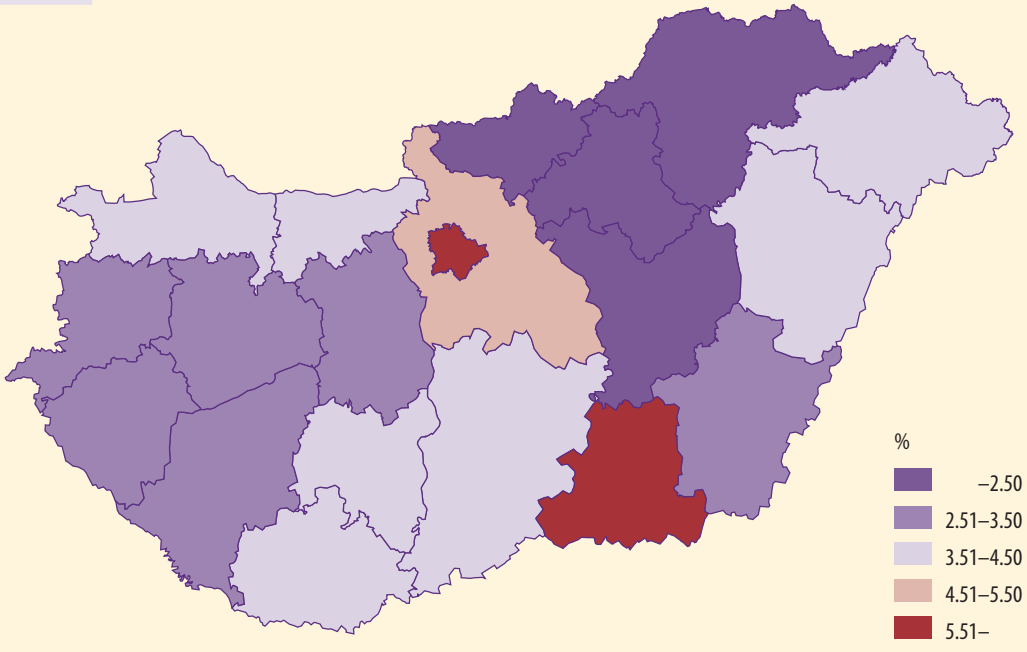
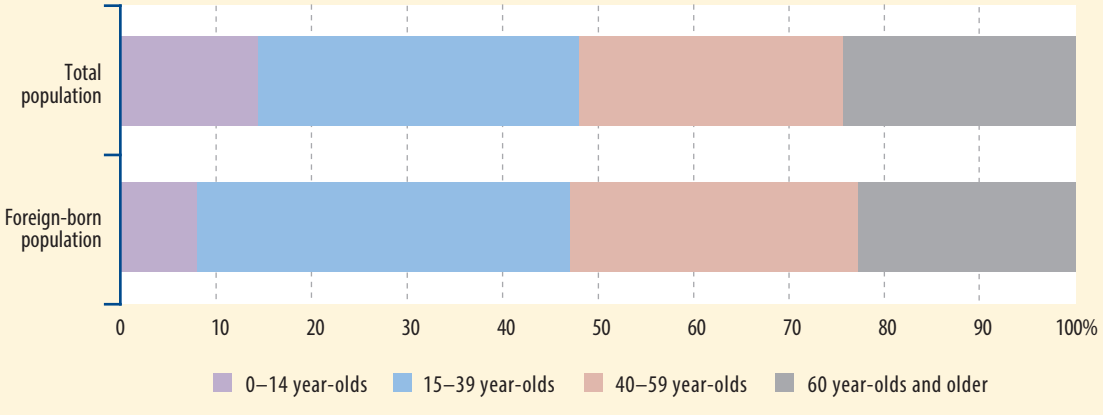


Figure 2.4.2. **Rate of foreign-born population to the total population by counties, 1 January 2014**



The proportion of the foreign-born population is the highest in Central Hungary, especially in Budapest.

Figure 2.4.3. **Age distribution of the total population and the foreign-born population, 1 January 2014**



Among the foreign-born population, the rate of people in active age is higher than in the total population.

this, 8.4% of Budapest's population and 5.3% of Pest's population has a migrant background. A similar proportion is only characteristic of Csongrád county where 6% of the population is foreign-born. The lowest-rates can be found in Northern Hungary, within this, in Borsod-Abaúj-Zemplén county (1.7%) and the proportion is similar in Jász-Nagykun-Szolnok county as well. The age distribution of foreign citizens is more favourable than that of the total population, since more than 69% of foreigners are in the economically active age group between 15 and 59 years, while among the total population this proportion is only 61%.

Definition The proportion of the foreign-born population to the total population shows the percentage of the total population born outside the borders of Hungary.

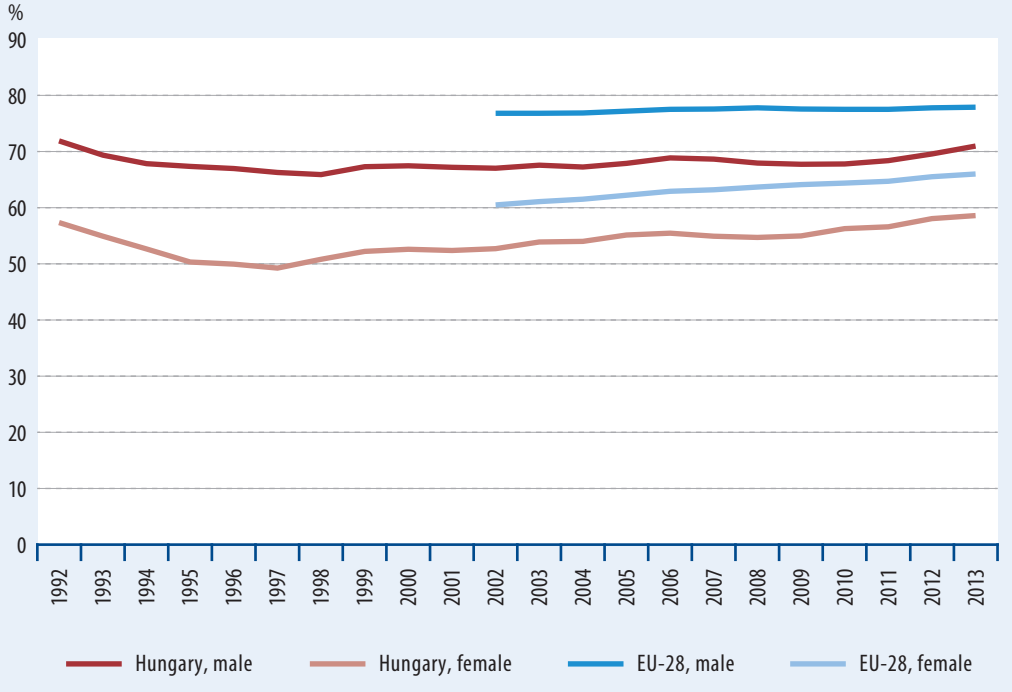
Stadat tables
1.7. Foreign citizens residing in Hungary by continents, countries and sex, 1st January

Economic activity

Keywords **economic activity, economically active persons, economically inactive persons**

SE 81.1
NL 79.7
DK 78.1
DE 77.5
UK 76.6
AT 76.1
FI 75.2
EE 75.1
ES 74.3
LV 74.0
CY, PT 73.6
CZ 72.9
LT 72.4
EU-28 72.0
FR 71.2
SI 70.5
LU, SK 69.9
IE 69.8
BG 68.4
EL 68.0
BE 67.5
PL 67.0
HU 65.1
MT 65.0
RO 64.6
HR 63.7
IT 63.5

Figure 2.5.1. Economically active persons as a percentage of population aged 15–64



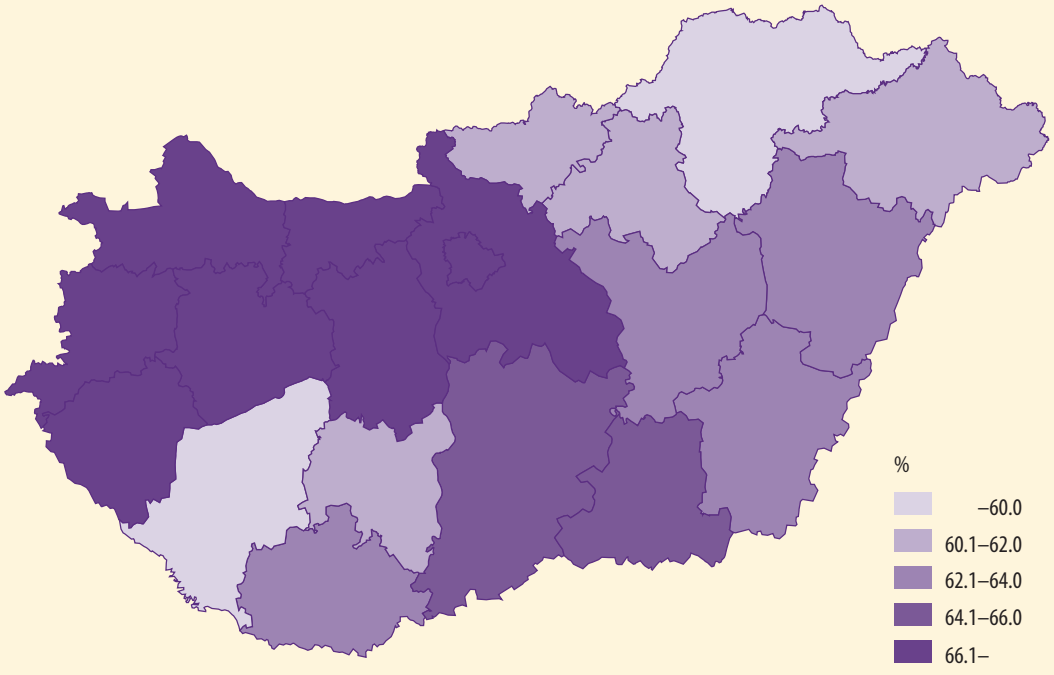
From 2010 the number of the economically active population increased, and in 2011 the growth in the number of the employed already exceeded the decrease in the number of the unemployed.

Relevance Social cohesion is one of the bases of sustainability. Extension of labour market participation is essential in respect of improving social cohesion and reintegrating disadvantaged social groups. One of the elements of this is the expansion of the employment and the other is the increase of the labour market activity of jobless people, involvement of inactive groups into job seeking. The major indicator of economic activity is the rate of economically active persons within the population aged 15-64.

Commentary In Hungary, after the transition, a large decrease occurred in the number of the employed due to the economic recession. Only a part of persons having lost their jobs became unemployed, the others left the labour market as inactive persons. The number and ratio of the economically active population continually diminished until the mid-1990s. The rate reached the lowest value in 1997 followed by a slow (interrupted by some drops) increase. So, the high level of the inactivity has become characteristic in Hungary, the labour market demand was not able to absorb those in working age, who permanently were excluded, or found another living source and withdrew from the labour market voluntarily. The harmful effects of the global economic crisis beginning at the end of 2008 did not even spare Hungary, in parallel with the decrease of employment due to mass layoffs, the number of jobless people increased. In the two years following the crisis, the size of the labour market did not change, i.e. the labour market restructured due to the crisis, but inactivity did not continue to increase. After 2011 the indicators of employment improved. The number of the employed continually increased in the last 3 years, while the change in the number

Rate of economically active persons aged 15-64 in the European Union, 2013, %

Figure 2.5.2. **Economically active persons as a percentage of population aged 15–64 by counties, 2013**



! *Regional differences between the central and western parts of the country and the eastern parts and Southern Transdanubia are shown well in the figure.*

of the unemployed showed a different trend year by year. First of all the group of disadvantaged jobseekers increased within the unemployed which is tried to be compensated by involving them in public employment.

International outlook Regarding economic activity Hungary is lagging behind the average of the EU-28 member states. After the economic crisis the difference changed between 9-10 percentage points, now this value is around 7-8 percentage points.

Details After the transition, regional differences dramatically increased peaking in the years around 2000: the gap between the regions having the best (Western Transdanubia and Central Hungary) and the worst (Northern Great Plain and Northern Hungary) values exceeded permanently percentage points. Since 2008, the values seem to be converging because the economic crisis has more deeply affected most of the regions in more favourable labour market situation Western Transdanubia, Central Transdanubia). On the contrary, there was no significant decrease employment in the disadvantaged regions. Regional differences increased again in the last 3 years, which, among others, was due to the recovery of the developed regions after the economic crisis. In 2013, Budapest (70%), Győr-Moson-Sopron and Vas counties (67%) had the best values, while Borsod-Abaúj-Zemplén, Somogy and Nógrád counties were in the worst situation with activity rates below 60%.

Definitions

Economically active persons are those who are present at the labour market, i.e. employed and unemployed persons.

Economically inactive persons are those who did not work in the reference week, did not have regular income from work and did not even seek a job, or searched for one but would not have been able to start working. Among others, passive unemployed belong here who would like to find a job, but as they deem their chances unfavourable, they do not seek one actively.

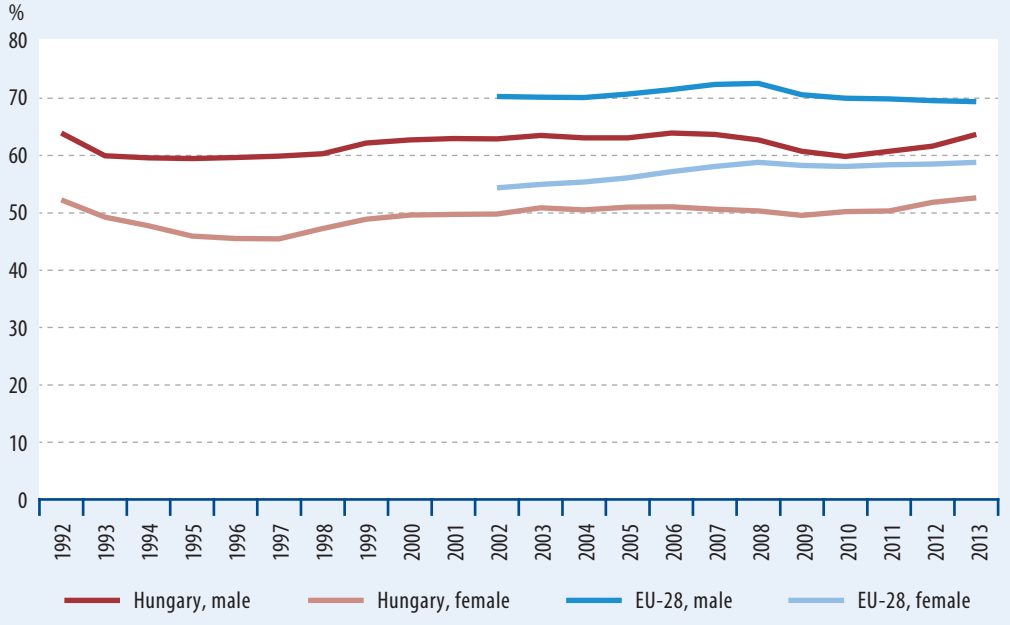
Stadat tables
2.1. Labour market

SE 74.4
DE 73.3
DK 72.5
AT 72.3
UK 70.8
FI 68.9
EE 68.5
CZ 67.7
LU 65.7
LV 65.0
EU-28, 64.1
FR
LT 63.7
SI 63.3
BE 61.8
CY 61.7
PT 61.1
MT 60.8
IE 60.5
PL 60.0
SK 59.9
RO 59.7
BG 59.5
HU 58.4
IT 55.6
ES 54.8
HR 52.5
EL 49.3

Employment rate

Keywords **employment rate, employment**

Figure 2.6.1. **Employment rate of the population aged 15–64**



After the turn of the millenium, the level of employment was stagnant in Hungary, but an increasing trend has been observed in employment since 2011.

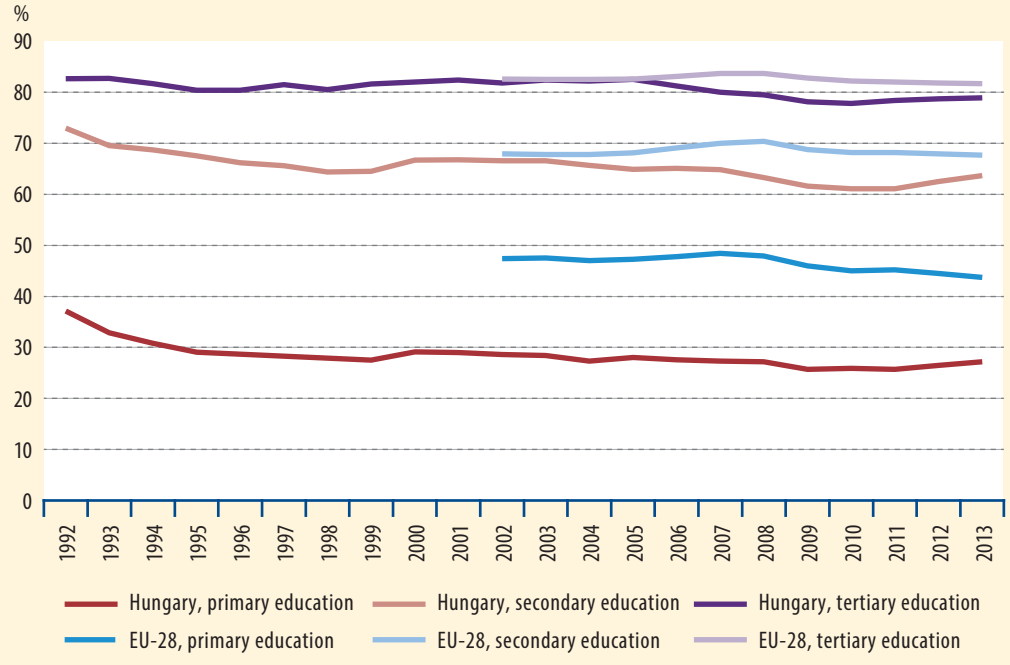
Relevance The value of the human resources is basically determined by the ability to work, while, at the same time, performing work has an effect on the development of human resources. The increase of employment and improvement of labour market positions of disadvantaged social groups are important tools in the fight against poverty and diminishing of inequalities in life chances. The employment not only increases income safety but also strengthens the social integration through laying the foundations of the social capital. The Framework strategy states that the level of employment is low in international comparison. It is necessary to expand the range of people who can be involved in work and to improve employment with the help of programmes aiming at reducing social exclusion.

Commentary Because of the economic shock following the transition, the level of employment decreased dramatically until 1996, when only 52% of the population aged 15–64 was employed. Subsequently, the rate of employment increased at a slow pace and practically stagnated from the early 2000s till 2008 Due to the economic crisis, there was a substantial, 2 percentage points fall in employment. The upturn started in 2011; the years 2012 and 2013 brought a spectacular growth, so the employment indicator increased to a level not seen in 20 years. The rate in 2013 for 15–64 year-old population was 58.1%.

The extension of public employment (public work programmes), which began in 2009, greatly contributed to the employment growth and thus the significant improvement of this indicator. The abrupt change can be detected from 2012 which is consistent with the more intense use of this labour market policy tool, as well as the workfare feature of the social assistance system. In Hungary, this means that the support is connected to participation in public work. The number of those working in public employment multiplied compared to the years before the crisis. The number of employed people working at local units abroad increased steadily as well, and in 2013 their number was nearly 100 thousand. In the past few years, the growth in employment

Employment rate of the population aged 15–64 in the European Union, 2013, %

Figure 2.6.2. **Employment rate by highest educational attainment**



! *The employment rate of those with low educational attainment is considerably below the EU average.*

was due to the combined effect of the expansion of employment in the domestic labour market, public employment and employment abroad.

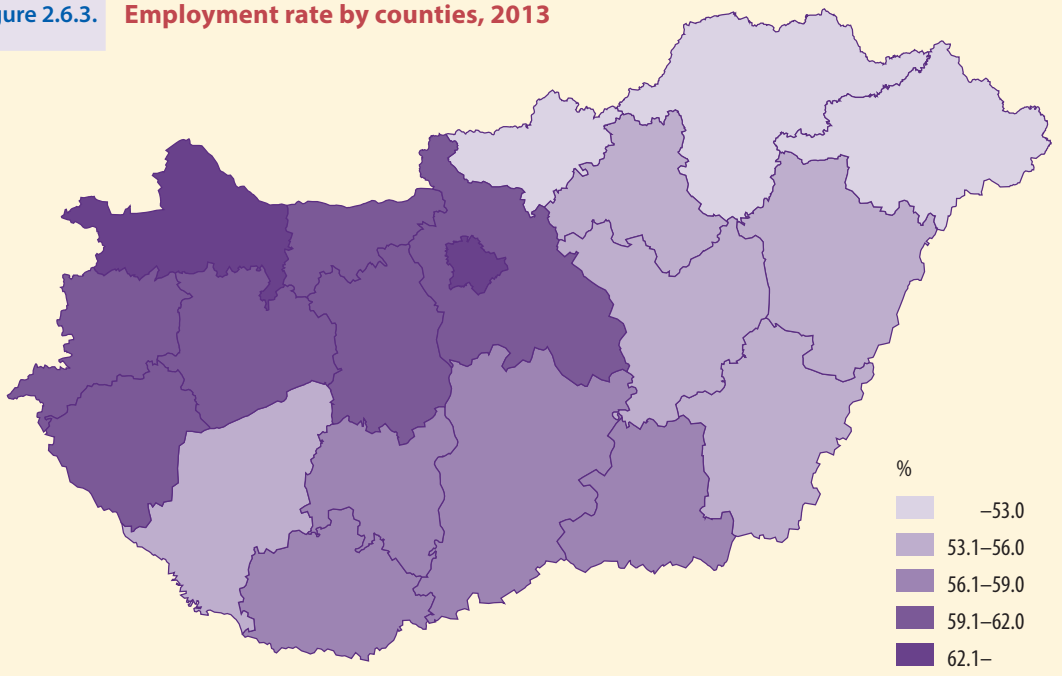
International outlook The Hungarian employment rate is lower than the EU average. Examining the age group 15-64, the difference increased steadily since 2004 and reached its peak in the years around the crisis with 9.5 percentage points. Subsequently, the employment rate in Hungary increased more than the EU average, as a result of which our lagging behind decreased to 5.8 percentage points by 2013, but for some age groups it is much higher.

Details For men, after the lowest level in 1996 (59.4%), the rate grew continuously but slowly and by 2006 it reached nearly 64%, then it started to fall due to the economic crisis. The significant decline in male employment in 2009 and the nadir in 2010 were the consequence of the termination of a large number of jobs in industrial branches employing mostly men. The employment rate of men already increased in 2011.

For women, after the employment had reached the bottom in the 1990s, an increase at a slightly faster rate started, so while in 1996 the employment rate of women was 14 percentage points lower than that of men, the difference between the two rates was only 12.1 percentage points in 2005. By 2010, the difference continued to diminish to 9.6 percentage points, since in the service sector, employing the majority of women, recession-related lay-offs started later, which resulted in a less drastic decline and a faster recovery of the indicator. In recent years, the recovery affected men more than women, so the gender gap started to increase again.

The chances to find a job are considerably influenced by the highest level of education completed. The employment downturn that occurred after the transition had the most unfavourable affect on those with low educational attainment (with 8 grades of primary school at most). The gap between the employment rate of persons with lower and that of persons with tertiary educational attainment became significantly wider which is primarily due to the fact that the education level of the population is constantly rising. In the early 1990s, the employment rate of persons with tertiary education was two or two and a half times higher than that of persons with primary and lower secondary education, while since the end of the decade, it has been three times higher. The labour market opportunities of those with low educational attainment are still the most unfavourable; most of them find work with temporary contract or through public work programmes. Their employment is

Figure 2.6.3. **Employment rate by counties, 2013**



The regional differences in employment are significant, the gap between the regions having the best and the worst rates does not substantially close: the difference exceeded 14 percentage points in 2013.

very low by international comparison as well: our lagging behind is 17 percentage points compared to the EU-27 average. The labour supply surplus in occupations needing lower skills displaces those with low educational attainment, which results in skill underutilization in case of those with higher educational attainment.

Taking a longer time span, the employment rate developed differently for each age group, which was influenced jointly by the changes in the social benefit system and by education and demographic processes. While the employment of young people (15-24 years old) decreased significantly over the past decade and a half, the participation of those over 50 years in the labour market shows a spectacular growth. The extension of the learning cycle and the expansion of higher education as well as the shrinking job/work supply fundamentally transformed the labour market participation of 15-24 year-olds in the last two decades. While in 1992, 35% of young people worked, in 2013 one fifth. The continuous rise in the retirement age, the restriction of early retirement entitlements in 2011 and the review of disability benefits drove back a part of the inactive population into labour market, which has resulted in the growth of employment in the older age groups as well.

Traditionally, significant regional differences can be observed in employment. The most striking dividing line stretches along the region group of Central Hungary, Western and Central Transdanubia, which sharply separates this area with more favourable conditions from the other part of the country with disadvantaged employment perspectives. From 2012, in regions which are in the most disadvantageous labour market situation (Northern Hungary, Southern Transdanubia and Northern Great Plain), employment rate has showed a higher rate of growth which is partly due to the fact that, in these areas, public work programmes are more widespread. The regional differences in employment became slightly smaller, but the difference between the regions with the best and the worst rate was still more than 11 percentage points in 2013.

Definitions

The employment rate is the ratio of employed persons to the population of corresponding age.

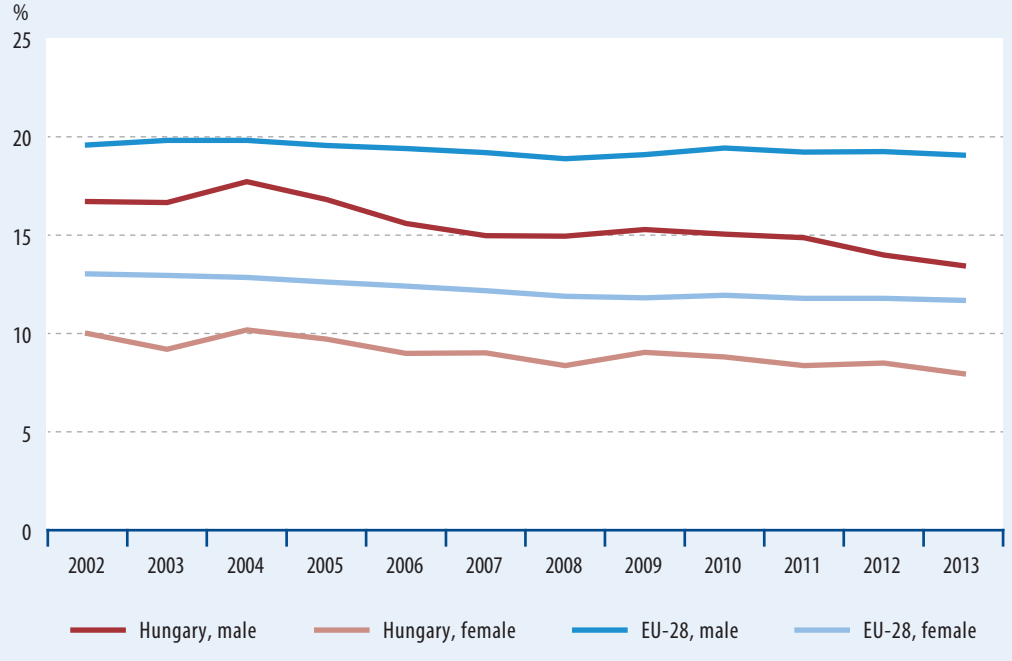
In the Labour Force Survey, employed persons are persons aged 15–74 who during the reference week (from Monday till Sunday) performed work for pay or profit for at least one hour or were not working but had a job from which they were temporarily absent (because of e.g. holidays, illness etc.).

Stadat tables
2.1. Labour market
6.2. Society

Self-employment rate – atypical employment

Keywords atypical employment, self-employed, part-time employment, employment with fixed term contract

Figure 2.7.1. Self-employed as a percentage of population aged 15–64



! *The proportion of self-employed persons in Hungary is still below the EU average.*

Relevance Atypical forms of employment as the sources of job creation, better jobs and economic growth can be the tools for the fundamental strategic goal of improving competitiveness together with increasing employment, therefore, several initiatives by the European Union support the spread of these forms.

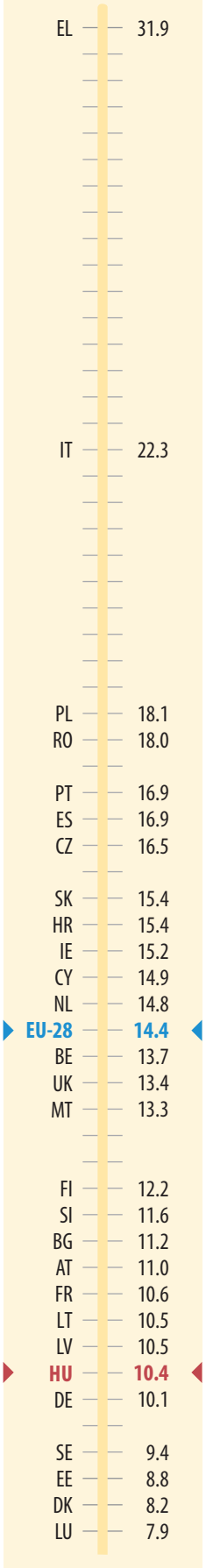
Commentary The most common form of atypical employment in Hungary is self-employment. The non-employees are connected to the labour market more loosely; therefore, their status is more uncertain than that of employee's whose labour market situation is more predictable. The status of own-account workers or members of partnership as an option is determinative but cannot overcome the employee's stable rate of above 85%.

Despite a temporary increase in 2004, the rate of self-employment declined steadily in the past nearly one and a half decades- -, and the rate which was 15.1% at the turn of the millennium, fell to 10.9% by 2013. Similarly to all EU member states, the proportion of work carried out as non-employee is higher among men in Hungary as well. The proportion of self-employed men decreased from 18.9% in 2000 to 13.4% by 2013, while that of self-employed women from 10.4% to 7.9%. Besides, the gender gap decreased as well from 9.0 percentage points to 5.5 percentage points.

International outlook In all the countries of the European Union, the employee status is considered to be typical employment status. Namely, the average proportion of self employed in the EU-28, which is classified as an atypical form of employment, was 15.7% and it was in the range of 10-16% also in the majority of the member states.

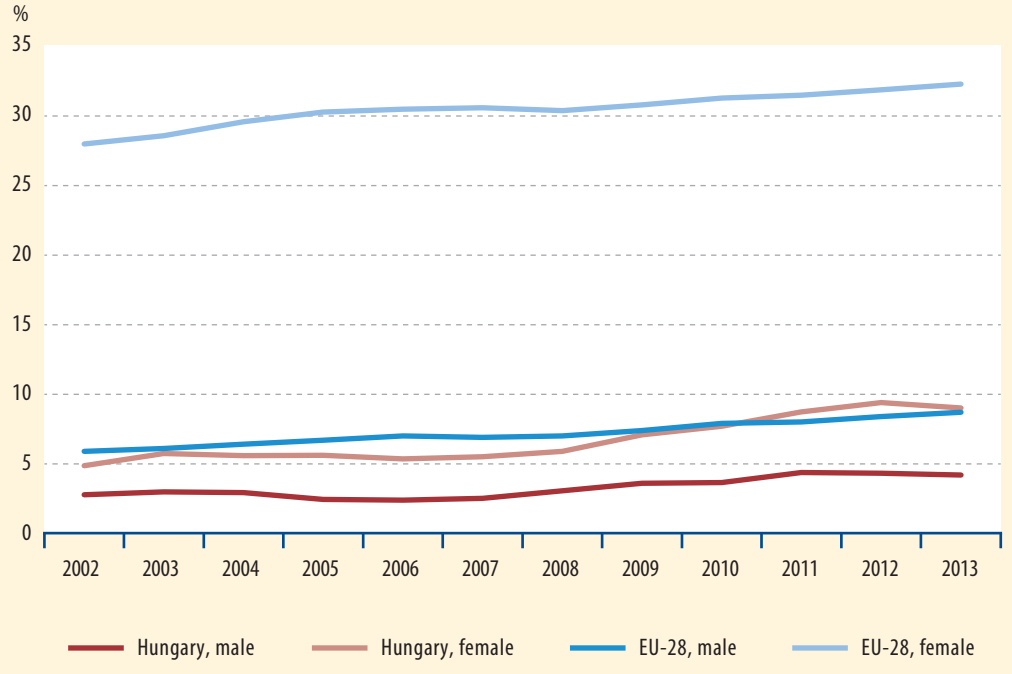
The most common atypical employment form in the European Union is part-time employment. Accordingly, in 2013 one in five workers (19.6%) in the EU-28 considered their work as part time

Self-employed as a percentage of the population aged 15–64 in the European Union, 2013, %



NL 50.0
DE 26.2
AT 25.7
UK 25.5
DK, SE 24.7
BE 24.3
IE 23.5
EU-28 19.5
LU 18.7
FR 18.1
IT 17.7
ES 15.7
MT 14.3
FI 14.0
CY 11.9
PT 10.9
SI 9.3
EE 8.9
RO 8.8
LT 8.4
EL 8.2
LV 7.5
PL 7.1
HU 6.3
CZ 5.8
HR 5.4
SK 4.5
BG 2.5

Figure 2.7.2. **Part-time workers as a percentage of employed persons aged 15–64**



Part-time employment as a tool of crisis management shows a slight growth in Hungary, but still lags significantly behind the European Union; the rate in Hungary is only one third of the EU-28 average.

work. In all member states, self-employment is rather typical of men, while part-time employment is more common among women. In the EU-28, out of 100 employees 32 women and 9 men consider their job as part time work.

The least common form of atypical employment in the EU is employment on a fixed-term contract. In the EU-28, only 13.7% of employees are employed - with shorter or longer - fixed-term contract. In most of the countries, their proportion did not exceed 20% of all employees.

Details Fixed-term employment means fewer constraints for the employer, but it is less desirable for employees, albeit it improves by all means the flexibility of the labour market. This is well reflected in the 2010 data when, due to the crisis, the proportion of those working with fixed-term contract considerably increased. This was partly due to the increase of casual and public employment, as well as to the more dynamic labour market fluctuations, inflows and outflows. In Hungary, the proportion of employees with fixed-term contract is larger and larger. In 2000, 6.8% worked this way; then, following a slight increase, their proportion fell to the level of the turn of the millennium in the middle of the decade, between 2004 and 2006. Since 2007, there has been an increase again, and in 2013, 10.9% of employees had a fixed-term contract. This trend was similar for both sexes. The gender gap has hardly changed during the past one and a half decades, and the proportion of those who work with fixed-term contract is generally 1–2 percentage points higher among men. In 2013, the 11.4% rate of men exceeded the women's rate of 10.4% by 1 percentage point.

Making working time more flexible, partly by redistributing the working time and making it shorter, may be an effective tool of handling unemployment. The proportion of part-time workers in Hungary is very low. One reason is that employers prefer full-time employment, and the other is that the cost of living is often higher than the attainable part-time wage. That is why for many workers it is the cost of living

Part-time workers as a percentage of the population aged 15–64 in the European Union, 2013, %

that forces them to work full time. Between 2000 and 2007 the proportion of part-time workers hardly changed, it remained typically below 4%. However, from 2008, due to the global economic crisis, companies which were struggling with transitional market problems have modified many full-time contracts into part-time ones. Employees' earnings were complemented from public funds to the extent of their full-time earnings, or employees could take part in free retraining. As a result, the proportion of part-time employment began to rise, and it exceeded 6% in 2011. It has been above 6% since that time, but - despite the increase in the number of employed - further increase in the rate cannot be observed. In 2013, the proportion of those working in part-time was 6.4%.

Out of women nearly twice as many choose part-time employment, since, in addition to child care and other family obligations, often only part-time work provides an opportunity for them to gain income or to build a career. Until 2008, before the outbreak of the crisis, part-time employment among women remained below 6%, it increased to above 7% in 2009 and to above 8% in 2011, while in the last two years female part-time employment was characterized by a proportion of above 9%.

Definitions

Those forms of employment are considered atypical which deviate from the ordinary ones. Full-time employment with contract of indefinite duration as employee is considered ordinary. On the basis of this definition and completed with other, unusual types of employment, the following categories are considered as atypical in the present study:

1. self-employed: employed working not as employee, like working member of partnerships, own-account workers, members of co-operatives, unpaid family workers,
2. part-time workers: working in part-time according to self-classification,
3. working with fixed-term contract: employed with fixed-term labour contract.

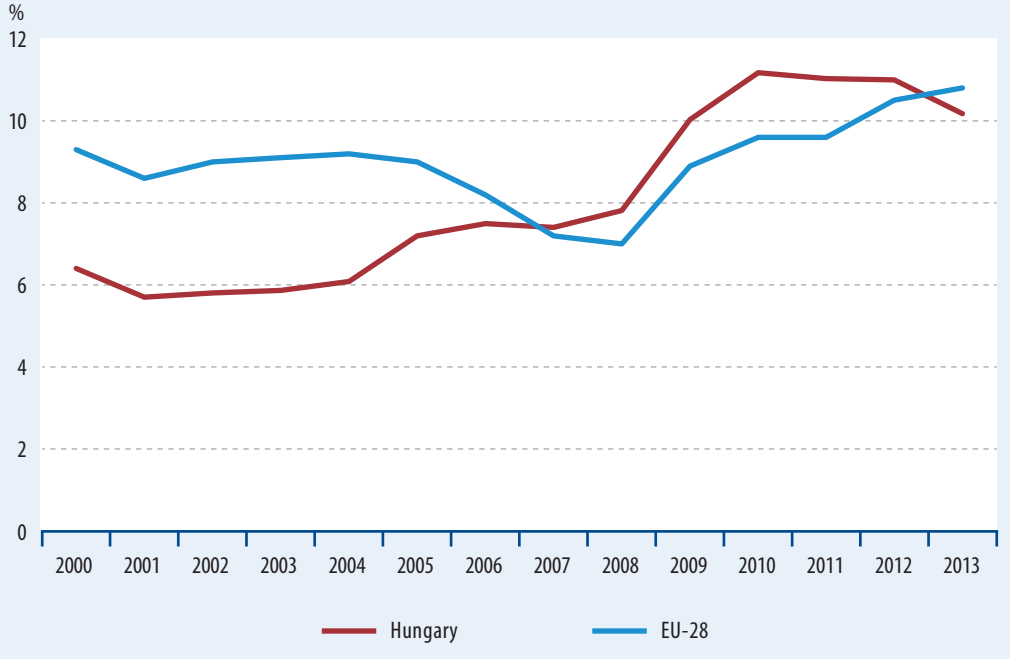
Stadat tables

2.1.7.1. Number of employed persons by industries, economic branches and sex – NACE Rev. 1.1
2.1.7.2. Number of employed persons by industries, economic branches and sex – NACE Rev. 2
2.1.9. Employed persons by status in employment and by sex
2.1.11. Number of employed persons by part- or full-time employment and by sex
2.1.12. Number of employees by contract duration and sex

Unemployment rate

Keywords **unemployment rate, unemployment**

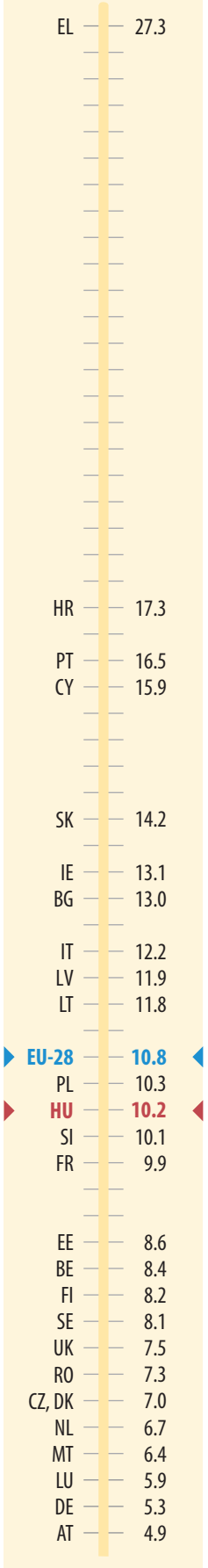
Figure 2.8.1. **Unemployment rate of the population aged 15-74**



Unemployment rate was continuously increasing from the beginning of the 2000s, till 2010 in Hungary; since then, a slow decline has been experienced.

Relevance Creating and strengthening social cohesion requires circumstances in which all individuals have, in the long run, the basic requisites for social and economic participation; where paths of mobility are created and kept open for the individual. Those social groups who cannot find jobs because of scarcity of jobs or lack of skills and qualification relevant in terms of employment are more affected by the risk of social exclusion and poverty. These disadvantages show significant regional differences and are concentrated mostly in the Northern and Eastern regions of the country. Without the social inclusion of these groups and the improvement of their labour market position, social cohesion cannot be strengthened. Encouraging and supporting the employment of young people in the interest of acquiring job experience helping later employment form the basis of sustainable development as well.

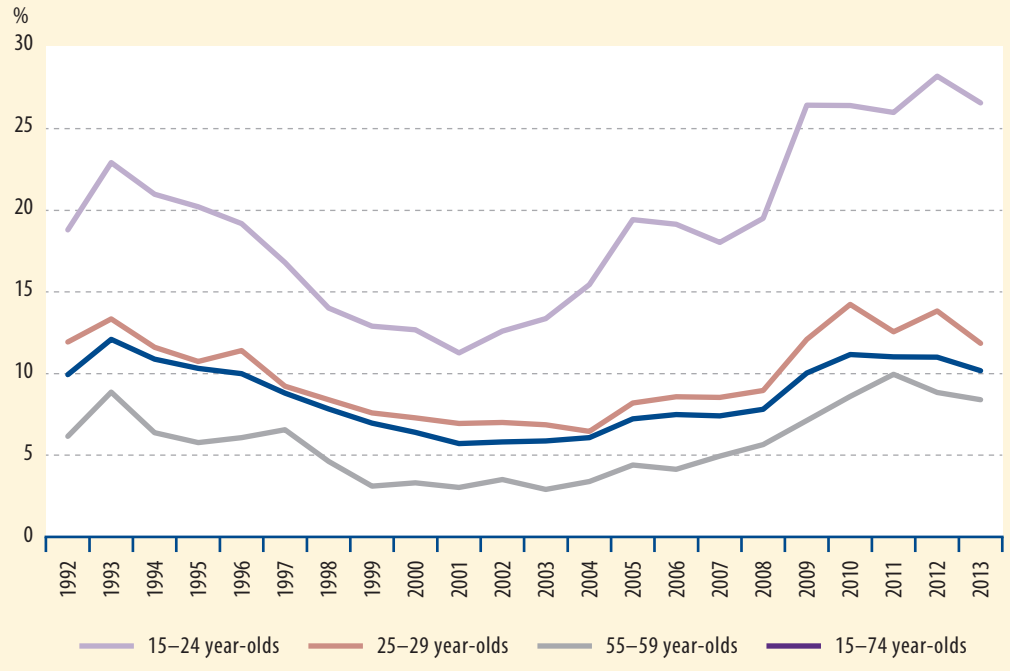
Unemployment rate of the population aged 15–74 in the European Union, 2013, %



Commentary Mass unemployment appeared in Hungary at the beginning of the 1990s. It reached its highest level in 1993, when the unemployment rate was 12% according to the data of the Labour Force Survey. The subsequent decline could be observed until 2001 when it reached the „all time lowest" rate namely 5.7%. Then, the rate began to gradually increase again. The global economic crisis that developed in 2008 significantly influenced the labour market, and, due to factory closures and lay-offs, the number of unemployed persons considerably increased. In 2010, the unemployment rate was more than 11%, than it started to slowly decrease and in 2013 it was 10.2%.

International outlook The trend of the unemployment rate clearly reflects the impact of the global economic crisis on the labour market and the recovery from the crisis. While in 2010 the level of the unemployment rate in Hungary exceeded the EU average by 1.6 percentage points, in 2013 it was 0.6 percentage

Figure 2.8.2. **Unemployment rate by age groups**



! ***In the long run, unemployment rate is the highest in the youngest age group, it is two or three times as high as in the other age groups.***

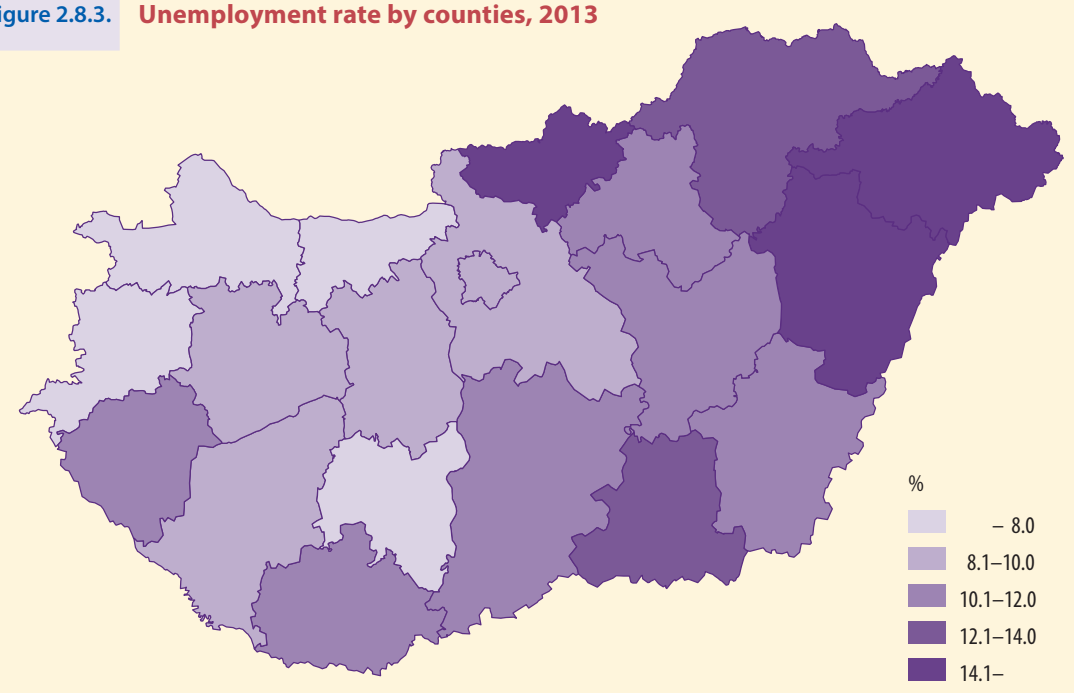
point lower than that. Hungary is in the middle of the ranking of EU member states In 2013, unemployment rate was the highest in Greece and Spain where more than one fourth of economically active people were unemployed. Austria, Germany and Luxembourg were in the most favourable situation with unemployment rates lower than 6%.

Details In the 1990's, men were affected by unemployment to a larger extent than women. The difference between the two rates was 1.4 percentage points in 2000, in 2004 both sexes had an unemployment rate of 6.1%. Afterwards, the unemployment rate of women rose at a faster rate than that of men, so the unemployment rate of women exceeded that of men – as in the EU in general. Due to the unfolding economic crisis in 2009 when more men lost their workplaces than women, the men's unemployment rate rose above women's again, but in 2013 equalization could be observed again.

Young people are present in the labour market as unemployed in a larger proportion than elder population. The unemployment rate of persons aged 15–24 and 25–29 exceeded the national average rate all through the examined period. Within this, the rate of persons aged 15–24 was two or two and a half times higher than that. The high unemployment rate of young people is primarily connected to the fact that among them - due to the increase in the duration of secondary education and the expansion of higher education - the economically active population (total number of the employed and unemployed) declined significantly. While in the years around the millennium one in three, from the end of the decade only one in four young persons was present in the labour market. The majority of them represent the less educated stratum of this age group, not involved in education, who have disadvantages in the labour market compared to the more educated 15-24 years olds who may already have work experiences or compared to the older age groups. In consequence of the economic crisis, one in four economically active persons aged 15–24 was looking for a job in 2009 and since that time their unemployment rate has not decreased below 26%. The narrowing of job opportunities affected not only young people leaving formal education but also those in both age groups who had been employed earlier. . As a result, the unemployment rate of persons aged 25–29 was 14.2% in 2010, which was the highest in the observed period within this age group, and their rate decreased to 11.9% in 2013.

The regional dimension of the division is also remarkable. In 2011, the decline in

Figure 2.8.3. **Unemployment rate by counties, 2013**



Regional division which can be considered traditional in respect of unemployment slightly decreased.

unemployment (as a sign of the recovery from the crisis) occurred mainly in the more developed regions of Transdanubia, where industries that were faltered by the crisis began to recover. However, in 2012 and in 2013, unemployment rate decreased significantly, by 2.8–3,5 percentage points in two regions with more disadvantageous economic situation (Southern Transdanubia and Northern Hungary) primarily due to broadening public employment. Thus, the regional differences in unemployment slightly decreased. In 2013, unemployment rate was the lowest in Western Transdanubia (7.8%) and the highest in Northern Great Plains (14.4%).

Definitions

Unemployed persons are those who, during the reference week, neither worked, nor had a job from which they were temporarily absent, who were actively seeking work in the four weeks before the reference week, were available for work at the time of the survey, i.e. could start work within two weeks following the reference week if a proper job was found, or who found a job to start later, i.e. within 90 days.

The unemployment rate is the ratio of unemployed persons to the economically active

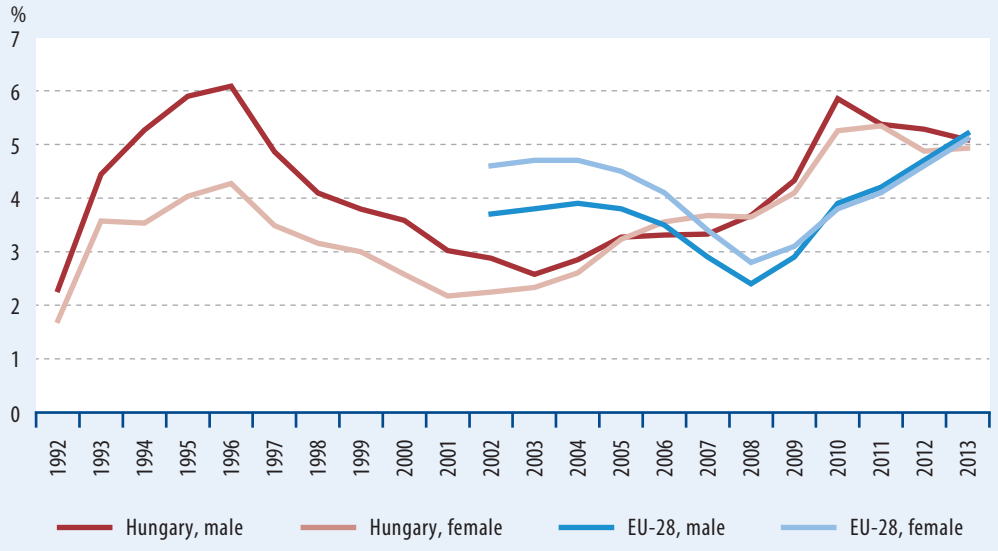
Stadat tables

2.1.15. Number of unemployed persons by age group and sex
2.1.16.1. Unemployed persons by industry of previous workplace and by sex – NACE Rev. 1.1
2.1.16.2. Unemployed persons by industry of previous workplace and by sex – NACE Rev. 2
2.1.17.1. Unemployed persons by major groups of previous occupation and by sex – HSCO'93
2.1.17.2. Unemployed persons by major groups of previous occupation and by sex – HSCO'08
2.1.18. Unemployed persons by status in previous employment and by sex
2.1.19. Unemployed persons by length of job search and by sex
2.1.20. Unemployed persons by highest educational qualification and sex
2.1.21. Number of unemployed persons by reason for leaving their previous workplace and by sex
2.1.22. Number of unemployed persons by type of employment sought and by sex
2.1.23. Unemployment rate by age group and sex
2.1.24. Unemployment rate by highest educational qualification and sex
6.2.1.6. Number of unemployed persons
6.2.1.11. Unemployment rate

Long-term unemployment rate

Keywords **long-term unemployment, unemployment**

Figure 2.9.1. **Long-term unemployment rate by sex**



In 2013, long-term unemployment rate was considerably higher than the level observed at the turn of the millennium.

Relevance One of the priorities of the National Sustainable Development Strategy of Hungary is to strengthen social cohesion and to improve employment. In parallel with the rise in the duration of unemployment, the chances of getting a job worsen and the risk of poverty and exclusion increase.

Commentary The long-term unemployment rate showed an increasing tendency until 1996 (5.3%), then a slow decline followed until 2003 (2.5%). After 2003, the long-term unemployment rates of men and women were nearly the same. Due to the economic crisis, not only the number of the unemployed increased rapidly, but also the time period spent with job seeking increased significantly. So, long-term unemployment rate increased to 5.6% by 2010which was 2.1 percentage points higher than it was before the economic crisis (in 2007). In years 2011-2013 the rate remained around 5%.

Unemployment is a long-term condition in most cases, in 2013, 50% of unemployed people had been searching for a job for one year or more. Among them, one in every two people searched for a job for two years or more. The duration of unemployment decreased only temporarily during the crisis due to the large-scale inflow of unemployed.

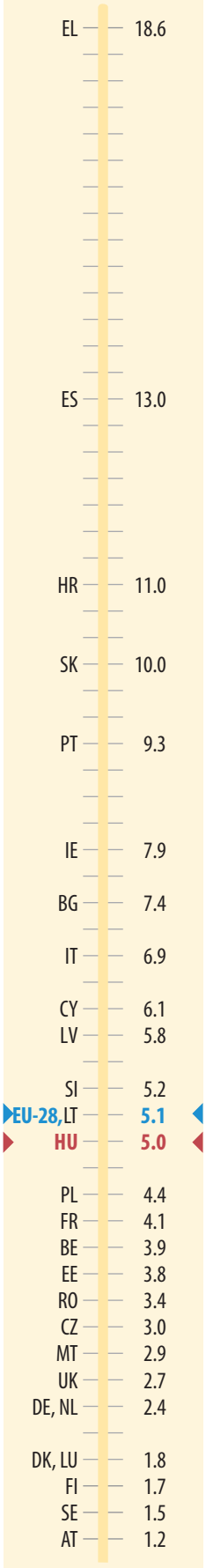
International outlook The long-term unemployment rate increased both in Hungary and in the EU after the breakout of the economic crisis (from 2008). However, while in 2011 and 2012, the increasing tendency in Hungary seemed to stop, in the European Union the ratio of long-term unemployed continued to increase. During the period of 2008-2012 - unlike in the previous years - the Hungarian long-term unemployment rate exceeded the EU average.

Definition Long-term unemployed are unemployed persons who have been actively seeking work for at least 12 months. The indicator is defined as the ratio of long-term unemployed persons to the economically active population.

Stadat tables

2.1.19. Unemployed persons by length of job search and by sex

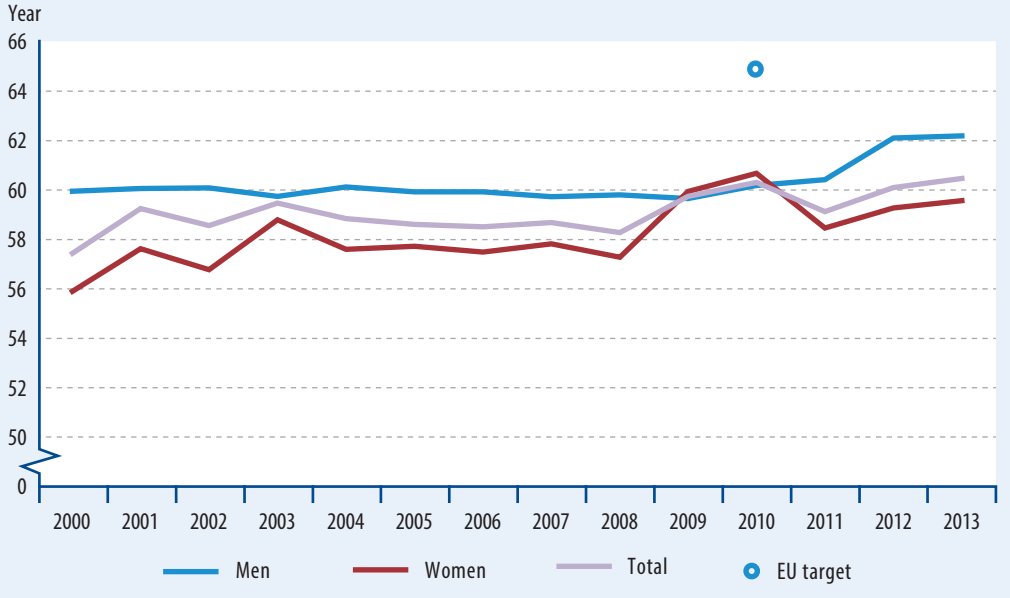
Long-term unemployment rate in the European Union, 2013, %



Average age at the time of leaving the labour market

Keywords leaving the labour market, pension, old-age pension, benefits under retirement age

Figure 2.10.1. Average age of old-age and old-age-type retirement by the year of the pension award



Source: Central Administration of the National Pension Fund.

! *The increase in the retirement age centre can be observed in case of both sexes.*

Relevance In the interest of minimizing the increasing pension burdens, efforts should be made for the population of working age to continue to work longer. Accordingly, the prolongation of the retirement age to 65 years was among the objectives of the European Union for 2010. The preservation of the social integration of the elderly is indicated as a target in the National Framework Strategy on Sustainable Development of Hungary. This includes, among others, strengthening the importance of income from assets and work in old age. The government can promote this with programmes aimed at increasing the employment and businesses of the elderly.

Commentary In case of men, the change in the retirement age centre was basically determined by the fact that in 2012, the possibility of early retirement was completely eliminated. Thus, all newly retired men reached the retirement age of 62 years. (In 2012, old-age pension was awarded mostly form men born in 1950 and in 2013, mostly for those born in 1951) Due to the low number of benefits under retirement age, the retirement age centre of men exceeded 62 years in both years. In the following period, further growth is expected due to the rise in retirement age.

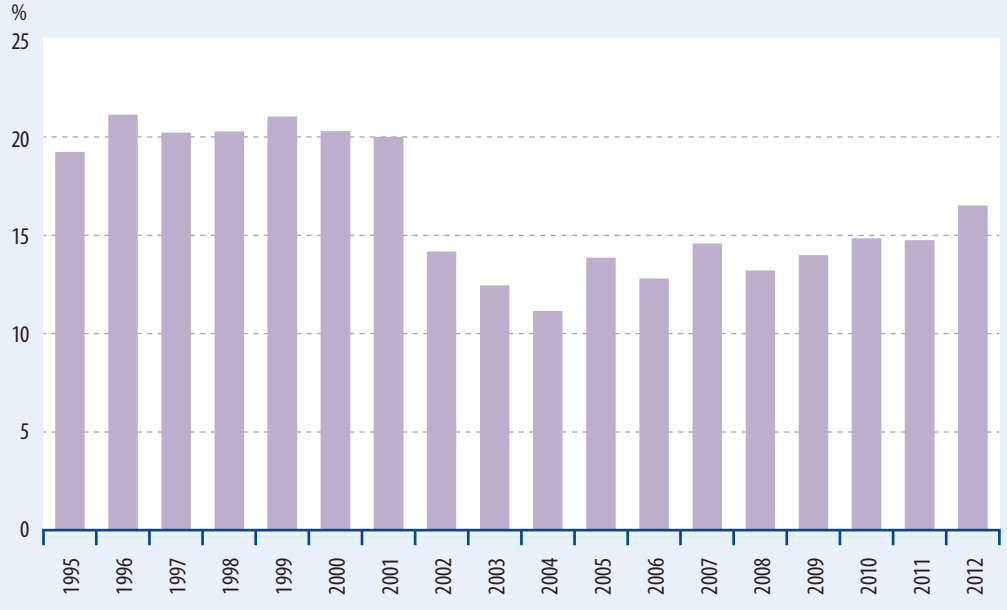
In case of women, the increase in the retirement age centre was much smaller in the period of 2012-2013. The major reason for this was the mass use of the opportunity of retirement after 40 years of entitlement time (this accounted for nearly half of the newly awarded pensions). In 2012, it must be taken into account that women born in 1953 could ask for benefit under retirement age on favourable terms. (For those born later, this is possible only in exceptional cases.) For these reasons, the retirement age centre of women still did not reach 60 years.

Definition The available data provide only indirect information on the exit from the labour market, namely they inform on one of the typical ways of leaving the labour market n large numbers, i.e. on retirement. The 2012-2013 data include also the benefits under retirement age introduced in 2012, partly in order to provide more accurate results in respect of leaving the labour market and partly in the interest of comparability with the previous period.

Gender pay gap

Keywords **GPG, monthly average wages of full-timers, average hourly wages**

Figure 2.11.1. Gender pay gap calculated on the basis of full-timers' monthly wages



Source: National Labour Office .

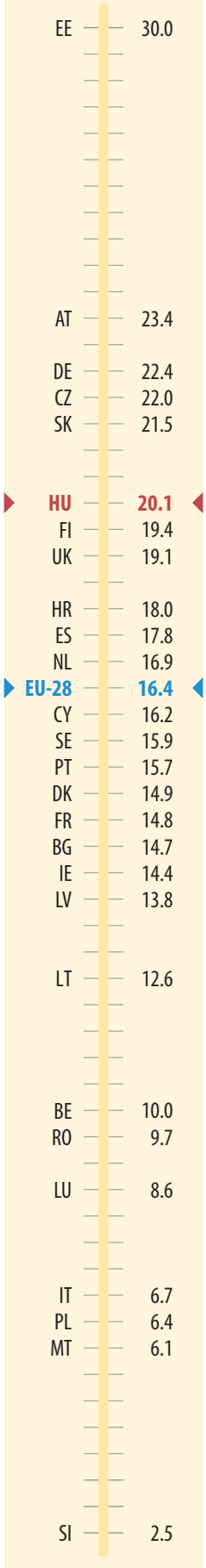
! *The difference between the wages of men and women decreased.*

Relevance Indicators measuring the difference between male and female earnings are important from the point of view of equal opportunities. The principle of "equal wage for equal job" is not only enforced by the Hungarian labour and equality laws *(Labour Code, equality act)*, but it is also an acquis in the European Union.

Commentary The gender pay gap essentially decreased between 1995 and 2012. Various reasons can be adduced for wage difference between men and women, and only a part of them derives from discrimination. There are no standards for measuring the effect of discrimination in the Hungarian and international statistical practice, and that is the reason for using a complex indicator expressing the joint effect of different factors. In the Hungarian practice, the percentage difference calculated on the basis of monthly gross earnings of full-time employees is the most wide-spread. Its extent depends on in which economic section the male and female employees are working, since the job structure of the NACE sections are considerably different. The evaluation of individual occupations in the labour market is different.

Gender pay gap is the smallest in agriculture and administrative and support service activities as well as in other services, while it is the largest in manufacturing and financial and insurance activities. The level of education of employees also strongly influences wage levels, and, though females are characterized by higher educational level, their wages are still lower than those of males due to other factors. At the same time, the specialization of qualification, correlating well with the occupation is considerably different in case of the two sexes, thus, there are large differences by occupations, and the highest pay gap can be observed among managers and professionals. In Hungary, an important factor

Gender pay gap in the European Union, 2012, %



of wages is whether an employee works for the business sector or in a budgetary institution. In the public sector, two thirds of employees are females. In the 6 percentage points fall of GPG in 2002, the one-time wage supplement of civil servants and public employees paid in the second half of 2001 played an important role, because it affected more female employees than males working mainly in the business sector. 2008 was the last year when basic salary rose and 13th month salary was paid, which later increased the gender pay gap. Thus, the pay advantage of men was 15% in 2010 and 2011 and 17% in 2012 in corporations employing at least 5 persons and budgetary institutions. Gross earnings of women working at smaller corporations are much closer to those of men than at larger corporations.

International outlook In 2008, the computation of Gender Pay Gap (GPG) was placed on a new basis in the European Union. Since that time, all member states measure GPG as the difference in the hourly wages and salaries of males and females. In this way, GPG can relate to part time workers, too. At the same time wages and salaries do not include irregular payments, so overtime hours or gender differences in premiums do not cause bias.

The new indicator has been available since 2008, and the reference year of the most recent data is 2012. Except for the economic sections of agriculture and public administration, it refers to economic units of the national economy employing at least 10 persons. In Hungary, the hourly pay advantage of men has changed only by some tenths for years, but it increased by 2 percentage points between 2011 and 2012 (2008: 18%, 2009: 17%, 2010: 18%, 2011:18%, 2012: 20%). Among EU member states, Hungary got from the middle-rank into the group of countries with higher GPG, and the indicator in Hungary changed unfavourably compared to the EU average as well.

Definitions

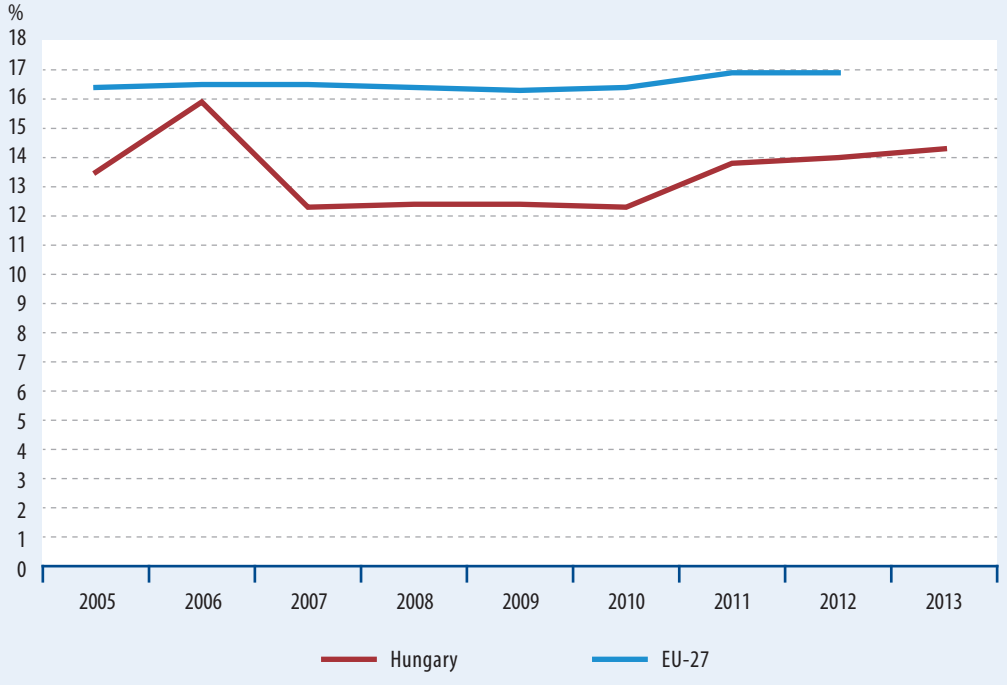
The gender pay gap shows the percentage difference between the average gross monthly earnings of full-time female and male employees.

Gender pay gap (GPG) in the European Union: the percentage difference between regular average earnings of men and women in organisations with more than 10 employees of the national economy except for the sections agriculture and public administration.

At-risk-of-poverty rate

Keywords at-risk-of-poverty rate, persistent poverty, at-risk-of-poverty threshold

Figure 2.12.1. At-risk-of-poverty rate



! *At-risk-of-poverty rate increased in the past years in Hungary.*

Relevance A sustainability goal is to provide a social minimum that is accessible for all, to create equal opportunities to access to resources, goods, rights, and services in order to avoid marginalisation and social exclusion. Eradication of poverty is a priority in the document of the Europe 2020 strategy as well. It is especially important to direct attention to the income position of social groups at risk (unemployed, poor, disabled, sick, old, Roma, etc. people), since poverty and risk of poverty is more significant among them than in other social groups. According to the National Framework Strategy on Sustainable Development, poverty or social exclusion based on ethnicity is one of the most serious obstacles to achieving a solidarity- and knowledge based and healthy society. The prioritization of marginalized social groups and regions as well as the reduction of poverty by the government are not only important for the development of human resources but in respect of social integration as well. Therefore complex programmes including education and training, health, economic development and housing are needed.

Commentary At-risk-of-poverty rate is more favourable in Hungary than the EU average, but in recent years, the value of the indicator increased in the country. The gender difference is smaller in Hungary than the EU average and shows a reverse trend: in our country women, while in the majority of the EU countries men are in better position. However, taking into consideration that average income level is much lower in Hungary than in most EU member states this does not mean an advantage in absolute terms. In recent years, persistent at-risk-of-poverty was around 8.9%, which was also more favourable than the EU average.

At-risk-of-poverty rate in the European Union, 2012, %

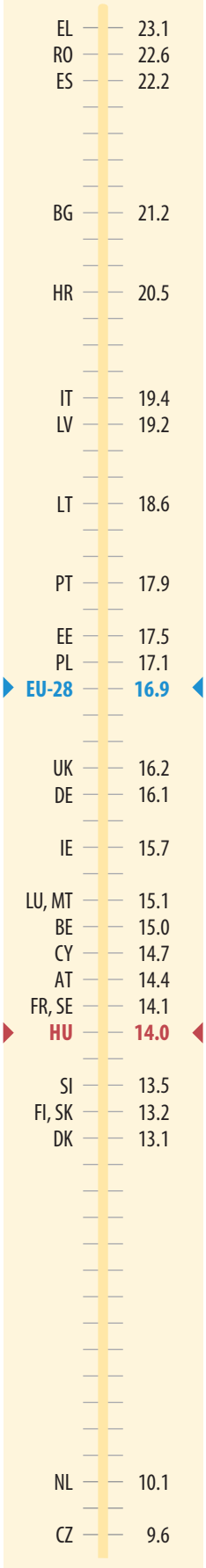
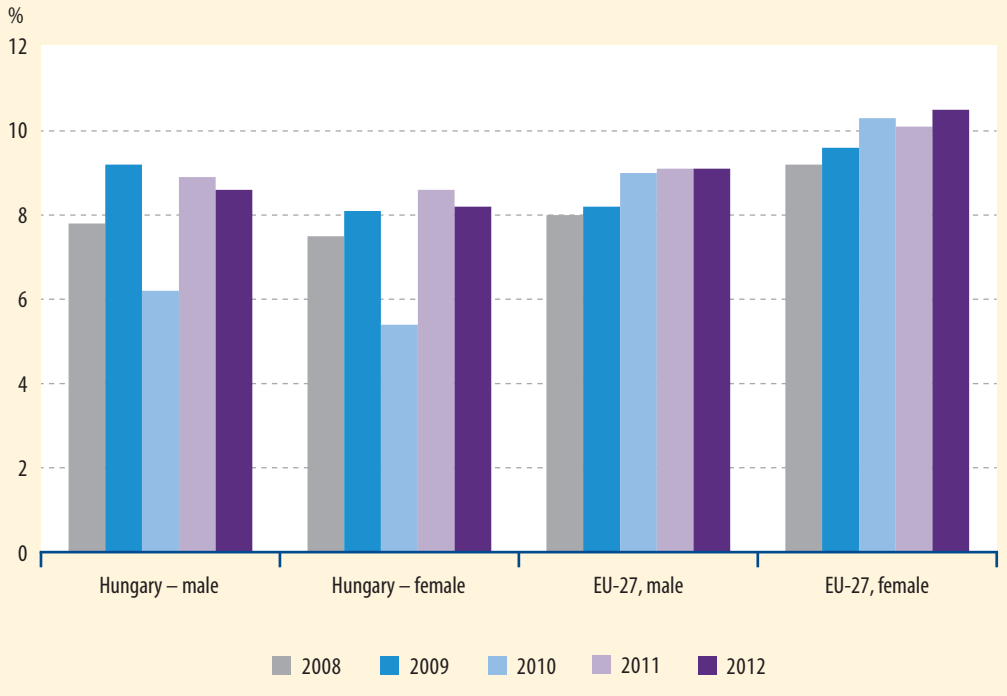


Figure 2.12.2. **Persistent at-risk-of-poverty rate**



! *Persistent at-risk-of-poverty rate is lower in Hungary than in the European Union.*

International outlook In 2012 16.9 % of the population of EU lived under the poverty threshold defined by relative income concept. The at-risk-of poverty rate was quite stable; the EU average was around 16.4% and 16.5% between 2005 and 2010, but it increased to 16.9% in 2011 and 2012. Among EU countries, Greece, Romania, Spain Bulgaria and Lithuania are in the most unfavourable situation in respect of poverty. In these countries, the at-risk-of-poverty rate was more than 20%. The lowest values were measured in the Czech Republic and the Netherlands. The rate of 14.3% in Hungary can be considered below average in international comparison.

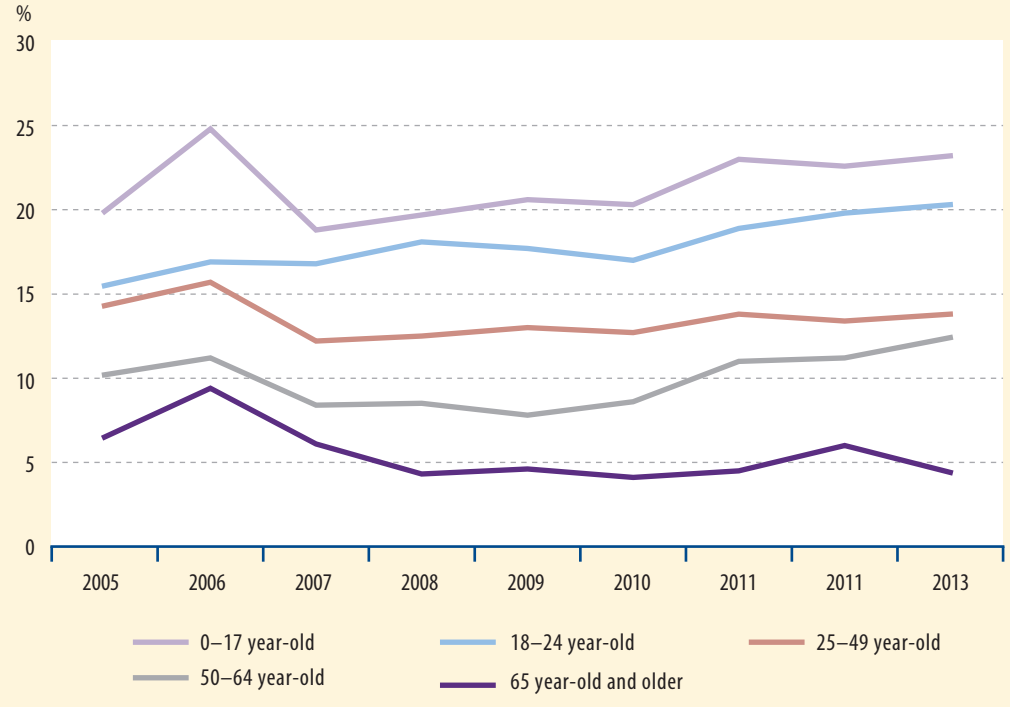
Details In Hungary, persistent at-risk-of-poverty rate was calculated for five periods so far. This was of course lower than the cross-sectional rate of the given year and amounted to 8–9% in the past two years. This value is slightly lower than the EU average which was close to 10% in 2012. Similarly to the at-risk-of-poverty rate, persistent at-risk-of-poverty is more typical of men in Hungary, while in the European Union as a whole, women are more at risk.

Definitions

At-risk-of-poverty rate shows the proportion of persons living in households with income of less than 60% of the median equivalised disposable income in the total population.

Persistent at-risk-of-poverty rate shows the proportion of people living in households with income of less than 60% of the median equivalised income in year n, and in at least 2 of the year n-1 and n-2 and n-3.

Figure 2.12.3. **At-risk-of-poverty rate by age groups**

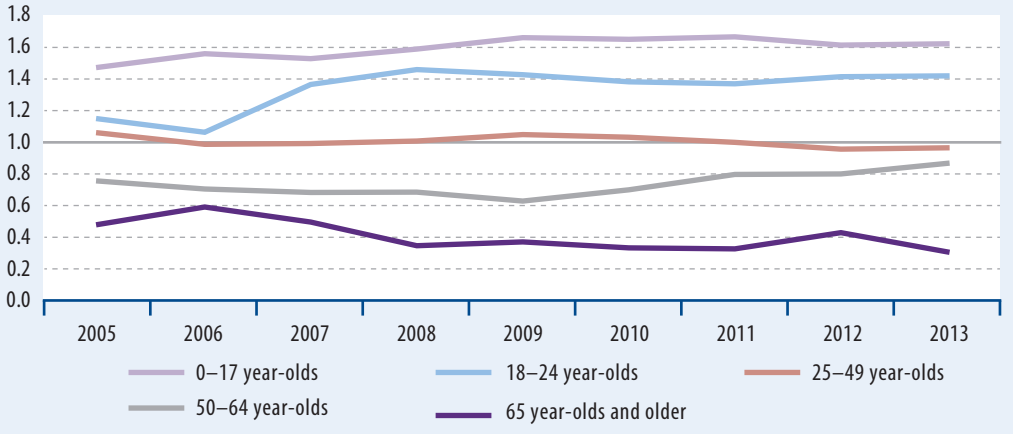


At-risk-of-poverty rate is the highest in the youngest age group and the lowest in the the oldest one.

Relative at-risk-of-poverty rate

Keywords relative at-risk-of-poverty rate, at-risk-of-poverty threshold, at-risk-of-poverty rate

Figure 2.13.1. Relative at-risk-of-poverty rate (Total population=1.0)



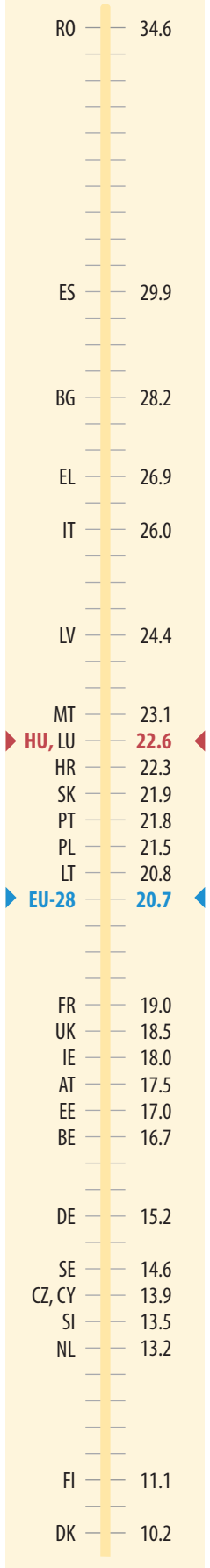
! *The relative at-risk-of-poverty rate of children and young adults is above average, while that of older age groups lower.*

Relevance The proportion of children among the poor is higher and higher, while at-risk-of-poverty rate is usually decreasing with age. This is in connection with the economic activity of the individuals, since the situation of the older age groups is determined by their position in the labour market or their retired status. Child poverty hinders not only meeting needs but also social relationships, and limits the possibilities for decision making important in respect of the future (e.g. education), which increases the probability of social exclusion in adulthood. According to the NFSSD, for the reduction of child poverty, the intervention at the earliest possible age is important, namely the access to the health, care, development and social services must be ensured for children in the 0–3 age group and their parents, as well as parental skills must be strengthened. In later ages, the kindergarten education of disadvantaged children from the age 3 and then their access to high-quality, integrated education is essential.

Commentary When studying poverty by age group, it can be clearly stated that in parallel with age at-risk-of-poverty and relative at-risk-of-poverty are gradually declining. The relative at-risk-of-poverty was higher than the average only for children aged 0-17 (1.62) and young adults aged 18-24 (1.24). The relative position of each age group is stable, but several changes occurred in the past years. The relative at-risk-of-poverty of the 0–17 year-olds decreased from 1.67 measured in 2011 to 1.61 and 1.62, respectively by 2012 and 2013. In the last period, the situation of the 50–64 age group deteriorated more significantly. The relative at-risk-of-poverty of this age group was 0.63 in 2009, increased to 0.80 in 2011–2012 and amounted to 0.87 in 2013.

International outlook In 2012, the EU average of at-risk-of-poverty rate of children under 18 years of age was 20.7%, which was similar as in the previous years. This is more favourable than the values in Hungary, which was 22.6% in 2012 and 23.2% in 2013. The rate of child poverty was the highest in Romania, Bulgaria and Spain; in these countries the at-risk-of-poverty rate of the 0–17 olds is nearly 30% and in Romania it is even higher than that. On the contrary, the lowest rates of child poverty of around 10% were measured in Denmark and Finland.

Definition The relative at-risk-of-poverty rate is the proportion of people living in poverty in a certain age group compared to the national average. If the value is higher than 1, it indicates that the risk of getting below the poverty threshold will be higher than the average, while the value lower than 1 indicates that the risk will be lower than the average.

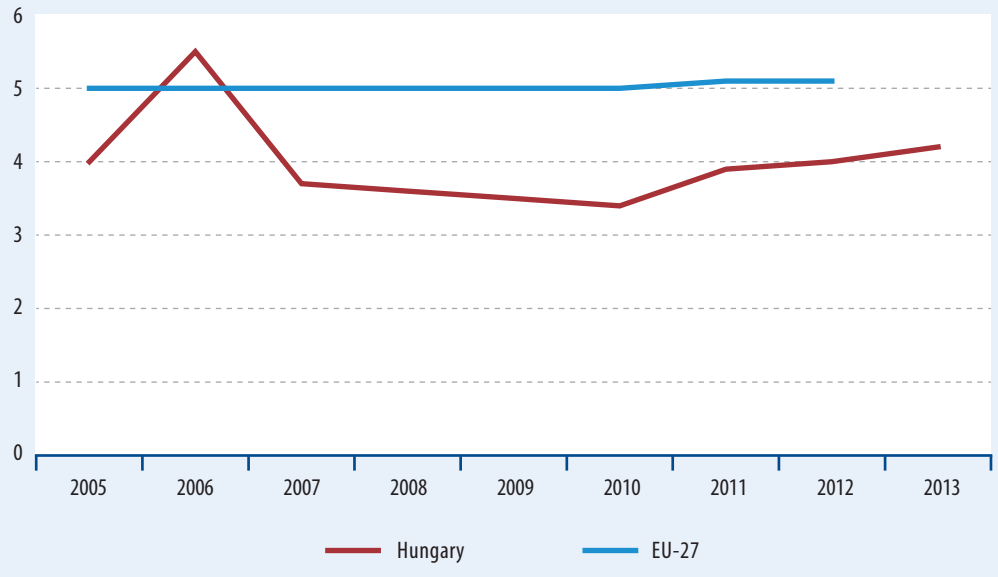


At-risk-of-poverty rate of children under 18 years of age in the European Union, 2012, %

Inequality of income distribution

Keywords **income distribution, inequality of income**

Figure 2.14.1. **Inequality of income distribution**



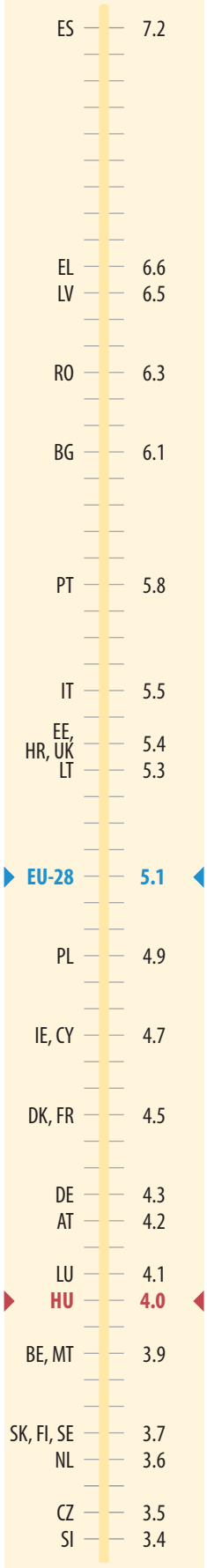
Income inequality in Hungary is below the EU average, but in the past years, differences between the top and the lowest income quintile increased.

Relevance Inequality of income distribution has a negative effect on social cohesion, and it appears in several dimensions at the same time. Inequality is observed in the geographical space, between the regional units of the country, by settlement types, but it can be observed by educational attainment and between sexes as well. To overcome this is an important element of the social aspect of sustainability. The different indicators of inequality of income distribution express how large income inequalities between the members of the society are and how they changed in the past years. The indicator known as S80/S20 expresses this phenomenon as the ratio of incomes possessed by the richest and poorest quintile of the society.

Commentary Income inequality in Hungary rather showed a downward trend until 2010, but then, it started to increase. The ratio of incomes in the top and the lowest income quintiles was 4.0 in 2005, and then it fell to 3.4 by 2010. In the following years, the indicator increased year by year and reached 4.2 by 2013. The inequality of income distribution in Hungary is, however, below average in European comparison.

International outlook According to the S80/S20 indicator, in the European Union, the inequality of income distribution was the highest in Spain, Greece and Latvia and the lowest in Slovenia, the Czech Republic and the Netherlands in 2012. In the European Union, the rate of inequalities was stable at around 5.0 between 2005 and 2012. However, there are opposite trends behind the average. In the years following the crisis, inequalities increased similarly to Hungary – among others – in France, Spain and Denmark, while they decreased in Lithuania and Germany.

Definition The S80/S20 indicator is one of the indicators of inequality of income distribution, which is the quotient of the equivalised income of the top income quintile and that of the lowest income quintile. The higher value indicates larger inequalities.



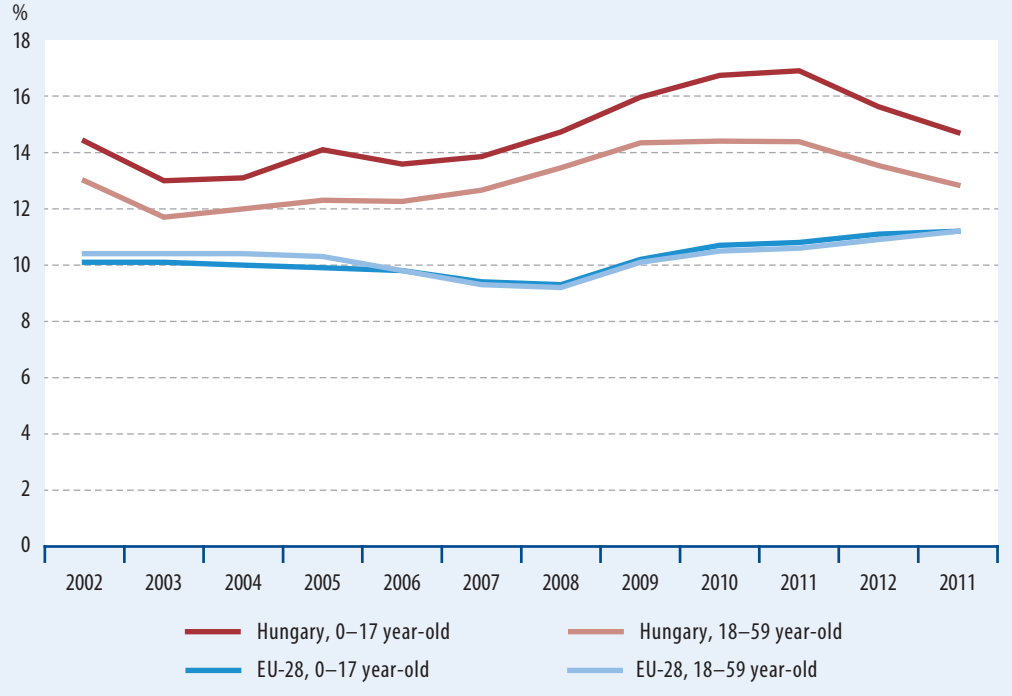
Inequality of income distribution in the European Union, 2012

IE 17.7
BG 16.4
UK 15.3
HU 14.2
ES 14.1
EL 13.3
BE 12.4
HR 11.9
LT 11.8
EU-28, RO 11.2
FR 10.7
SK 10.4
IT 10.3
PT 10.1
PL 9.8
CY 9.5
LV 8.8
DE 8.5
EE 8.4
CZ 8.3
SE 8.1
DK 8.0
MT 7.5
NL 6.8
FI 5.9
AT 5.6
SI 4.6
LU 3.8

Rate of persons living in jobless households

Keywords jobless households, employment

Figure 2.15.1. Persons living in jobless households by age-groups



! *In Hungary, taking a longer period of time, the proportion of persons living in jobless households exceeds the European Union average.*

Relevance The life expectancy of people living in jobless households is worse and the risk of exclusion is greater. In such small communities, the transmission of disadvantages and the reproduction of poverty are more likely.

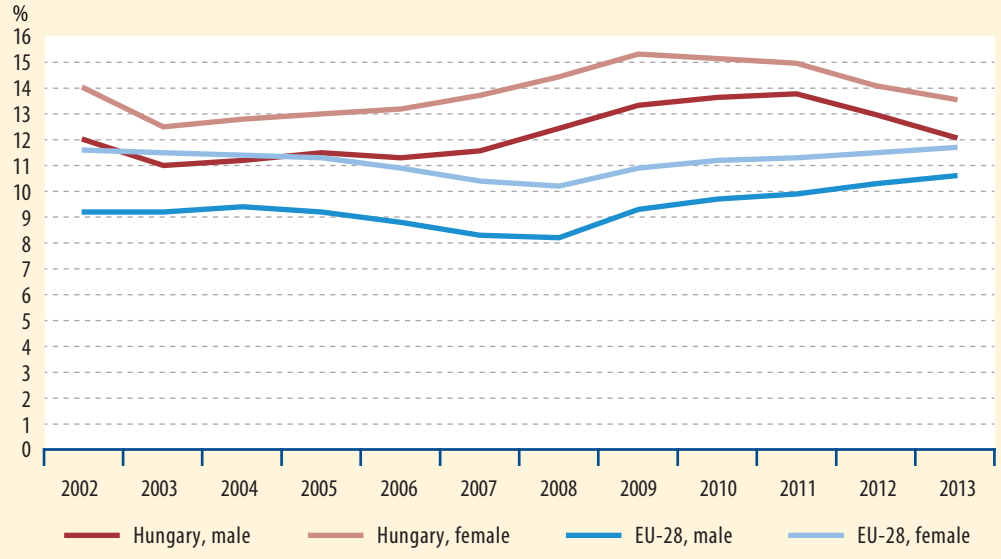
Commentary In the examined period, more than one tenth of persons aged 0–59 lived in households without employed, namely their source of living did not derive from work. From 2003, this rate showed a slow and after the economic crisis a slightly stronger increase, while since 2012 there has been some improvement. Among children aged less than 18 years this rate was by 2 percentage points higher than among persons aged 18–59. This shows that those raising children are more likely to stay away from work, which worsens their income security and increases the risk of transmission of unemployment or inactivity. Women are characterized by1-2 percentage points higher rates than men, which is obviously in close connection with suspending work due to childbearing and child care and replacing income from work by child care provisions.

International outlook In Hungary, the proportion of persons living in jobless households exceeded the European Union average in the whole period. In the European Union, following a stagnation the proportion of persons living in jobless households has increased since 2009, while in Hungary a slight decrease began in 2012. The differences between the rates showed an upward trend until 2006 in case of adults and until 2011 in case of children. In 2013, the rate for people aged 18–59 was only 1.6 percentage points higher than the EU average. However, in case of children, our position did not essentially improve, and in the European ranking, Hungary has the fourth worst value.

Details In regional aspects, there are significant differences. In Northern Hungary having the

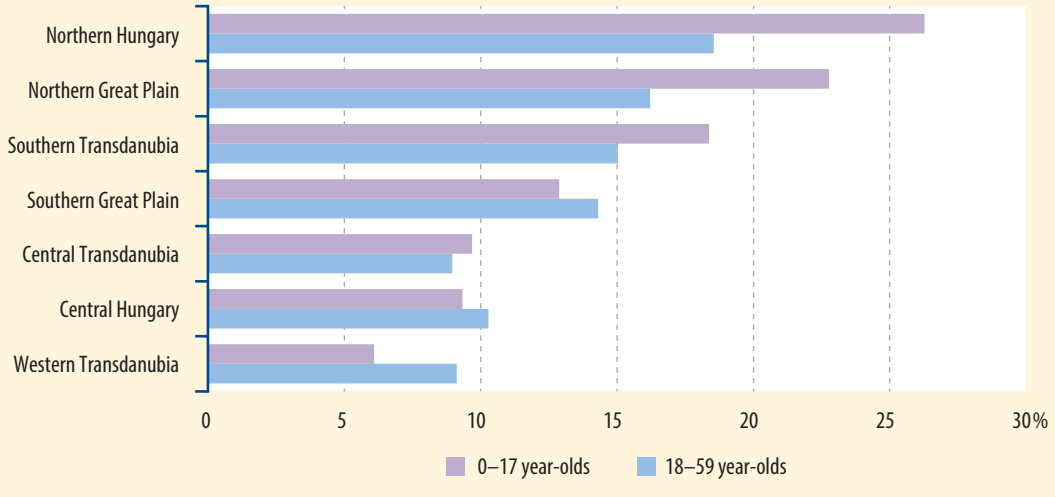
Proportion of persons living in jobless households in the age group of 0–17 year-olds in the European Union, 2013, %

Figure 2.15.2. **Rate of 18–59 year-old persons living in jobless households by sex**



Among 18-59 year-old persons, the difference from the EU average is decreasing in case of both sexes.

Figure 2.15.3. **Rate of persons living in jobless households by regions and age groups, 2013**



The rate of those children who live in jobless household is three or four times larger in Northern Hungary and Northern Great Plain than in the regions in better position, like the regions of Transdanubia or Central Hungary.

worst value, more than 30% of children aged 0–17 lived in jobless households in 2012. Mainly due to the extension of public employment, this rate decreased to about 26% in 2013, but regional differences did not change. In regions of Transdanubia, which are traditionally in a better position in terms of employment, this rate is below 10%, and it is only 6.1% in Western Transdanubia.

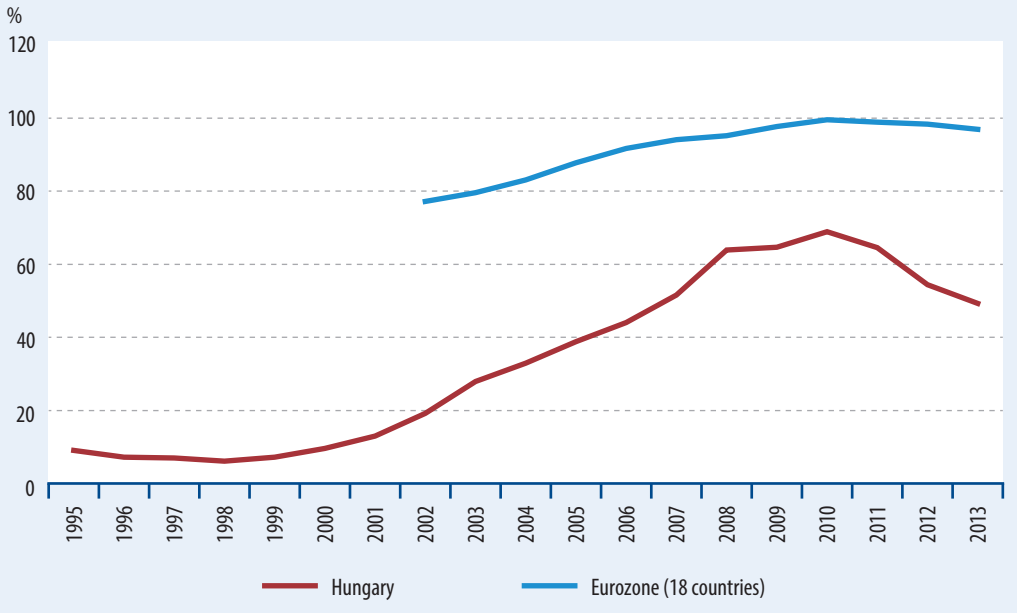
Definition in households where no one works (i.e. each member of the household is economically inactive or unemployed) within the given population group.

DK 265.9
NL 250.3
IE 197.8
SE 147.2
LU 142.9
UK 132.8
ES 122.9
PT 122.7
FI 106.0
BE 89.5
AT 86.4
DE 84.5
FR 83.3
EE 80.5
IT 65.8
CZ 57.3
LV 56.9
HU 54.0
PL 53.9
SI 47.1
SK 45.1
LT 37.7

Gross debt-to-income ratio of households

Keywords gross debt-to-income ratio of households, income, loans

Figure 2.16.1. Gross debt-to-income ratio of households



! *The gross debt-to-income ratio of household continuously increased between 2000 and 2010, however, this unfavourable trend turned in 2011.*

Relevance Similarly to the international trends, the gross debt-to-income ratio of households is increasing in Hungary as well. Experiences and surveys show that households do not have proper financial expertise: they are not able to judge their own risk management capability and the possible advantages or disadvantages of certain financial services. Indebtedness in foreign currency is a serious problem, and helping responsible decision makings is the joint responsibility of the inhabitants, the banks and the government. The Framework strategy draws the attention of the individual to the fact that the economical and forward-looking household management according to the principles of private poverty is a matter of individual consideration. However, financial awareness is at the same time an important value which has to be transmitted, since its widespread lack may lead to the indebtedness of people, general economic imbalance and crisis. Both the citizens and the government must play a role in this.

Commentary After 1995, the gross debt-t-income ratio of households was the lowest (6.2%) in 1998 in Hungary. After 1998, the gross debt-to-income ratio of households increased continuously, i.e. households had more and more loans compared to their income. . In 2010, the ratio peaked at 68.9%. After 2010, the ratio began to decrease due to the continuous rise of income and the decrease of loans.

International outlook The growth rate of the average debt to income ratio in the 18 Eurozone countries is considered stable. In 2012, the rate was the highest in Denmark (265.9%) and the lowest in Slovakia (45.1%).

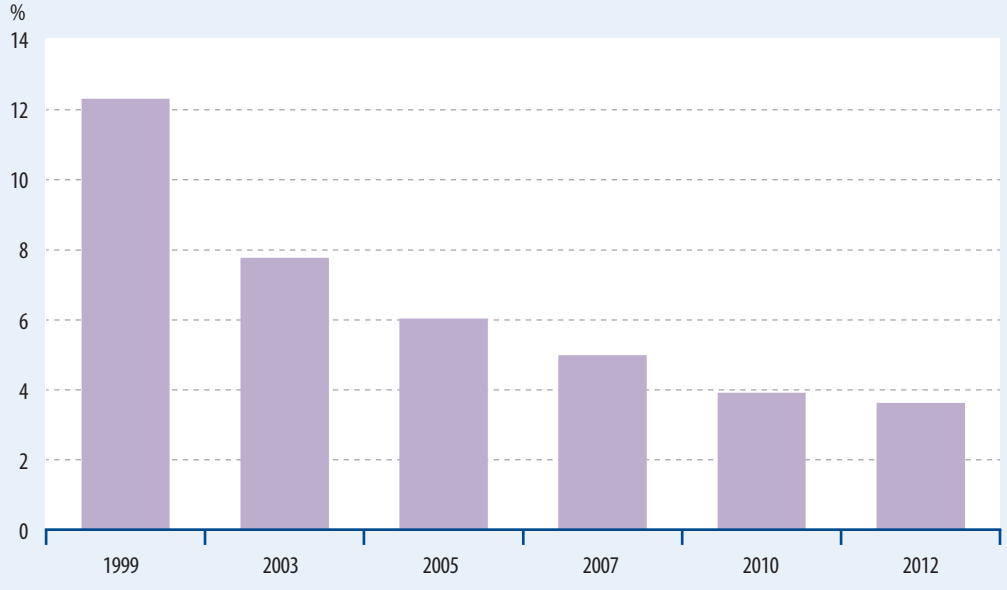
Definition Gross debt-to-income ratio of households shows the percentage of average gross loans in the households' disposable income – completed with the adjustment for the change in the net equity of households in pension funds reserves – in a given period.

Gross debt-to-income ratio of households in the European Union, 2012, %

Proportion of flats without bathroom

Keywords homes without bathroom, housing quality, living conditions

Figure 2.17.1. Proportion of homes without bathroom



! *The proportion of flats without bathroom continues to decrease, in 2012 it amounted to 3.6%*

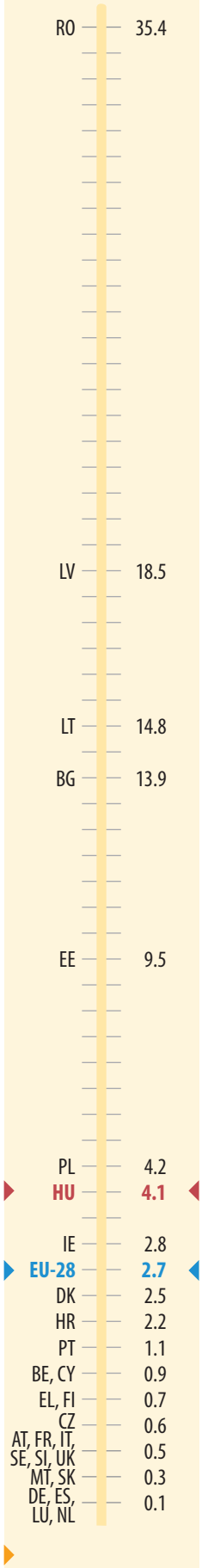
Relevance The lack of bathroom indicates a number of housing quality problems and also reflects the general development of housing conditions. The indicator by income quintiles is suitable to detect the social inequalities of housing conditions, and the data by regions show the regional differences.

Commentary The proportion of homes with no bathroom continuously decreases; it fell from more than 12% in 1999 to less than 4% in 2012. The index indicates significant differences by both income quintiles and territorial units.

International outlook In 2012, the proportion of people living in homes with no bathroom averaged 2.7% in the European Union, while in Hungary the number of people living in unserved housing was 1.4% higher than this value. The best value (0.1%) was measured in the Netherlands, Germany and Spain, while the most unfavourable (35.4%) in Romania.

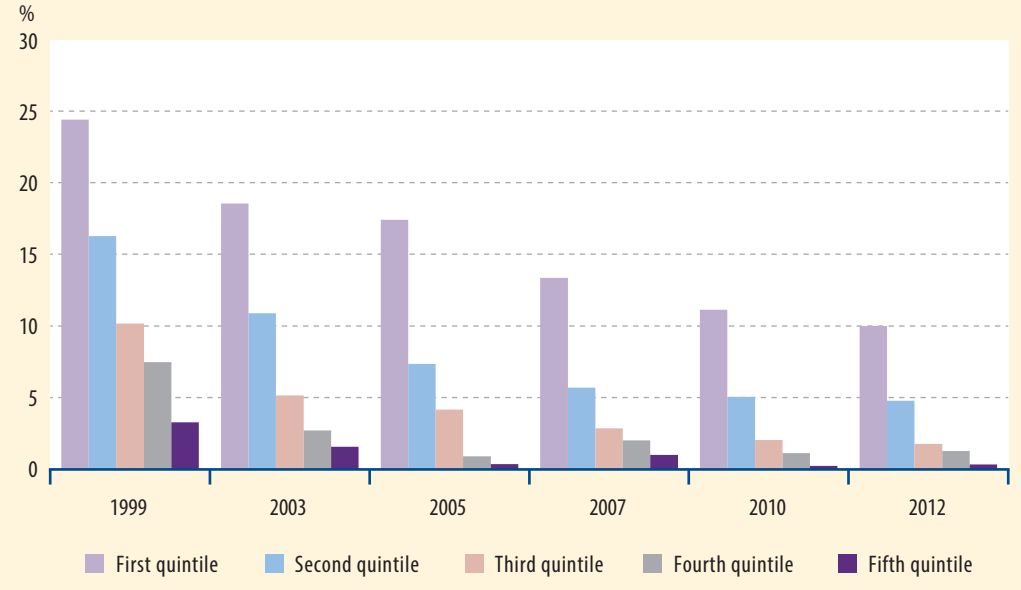
Details In the lowest income quintile of households, the proportion of homes with no bathroom fell from 24% in 1999 to 10% in 2012. A positive change was observed in all income categories; however, the rate of decline was the most moderate in the most disadvantaged households. In the top income quintile, in 2012 the proportion of homes with no bathroom only represented 0.3%. Among the regions, in 2012, Northern Hungary had the highest index value of 7% and above. The best value of less than 2% was observed in Western Transdanubia and Central Hungary.

Definition Flats with a shower-room are regarded as having a bathroom. Individual households were classified into quintiles based on all of the net income of the household.



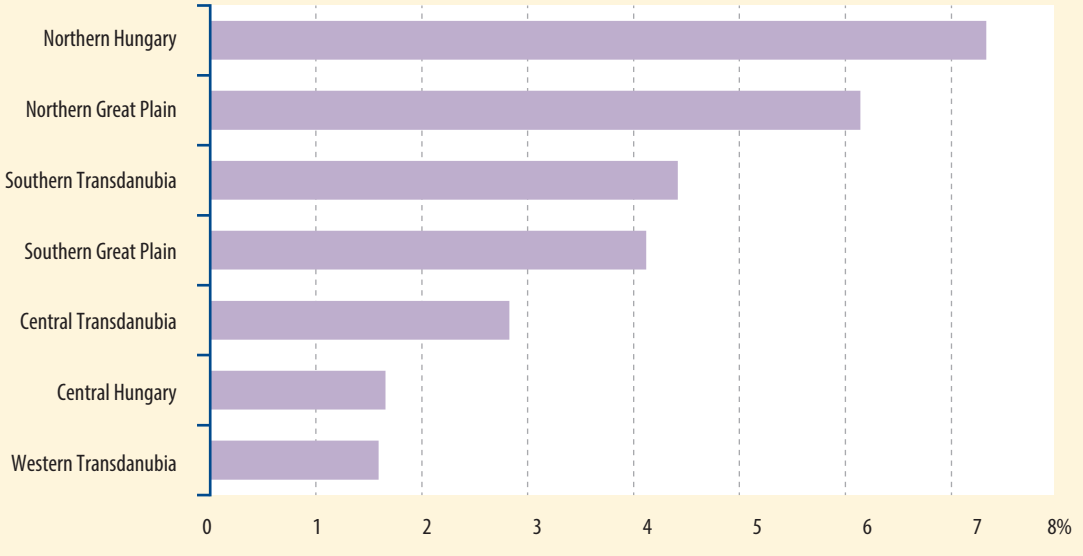
The proportion of those in the total population who live in a home without bathroom or shower in the European Union, 2012, %

Figure 2.17.2. Proportion of flats without bathroom by household income quintile



The income situation of households strongly influenced the endowment with bathroom, the proportion of homes without bathroom was higher in lower-income households.

Figure 2.17.3. Proportion of flats without bathroom by region, 2012

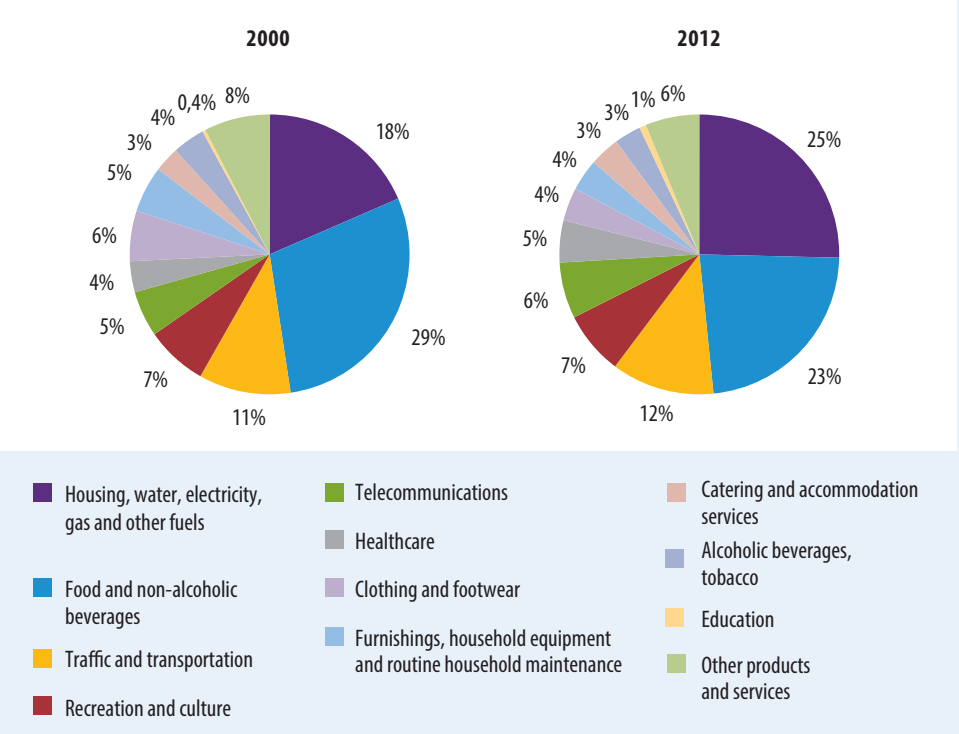


The endowment with bathroom shows significant regional differences; there was a four and a half times difference between the best and worst regions.

Structure of consumption

Keywords consumption structure, consumption, household, household expenditure

Figure 2.18.1. Distribution of per capita consumption expenses



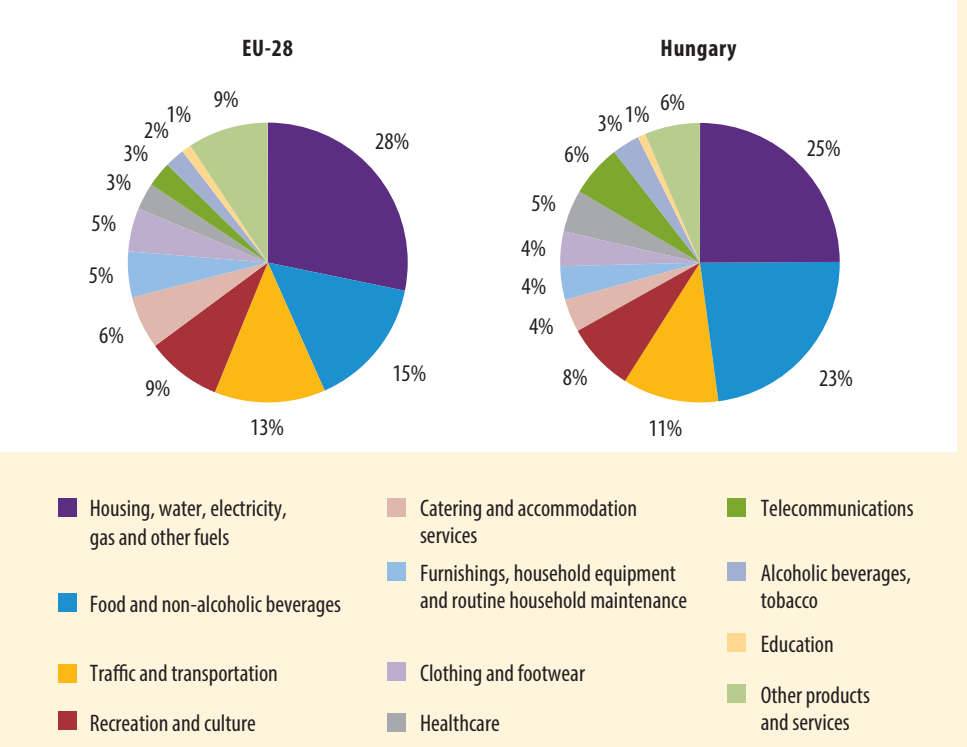
! *Between 2000 and 2012, households significantly increased their spending on housing services, water, electricity, gas and other fuels.*

Relevance The indicator gives a realistic overview on household expenditures and, indirectly, on changes in the standard of living of household members. With the help of this indicator it can be assessed what proportion of household incomes goes on buying basic and subsistence goods and services and what proportion on so called welfare activities like recreation and intellectual development. The vision of NFSSD outlines such a sustainable society in which people respect nature and their natural treasures, the local communities recognize the opportunities arising from the available natural resources and organize their production, energy use and consumption on this basis. The values of frugality and thrift are important for the members of a sustainable society.

Commentary The structure of consumption, depending on changes in the individual needs of people living in households as well as on the financial situation, is constantly changing over the years. The change may be complex, because the so called "fixed" expenditures are more difficult to change than the non-fixed expenditures. In case of fixed expenditures, the possibility of reduction or substitution is relatively low. For example, home maintenance and energy spending are considered such items. These expenses, together with food expenditures, have a special role in the Hungarian consumption model, because they together make up nearly half of the total expenditure.

The ratio of the two items of expenditure varied significantly between 2000 and 2012. While at the beginning of the period under review, they had a 48% share in the consumption expenditure, due to the favourable socio-economic environment, they began to decline, and by 2005 dropped by 6 percentage points (to 42%). The subsequent price shocks - the food inflation was 10 percentage points higher and the overhead costs were many times (210%) higher than the average change in prices - had a significant impact on the consumption of the population,

Figure 2.18.2. **Structure of expenditures per household in the European Union (EU-28) and in Hungary, 2010**



! ***The richer a country or a household, its food expenditures are smaller compared to the total expenditures. Food expenditures are the smallest in Luxembourg and Germany and the highest in Bulgaria.***

because the positive trend was reversed, by 2012 their share from the total expenditure, also exceeding the value at the beginning of the millennium, increased to over 48%. Within this, however, opposing movements were observed: the proportion of money spent on food decreased, however, the proportion of money spent on housing services and household energy increased. In 2000, foods still represented the largest part within the total expenditure, while in 2012 the amount spent on home maintenance occupied the first place.

In 2012, a per capita average of 207 thousand forints was spent by the population on home maintenance and household energy, in real terms, this amount was 1.2% lower than in the previous year. Despite the decline, this division continued to represent the largest share in expenditures, it made up a quarter of the total consumption. In 2012, as a national average, energy expenditures decreased by 4.2% in real terms, within this the population spent 9.1% less on gas, 2.4% less on district heating and hot water service and 4.1% less on electricity. This expenditure cut was accompanied by a 6.2% price increase, which was higher than the average price change, reflecting conscious consumption cuts in households.

Another spectacular expression of the change in the consumption structure has been the decreasing share of food in recent years in the total consumption. In 2000, 29.1% of the expenditures were spent on food (HUF 111 thousand per capita) by 2005 this ratio dropped significantly by 6.5 percentage points (to HUF 145 thousand). Then slightly increased and after the 2009 economic low point its ratio stabilized at around 23%. In 2012, a per capita average of 188 thousand forints was spent by the population on food and non-alcoholic beverages, which, in real terms, was 1.9% below the 2011 value. At this time, almost all kinds of food consumption declined in volume. The price sensitivity of food is shown by the fact that the people seek cheaper substitutes instead of the increasingly more expensive products or reduce their consumption to a certain extent. This is well illustrated by the evolution of purchasing alcoholic beverages, 4.8% less was spent on this in addition to a 9.4% increase in the price level. Meat prices grew at a higher rate than the average price index (9.0%)

resulting in a 1.4 kg decrease in the annual per capita consumption level. There was a 9.2% drop in egg consumption per capita resulting from an extremely high price hike of 36%.

Transportation, as the third largest expenditure group, represented 11.9% of total household consumption in 2012. An average of HUF 97 thousand per capita was spent by the population on traffic and transport, nearly half of this was for fuel purchases. The fuel expenditure at constant prices fell by 0.8%, in addition to a 13% annual rise in the price level, it shows a decline in car use.

International outlook In the 28 member states of the European Union in 2010 the average size of household expenditures in terms of purchasing power parity was 24,981 PPS, in Hungary, the same figure was 11,397 PPS, which was 46% of the EU average. Bulgaria was at the end of the ranking (9334 PPS) and Luxembourg was in the first place (45,170 PPS).

There are significant differences among the member states in the pattern of consumption expenditures, which are resulting from socio-economic characteristics. In the 28 EU countries home maintenance and household energy expenditures are the most significant items (28%), spending on food and non-alcoholic beverages (15%) are in the second place. According to Engel's Law, the richer a country or a household, its food expenditures are smaller compared to total expenditures and vice versa. The data confirm this conclusion, because the share of food expenditures was the smallest in Luxembourg (9%) and Germany (12%), while in Bulgaria their value was nearly 30%.

Average housing costs in the EU member states represented 28.2%, while in Hungary this value was 24.9% per household. This is due to the fact that the housing market is different in the old and the recently joined Eastern European EU countries: while in the West the proportion of tenants is high, in our country rather the privately owned homes dominate the housing market.

In addition to the different income levels, in case of some items, the strong role of the state or the lack of it also play a role. For example, because of education subsidies provided by the state in Sweden only 6 PPS is spent by households on education, which is just 2.2% of the EU average (EU-28), on the other hand in Cyprus, where such subsidies play a much smaller role, the same value is 1,522 PPS, which is 6 times higher than the EU average.

Definitions

The definition of household in household statistics: households consist of persons who, regardless of kinship ties, form a joint income and consumer community, sharing partly or totally the cost of living. Students temporarily living elsewhere as well as people temporarily working elsewhere are considered persons belonging to the given household by the Household Budget Survey in cases when the observed household plays a crucial role in their supplies and in case of the latter, if they make a vital contribution with their incomes to the household expenditures.

Food quantities: the number and unpackaged weight of foods consumed in the household collected in appropriate units (kilograms, litres, pieces).

Self-produced consumption: consumption of food, beverages and wood produced (grown) in private or leased land, garden, backyard farm and not sold on the market even it was produced by the own household or it was a gift from other households.

The method used differs from country to country in some respects, therefore the collection of data is not fully harmonized. One of the most important methodological differences is how we treat the problem of those living in owner-occupied housing, which, as a correction factor, in some countries is treated with the help of the imputed cost of housing. However, they do not use this in the United Kingdom, the Czech Republic, Hungary and Macedonia.

Household consumption expenditures include purchased consumption or consumption from own production. The inclusion or disregard of the latter also differ in the Member States, however, these substantially affect the level of consumption only in a few countries, including Hungary, where food consumption from own production is outstanding.

The comparison of expenditure data was based on PPS (purchasing power standard) value. It allows to purchase the same amount of goods and services at alternative rates in every country in the given period, taking into account different prices in different countries.

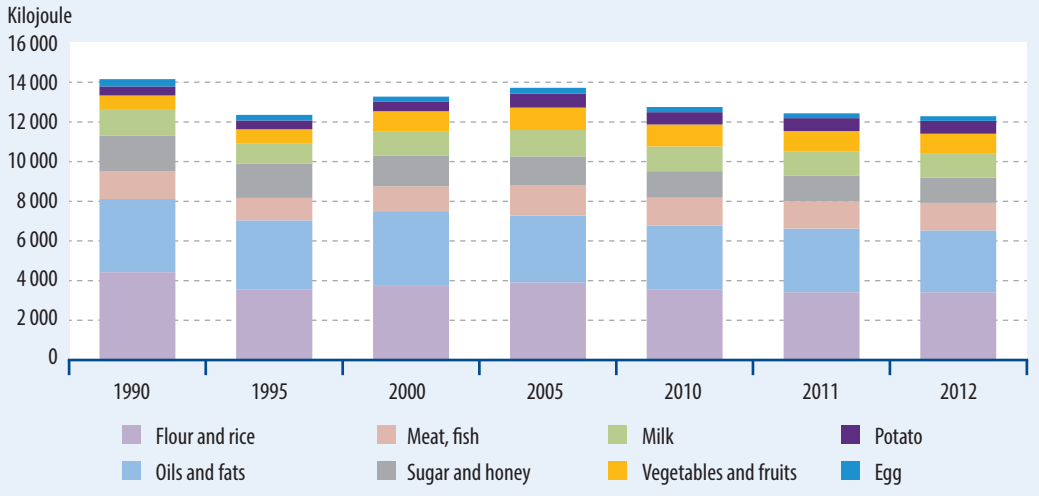
Stadat tables

2.2.4. Details of spend per capita by COICOP classification

Nutrient and food consumption

Keywords nutrient consumption, energy, protein, fat and carbohydrate intake, food consumption

Figure 2.19.1. Trend and structure of the daily energy intake per capita



! *After 2010, the energy intake per capita decreased to the level of the mid-90s.*

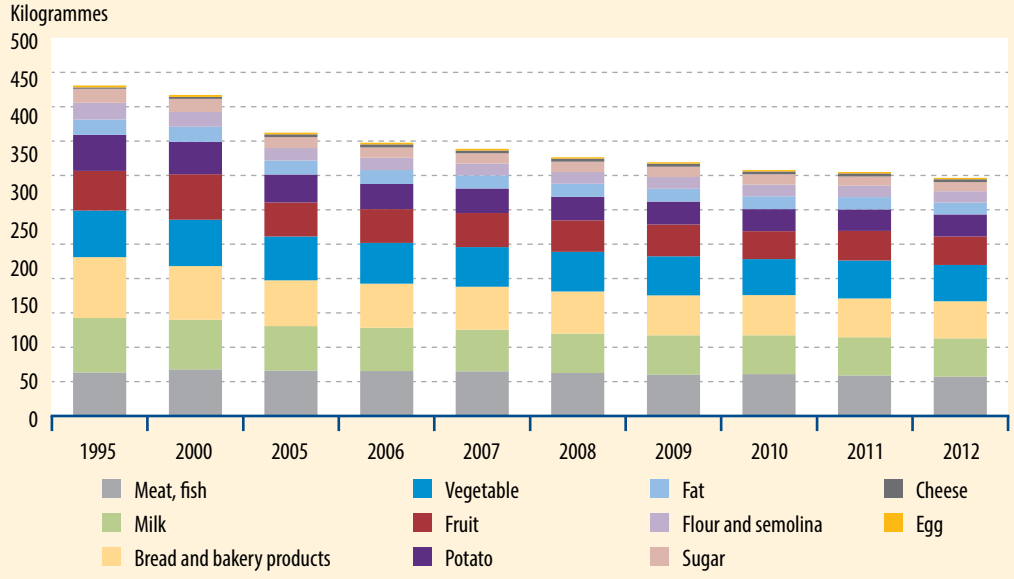
Relevance The nutrient and food consumption of households is one of the most important living-standard indicators. One of the dimensions of the observation is the change in the proportion of food within all expenses; the other is the change in the structure of consumption (food consumption at home from purchases or from own production, eating outside the home) as well as it is important to map changes in quantitative indicators.

Commentary The trend of the daily nutrient consumption of the Hungarian population was quite changeable between 1990 and 2012. During the five years following the change of regime, the energy intake per capita declined by 13%, then from 1996 to 2005, with minor fluctuations, increased by 11%. Then, from 2006, consumption declined steadily again. In 2012, the amount of daily energy intake was 7% lower compared to 2000 and one tenth lower compared to 2005. In the middle of the last decade, the per capita energy input exceeded 13,700 kilojoules per day, which fell below 13,000 kilojoules by 2010.

In 2012, the daily per capita consumption of nutrients was 12,289 kilojoules, which was 6% lower than the average of the previous five years. Compared to 2005, the daily energy intake decreased by more than 1400 kilojoules. After 2010, nutrient consumption practically fell to the post regime change level of the mid 90s. Nonetheless, in 2012, the amount of energy input was 13% higher than the optimal amount (10,886 kilojoules / person / day). In spite of the decline, the proportions of product groups in the energy intake did not change, thus, more than half of domestic consumption was made up by flour, rice and fats. Nearly a quarter of the nutrient consumption came form foodstuffs of animal origin (meat, fish, milk, eggs), a tenth from sugar and honey and 13% from low-calorie fruit and vegetables - including potatoes and other foods of vegetal origin.

In 2012, the daily protein consumption per capita was 93 grams, it is 5% less compared to the average of 2007-2011, and more than one tenth lower than in 2005. Most of the reduction was caused by a drop in flour, rice and meat consumption. The fat consumption (131 grams / person / day) also declined, it was 3 grams lower compared to 2011 and 10 grams (by 7%) lower than the previous five-year average. The daily carbohydrate intake (349 grams / person) also fell by 3 grams over a year so it was 19 grams (by 5%) lower than the average of 2007-2011. Compared to 2005, carbohydrate consumption fell at the highest rate (12%), which mainly resulted from a decrease in the consumption of flour, rice and sugar, and to a lesser extent of vegetables and fruits.

Figure 2.19.2. The average amount of annual per capita food consumption



! *Since 2000, because of adverse economic developments and the realignment of consumer habits, the amount of food consumed in households has decreased.*

In terms of physiological recommendations, the carbohydrate intake was satisfactory in 2012, while the consumption of fats, in spite of a steady decline, was more than 50 percent higher than the optimum quantity.

Details The amount of food consumed in the household - apart from some consumer goods - has been decreasing since 2000. Primarily adverse external and internal economic developments played a role in this, which, in case of foods, materialized in higher price increases than the average price change. Necessarily, families responded with a consumption restraint to this. By 2012, the situation of the population was characterized by a spectacular, nearly 10 kg drop in the per capita annual meat consumption compared to 2000. The consumption of milk, eggs and fruit fell by more than 17 litres, 52 pieces and 22 kg respectively.

In addition, consumer habits were also restructured, the most spectacular element of which was a significant increase in the turnover of restaurants and other catering establishments increasing the value of food spending. This fact alone, in the absence of any other external factor, reduces the amount consumed in the household. Due to advertising and the supply market induced changing lifestyle - especially in the younger age groups and among the affluent - the value of foods consumed outside the house steadily increased year by year to 9.2% of the total food expenditure in 2000 and 14.3% in 2012.

Another feature of the change in consumer habits is that during the crisis the decline stopped in the self-produced food consumption. In 2000, 20.8% of the total food consumption was self-produced consumption, which fell to 9.9% in 2008, then the trend reversed and rose to 10.5% in 2012.

Definitions

The indicator of nutrient consumption shows the energy, protein, fat and carbohydrate intake per capita.

The indicator of food consumption per capita refers to private households with kg/capita figures.

Food quantities: weight without packaging and number of food items consumed in the household collected in appropriate units (kilograms, litres, pieces).

Household consumption of food: value of the household consumption of food and beverages.

Eating outside the home: estimated value of foods and beverages consumed outside the house.

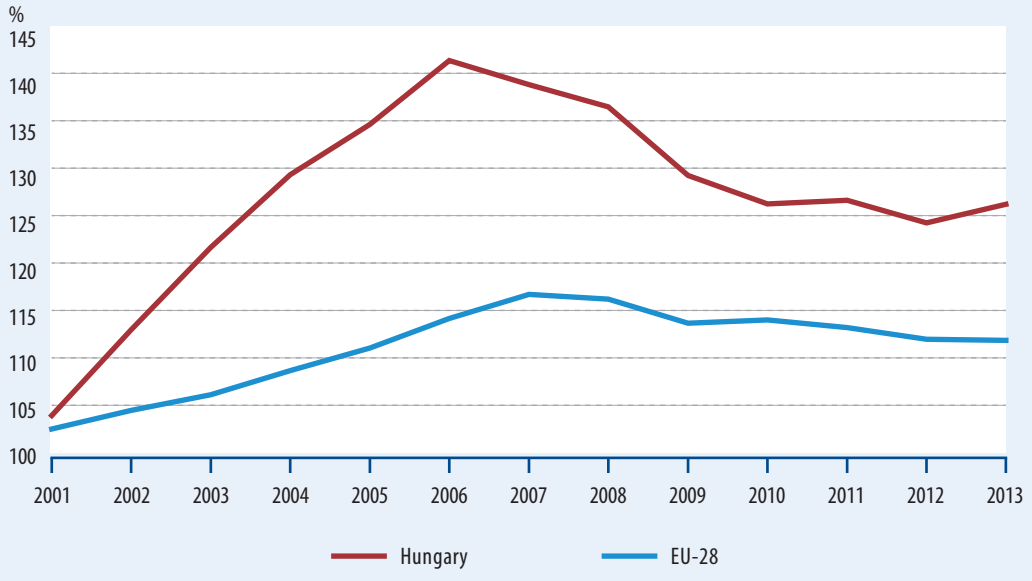
Stadat tables

3.1.21. Per capita consumption of food, beverages, tobacco and nutrients

Retail sales

Keywords volume of retail sales, retail network

Figure 2.20.1. Changes in the volume of retail sales (2000=100.0)



! *The volume of domestic retail turnover steadily increased until 2006, however, the crisis resulted in a significant drop, since then it has been hovering around the 2003-2004 level.*

Relevance Household consumption, which can be judged in many ways, is an important factor in a country's economic growth. The low levels of consumption indicate the scarcity of financial resources available in the given country, while the high levels of consumption specific to the developed countries of the world are questionable from the point of view of environmental and social sustainability. From an environmental perspective, the „over-use" of natural resources needed for the production of consumer goods, while from a social point of view the regionally uneven distribution of consumer goods is a problem. The Framework Strategy states that the current technologies and typical consumer approach are not enough to meet the welfare needs. The reduction of current consumption is necessary for the conservation and enhancement of natural resources.

Commentary In Hungary, retail sales continued to grow until 2006, then fell between 2007 and 2010, they stagnated in 2011-2012 then increased again in 2013, so all in all there was a 26% increase in sales during 13 years.

Food, drinks and tobacco stores accounted for the major part of over 46% of all sales in 2013 as a result of a nearly one third volume growth in sales during the past 13 years.

During 13 years, the weight of non-food retail trade decreased by 10%, while its volume increased by 23%.

During 13 years, the weight of automotive fuel trade increased by 2% and reached 19% in 2013. From 2000 to 2013, sales volumes increased by 20%.

International outlook During the period from 2000 to 2013, the volume of retail turnover increased by 11% in the European Union, which was lower than the Hungarian rate.

Details After the regime change, the Hungarian retail network underwent a significant transformation. The number of shops continued to rise between 2000 and 2005, then fell to 142 953, which was 4% lower than in 2000. In 2013, three tenths of shops were in Central Hungary and, within this, two tenths in Budapest. Despite the expansion of the large retail networks (the

Figure 2.20.2. **Changes in the number of retail shops**

a) June 30, 2009.

! *Despite the expansion of large networks, the retail system consisting of nearly 143 thousand shops is still fragmented.*

number of hypermarkets /169/ and supermarkets /120/ increased by nearly 4-fold and 3-fold respectively between 2000 and 2013) the retail sector is still fragmented with nearly 143 thousand shops. There was no significant change in the proportion of one-shop businesses (53%) between 2000 and 2013. The average floor area per retail unit was on the rise. Between 2003 and 2013, the total retail sales area increased, mainly because of the expansion of hypermarkets and specialized stores, by around 2 million sq m to over 16 million sq m, while the average sales area per shop rose from 90 to 111 sq m.

Definitions

The retail network is made up of retail outlets, like shops, public pharmacies and fuel stations, selling commercial goods, but the motor vehicles stores and the motor vehicle parts and accessories stores are excluded. (TEÁOR'08 – NACE Rev.2)

Retail sales (at current prices) include VAT and other consumer taxes.

Changes in retail trade are measured by volume indices, which is the deflated value index of retail trade where the deflator is a price index calculated by the representative items of the consumer price survey.

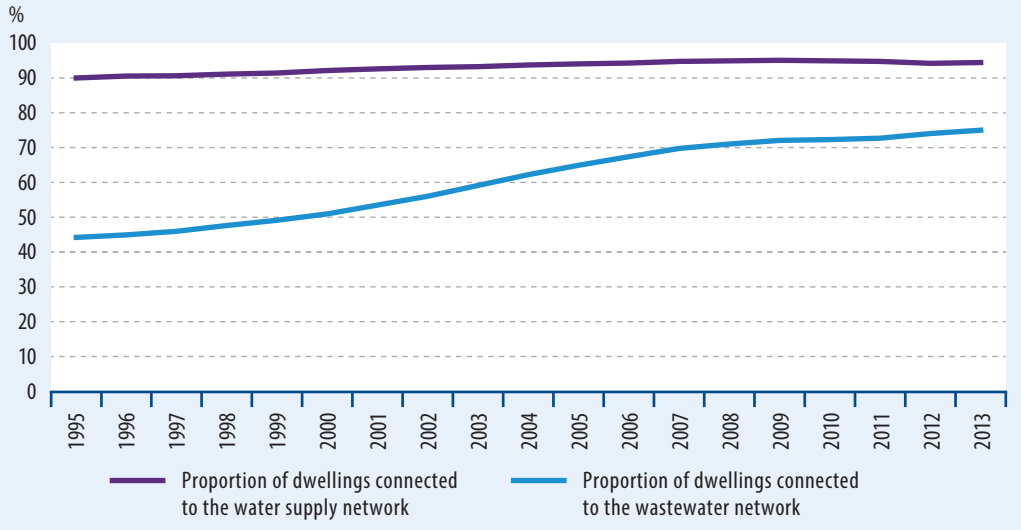
Stadat tables

4.4.13. Retail sales
4.4.15. Volume indices of retail sales adjusted for calendar effects
6.4.4.1. The number of retail stores and pharmacies, 31 December
4.4.6. The number of retail stores and their operators
6.4.4.2. The floor area of retail shops, 31 December
6.4.4.3. The number of shopping centres and their shops, 31 December
6.4.4.4. The number of hypermarkets and their shops, 31 December
4.4.1. Number of retail shops, 31 December.

Utility gap – supply of municipal services

Keywords municipal supply, public utility gap, water provision, sewage disposal, power supply

Figure 2.21.1. Changes in the public utility gap



! *The public utility gap significantly decreased in the period under review, at the end of 2013 it was 19 percentage points.*

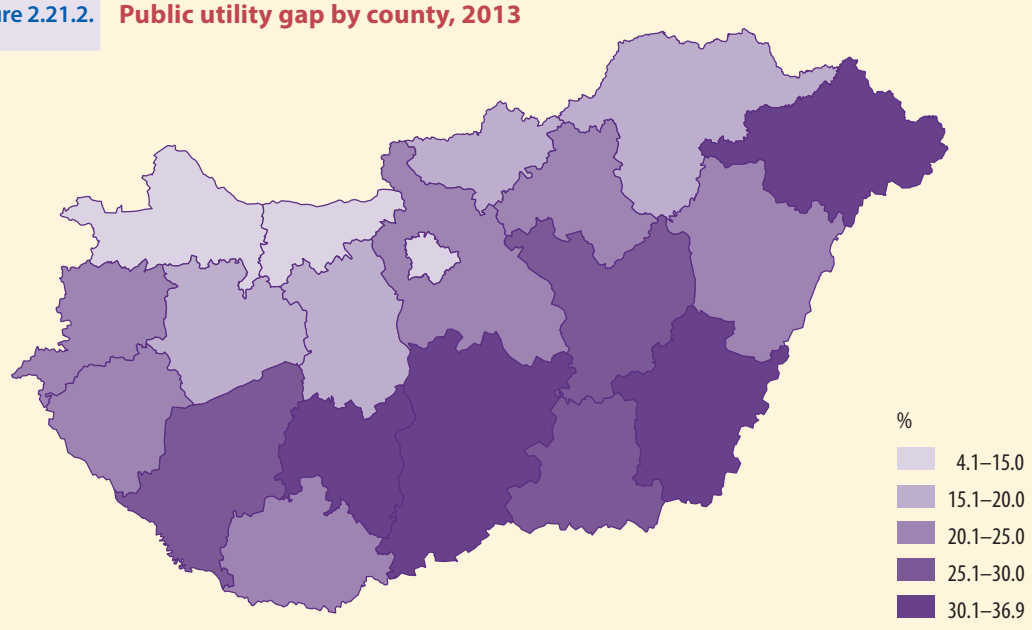
Relevance The domestic agricultural, industrial and household sources of pollution contribute to the contamination of our living waters. Municipal wastewater plays an important role in the pollution of surface waters. Individual desiccation-type sewage disposal in residential areas with no sewage system put a heavy load on groundwaters.

Commentary All settlements were already connected to the water network in 2008 and more than 94% of all dwellings had running water in 2013. Between 2000 and 2013, the amount of water produced and supplied, within this the amount of water supplied to households decreased as a result of rising water rates and the proliferation of private wells. This represents a more than 17% decline in case of produced water. Between 2000 and 2013, the number of settlements connected to the sewage system increased from 854 to 1860. Along with this, the number of dwellings connected to the sewage system increased by more than 1.2 million to 3.3 million resulting in 75% coverage. Between 2000 and 2013, the average output of the sewage system was 527 million m^3, which was more than 80% of the drinking water abstraction of public water works (661 cubic meters).

Details In 2013, in a regional comparison, Budapest and the county of Győr-Moson Sopron had the best sewage infrastructures and the lowest public utility gaps (around 4 and 10 percentage points respectively). Against this, the counties of Bács-Kiskun and Szabolcs-Szatmár-Bereg had the highest public utility gaps (37 and 33 percentage points respectively). The latter is mainly due to the low coverage of the sewerage network.

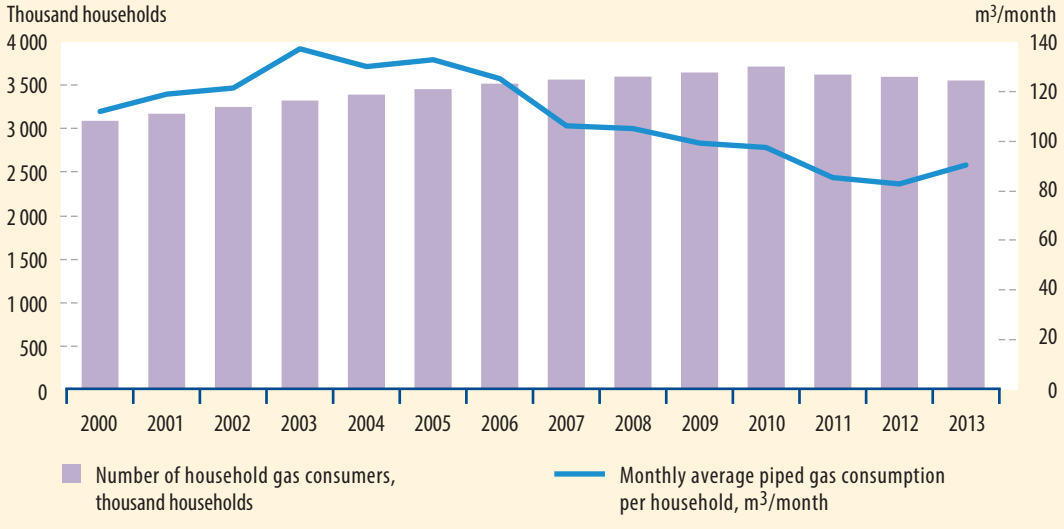
In 2013, 2880 settlements had pipelined natural gas supply in our country, which corresponds to a 91.3% coverage. The number of customers was 3 million 465 thousand and 8.1 billion m^3 of natural gas was sold. The energy demand of slightly more than 3.2 million households was covered by gas suppliers, which is a slight decrease compared to the previous year. Nevertheless, 74% of the housing stock is connected to the gas system. The gas consumption per household decreased down at a decelerating rate with minimal amplitude from a peak consumption of 125.4 m3 / month in 2003 to a value of 75.6 m3 / month in 2012. Since the period under review, this index has increased for the first time (82.6%) in 2013. In the development of gas consumption especially a steady increase in gas tariff played a major role. Where the opportunity was given, detached houses were heated primarily with wood instead of natural gas.

Figure 2.21.2. Public utility gap by county, 2013



Budapest had the lowest public utility gap (4 percentage points).

Figure 2.21.3. Changes in the gas supply



The number of household gas consumers grew from the turn of the millennium to 2010 and then decreased.

Definitions

Public utility gap: the difference between the proportion of households connected to the water supply network and the proportion of households connected to the wastewater network expressed in percentage points. In an ideal case, the public utility gap is 0 percentage point.

Gas heated household: gas heated home with or without gas meter, a flat rate is charged in case of no gas meter, in case of common in-house premises with common gas meter the building.

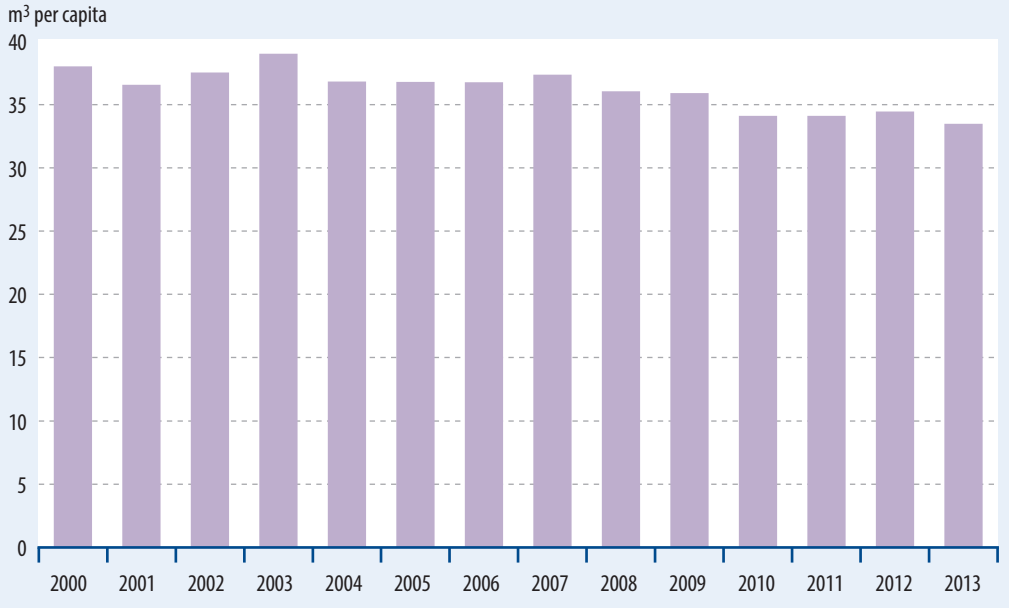
Stadat tables

2.3.9 Piped gas supply
5.4.2. Public water abstraction and supply
5.4.3. Municipal waste water discharge and treatment
6.2.2.7 Gas and electricity consumption

Water consumption of households from public water supply

Keywords water consumption, water utility

Figure 2.22.1. Water consumption of households from public water supply



! *In Hungary, the per capita consumption of piped water declined as a result of water saving and high water prices.*

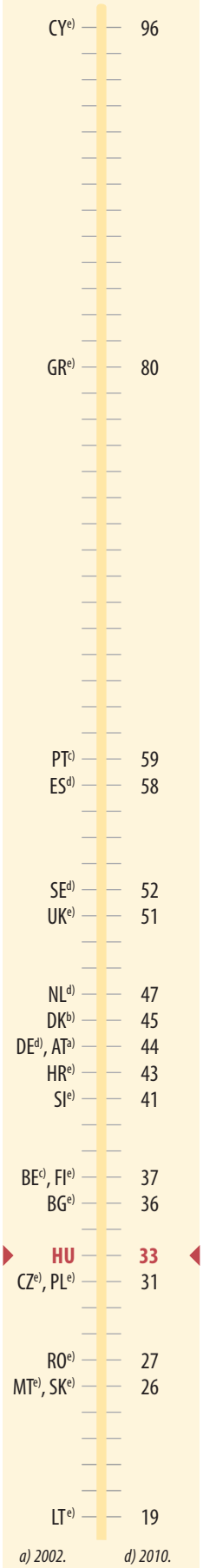
Relevance An environment conscious society economizes on water usage to preserve own water resources for the healthy and sustainable development of the society. The goal of sustainability is to create a quantitative balance in the artificial water circulation and to spread the techniques of an economical and pollution-free water use. According to the NSDF, in terms of the reduction of environmental damages and the limited use of scarce resources the efficiency of individual responsibility is higher than that of the measures developed as a result of collective decisions, but ultimately enforced by the state.

Commentary In Hungary, the annual volume of piped water per head decreased by about 12% between 2000 and 2013, mainly as a result of high water and wastewater prices and new private wells. The weather had a significant influence on annual household water consumption, e.g. there were water consumption spikes in the droughty years (2000, 2003, 2007, 2012).

International outlook The Hungarian population with a piped water consumption of more than 33 m^3 per head in 2013 was in the second, lower quintile in an EU comparison. It was favourable from the point of view of environment protection and water saving. In this respect, the new member states (except for Cyprus) underperformed the older ones, mainly as a result of the followings: different water abstraction technologies, different levels of provision in terms of private water and wastewater facilities (running water, waste water drainage), different climatic conditions, ownership of water utilities (government/private), water prices, private wells, etc.

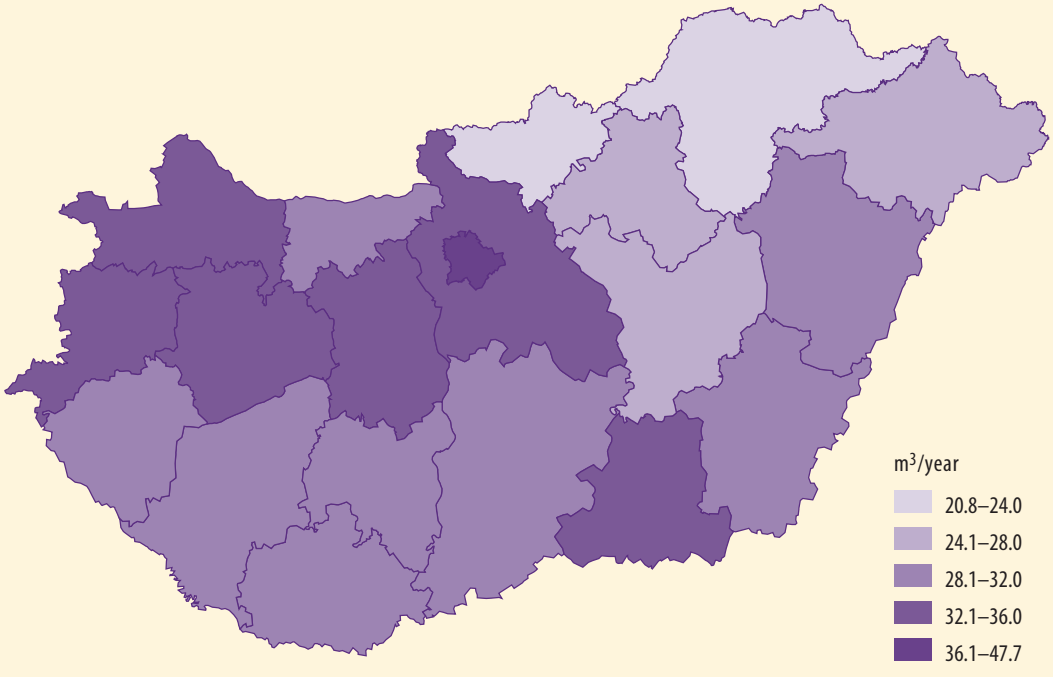
Details As a result of the different water prices and infrastructural facilities the per capita water consumption significantly differs by county. The annual water consumption per inhabitant was the highest in Budapest and Pest County and the lowest in Nógrád and Borsod-Abaúj-Zemplén County. The piped water consumption was below the national average in all counties except for Budapest as well as the counties of Pest, Győr-Moson-Sopron and Veszprém.

Residential water consumption from public water supply in the European Union, 2013, *m^3/capita/year*



a) 2002.
b) 2004.
c) 2009.
d) 2010.
e) 2011.

Figure 2.22.2. **Household consumption of piped water by county, 2013**



! *The per capita household consumption of water was the highest in Budapest.*

Definition The household consumption of piped water contains the volume of drinking water piped from water utilities to private homes and public taps. Concerning the counties, the annual water consumption refers to the mid-year population number.

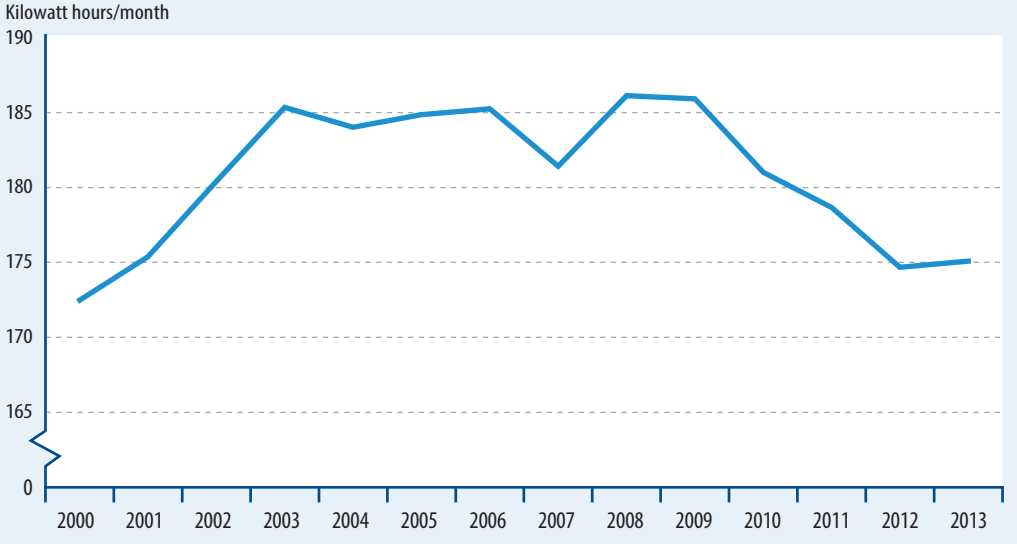
Stadat tables
5.4.2. Public water abstraction and supply

ES 172.1
CY 158.7
RO 157.3
LT 149.6
LV 149.4
PL 134.6
EL 134.1
EE 133.4
PT 128.3
IE 127.4
FR 123.0
FI 122.6
SI 122.2
AT 117.6
EU-28 115.0
NL 114.8
IT 113.7
HR 112.8
BG 109.9
MT 109.1
HU 108.5
LU 106.9
CZ 105.5
DE 105.0
UK 102.6
DK 97.8
SE 92.5
SK 87.4
BE 83.1

Household electricity consumption

Keywords household electricity consumption, energy consumption, electricity

Figure 2.23.1. Electricity use of household consumers



! *The rate of household electricity consumption decreased to the level of 2001.*

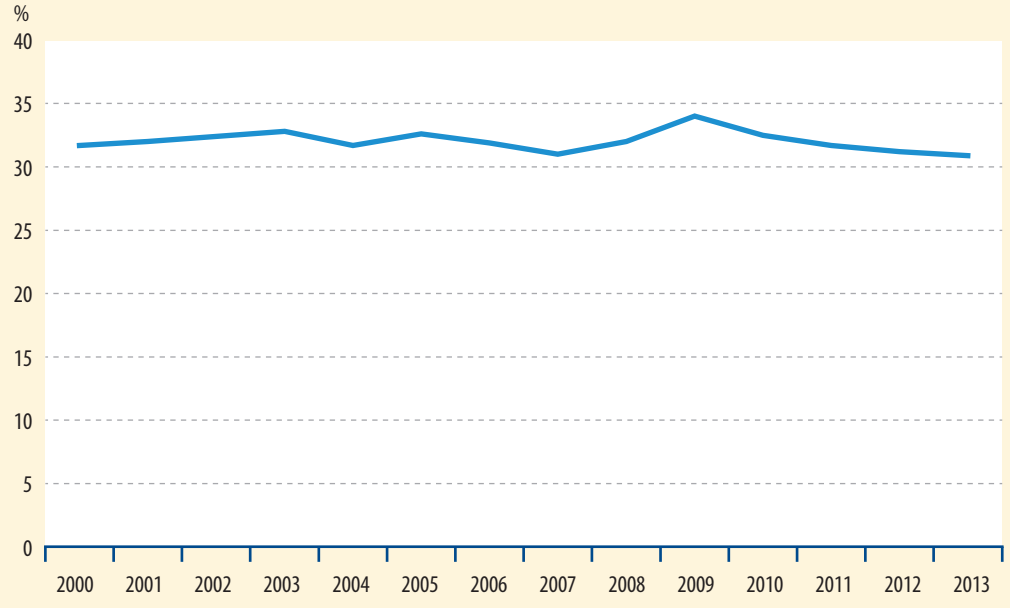
Relevance There is a correlation between disposable household incomes and energy consumption, thus they play an increasingly significant role concerning environment pollution. Energy saving may contribute to tackling global climate change as well as enhancing the efficiency of energy management. It is important to make heating and the cooling more efficient in settlements as well as to align the settlement structure and construction standards with the changing climate. Information on climate change and on emission reduction should be disseminated and adapted. The aim is to reduce the energy consumption of public stakeholders and households through better heat isolation, more efficient electronic appliances and products, and to make a shift towards less energy intensive goods and services. In accordance with the National Framework Strategy on Sustainable Development the entire system of energy subsidies as well as the excise and value-added taxes of energy carriers should be reviewed taking into account their sustainability performance.

Commentary In Hungary, the public electricity network covers all settlements in the country. The last one and half decade saw a sustained increase in residential electricity demand in spite of the spread of energy saving appliances. In 2013, more than 5 million households accounted for around one third of the total electricity consumption. Household consumption increased by 7% between 2000 and 2003, then until 2009 it was steady at a high-level of about 185 KWh / month. Subsequently, however, it decreased by 6%, and now it is the same as the levels of consumption of 2001. In 2013, the number and consumption of consumers was 6.5 and 8% higher respectively than in 2000. The electricity use per head per month varied between 173 and 186 kilowatt hours.

The increase in the number of household electricity consumers may be explained by an increase in dwelling stock, as well as by an expansion in the electricity network in the outer areas of settlements, by grid connection of buildings of holiday homes, weekend houses and buildings in allotment gardens surrounding settlements.

Changes in household electricity consumption in the European Union, 2012, *2000=100%*

Figure 2.23.2. **Ratio of household electricity use to total consumption**



! ***Households typically accounted for 31-34% of the electricity consumption in the observed period.***

International outlook Concerning the EU-28, the electricity consumption of households steadily grew between 2000 and 2012. A 15% increase occurred during the period under review despite the various national and EU energy efficiency measures. The consumption expanded the most (57-72%) in Spain, Romania and Cyprus, while in Belgium, Slovakia and Sweden the use of electricity for households decreased by 7-17%. In our country, there was a moderate expansion of consumption, which was slightly more than half of the EU average.

Details There were significant regional differences in household electricity consumption. The electricity use per head was the highest in Győr-Moson-Sopron and Pest counties, standing at 17 and 29% above the national average (175.1 kWh/head). Heves and Tolna counties had a considerable consumption level as well. Zala and Somogy had the lowest specific consumption figures, standing at 75-78% of the national average.

Since 2000, except for the county of Fejér, all Transdanubian counties saw a fall in household consumption, while there was a rise in the eastern part of the country and Central Hungary with the sharpest surge of 16% in Pest County.

Definitions

The indicator on the electricity consumption of households indicates the main features of all electricity used by households. The volume of electricity drawn for industrial, employment purposes accounted with a non-household rate is not classified as household consumption.

Electricity consumer: any household with a consumption meter (apartment, shared apartment, recreational home) which receives electricity supply and its consumption is separately accounted for by the provider using a so called household pricing.

Electricity consumption: the amount of electricity sold for households (apartments, holiday houses) also including separately measured electricity accounted for according to night tariff. Separately measured consumption serving non-domestic needs but industrial activities is not classified as household consumption.

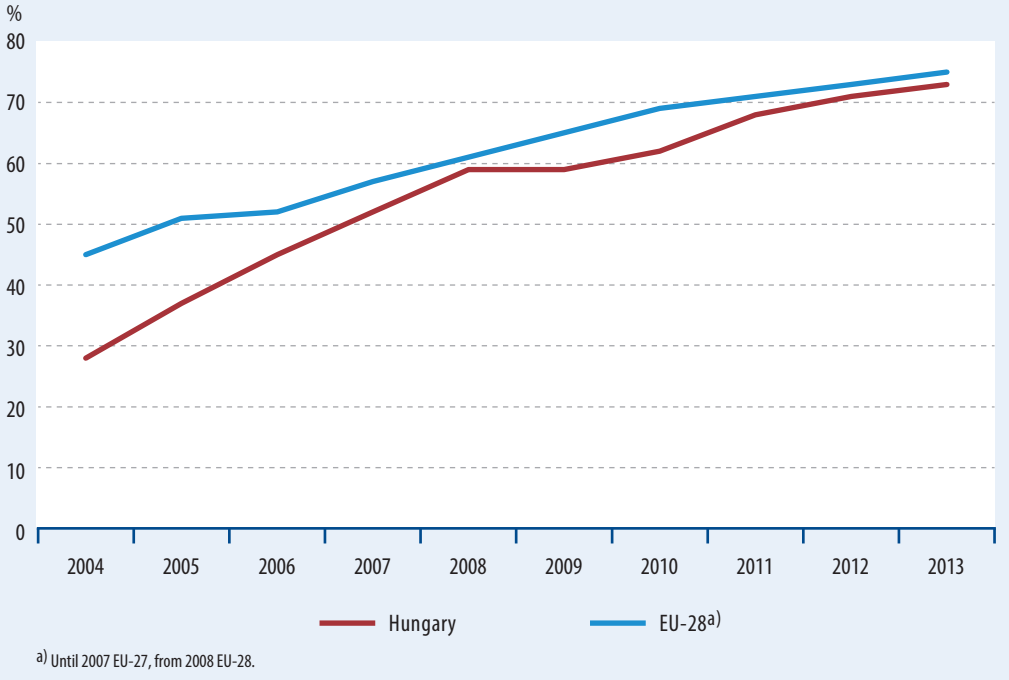
Stadat tables
2.3.10. Electricity supply

DK 95
SE 95
LU, NL 94
FI 92
UK 90
DE 84
BE, FR 82
AT 81
EE 79
IE, SK 78
EU-28, LV 75
CZ 74
HU, SI 73
ES 72
MT 69
LT 68
HR 67
CY 65
PL 63
PT 62
EL 60
IT 58
BG 53
RO 50

Internet use

Keywords **internet use**

Figure 2.24.1. Internet use by individuals



a) Until 2007 EU-27, from 2008 EU-28.

The household internet usage has significantly increased since 2004 and it was 73% in 2013.

Relevance The expansion of the internet usage, through the dissemination of innovations and new scientific technologies, may be a great way of promoting economic development while facilitating equal opportunities and antidiscrimination measures. The expanding world wide web is a fast and environment friendly tool to disseminate information.

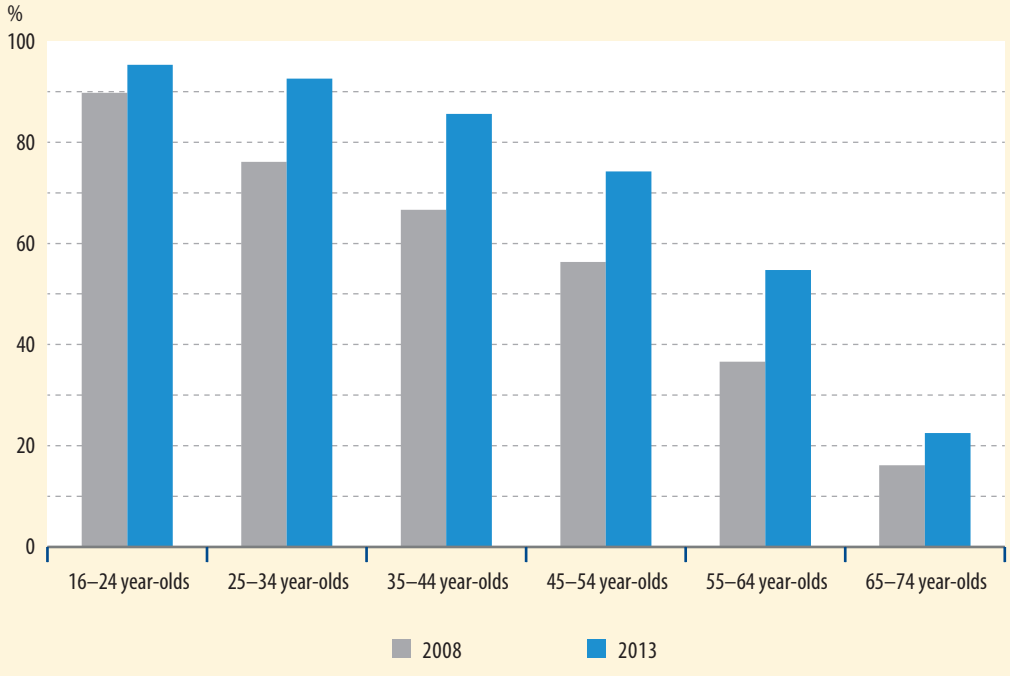
Commentary 73% of the 16-74 year-old people were actual internet users in 2013, that is, they used the web in the three months prior to the survey. At the beginning of the period in 2004, this proportion was only 28%. The EU average in 2004 was still 17 percentage points more than the Hungarian value, while in 2013 the difference was only 2 percentage points, which shows a dynamic convergence. The reasons for the spread of internet use are the rapid, user-friendly development of information technology, the price reduction of devices, the increasing demand for digital literacy in education and the world of work as well as the appearance of online services making life easier.

International outlook In 2004, Hungary was the 21st in the ranking of the Member States and in 2013 we already stepped forward to the 16th place. In 2013, the ranking was headed by Denmark, where 95% of the people were actual internet users, while Romania stands at the end of the ranking where every second person visited the world wide web in the three months prior to the survey.

Details Internet use is linked to several factors. On the demand side, access is determined by the household income available for the purchase of ICT equipment, the increasing IT demands against students in the education system and

Proportion of individuals in the European Union who used internet in the last 3 months, 2013, %

Figure 2.24.2. Internet use by age group



Since 2008, all age groups have seen a rise in the proportion of internet users.

workers at the workplace, the type of household and the share of age groups most susceptible to technologies within the household. Population density also plays an important role, it increases proportionally to increases in the number of households with internet access within all households living in the area.

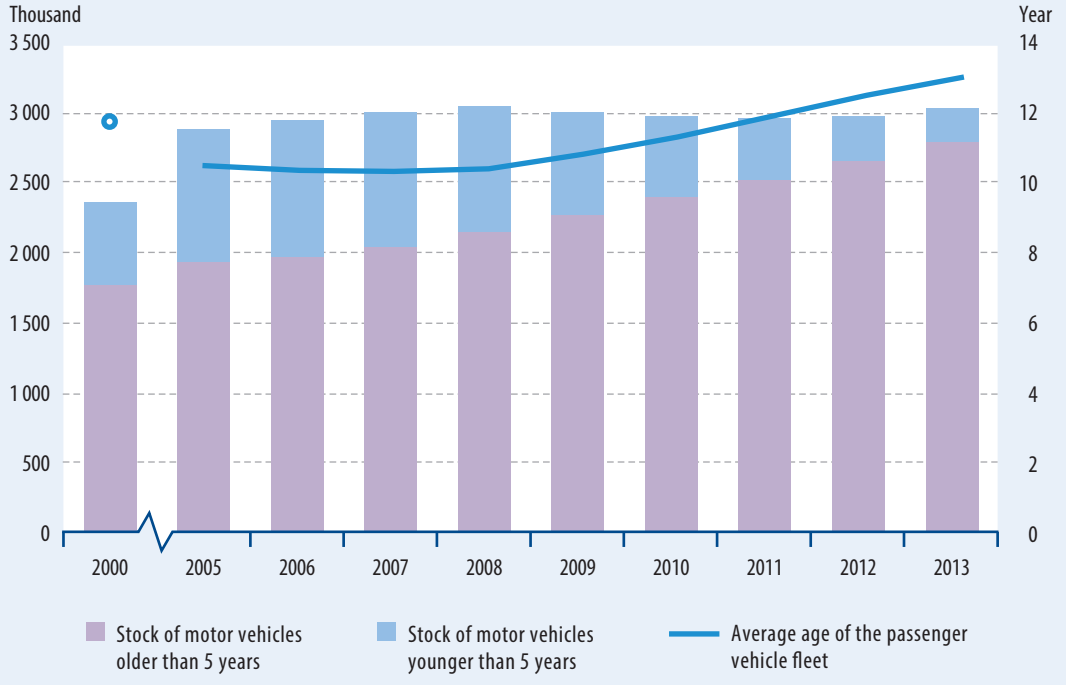
Our convergence to the EU average was uneven, the expansion came to a halt in 2008-2009, which can be explained by the effects of the economic crisis. Since 2008, the rate of internet usage has risen in all age groups. In 2008-2013, the data of age groups between 25 and 64 years increased at an outstanding rate. Within this, the development of the 35-44 age group was the strongest (19 percentage points). The lowest pace of development was in the youngest, 16-24 age group, but here the data base was outstanding already in 2008 as well. In 2013, the intensity of internet usage continued to be the highest in the two youngest age groups (16-24, 25-34), where the proportion of actual internet users was 95% and 92% respectively. Internet use remained the lowest at 22% in the 65-74 age group, this is a significant backlog compared to the 55-64 year-old age group (55%) ahead of them.

Definition The intensity of internet use by individuals is indicated by the proportion of real internet users, showing the percentage of the population aged 16–74 that used the internet in the three months before the survey.

Passenger car fleet

Keywords **passenger car fleet, motorization level**

Figure 2.25.1. **Size and age of the passenger vehicle fleet**



There were 301 passenger cars per one thousand people in 2012, hardly changing since 2009.

Relevance Due to a large reduction in pollution from industry nowadays the municipal air quality is mainly determined by transport, which today is closely linked to almost all fields of economic and social life. Transport plays a major role in enhancing economic development, the freedom of movement and the quality of life. However, it has significant ecological, health and traffic safety implications. The development of more environment friendly transport systems with an emphasis on rail, water and public transport is an EU objective.

Commentary In Hungary, the number of passenger cars increased by more than 29% between 2000 and 2013. However, it was an uneven development with an average growth rate of 4% in the first half of the 2000s and of 2% between 2005 and 2008. The passenger car fleet surged over 3 million by the end of 2007, then, as a result of the economic downturn, dipped down to below 3 million again in 2010 and even lower in 2011. In parallel with the expansion of the economy, the stock started to increase again in 2012 and again exceeded 3 million by 2013.

International outlook In the EU-28, the number of passenger cars per thousand population increased from 378 in 1995 to 487 in 2012with an average annual growth rate of 2%.

In 2012, the number of passenger cars per thousand population ranged from 224 (Romania) to 663 (Luxemburg) in the EU member states. In addition to Luxemburg, the number of passenger cars per thousand population was over

Changes in the passenger car fleet in the European Union, 2012, *pieces/thousand inhabitants*

LU 663
IT 621
MT 592
LT 590
FI 563
CY 549
AT 542
DE 539
SI 518
FR 512
BE 487
EU-28 487
PL 486
ES 476
NL 472
EL 467
SE 465
UK 464
EE 456
CZ 448
PT 429
IE 415
DK 399
BG 385
HR 339
SK 337
LV 305
HU 301
RO 224

500 in Italy, Malta, Lithuania, Finland, Cyprus, Austria, Germany, Slovenia and France. Between 1995 and 2012, the motorisation rate more than doubled in Lithuania, Poland, Romania, Latvia, Greece and Croatia. In Hungary, the number of passenger cars per thousand population increased by 39% from 218 in 1995 to 301 in 2012.

Details Between 2001 and 2006, the number of passenger cars aged less than 5 years increased by an annual average of 9%, then fell at an increasing rate (at an annual average of 18%) until 2013. The economic downturn caused a fall, resulting in a drastic fall in the number of new car sales. The average age of the domestic car fleet decreased until 2007, then increased again. During the mid-1990s, COMECON-cars (Lada, Trabant, Wartburg, Skoda) accounted for more than three fifths of the domestic passenger car fleet, however, nowadays the Opel, Suzuki, Volkswagen, and Ford brands are the most popular.

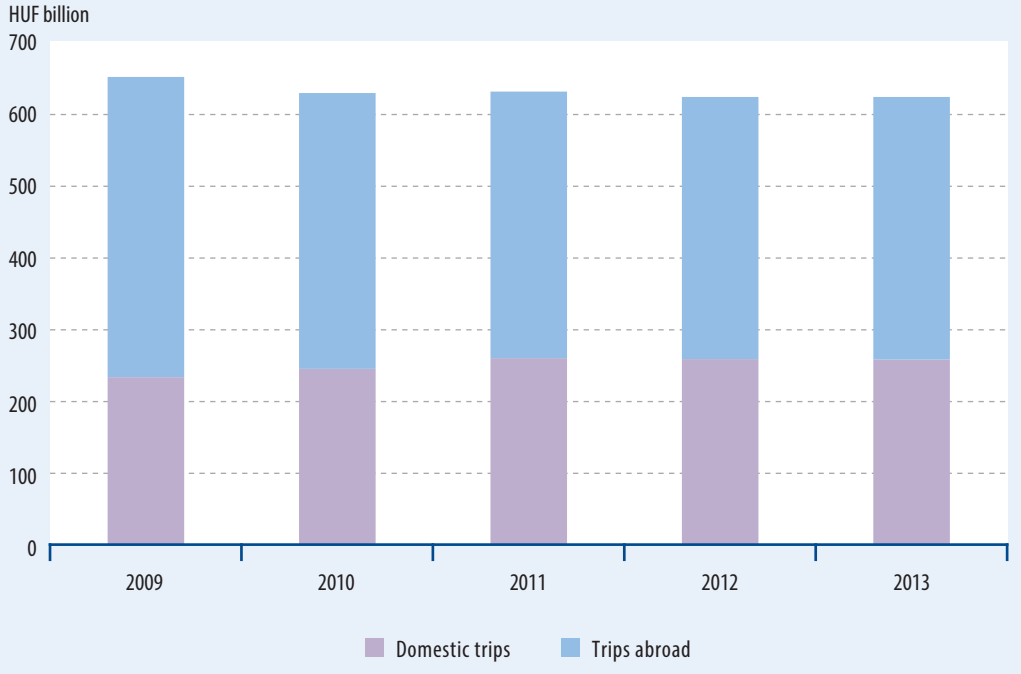
Definition The indicator of motorisation level shows how the number of passenger cars changes.

Stadat tables
4.6.11. Stock of passenger cars by make
4.6.12. Average age of passenger cars, by make

Tourism-related spending

Keywords tourism spending, spending structure, overnight trips

Figure 2.26.1. Spending during overnight tourist trips made by Hungarian residents



! *In 2011, the share of the domestic tourism spending of the population increased to 41% then in the following years it remained at this level.*

Relevance Compared to all other sectors, tourism is more dependent on the state of the natural environment. Tourist destinations require clean and tidy environment to retain their attractiveness. In many countries, tourism today is one of the most important national economic sectors. So it is paramount to increase tourism taking into account the environmental aspects.

Commentary In 2011, the overnight domestic trips related expenditures reached HUF 260 billion, then, at current prices, they remained at a similar level in the subsequent years. The steady decline in the foreign trips related spending, which was observed until 2012, stopped in 2013. As a result of these processes, within the tourist spending the share of domestic tourism increased to 41% in 2011, then stabilized at this level. The combined effects of the economic crisis, the changes in the forint / euro exchange rate, and the government's tourism stimulus program including the introduction of the ‚SZÉP' card are likely to have a significant impact on the processes.

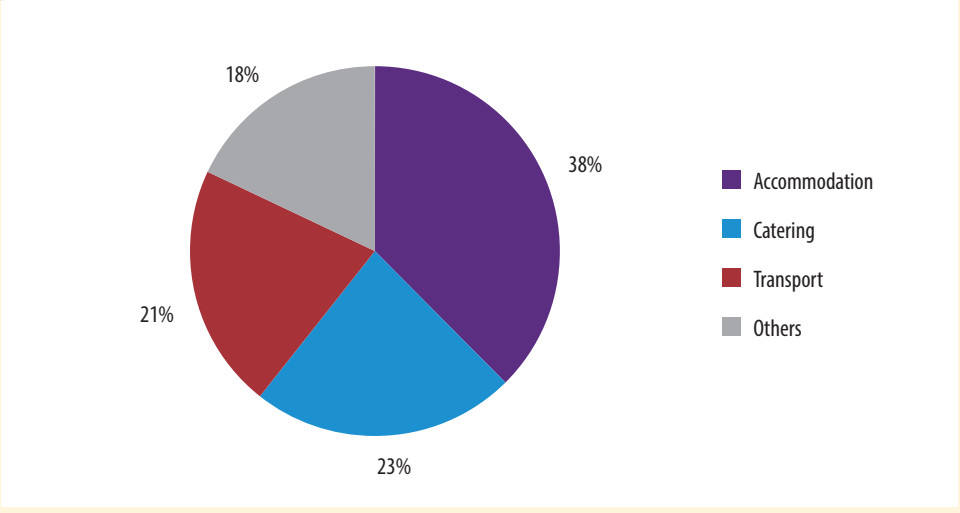
International outlook In European Union countries, between 2009 and 2012, domestic tourism spending measured at current prices in euro decreased by 2.3%, while the amount spent on travel abroad increased by 2.4%.[2]

Details In 2013, Hungarian people spent HUF 258 billion on domestic tourism, which was similar to the previous year at current prices. HUF 97 billion (38%) was spent on accommodation services, HUF 60 billion (23%) on catering and food and HUF 55 billion (21%) on transport (including the fuel spend as well).

Definition The ratio of the domestic tourism spending of the population to the total tourist spending: the ratio of the overnight domestic trips related spending to the entire national tourism spending (including outbound tourism).

[2] Without Cyprus, the Netherlands, Croatia, Luxembourg, Malta and Sweden.

Figure 2.26.2. **Spending structure of domestic overnight trips, 2013**



! *Of the tourism spending, 38% was spent on accommodation services, nearly one quarter on food services and one fifth on transport.*

Stadat tables
4.5. Tourism, catering

Life expectancy

Keywords **life expectancy, healthy life expectancy (HLY), life expectancy at age 65**

Figure 2.27.1. Life expectancy at birth and healthy life expectancy

In 2013, life expectancy at birth was in Hungary 72.0 years for men and 78.7 years for women.

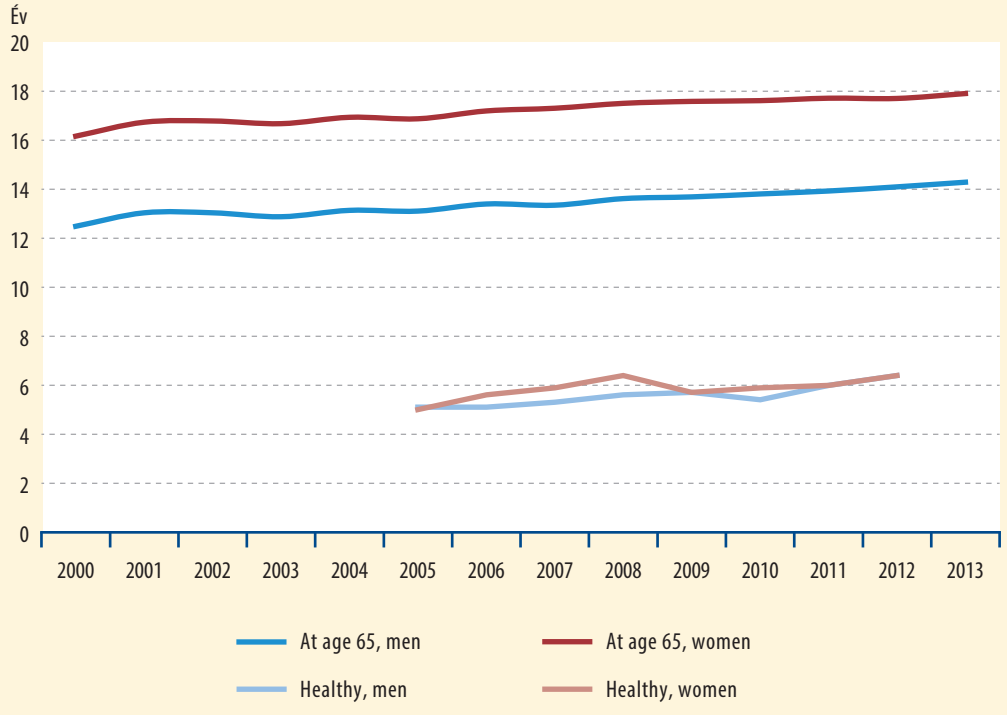
Relevance Life expectancy is a fundamental indicator of the socio-economic development and the population health status of a country. Life expectancy expresses also the mortality conditions of the population, thus the increase of lifetime is associated with the improvement of health status and the reduction of mortality. The health status of the population is one of the key factors of the availability of human resources; therefore, its improvement is an important guarantee for the sustainable development as well. According to the Framework strategy, the health status of Hungarian people is worse than what could be expected on the level of economic development in Hungary and worse than in the neighbouring countries. In the reduction of mortality, the goal is to catch up with the Central European regional average, including the reduction of the number of chronic, non-infectious diseases depending largely on lifestyle which account for the vast majority of the disease burden, as well as of the proportion of health risk behaviours and the mitigation of environmental risk factors.

Commentary Between 2000 and 2013, life expectancy at birth rose by 4.9 years for men and 3.1 years for women. Due to the greater increase for males, the gap between the two sexes has narrowed from 8.5 years to 6.7 years, but it is still high in European terms. As a social cause of the trend towards equalization, it can be mentioned that the boundaries of gender roles are blurring. In terms of lifestyle, the difference between the health awareness of the two sexes somewhat decreased nowadays. In the background of the gradual increase of life expectancy, the improvement of living conditions, the quality improvement of the health care system and the evolution of health conscious attitude may stand. Higher life expectancy of females can be observed all over the world, which can be explained by genetic and

***Life expectancy at birth in the European Union, 2012,** years*

ES 82.5
IT 82.4
FR 82.1
SE 81.8
LU 81.5
NL 81.2
CY, AT 81.1
DE, UK 81.0
IE, MT 80.9
EL, FI 80.7
PT 80.6
BE 80.5
EU-28, SI 80.3
DK 80.2
CZ 78.1
HR 77.3
PL 76.9
EE 76.7
SK 76.3
HU 75.3
RO 74.5
BG 74.4
LV, LT 74.1

Figure 2.27.2. **Life expectancy and healthy life expectancy at age 65**



! ***Life expectancy at age 65 increased by 1.7 years for females and by 1.8 years for males between 2000 and 2013.***

hormonal reasons and by different lifestyle. In Hungary, healthy life expectancy at birth was 59.2 years for men and 60.5 years for women in 2012. The value of the indicator is lower than the EU average (61.9 for women and 61.3 for men) but is increasing year by year, in case of women at a lower pace than in case of men.

International outlook Despite the increase, in 2012 the Hungarian life expectancy at birth was the 24th in the EU-28 ranking, 7.2 years behind Spain being the first in the ranking. In 2012, the life expectancy at birth in the EU-28 member states was 77.5 years for males and 83.1 years for females on average. This value was 5.9 years higher for men and 4.4 years higher for women than in Hungary.

In 2012, the life expectancy at age 65 in Hungary was by 3.1 years less than the EU-28 average. This value was 17.7 years for men and 21.1 years for women, which means that Hungarian men aged 65 years could expect 3.4 years less and women 3 years less than the average of the EU countries.

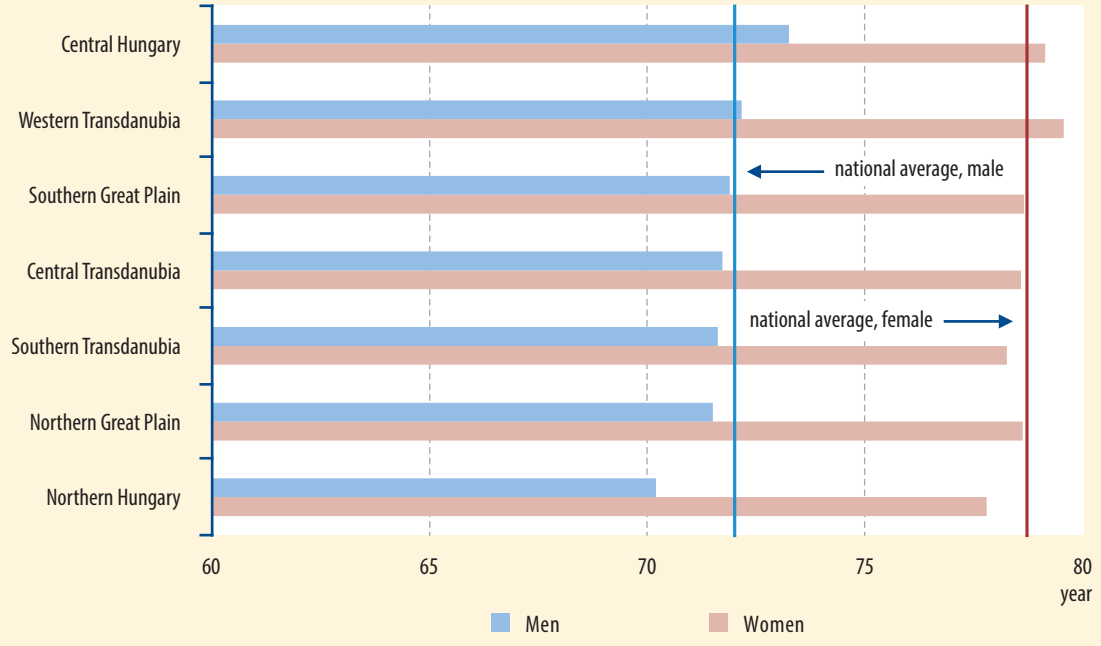
Healthy life expectancies differently from life expectancies are higher for men than women in certain European countries, but the different cultural background and the subjective element of the calculation may have a significant role in this. (The prevalence of any activity limitation due to health status is based on a self-rating survey question.) In Central and Eastern European countries, where the value of the indicator is higher for women than for men, the difference can be 2.2–4.6 years but in the more developed countries, the female 'advantage' is not significant. In European comparison, the difference between men and women is in the middle-rank in Hungary.

Details Comparing HLY values, we can find that women can spend longer period without activity limitation than men. Within the total length of life, the proportion of healthy period is longer for men than for women: they spend 80% of their entire life without activity limitation, while this value is only 75% for women.

Thus, both the years of life spent in positive health and those spent in ill-health were longer for women than for men. In 2012, the HLY values at age 65 in Hungary were 2.4 years lower than the EU-25[3] average (8.8 for women and men alike).

[3] According to the state in 2004.

Figure 2.27.3. **Life expectancy at birth by regions and sex, 2013**



The gap between life expectancies of men in Central Hungary and Northern Hungary was 3.1 years, while that between life expectancies of women in Western Transdanubia and Northern Hungary was 1.8 years in 2013.

Life expectancy at age 65 also increased, although to a smaller extent, between 2000 and 2013; it rose by 1.8 years for men and 1.7 years for women. In 2013, men could expect 14.3 and women 17.9 life years at the age of 65. The gap between the two genders slightly decreased between 2007 and 2013, and it was 3.6 years in 2013.

Since 2000, life expectancy at birth has increased in all regions. The best progress among men occurred in Central Hungary, where life expectancy at birth has increased by 5.4 years, while in Northern Hungary only by 4 years. The most significant increase among women could be found in Northern Great Plain, where life expectancy at birth has increased by 3.6 years, while in Northern Hungary only by 2.6 years.

Between 2000 and 2013, life expectancy at age 65 also increased in all regions. The most significant improvement was in Central Hungary for men (2.1 years) and in Southern Transdanubia for women (2.2 years).

Definitions

The indicator life expectancy at birth expresses the average number of years a newborn can expect to live under the mortality conditions of the given year.

The indicator healthy life expectancy (healthy life years) expresses the number of years a person can expect at birth to spend without activity limitation due to health reasons. The calculation of the indicator is based on combining morbidity and mortality data. The values of the indicator are calculated for women and men separately using the age-specific mortality data and the prevalence of persons limited in regular daily activities due to health reasons originated from the EU-SILC (Statistics on Income and Living Conditions) survey.

Health expectancies are independent of the number of population and of its age structure and so they allow direct comparison between different population sub-groups: e.g. sexes, socio-professional categories, as well as between countries within Europe.

The indicator life expectancy at the age 65 shows how many further years of lifetime a person can expect at the age of 65 years.

The healthy life expectancy (healthy life years) at the age 65 expresses the number of years a person can expect at age 65 to spend without activity limitation due to health reasons.

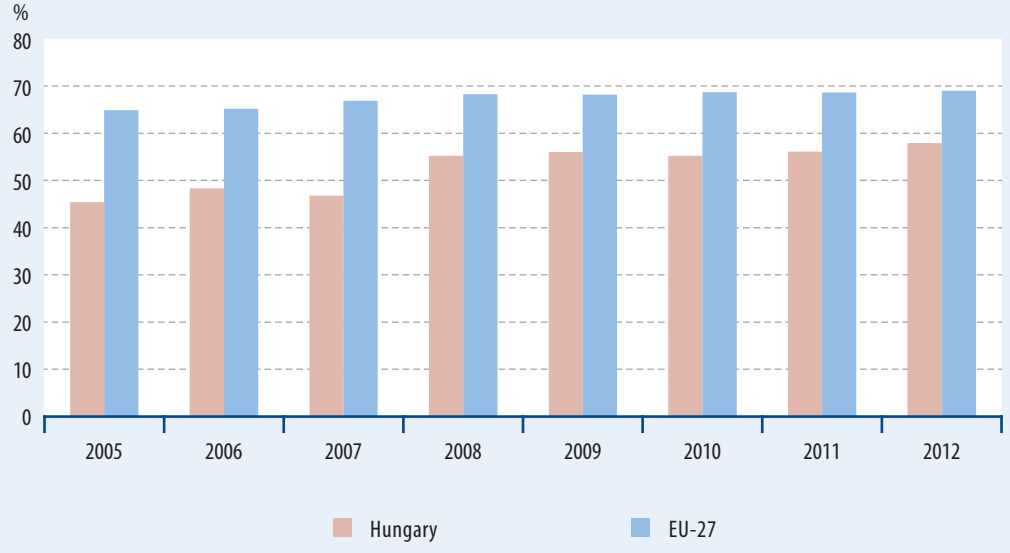
Stadat tables

6.1.7. Average life expectancy at birth, average age

Perceived health

Keywords perceived health, health status, income level, educational attainment

Figure 2.28.1. Perceived health (aggregate proportion of those placing themselves in the health category very good or good)



! *The perceived health of the Hungarian population is continuously improving and approaching the EU average year-by-year, but, even so, the lag was 11 percentage points in 2012.*

Relevance Perceived health is a subjective indicator to characterize and measure the health status (indirectly the life quality) which is based on the own opinion of people on their health.

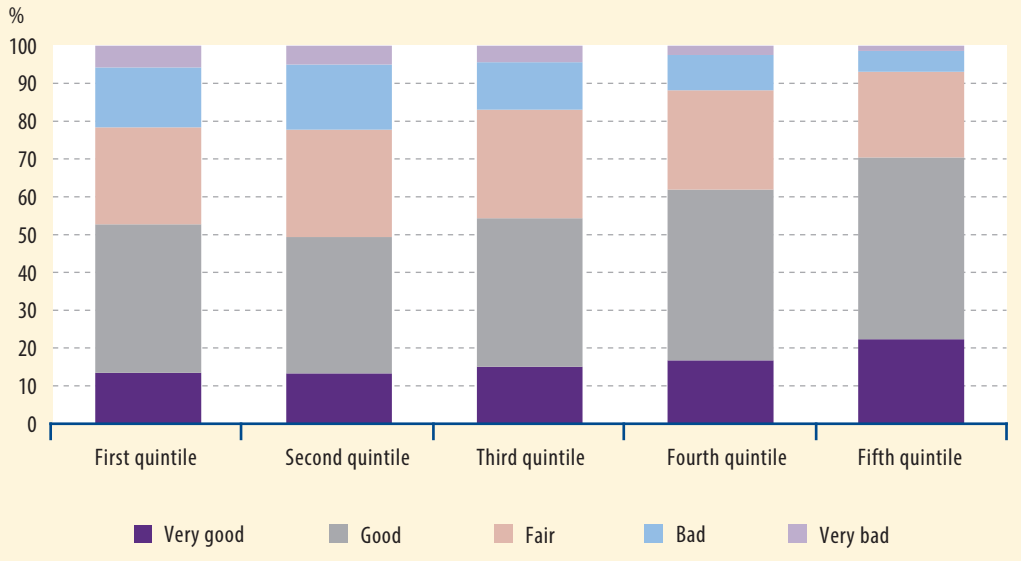
Commentary Most of the adult population is satisfied with their health status or evaluates that at least as „fair". Men have more positive opinion about their health than women; however, the mortality data and results of health behaviour examinations prove that, in general, women take more care about their health and prevention and follow less hazardous life style (the prevalence of regular smoking, binge-drinking, overweighting and obesity is considerably higher among men).

International outlook The proportion of people satisfied with their health is increasing year by year both in the EU member states and in Hungary. The indicator is closely connected to the health status and to the living standard as well. Compared to the EU average, only a smaller proportion of the Hungarian population consider their health status very good or good (only 57.9% as opposed to the EU average of 69.0%), but between 2010 and 2012, the growth rate was higher in Hungary.

Details People in very good income situation stated their health as 'very good' or 'good' in a higher proportion than those who are living on a lower income level. Among people with high income, the proportion of those who evaluate their health status as 'bad' and 'very bad' continued to decrease to 6.9%, while this proportion is still more than 21% among persons with low income, and it has not improved substantially since 2010.

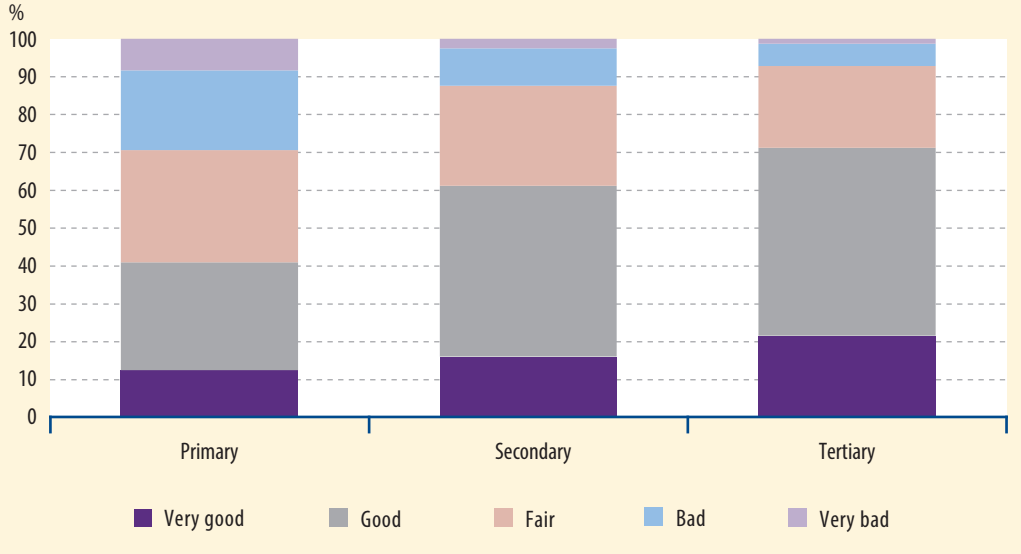
Educational attainment is a key factor in the development of health status. People with tertiary educational attainment evaluated their health status significantly better and it is in all probability actually better than that of people with primary or secondary educational attainment. The educational attainment and the general level of knowledge that can be acquired by higher qualification, or at least the need for being informed on health issues are the key to the health preservation and the health conscious behaviour of the individual.

Figure 2.28.2. **Perceived health by income quintiles, 2012**



! ***People belonging to higher income quintiles deem their health situation more favourable.***

Figure 2.28.3. **Perceived health by educational attainment, 2012**



! ***People with higher educational attainment deem their health situation more favourable.***

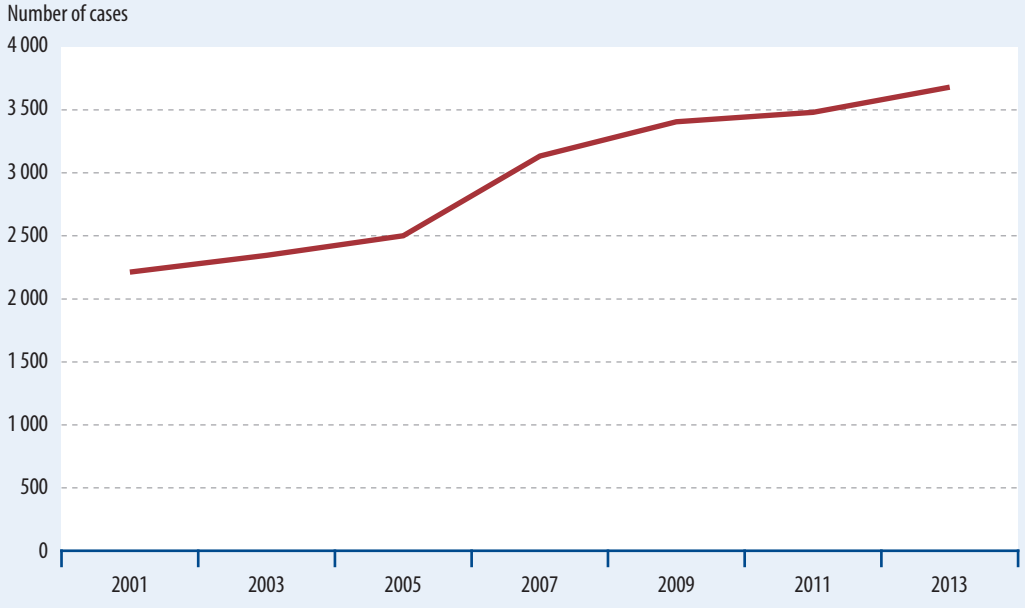
Definitions The most frequently used indicator in population surveys for characterizing health status is the self-assessment of health status when the respondent determines his/her health status on a five-grade scale. The range of answer options is from 'very good' to 'very bad'.

When calculating income quintiles, the size and the structure of the household are also taken into account and the per capita income is used for calculation. By arranging the population in an increasing order according to their per capita income and dividing them to five equal parts, 20% of the total population belongs to each income quintile, the poorest to the first and the richest to the fifth quintile.

Hypertension – chronic diseases

Keywords chronic diseases, diabetes mellitus, hypertension, asthma, ischaemic heart disease, diseases of students, health care

Figure 2.29.1. Number of hypertensive diseases per ten thousand population aged 19 years and older



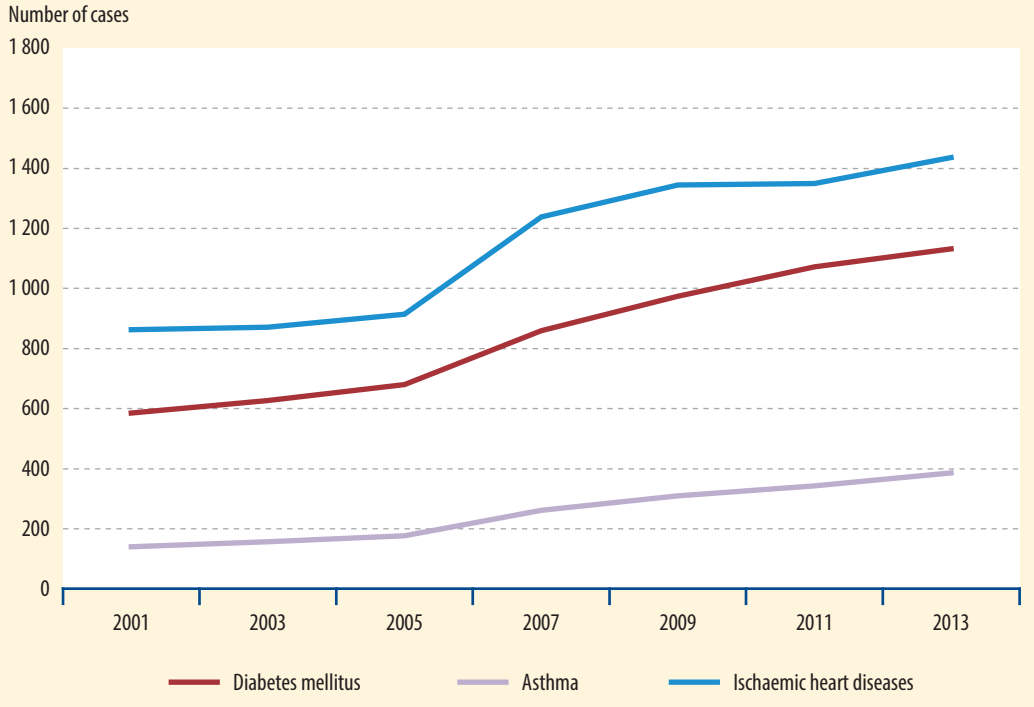
! *According to GPs' reports, the incidence rate of diseases per ten thousand adult population is increasing.*

Relevance Since chronic diseases can be traced back to the same risk factors, many of these diseases could be avoided through targeted health programmes. Providing more equally accessible treatments to a wider range of people would considerably improve the health status and the economic situation in the EU member states. According to the Framework strategy, the goal is to reduce the number of chronic, non-infectious diseases depending largely on lifestyle which account for the vast majority of the disease burden. On an individual level, healthy nutrition, regular sports or participation in prevention programmes and screenings can contribute to this. The government can contribute to the improvement by the modernization of the health care system, by launching public health and prevention programmes and screenings, as well as by supporting activities aimed at promoting healthy lifestyle.

Commentary The number and order of diseases registered at GPs per ten thousand inhabitants aged 19 years and older is different by gender, age groups and regions. Diseases of the circulatory system are the most frequent, among them, hypertension is the first in the ranking, i.e. this is the most widespread disease. According to the morbidity reports of GPs, the incidence of hypertensive disease per ten thousand people aged 19 years and older increased by 66% over thirteen years (the number of cases was 2,214 in 2001 and 3,683 in 2013); the growth was 76% among men and 60% among women. Based of the results of the European Health Interview Survey 2009, 33% of the adult population suffers from hypertensive disease.

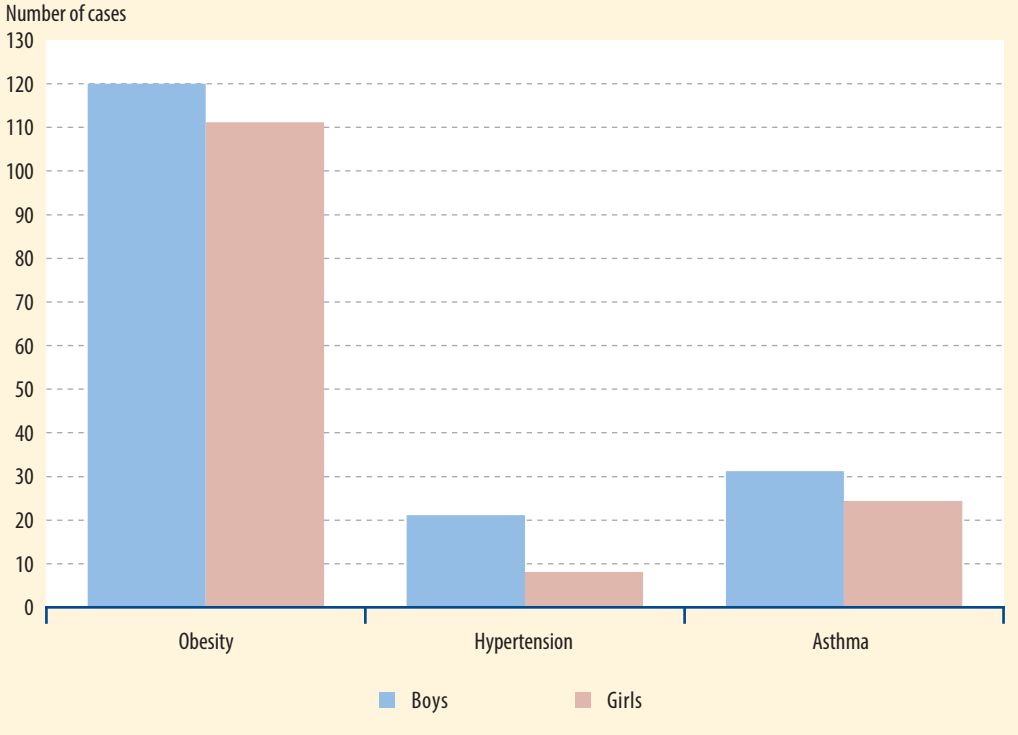
Details The incidence of ischaemic heart diseases has also considerably increased (by 50%) since 2001. While in 2001 the incidence rate calculated for ten thousand people of corresponding age was 863, it amounted to 1,435 in 2013. This growth was 59% for men (the number of cases was 813 in 2001 and 1,293 in 2013) and 72% for women (the indicator calculated for ten thousand women was 907 in 2001 and 1,560 in 2013). According to the health interview survey in 2009, about one third of the adult population suffered from some kind of heart diseases; among them angina (7.2%) and infarction (4.2%) represented the highest proportions.

Figure 2.29.2. **Number of major disease cases by ten thousand population aged 19 years and older**



! *In case of the three examined diseases, the incidence rate is growing.*

Figure 2.29.3. **Some major diseases per thousand examined pupils in school year 2012/2013**



! *In school year 2012/2013, the proportion of the observed diseases was higher among boys than girls.*

The incidence rate of diabetes mellitus nearly doubled over ten years (the incidence rate calculated for ten thousand people of corresponding age was 585 in 2001 and 1,131 in 2013). The growth doubled in case of men (the number per ten thousand men was 543 in 2001 and 1,127 in 2013) and was 82% in case of women (the incidence rate was 622 in 2001 and 1,135 in 2013). According to self reported data, 8.3% of the adult population suffered from diabetes in 2009.

In case of ischaemic hear diseases and asthma, the incidence rates of Northern Great Plain, while in case of diabetes mellitus and hypertensive disease, those of Southern Transdanubia exceed the national average the most. This trend applies to both genders.

Among school age children (8–18 year-old), obesity belongs to the leading diseases (among observed children, the rate is 120 per mille for boys and 111 per mille for girls). The proportion of children suffering from asthma (boys: 31 per mille, girls: 24 per mille) and hypertensive disease (boys: 21 per mille, girls: 8 per mille) is very high as well.

In the school year 2012/2013, obesity was the most considerable among boys in the twelfth grade (out of thousand boys 134 belonged to this category) and among girls in the fourth grade (119 per mille). In this respect, the situation is the best among children in the second grade, where out of thousand observed children, 104 boys and 107 girls are considered obese.

Asthma is one of the health consequences of environmental factors. Earlier, mainly toddlers suffered from asthma, but nowadays more and more adolescents have respiratory disorders as well. The proportion of asthmatic diseases is the highest among boys in the fourth grade (35 per mille) and among girls in the tenth grade (28 per mille).

The prevalence of hypertensive disease is increasing considerably with progress in age: while in the second grade 2 boys and 2 girls out of thousand examined children belonged to this category, their number was 43 and 11, respectively in the twelfth grade.

The prevalence of diabetes mellitus is increasing by age as well: in the second grade its proportion is 2 per mille, while in the twelfth grade 3 per mille for both boys and girls.

Definitions

The indicators of school health screening show the incidence of diseases per thousand pupils by sex and age groups. The classification by morbidity is based on the 10th Revision of the International Classification of Diseases.

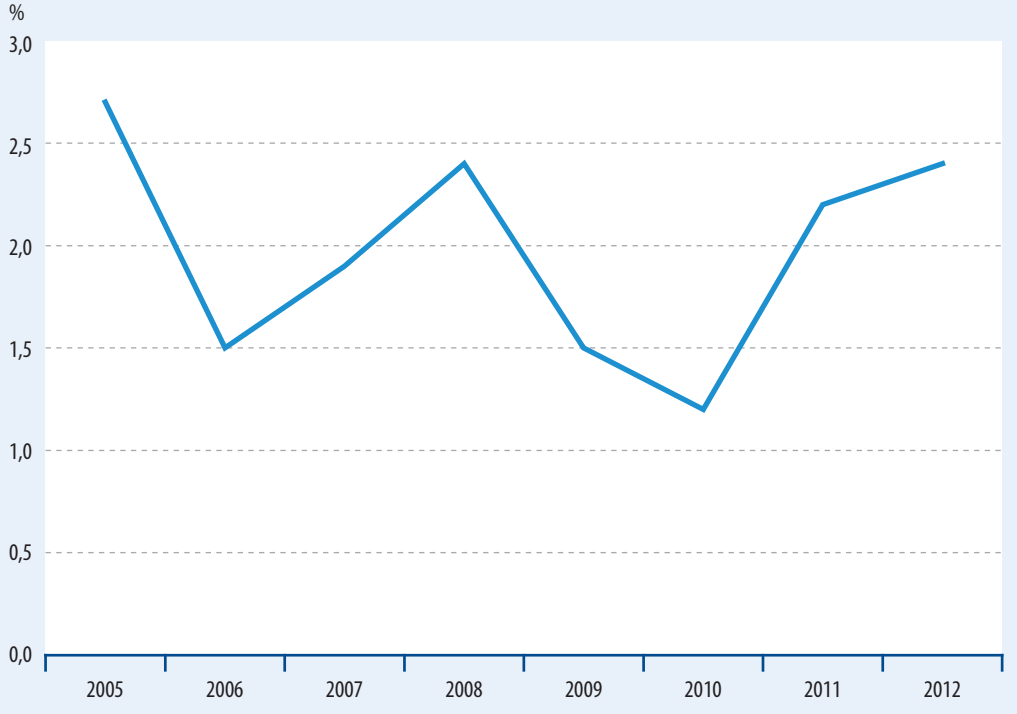
Normal weight is in connection with height, age, physique and sex, thus, it is difficult to define it. To define the degree of obesity, the body mass index (BMI) is used, which is the quotient of the weight in kilograms and the square of the height in meters. Based on the values of the body mass index, the following categories are used to determine the nutritional state: malnutrition (BMI<3 percentile (pc), skinny (BMI≥3 pc, but <10 pc), overweight (BMI≥85 pc, but <97 pc), obesity (BMI above 97 pc).

Those children suffer from hypertensive disease, whose systolic and/or diastolic blood pressure measured at least three times in a period of several weeks is repeatedly higher than 90 percentile of the value normal in their age, irrespective of origin (primary or secondary), and who need medication.

Failed medical examinations due to financial reasons

Keywords failed medical examinations due to financial reasons, health care, medical examination

Figure 2.30.1. Change in the proportion of failed medical examinations due to financial reasons



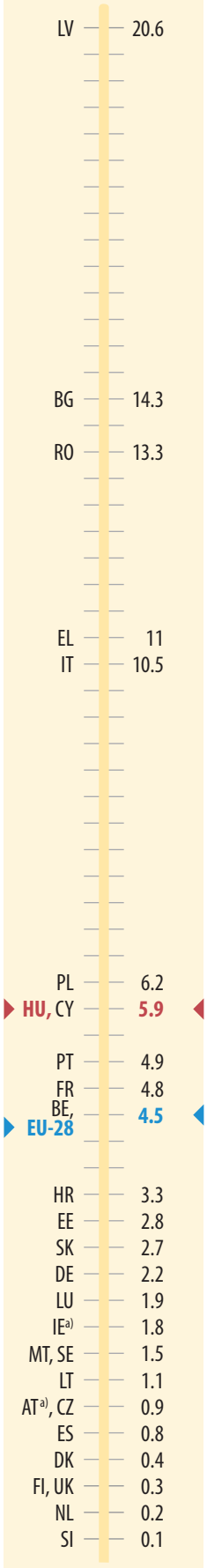
! *The indicator fluctuates from year to year, and in 2012, nearly 2.5% of the population had to forgo medical care due to financial reasons.*

Relevance A major sustainability goal is to provide access to collectively financed health services, to reduce territorial inequalities and inequalities resulting from social/cultural backgrounds in the standards of the accessible health services.

Commentary The proportion of failed medical examinations is strongly connected to the income situation of the members of the society. People in the lower income quintile, especially the poorest ones, report much more often that they could not use some kind of medical care due to lack of money. According to the results, the difference between people in various income situations was the lowest in 2010, and in the years since, differences have increased first of all due to the deteriorating situation of those belonging to the lowest income quintile.

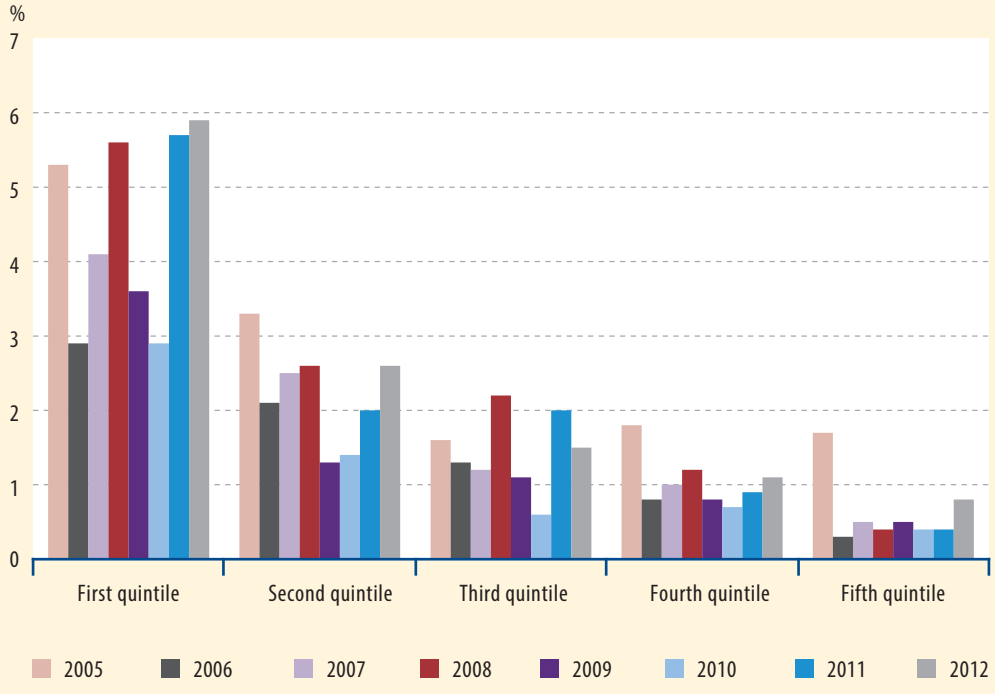
International outlook In all countries of the European Union, income differences are connected to the proportion of failed medical examinations due to financial reasons to varying degrees. With regard to the lowest income quintile, there are significant differences between countries. Extremely bad values were measured in 2012 in Latvia, where more than 20% of the poorest reported that they had to forgo some kind of medical care due to financial reasons, but the indicator was higher than 10% in Romania, Bulgaria, Greece and Italy as well. The indicator was the most favourable in the Czech Republic, Denmark, Spain, the Netherlands, Slovenia, Finland and the United Kingdom, where only less than 1% is affected in the lowest income quintile as well.

Failed medical examinations due to financial reasons in the lowest income quintile in the European Union, 2012, %



a) 2011.

Figure 2.30.2. **Failed medical examinations due to financial reasons by income quintiles**



! *The proportion of failed medical examinations due to financial reasons is considerable mainly in the lower income quintiles.*

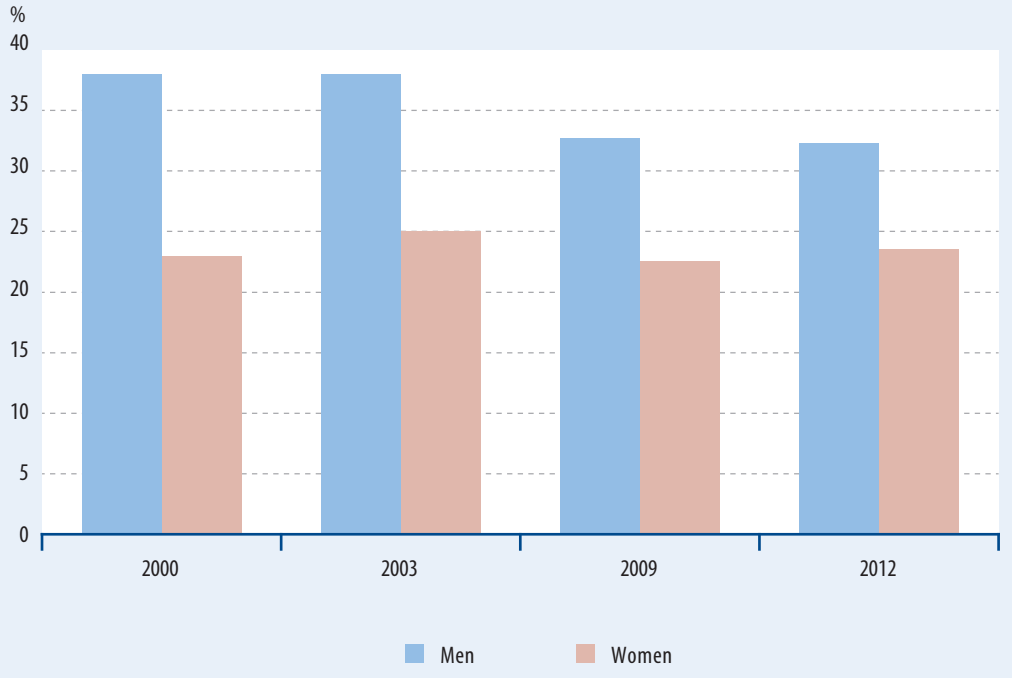
Definition The proportion of failed medical examinations by income quintiles shows the ratio of persons who are not able to afford medical examination by income quintile. Income quintiles are determined on the basis of net income per consumption unit. With the help of the indicator we can see how far the access to medical examination depends on income among the population aged 16 years and older.

LT 428.7
HU 411.5
BG 317.8
CZ 301.0
EE 285.5
PL 227.7
MT 225.5
FI 198.9
EU-27 192.7
EL 180.0
AT 177.8
DK 175.9
DE 170.3
NL 148.5
LU 148.1
PT 147.5
CY 141.3
ES 133.6

Percentage rate of smokers

Keywords rate of regular smokers, smoking-related death rate

Figure 2.31.1. Rate of regular smokers



! *Among the Hungarian adult population, nearly one fourth of women and one third of men smoke tobacco daily.*

Relevance It is proven that smoking is in causal relation with the development of numerous neoplasms and diseases of the circulatory and respiratory systems. Besides, maternal smoking may lead to numerous complications connected with getting pregnant, with pregnancy and childbirth, as well as raises the possibility of Sudden Infant Death Syndrome (SIDS). Smoking may play a role also in case of some infectious diseases: because of their weak immune system, HIV-infected persons are especially exposed to diseases caused by smoking. Health status worsened due to smoking is not only a problem for the individual, since it may result in the more frequent use of health services and the rise in the number of lost working days, which considerably increase social costs as well. The NFSSD defines the reduction of the rate of health risk behaviour as a goal. The primary responsibility of the individual is the health conscious behaviour, while, for the government, the information on and prohibition or taxation of products harmful to health may serve as means of improving the health status of the population, since through this, the price competitive advantages of such products can be reduced and their disadvantages can be increased.

Commentary According to the data of the European Health Interview Survey in 2009, more than 2.5 million adults were smokers in Hungary, and most of them were daily smokers. There is a significant difference between genders: while among females 22.6% were daily smokers, among males this ratio was 32.7%. According to the most recent research in 2012, these rates did not considerably change in case of men, while a 1 percentage point increase occurred among women. On the whole, since 2000, the proportion of daily smokers has decreased among men and stagnated among women.

Smoking related death rate in the European Union, 2011, *per hundred thousand population*

International outlook According to the data of the health interview surveys of Eurostat, among the examined countries, Hungarian men are in the middle of the ranking, while Hungarian women are in the second place after Greece.

According to the calculations of the World Health Organization (WHO), the smoking-related standardized death rate (SDR) per hundred thousand inhabitants was more than twice as high (411.5) in Hungary as the EU average (192.7). The situation is worse only in two Baltic states, Lithuania and Latvia, and in Romania. At the same time, the value of the indicator definitely decreased in the past decades: the standardized death rate per hundred thousand inhabitants was 566.24 in 1980, 536.76 in 1990 and 489.53 in 2000 in Hungary.

Details Smoking as a health damaging behaviour is characteristic of a significant proportion of the population, since almost one in three adults smokes occasionally or even every day. There are significant differences between the two sexes, that is, the proportion of women smoking is considerably lower than that of men. However, as smoking was decreasing among men and did not change significantly among women in the past decade, the gender gap seems to narrow. The proportion of smokers is the lowest among the elderly in case of both genders, while among women those of middle age are the heaviest smokers (in case of men, the difference between young and middle aged men is negligible).

Within the country, in Southern Transdanubia one third of the population is daily smoker, while this proportion is only one fourth in Central and Western Transdanubia and Southern Great Plain.

Definition Regular smokers are those who smoke tobacco daily.

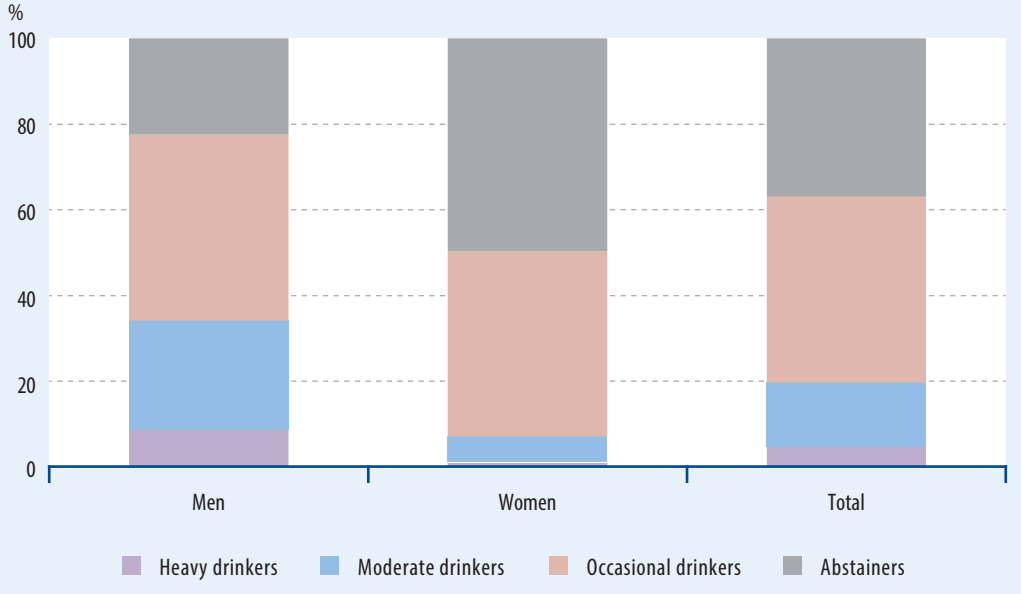
Alcohol consumption

Keywords alcohol consumption, death rate connected to alcohol consumption

LT 110.0
EE 105.9
HU 100.4
FI 80.7
PL 79.9
CZ 69.7
DK 58.8
AT 58.5
LU 58.4
EU-27 57.2
BG 54.6
DE 50.3
PT 48.5
NL 39.3
ES, SI 37.8
EL 34.8
CY 34.6
MT 31.1

Death rate connected to alcohol consumption in the European Union, 2009, *per hundred thousand population*

Figure 2.32.1. Alcohol drinking habits, 2009



! *4.6% of the adult population considered themselves heavy drinker.*

Relevance Excessive alcohol consumption may play a role in the development of almost 40 different types of diseases. Heavy drinking significantly increases, among others, the frequency of malignant neoplasms of the oral cavity, the oesophagus and the breast, hypertension, cardiovascular diseases, stroke, liver cirrhosis, mental and behavioural disorders, gastrointestinal diseases, disorders of the immune mechanism, diseases of the musculoskeletal system, disorders of the reproductive organs, as well as congenital anomalies and early foetal deaths. In accordance with estimates, alcohol consumption causes 3.2% of the global deaths; in the European Union alcohol is responsible for almost 200,000 deaths per year. It shows the significance of morbidity burdens that approximately EUR 17 billion is spent yearly on the therapy of alcohol-related diseases. The NFSSD defines the reduction of the rate of health risk behaviour as a goal. The primary responsibility of the individual is the health conscious behaviour, while, for the government, the information on and prohibition or taxation of products harmful to health may serve as means of improving the health status of the population, since through this, the price competitive advantages of such products can be reduced and their disadvantages can be increased.

Commentary According to self-reported data, 4.6% of the Hungarian adult population could be classified as heavy drinkers, 15.1% were moderate drinkers, 43.4% occasional drinkers and 37% were abstainers in 2009.

International outlook In 2011, mortality connected to alcohol consumption was in Hungary nearly twice as high as the EU average *(WHO)*. The standardized death rate per hundred thousand inhabitants was 100.43 in Hungary, while it was 57.18 in the EU.

Details According to the data of the interview survey enabling a strongly conservative estimate, one in every twenty adults (8.6% of men and

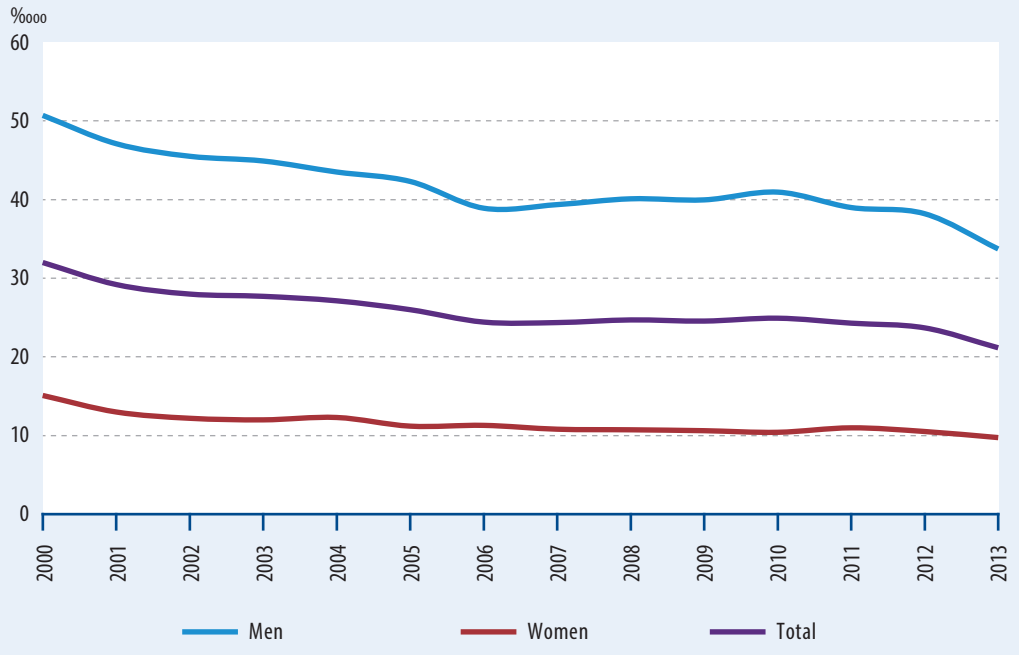
1.1% of women) belonged to heavy drinkers; their number amounted to about 400 thousand. The proportion of heavy drinkers was the highest among middle aged men, among them, one in every nine drank too much, and the proportion of 10.4% among the 65 year-old and older men was not much lower either. Among women, the differences between age groups were considerable in the proportions of abstainers and not those of heavy drinkers: in the age group 18–34, 40.3%, while in that of 65 years and older 66.9% did not drink alcohol at all.

Definition Heavy drinkers are those women and men who consumed more than 7 and 14 units of alcohol, respectively in the week preceding the survey (in case of women a lower limit is set due to their different physiological features). One drink/unit of alcohol is equivalent to one pint of beer, 2 dl wine or 5 cl spirit. Due to the great importance of the phenomenon called *'binge drinking'* in scientific literature (consumption of a large quantity of alcohol in one occasion), we consider those who drink 6 or more drinks per one occasion heavy drinkers as well.

Suicide death rate

Keywords **suicide death rate**

Figure 2.33.1. **Number of fatal suicides per hundred thousand inhabitants**



Between 2000 and 2013, suicide death rate declined by 34%.

Relevance Suicide is not an illness but an action, which is most frequently induced by mental disorders. Improving the health status is one of the most important sustainability goals in Hungary, given its strong impact on all other economic and social processes as well.

Commentary Suicide death rates decreased by 34% between 2000 and 2013. In 2000, the number of fatal suicides was 51 per hundred thousand men and 15 per hundred thousand women; over fourteen years, this number decreased to 34 and 10, respectively. The gap between men and women slightly increased in the observed period. The rate for males was approximately three and a half times higher than that for females in 2013.

International outlook Despite the decline, the Hungarian data is extremely high in international comparison. Among EU member states, suicide death rate was the second highest in Hungary in 2010, and the number of fatal suicides per hundred thousand inhabitants was by 22 higher than in Greece having the lowest value. Only Lithuania's value is less favourable than the value of 25.6 in Hungary. The lowest numbers were registered in the Mediterranean countries (Greece, Cyprus and Italy). In our country, the suicide death rate is twice as high for women and more than twice as high for men as the EU-28 average. Compared to Greece, having the lowest suicide death rate, the number of fatal suicides per hundred thousand inhabitants was by 39 more in case of men and by 10 more in case of women in 2010 in Hungary.

Details In the period between 2000 and 2013, the suicide death rate declined to a different extent in the different age groups: while suicide death rates of the 15-44 and the 65 years and over age groups declined much more than the average (by 42–

Standardized death rate of fatal suicides in the European Union, 2010, *per hundred thousand population*

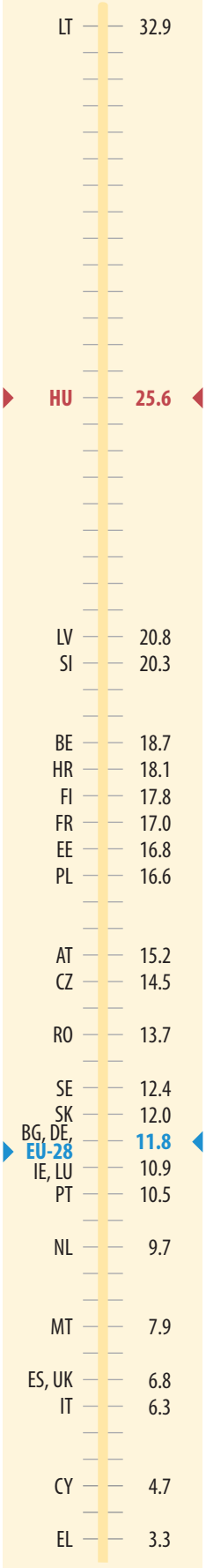
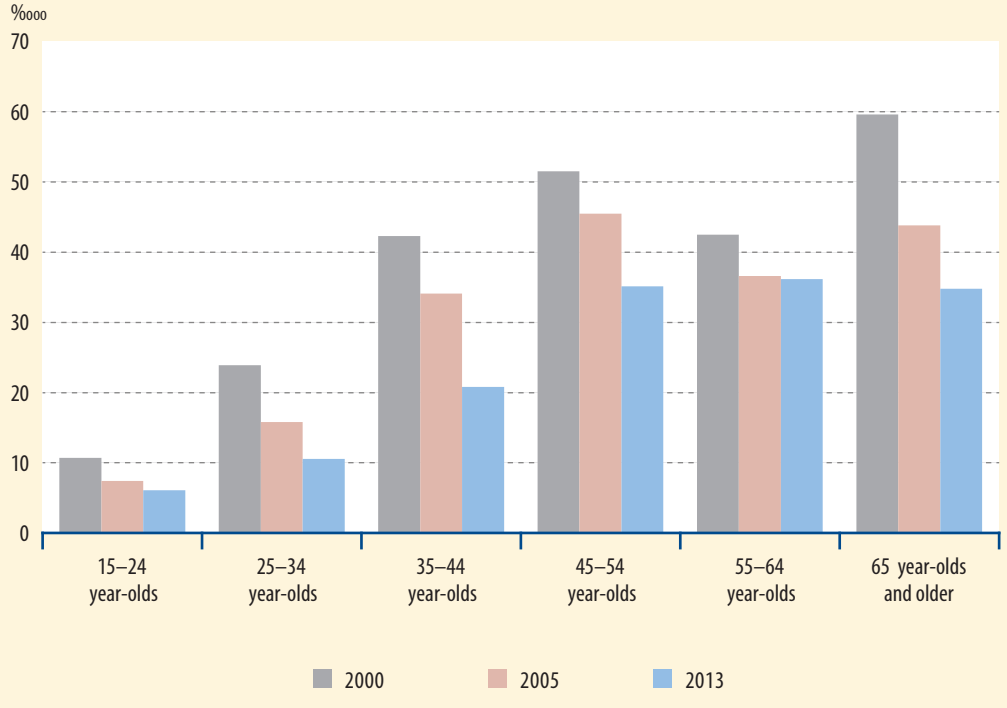


Figure 2.33.2. **Number of fatal suicides per hundred thousand inhabitants by age groups**



Suicide death rate declined by 56% in the age group 25–34 between 2000 and 2013.

56%), those of the 45–54 and 55–64 age-groups decreased by only 15–32%. Considering suicide mortality, the 55-64 and the 65 years and older age-groups were the most vulnerable in 2013 in case of both sexes.

Regional differences are significant, although they decreased somewhat: in 2013, the number of deaths due to suicide per hundred thousand inhabitants was 29 in Southern Great Plain and 14 in Western Transdanubia, while the national average was 21. In a breakdown by gender, the situation is similar: while in Southern Great Plain 45 men and 13 women per hundred thousand inhabitants deceased due to suicide in 2013, in Western Transdanubia these figures were 23 and 5, respectively.

One of the most important features of the suicides in Hungary is that in more than 60% of cases, the way of committing suicide is hanging. However, there are significant differences in the way of committing suicide between men and women. Nearly 70% of men having died due to suicide chose hanging, while this ratio was 40% in case of women; at the same time, the proportion of poisoning was higher among females (30%).

Definition The indicator shows only the number of fatal suicides per hundred thousand inhabitants.

Stadat tables
1.5. Deaths by frequent causes of death

Death rate by major causes of death

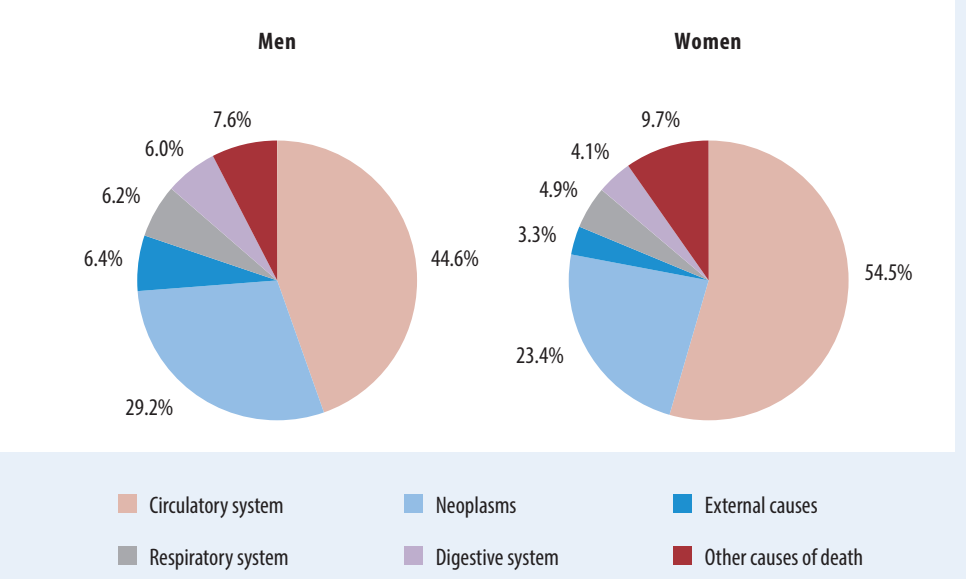
Keywords **deaths, causes of death**

BG 970.3
HU 898.6
SK 849.7
EE 799.7
PL 771.5
CZ 724.2
SI 599.7
EU-27 595.0
PT 586.1
BE 576.7
FI 573.8
DE 565.6
EL 558.0
IE 554.0
UK 553.1
AT 549.1
NL 543.2
LU 524.4
MT 516.6
SE 514.1
FR 500.6
CY 489.4
ES 487.0
IT 478.1

Source: *World Health Organization.*

Standardized death rate in the European Union, 2010, *per hundred thousand population*

Figure 2.34.1. Distribution of deaths by major causes of death, 2013



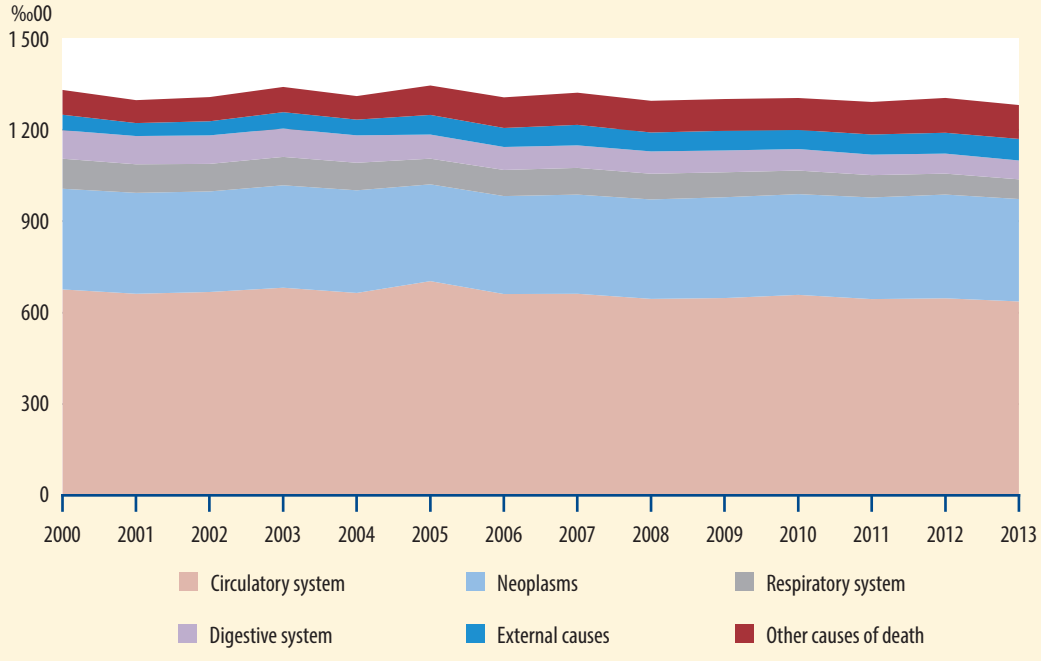
Among major causes of death, the proportion of diseases of the circulatory system is the highest, they account for about half, while neoplasms account for one fourth of all deaths on average.

Relevance The examination of causes of death provides important information about diseases, which cause the mortality of the population. The diminution of the most frequent causes of death improves the health status of the population, reduces mortality and increases life expectancy. According to the NFSSD, the goal is to catch up with the Central European regional average of mortality including the reduction of the number of chronic, non-infectious diseases largely depending on lifestyle, which account for the overwhelming part of the disease burden, as well as the proportion of health risk behaviours and environmental risk factors. On an individual level, health conscious lifestyle can contribute to this. The government can contribute to the improvement by the modernization of the health care system, by launching public health and prevention programmes and screenings, as well as by supporting activities aimed at promoting healthy lifestyle.

Commentary In 2013, most people died of diseases of the circulatory system, which were followed by neoplasms in the frequency of causes of death in Hungary. These two groups of causes of death account for 76% of the total number of deaths. The number of deaths due to the diseases of the digestive system, external causes in case of men and the diseases of the respiratory system is relatively high as well. These account for 15%, while the other causes are responsible for only 8% of all deaths. Regarding the changes in the major causes of death, the most considerable improvement occurred in the external causes of death and in the diseases of the digestive system between 2000 and 2013. The number of deaths due to infectious diseases and diseases of the circulatory system decreased as well, but there was a considerable growth in deaths caused by the diseases of the respiratory system and a slight one in deaths due to neoplasms.

International outlook The WHO (World Health Organization) mortality rate standardized for the European population is suitable for international comparison. The structure of causes of death in Hungary is similar to that in countries

Figure 2.34.2. Number of deaths in Hungary by the major causes of death



Diseases of the circulatory system and neoplasms account for more than three quarters of deaths.

with developed health culture. The reason of higher mortality rates compared to developed countries is that more people die earlier due to the leading causes of deaths than elsewhere. In 2010, the standardized death rate of Hungary was the fifth highest in the EU member states. In Hungary, the number of deaths per hundred thousand persons was by 420 more than in the best-ranked Italy. In all the main groups of causes of death, the standardized rates of Hungarian men are higher than the EU average. In 2010, the rate of those deceased due to the diseases of the digestive system was 2.3 times higher than the EU average, while the rate was the double of the EU average in case of deaths due to the diseases of the circulatory system. In case of women, the indicators of causes of death exceed the EU average to a smaller extent than in case of men. In 2010, mortality due to diseases of the respiratory system was similar to the average of the EU member states, but mortality from diseases of the circulatory system and the digestive system was nearly twice of the EU average.

Details The number of deaths per hundred thousand persons decreased for men and increased for women between 2000 and 2013. The structure of causes of death is very similar for the two genders, and there is a difference in the proportions of the major causes. In 2013, the proportions of deceases due to neoplasms, diseases of the respiratory system, digestive system and external causes were higher among men, while diseases of the circulatory system led to death more frequently in case of women. The differences between regions have increased. Since 2000, the number of deaths per hundred thousand inhabitants has significantly decreased in Central Hungary, while in Northern Hungary it has stagnated. The structure of causes of death is very similar in the different regions, and there are only minor differences in the proportions of the groups of causes of death.

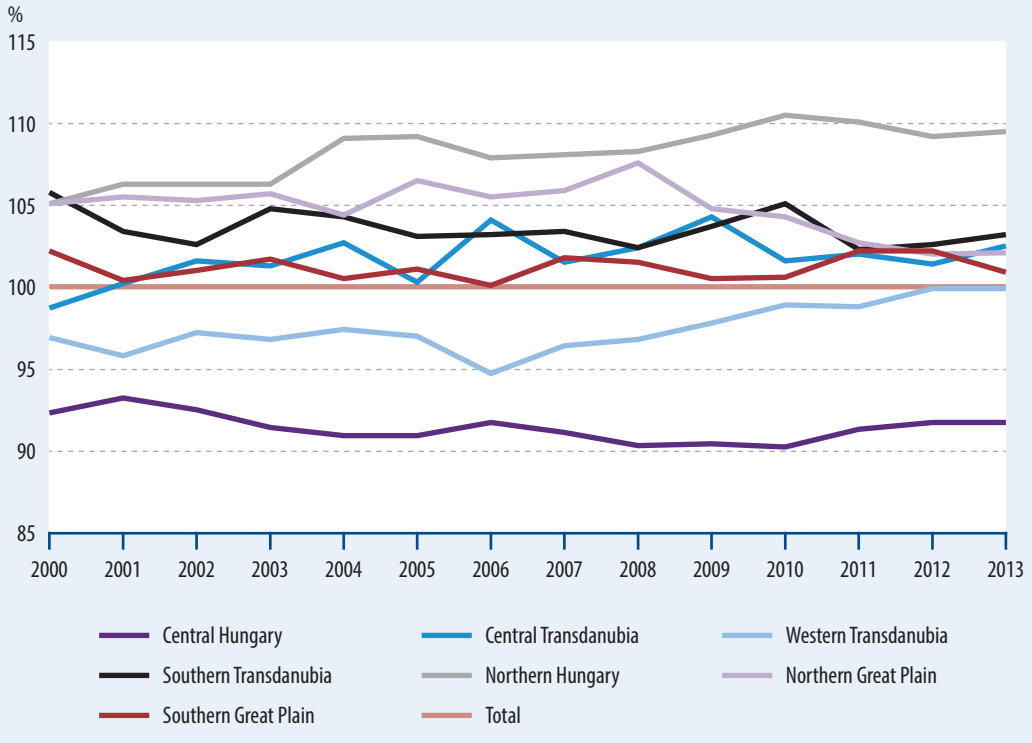
Definition Causes of death are classified according to the 10th Revision of the International Classification of Diseases. The standardized death rate is a crude indicator which is weighted by the age distribution of the World Health Organization's (WHO) European standard population.

Stadat tables
1.5. Deaths by frequent causes of death

Standardized mortality ratio (SMR)

Keywords standardized mortality ratio, deaths

Figure 2.35.1. Standardized mortality ratio by regions (National=100.0)



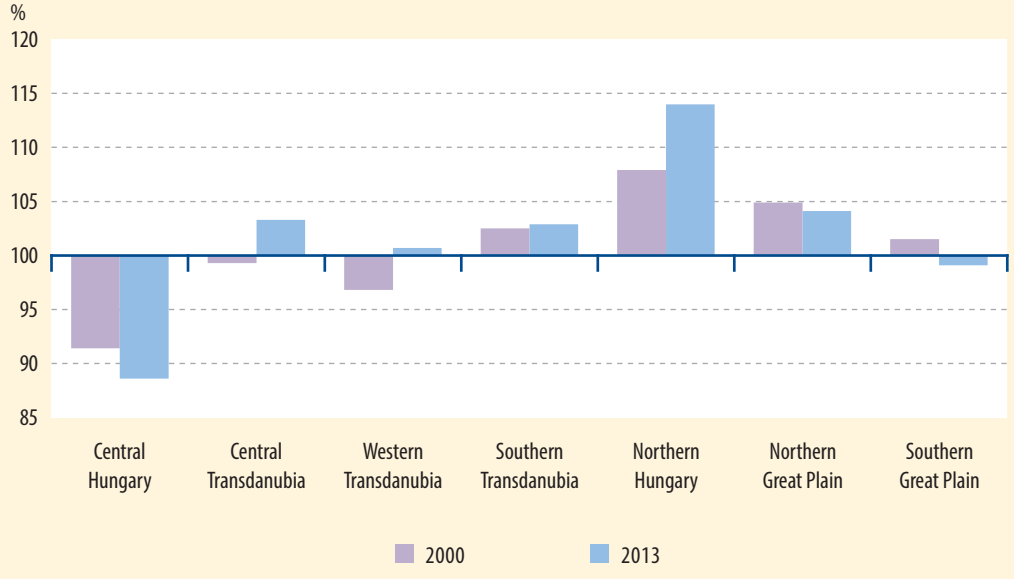
! *Between 2000 and 2013, the gap between the regions with the highest and the lowest mortality opened by 4 percentage points.*

Relevance The goal of exploring mortality inequalities within the country is to draw the attention to the existing regional differences in mortality hazards. The state of economic development, the difference in the availability of the health care system and the social status may be in the background of the regional differences of mortality.

Commentary In 2013, the value of SMR was above the national average in Central Transdanubia, Southern Transdanubia, Northern Hungary and in Northern and Southern Great Plain, while it was below the average in Central Hungary and Western Transdanubia. The region with the worst situation considering standardized mortality ratio was Northern Hungary in 2013, the best status had Central Hungary. Since 2000, the mortality of Central Hungary has improved, while that of Northern Hungary worsened compared to the national average. The SMR was 110% in Northern Hungary and 92% in Central Hungary in 2013. The difference between the two extreme values was 18 percentage points, 4 percentage points more than in 2000.

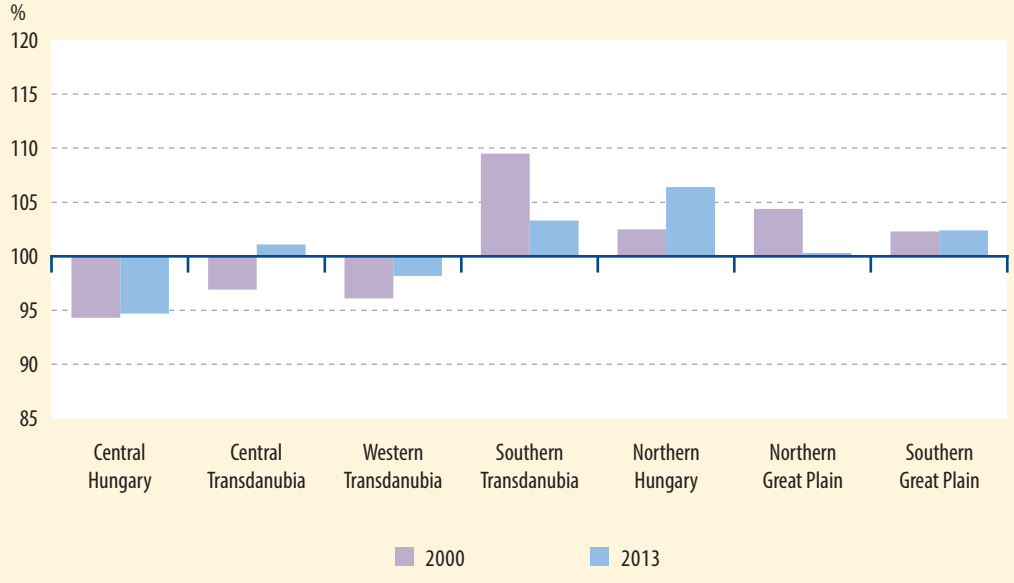
Details In the period between 2000 and 2013, the regional differences in the SMR increased for males and moderated for females. In 2013, the SMR of men was 114% in Northern Hungary and 89% in Central Hungary. The difference between the two extreme values was 25 percentage points, 9 percentage points higher than in 2000. Regarding the SMR values of women, Central Hungary was in the best situation in the regional ranking at both dates. However, there was a change in the region with the most unfavourable indicator. While in 2000, the indicator was the highest in Southern Transdanubia, in 2013, Northern Hungary took the first place in the ranking in case of women as well. However, the gap between the two extreme values has been closing, because in

Figure 2.35.2. **Standardized mortality ratio for men by regions**



! *Since 2000, the difference has increased by 25 percentage points between the SMR of men in Northern Hungary and Central Hungary.*

Figure 2.35.3. **Standardized mortality ratio for women by regions**



! *In case of women, the difference between the regions with the highest and the lowest SMR moderated during the past fourteen years.*

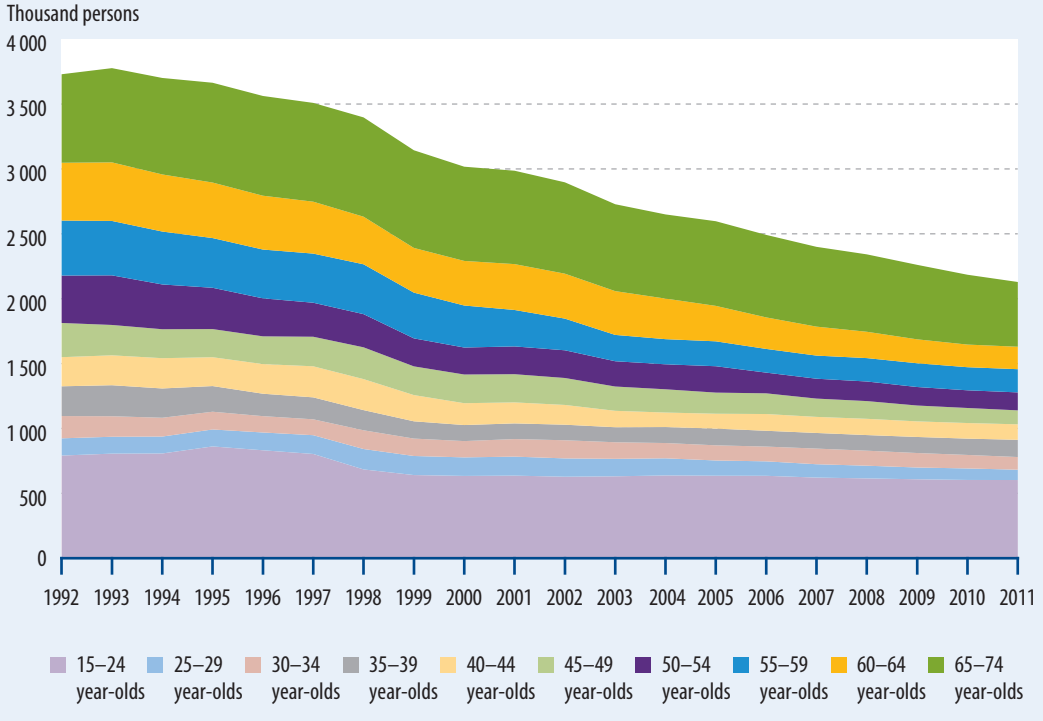
2000 the difference was 15 percentage points, and by 2013 it moderated to 12 percentage points.

Definition Standardized mortality ratio (SMR) is the ratio of the actually observed number of deaths in the given region and the expected number of deaths calculated by the country age specific mortality rates as standard weights. It expresses in percentage the mortality difference between the population of the given region and the population of the country. If the mortality of the given region is higher than that of the country, the value of the standardized mortality ratio is higher than 100%.

Persons with low educational attainment

Keywords low educational attainment, educational attainment, education

Figure 2.36.1. Number of persons with low educational attainment by age groups



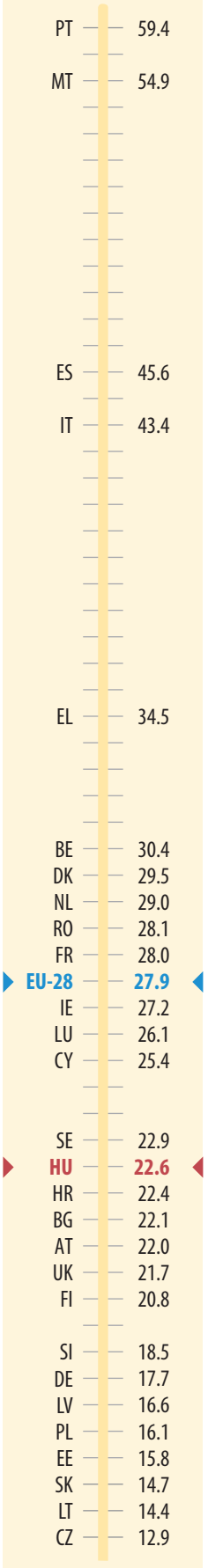
! *The number of persons with low educational attainment is continuously decreasing.*

Relevance Educational attainment is closely related to employment chances, because those with higher educational attainment have much better opportunities than those who are uneducated. However, this can also be a disadvantage in other areas of life not just in case of employment. The risk of poverty is mostly higher among the low-skilled, and this affects the next generation as well. The disadvantaged situation is inherited in most cases. In addition, generally the children of parents with such educational attainment are at a disadvantage compared to their peers already at lower levels of education which may affect their school performance. Increasing the level of educational attainment can help creating the social cohesion and a clear improvement in life chances. According to the NFSSD, the role of schools in creating equal opportunities has to be strengthened and the highly selective nature of our school system has to be resolved.

Commentary The number of persons with 8 grades of primary school at most gradually decreased due to the increase in the level of educational attainment and the generation change, while the number of the population aged 15–74 only slightly changed in the past 20 years. Accordingly, in 1992 nearly half of the population aged 15–74 belonged to persons with low educational attainment, while in 2013 their ratio was only 26%.

International outlook Hungary is in a more favourable situation in terms of the proportion of people with low educational attainment than the EU average. Another positive phenomenon is that in Hungary the proportion of people with such educational level is continuously decreasing to a greater extent than the EU average. Among countries with the best indicators – results below

Rate of persons with low educational attainment in the population aged 15–64 years in the European Union, 2013, %



20% – 5 such member states are at the top of the ranking that joined the European Union together with Hungary in 2004. In order: the Czech Republic, Slovakia, Lithuania, Estonia and Latvia. The least favourable situation is in Portugal and Malta, where 63% and 59% of the 15–74 year-old population have low educational attainment.

Details For the young and the middle age groups, the level of the education attained gradually increased because of the demographic change and the expansion of higher education, so the most significant decline occurred in the number of middle aged persons (aged 50 years and older) with low education. 40% of persons with low educational attainment belonged to the two ends of the age scale, namely to the youngest (15–24) and the oldest (65–74) age groups in 1992, while in 2013, their ratio was 50%. The growth in the proportion of the age group 15–24 was affected by the fact that the age of starting school increased and the compulsory minimum school leaving age also changed. Over the past 15 years, the ratio between the two sexes remained basically unchanged among those who have 8 grades of primary school at most; all the time, women were in the majority, and similarly to the previous year, their proportion was 57% in 2013.

The rate of those with low educational attainment is much lower (20%) in Central Hungary than in the other regions due to the concentration of higher educational institutions, and thus of those attending these institutions, as well as of people working in occupations requiring higher qualification. This rate is more than 30% in Northern Great Plain, Southern Transdanubia and Northern Hungary.

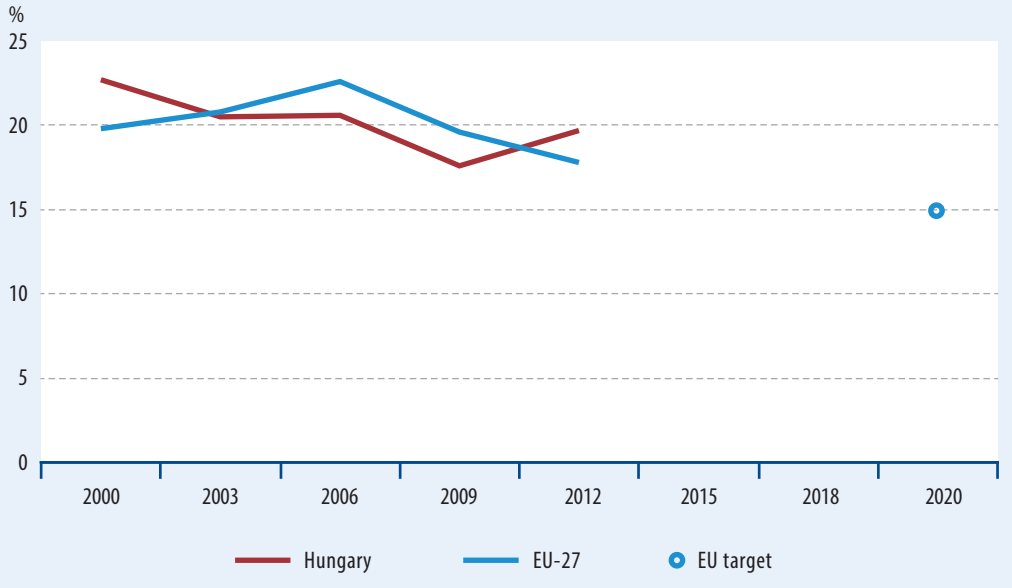
Definition Persons with low educational attainment are those who completed 8 grades of primary school at most within the population aged 15–74.

Stadat tables
2.1.5. Number of population aged 15–74 by highest educational qualification and sex

Low reading literacy performance of students

Keywords **students with low reading literacy, education**

Figure 2.37.1. Share of students with low reading literacy



The share of students whose reading literacy performance is low increased in the past years in Hungary.

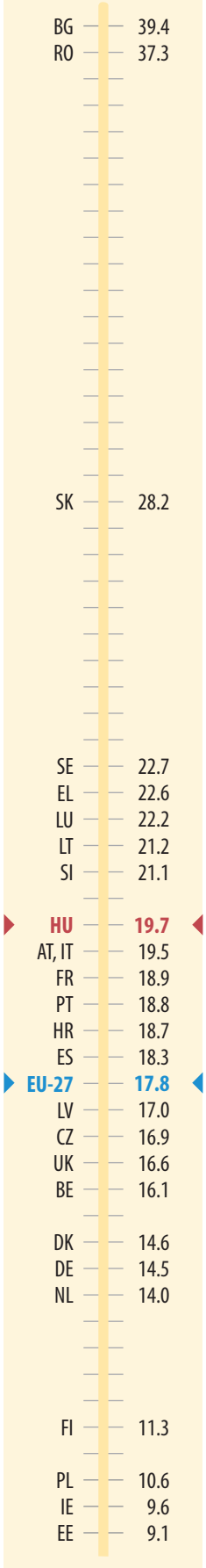
Relevance To raise the general level of culture/education and to improve the quality of cultural socialisation, there is a need for improved access to basic cultural services through developing community spaces and cultural infrastructure; furthermore, the role of culture and community activities in education and training needs to be strengthened. The essential precondition of all these goals is the proper level of reading literacy. The EU objective is to decrease the proportion of 15 year-old students with low reading literacy performance below 15% by 2020.

Commentary The share of students with low reading literacy in Hungary decreased gradually between the turn of the millennium and 2009 (from 23% to 18%), but, according to the last PISA (Programme for International Student Assessment) survey in 2012, the situation has significantly worsened. From 2009 to 2012, the proportion of students with low reading proficiency increased by 2 percentage points to 20%. In our country, the share of students with low reading literacy was higher than the average of OECD countries. There is a big difference between genders: 27% of boys and 13% of girls did not reach level 2. These students are practically functional illiterate.

International outlook In 2012, seven EU member states could reach the EU objective for 2020. The situation is the best in Estonia and Ireland (the rate is below 10%). At the other end of the ranking are Bulgaria and Romania where the proportion of low performers is between 37% and 39%. Among the EU member states, Hungary is ranked in the 18th place on the basis of the share of students with low reading literacy.

Definition The indicator presents the share of 15 year-old students who are at level 1 or below at the PISA combined reading literacy scale. According to the definition used in PISA, reading literacy measures the ability of 15 year-old students to use written information. The PISA 2012 describes the performance of students with six proficiency levels. Achieving the second level is considered a watershed in respect of the future of students, since this is the minimum skill level necessary for the effective participation in the modern society.

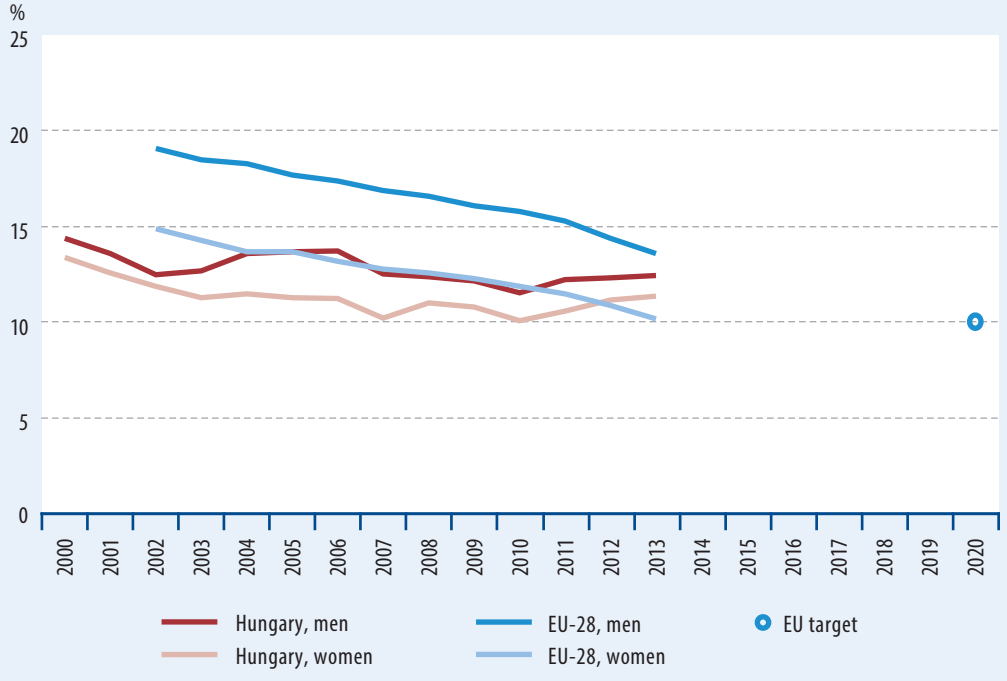
Rate of pupils with low reading literacy in the European Union, 2012, %



Early school leavers

Keywords early school leavers, primary educational level, educational attainment, education

Figure 2.38.1. Rate of early school leavers



! *The rate of early school leavers decreased until 2010, then it slightly increased.*

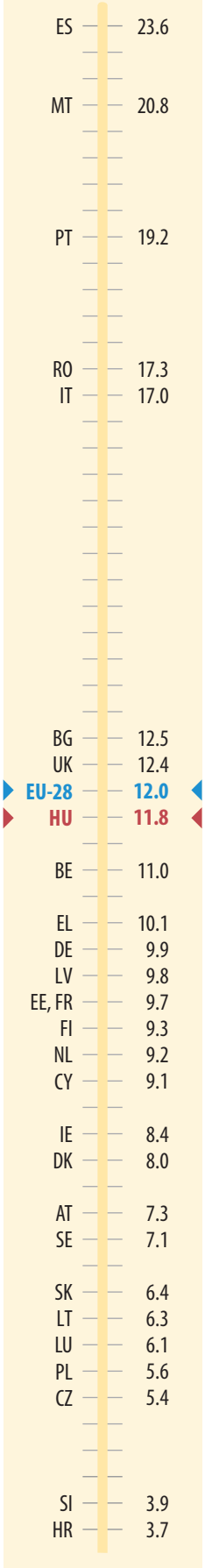
Relevance The EU 2020 Strategy refers to the reduction of the rate of early school leavers among its most important objectives.

Commentary In respect of domestic data, the ratio of persons aged 18–24 with at most lower secondary education and not receiving any education or training, the so-called early school leavers declined by 2.1 percentage points in the examined period. With the more detailed analysis of this trend it can be concluded that the rate of early school leavers decreased with minor interruptions until 2010 and then, contrary to the trends in the EU, it started to rise. Between 2000 and 2010, the rate improved from 13.9% to 10.5%, in 2011 increased to 11.2% and continued to deteriorate, thus moving away from the EU target value. In 2013, it grew to 11.8%, but, even so, it is still slightly more favourable than the EU average.

The rate of early school leavers is basically influenced by two factors: the rate of school leavers with low educational attainment and the participation rate in adult education. After 2010, both factors changed unfavourably in Hungary, consequently the rate of early school leavers increased. This may be attributed to several factors, partly to the disadvantaged financial situation of families, the long-term unemployment of parents but also to the regional deficiencies of the school system and the decline in the value of knowledge and literacy.

International outlook In 2013, the rate of early school leavers was the most favourable in Croatia, Slovenia, the Czech Republic and Poland with rates of below 6%. They were followed by Luxembourg, Lithuania, Slovakia, Sweden and Austria with rates between 6% and 8%. At the end of the ranking mainly Mediterranean countries can be found: the rate of early school leavers was more than 17% in Italy, Romania, Portugal and Malta and it exceeded 23% in Spain. In 2013, Hungary was in the 21st place among the 28 countries, while in 2010 it was the 12th.

Rate of early school leavers in the European Union, 2013, %



Details The rate of early school leavers was continuously lower among women than among men. Between 2000 and 2013, this rate fell by 1.9 percentage points to 12.5% among men and by 2.0 percentage points to 11.4% among women.

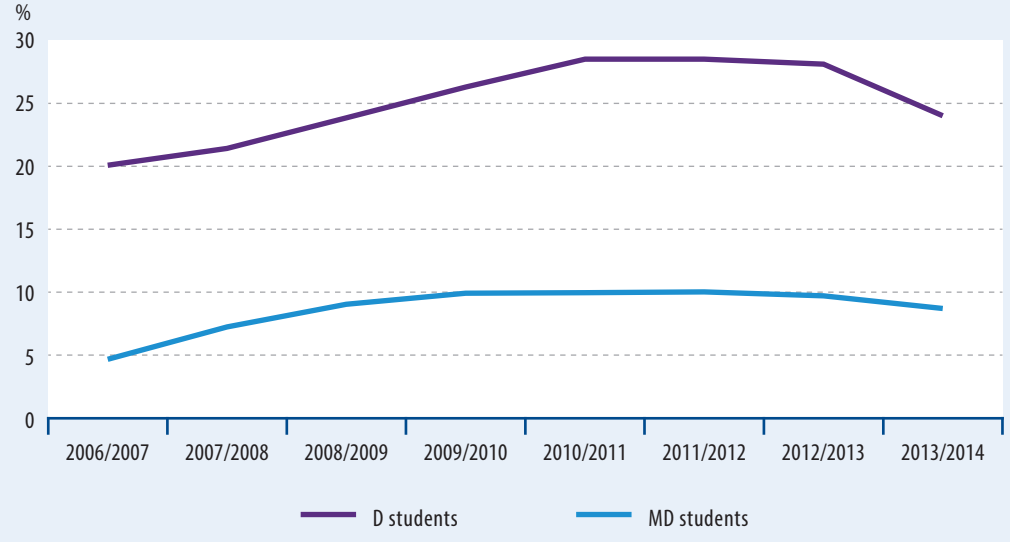
In 2013, the rate of early school leavers was the lowest, 7.6% in Central Hungary, which was 2.4 percentage points lower than the target value required by the EU (10%). Although in Western Transdanubia, Central Transdanubia and Southern Great Plain, the rate was lower than the national average, but it still did not reach the EU target value. The rate of early school leavers was the highest in Northern Hungary (19%), but it was also higher than 15% in Southern Transdanubia and Northern Great Plain.

Definition This indicator shows the ratio of early school leavers within the population of the given age group (18–24). Those 18–24 year-old primary school graduates are qualified as early school leavers, who did not participate in (either formal or non-formal) education or training during four weeks before the interview.

Disadvantaged (D) and multi-disadvantaged (MD) students

Keywords **disadvantaged (D) students, multi-disadvantaged (MD) students**

Figure 2.39.1. Proportion of disadvantaged (D) and multi-disadvantaged (MD) students in full-time education



Source: Ministry of Human Capacities.

! *The increase in the proportion of disadvantaged and multi-disadvantaged students has decreased – partly due to changes in legal regulation.*

Relevance Social cohesion requires creation of circumstances in which all individuals have the basic prerequisites for socio-economic participation in the long run, where paths of mobility are created and kept open for the individual.

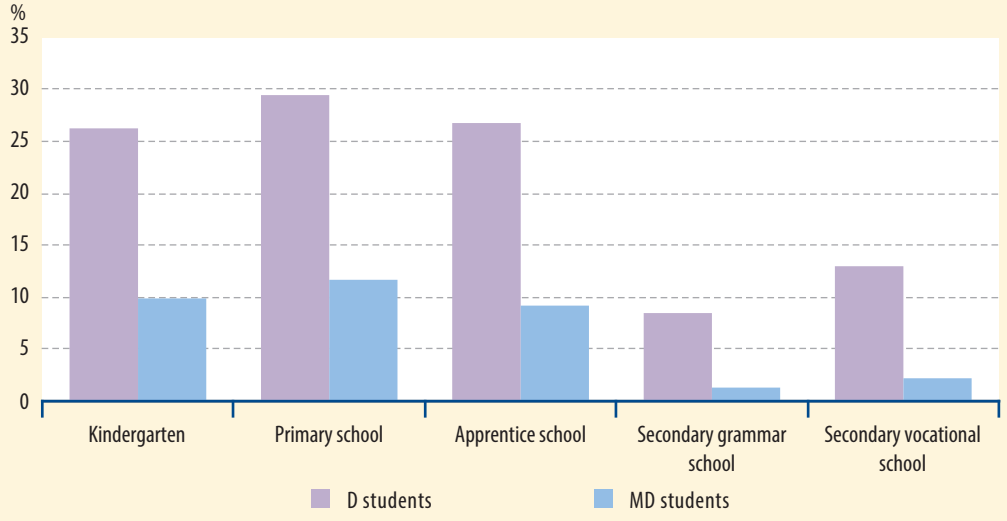
The Hungarian education system does not always provide equal conditions for its participants. It is proven that members of disadvantaged social groups are generally provided with lower education standard under poorer conditions. An increasing number of initiatives are launched to offset social differences that are reproduced in the public education system and are conserved from generation to generation, and stopping inequalities in opportunities is included as a priority objective of development strategies. According to the NFSSD, the kindergarten education of disadvantaged children from the age of three and then the accessibility to integrated education of high quality is important for creating the basis for success in school and avoiding dropout.

Commentary Compared to the previous year, the proportion of disadvantaged (D) students decreased by 4 percentage points in the 2013/2014 school year, while that of multi-disadvantaged (MD) students fell by 1 percentage point. When evaluating these results, it must be taken into consideration that a new legal definition of D and MD student came into force in this school year, and the transitional rules were not clear for the schools. Therefore, fewer students might have been classified in the above categories.

The D and MD ratios continue to be the highest in primary schools (29% and 12%, respectively). These values are much lower in secondary schools giving G.C.S.E. (11% and 2%, respectively).

Details Significant regional differences can be observed in the proportion of disadvantaged students. The situation is the worst in Szabolcs-Szatmár-Bereg and Borsod-Abaúj-Zemplén counties where the D-rate is twice as high, 50% and 42%, respectively as the national average. In contrast, this rate is lower than 10% in Budapest and Győr-Moson-Sopron county. The ranking of the counties by MD ratio is similar, but the differences are even higher. While the proportion of disadvantaged pupils is below 1% in Budapest, this rate is over 25% in Szabolcs-Szatmár-Bereg county, which means that, due to their family

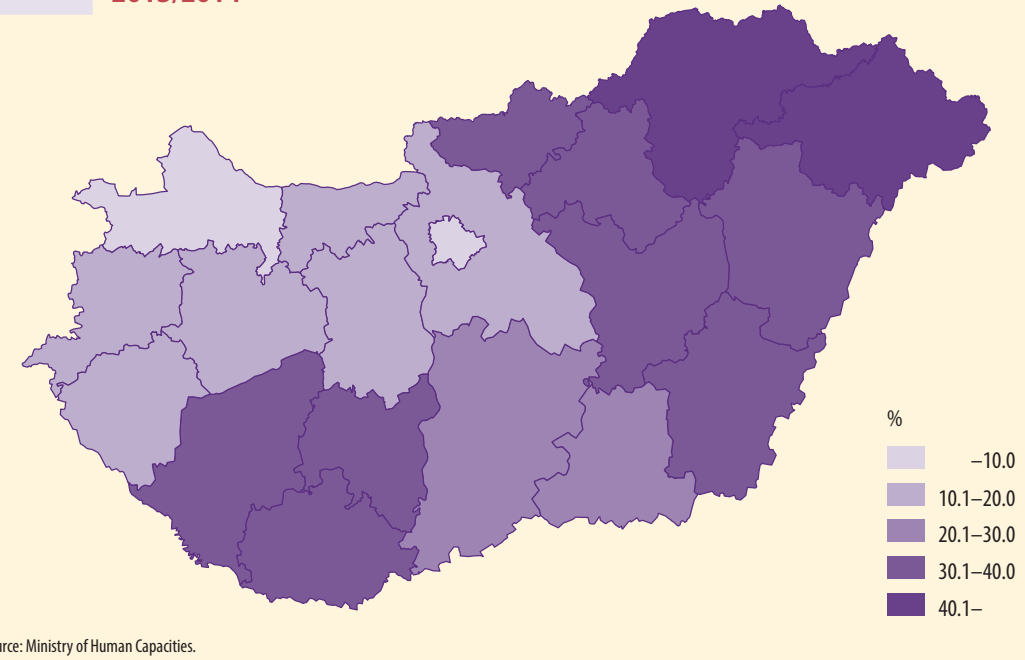
Figure 2.39.2. Proportion of disadvantaged (D) and multi-disadvantaged (MD) students in full-time education by school-type, 2013/2014



Source: Ministry of Human Capacities.

! *At lower level of general education, the situation is more unfavourable.*

Figure 2.39.3. Proportion of disadvantaged (D) students in full-time education by counties, 2013/2014



Source: Ministry of Human Capacities.

! *The proportion of disadvantaged students in Szabolcs-Szatmár-Bereg county is almost seven times as high as in Budapest.*

circumstances and social status, one in four students had to cope with more difficulties than the average.

Definitions

Disadvantaged children or students are those who are entitled to regular child protection allowance and

– the educational attainment of his/her parents are low, or

– the employment of parents are low, or

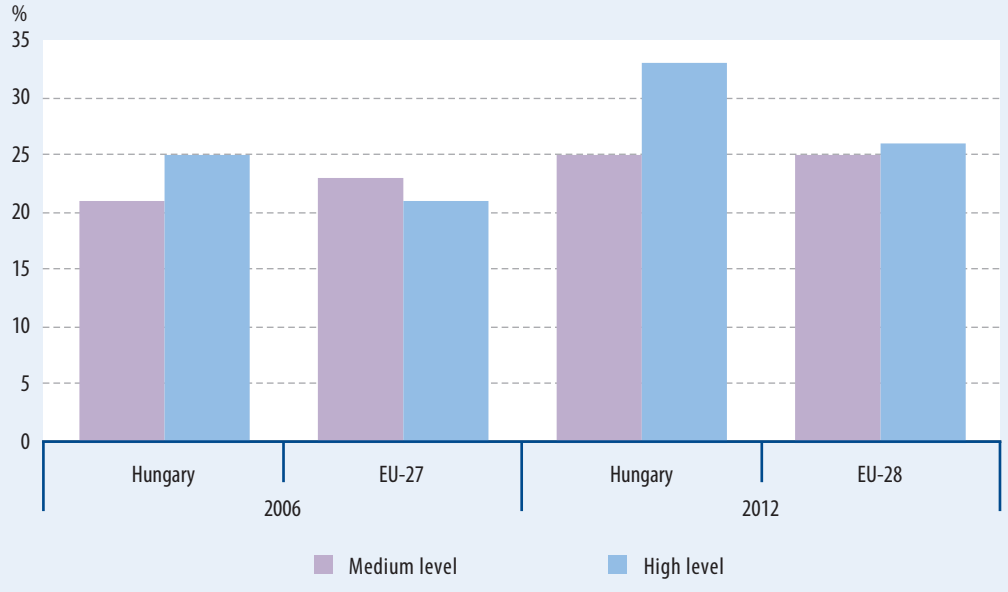
– live in poor living or housing conditions.

Multi-disadvantaged children or students are those who are entitled to regular child protection allowance, and for whom at least two of the three conditions mentioned above are true.

Computer skills

Keywords **computer skills, computer**

Figure 2.40.1. **Rate of population having at least medium level computer skills**



In 2012 , the rate of population having at least medium level computer skills was 25% in Hungary.

Relevance The increasing computer use at work resulting from the digital revolution requires the continuous development of computer skills. In addition to the fact that digital literacy, ability to appropriately use digital technology and communication tools, is one of the preconditions to appear successfully in the labour market, it contributes to the enrichment of general knowledge and makes our everyday life easier as well.

Commentary By 2012, in the field of e-skills, there was a significant progress in the population aged 16-74 years compared to 2006. In 2012, one in three individuals had high level and more than one fourth of them had medium level computer skills. In 2006, the high level usage was characteristic of only one fourth and the medium level usage of slightly more than one fifth of the population. Compared to 2006, the proportion of people with high level computer skills increased by 8 percentage points and is 33% at present, while that of the population with medium level of computer skills grew by 4 percentage points to 25% by 2012.medium level

International outlook By 2012, the rate of population having middle and high level computer skills changed differently in the EU and Hungary compared to 2006. The growth rate in Hungary was higher on both levels than in the EU. Not only the pace of development, but the comparison of rates also shows a favourable picture, and the proportion of people having medium level skills in Hungary reached the EU average in 2012. The proportion of people having high level computer skills has been considerably exceeding the EU average since 2006. In 2012, the rate was 33% in Hungary, while 26% in the EU. With this rate, Hungary took the sixth place together with Austria in the ranking of EU member states in 2012. The highest proportion of the population having high computer skills was observed in Denmark and Finland (42% and 41%, respectively), and the lowest in Romania.

Proportion of population having high level skills in the European Union, 2012, %

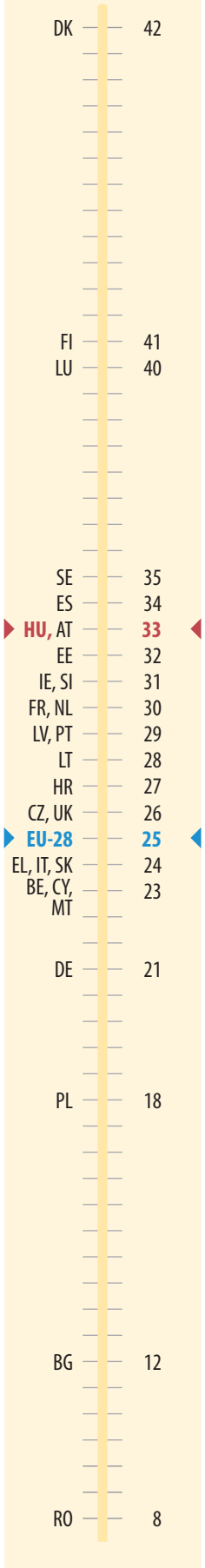
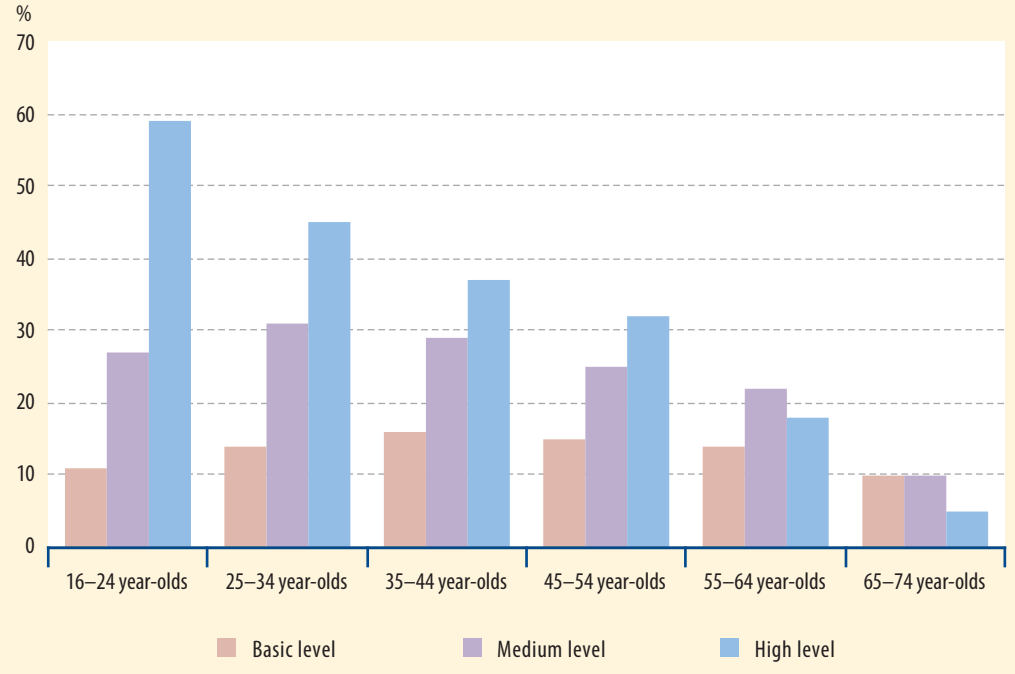


Figure 2.40.2. **Rate of population having computer skills, 2012**



! ***59% of young people aged 16–24 years have high level computer skills.***

Details In 2012, 76% of the Hungarian population aged 16–74 have already used computer in their life. The share of individuals aged 16–44 with high level computer skills is above average (33%). Among them, similarly to previous years, the proportion of young people aged 16–24 is outstanding; 59% of them use the computer on high level. Among other young people aged 25–34, the proportion of those with digital literacy is also more than three times as high as of those with low level computer skills. 37% of the 35–44 year-olds are able to deal with the computer on high level. In the age group of 45–54, the share of individuals with high level computer skills is 32%, more than twice as high as of those with low level skills. Among individuals aged 55–64, the proportion of those with high level computer skills is lower than that of people with medium level digital knowledge, and is only 4 percentage points higher than that of people with low level knowledge. The proportion of individuals above 65 years with high level of computer skills is only 5% and that of people with medium level skills is only just 10%.

Definitions The indicator of individuals' level of computer skills presents the share of individuals having low, medium and high level computer skills in the total population aged 16–74. E-skills are users' abilities which enable to effectively use new information and communication technology.

Computer skills surveyed:

1) Copying, deleting or moving a file or folder
2) Using copy and paste tools to duplicate or move information within a document
3) Using basic arithmetic formulas in a spreadsheet
4) Compressing or zipping files
5) Connecting and installing new devices (printer, modem etc.)
6) Writing a computer program using a specialised programming language

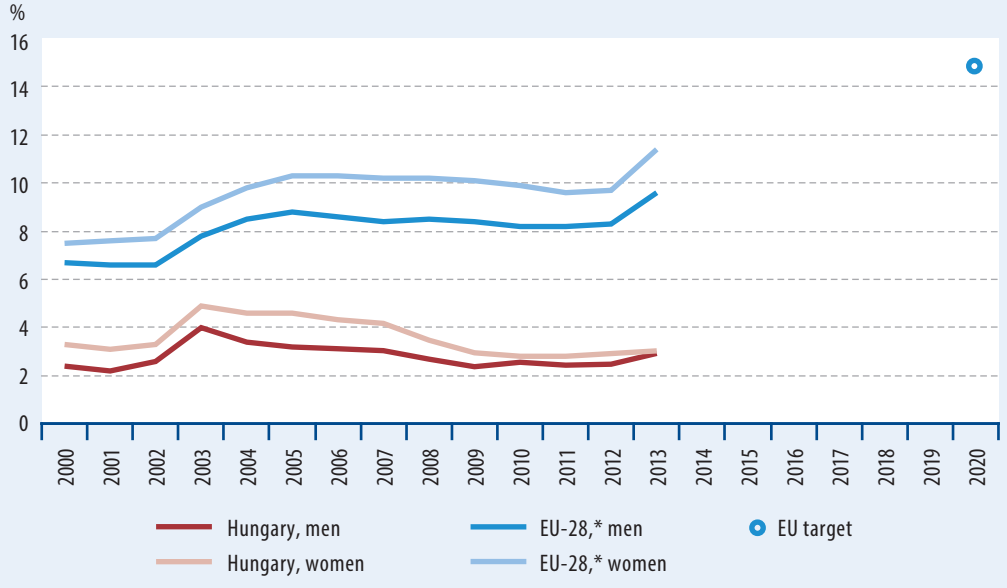
Levels of computer skills:

basic: where 1 or 2,
medium: where 3 or 4,
high: where 5 or 6 operations from the above list can be carried out.

Lifelong learning

Keywords lifelong learning, education, training

Figure 2.41.1. Lifelong learning in the population aged 25–64



* Between 2000 and 2001 EU-27.

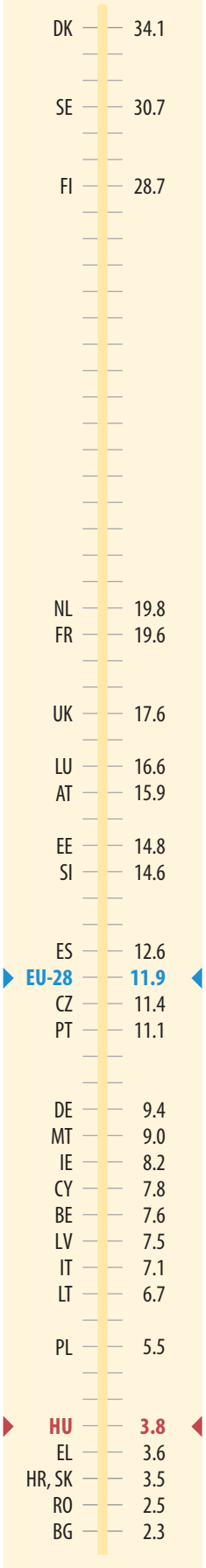
! *Although the proportion of adults participating in education or training increased in Hungary (mainly among men), it is still significantly below the EU average.*

Relevance The indicator of lifelong learning gives a picture about the learning and training activity of the adult population. In developed market economies, in most cases, learning and training is not finished when someone leaves the education system and obtains qualification. The continuous technological development requires regular training or change of profession due to the transformation of the economic structure. Lifelong learning serves the adjustment of the labour force to the changing demands of the economy. Besides, it comprehends all planned learning activities which aim at obtaining knowledge or improving abilities and competencies. The Framework strategy defines the commitment to lifelong learning as a recommendation for citizens and families. The government can contribute to this by improving the efficiency of the institutional system.

Commentary Between 2000 and 2002, the share of people participating in education and training in the total population aged 25–64 was around 3% in Hungary. This share, after a great increase of nearly 1.5 percentage points in 2003, became steady on a level of around 4% until 2005. However, thereafter, a continuous decrease occurred, and in 2011 only 2.6% of the population concerned participated in education or training. In 2013, a slight increase was experienced, its value reached 3.0% by that time, but this rate is still very low, far below the EU average.

The reason is not necessarily the lower level of learning intent or possibilities of the Hungarian adult population. The results of researches and ad-hoc surveys make it clear, when answering the question, more and more people do not take into account shorter, one- or two-day-long trainings or trainings which are not connected to the job.

Life-long learning in the European Union, 2013, %



International outlook There is a large variation in the participation in adult education and training among EU member states. In the population aged 25–64, one adult out of 10 in the EU, at least 2 adults out of 10 in the Scandinavian countries and more than 3 adults out of 10 in Denmark participated in education and training. The participation rates are the lowest in Central Eastern European countries. In Hungary and in general in the EU, more women are involved in lifelong learning than men.

Details The indicator of lifelong learning by sex shows that more women participate in lifelong learning than men. The difference was about 1 percentage point at the beginning of the millennium, and it approached 1.5 percentage points by the middle of the first decade, while since 2005 the gap has been continuously narrowing. The results of the survey in 2013 show only a difference of 0.1 percentage point in the participation rate of the two genders.

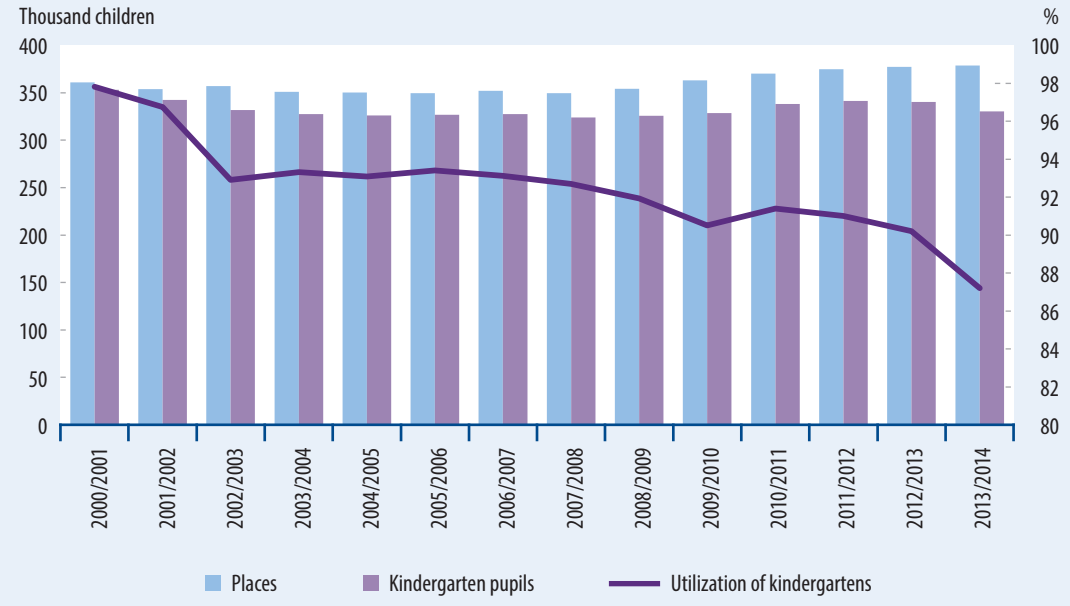
There are big differences in the participation rate in education and training among regions: the difference can be more than twofold. Central Hungary is in the best situation followed by Northern Great Plain with a value above the national average. The participation rates in Southern Great Plain and Southern Transdanubia are slightly below the national average. The participation rates are the lowest in Western Transdanubia, Central Transdanubia and Northern Hungary. Reviewing the data of a number of years it can be stated that the difference between regions is not stable: the implementation of only one project requiring more extensive education and training may result in significant changes in the rate of adults participating in education and training in a certain region.

Definition Lifelong learning refers to the rate of persons aged 25–64 who participated in education or training in the four weeks preceding the survey to the whole population of the same age group.

Capacity of kindergartens and infant nurseries

Keywords **utilization of kindergartens, utilization of infant nurseries and day care, availability of children's day care**

Figure 2.42.1. **Utilization of kindergartens**



! *In school year 2013/14, the utilization of kindergartens was 87%.*

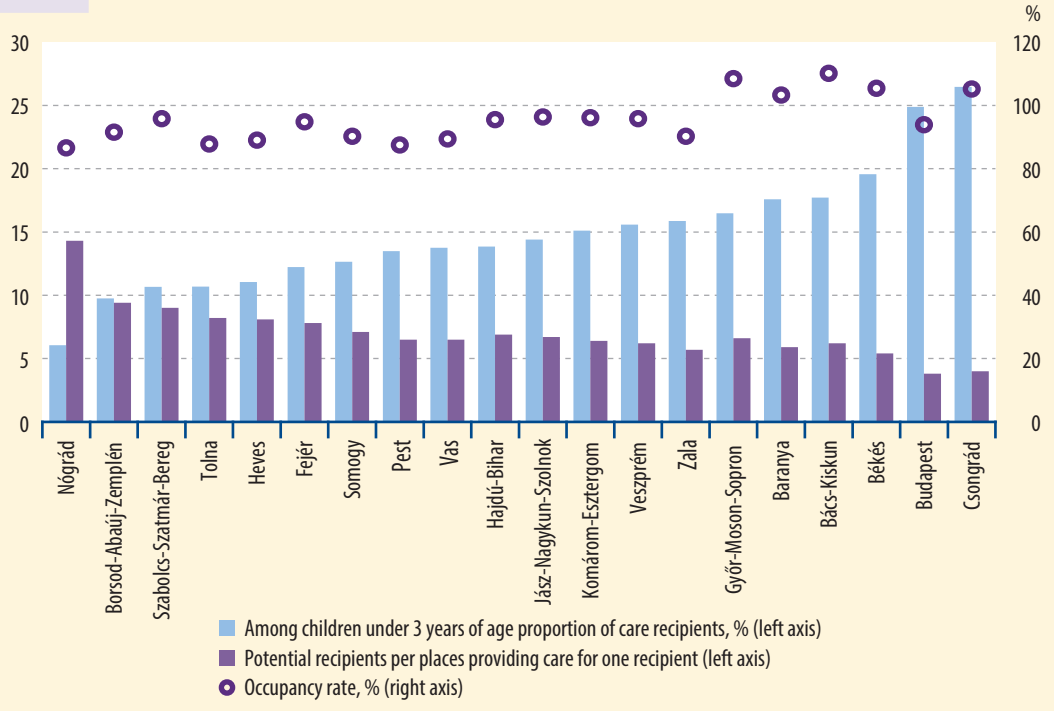
Relevance According to NFSSD, in order to reduce the risk of children's social exclusion, it is important that health, care, early development and social services should be accessible for all children under 3 years and their parents. For this, it is necessary to harmonize locally accessible services. The kindergarten education of children from the age of three and then the accessibility to integrated education of high quality is important for creating the basis for success in school and avoiding dropout. The possibility for day care of children who are still not obliged to attend school promotes the parents' return to labour market. The employment opportunities of young mothers and fathers contribute on the one hand to a smaller loss of income resulting from having children, and, on the other hand, to the utilization of the human capital embodied in the professional knowledge of the mother/father.

Commentary Till 3 years of age, outside the family, the main form of children day care is infant nursery, thereafter the kindergarten until starting school. Among the other alternatives, day care institutions providing adequate supervision instead of infant nursery, kindergarten, day-time home service or school room facilities are more and more popular and widespread.

The utilization of infant nurseries increased steadily up to 130% between 2000 and 2008, then, due to the expanding institutional supply with the diversification of children's day care, the overcrowding decreased gradually and ended by 2013. Since 2007, the number of infant nursery places has increased by 51%; in parallel, the number of children enrolled – partly due to the basically decreasing trend in birth rate - has increased at a considerably lower rate, by 15%. The day care capacity has increased more than 12-fold, and they work with lower utilization than infant nurseries. At settlements struggling with placement problems, the uniform kindergarten-infant nursery institutions may provide supply for children older than 2 years.

The number of kindergarten children decreased steadily between 2000 and 2004, and after some fluctuation, it has dropped again since 2011. The decline in 2013 was outstanding, 9,000 among children aged 6 years and older compared to the previous school year. In addition to demographic

Figure 2.42.2. **Real and potential demand for infant nurseries and day care institutions, 2013**



! ***With the expansion of the institutional supply in 2013, the overcrowding in infant nurseries ended, but 22% of children under 3 years of age live in settlements where no children's day care is provided.***

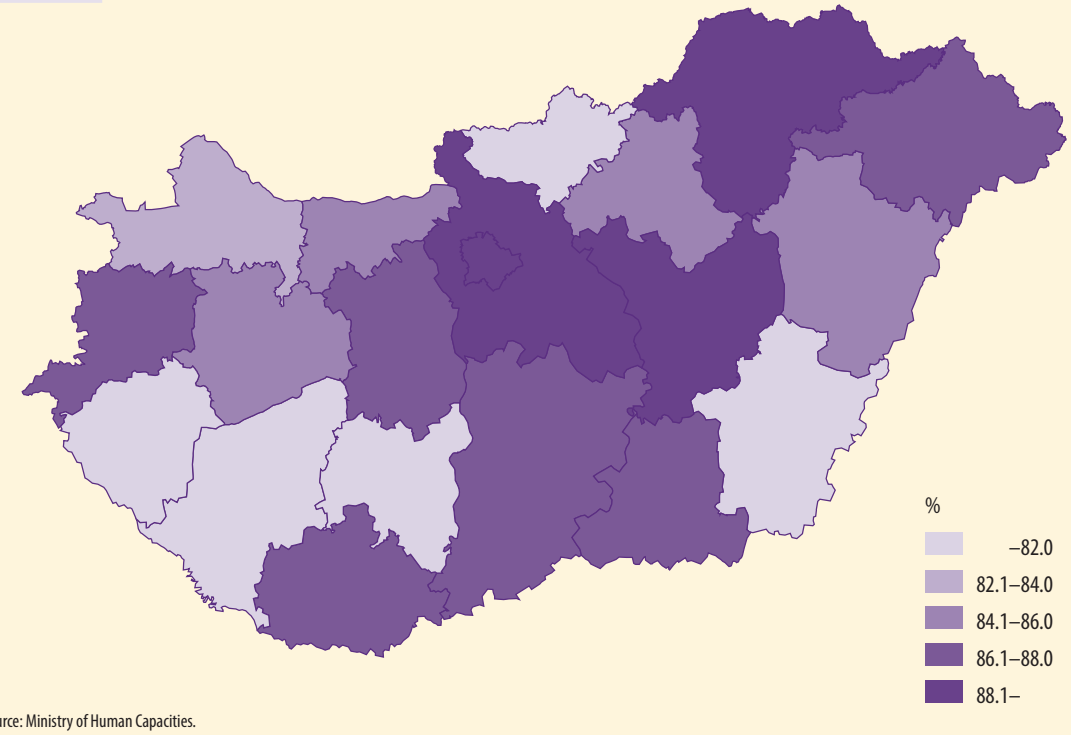
reasons, this may be attributed to the fact that the legislation made compulsorily to start the school in September for children who reach six years of age until 31st August. The number of kindergarten places has increased steadily since 2007. As a result of the two opposite trends, capacity utilization in kindergartens significantly decreased, from 98% in 2000 to 87% by 2013. The introduction of the obligation of attending kindergarten from 3 years of age may result in scarcity of capacity especially at local level.

International outlook In 2013, 16.2% of children under 3 years of age were enrolled in institutions providing children's day care in Hungary. This rate is significantly lower than the EU average of 29%, and far below the value of more than 60% in Denmark and the Netherlands. Using children's day care institutions in Hungary is significantly affected by the fact that the care of small children is traditionally done by the family, as the family support system, which can be considered to be generous, allows mothers to be at home with their children for years. The employment rate of women raising children under 3 years of age is 6%, which is the lowest among the EU countries.

Details The ratio of enrolled children to places in infant nurseries shows significant differences by counties. A need for additional capacity is particularly strong in those counties which are already well equipped with infant nursery places; the utilization of infant nurseries is still above 100% in Bács-Kiskun, Békés, Csongrád and Győr-Moson-Sopron counties. Furthermore, overcrowding is characteristic in Nógrád county where there are relatively few places. Except for Nógrád county, neither the day care places can rectify the problem of overcrowding.

Kindergartens' utilization decreased in all counties from 2012 to 2013. In 2013, the highest occupancy rate (above 90%) was observed in Budapest and Pest county. In contrast, the kindergartens' utilization is below 80% in Békés county. Although the order has changed a bit, but the extent of differences between counties did not decrease, the difference between the capacity utilization of the 'best' and 'worst' county is more than 11 percentage points.

Figure 2.42.3. **Utilization of kindergartens by counties, 2013**



Source: Ministry of Human Capacities.

! *The occupancy rate of kindergartens is the highest in Central Hungary.*

Definitions

The utilization rate of infant nurseries is an indicator defined as the ratio of the number of children enrolled and the number of active infant nursery places.

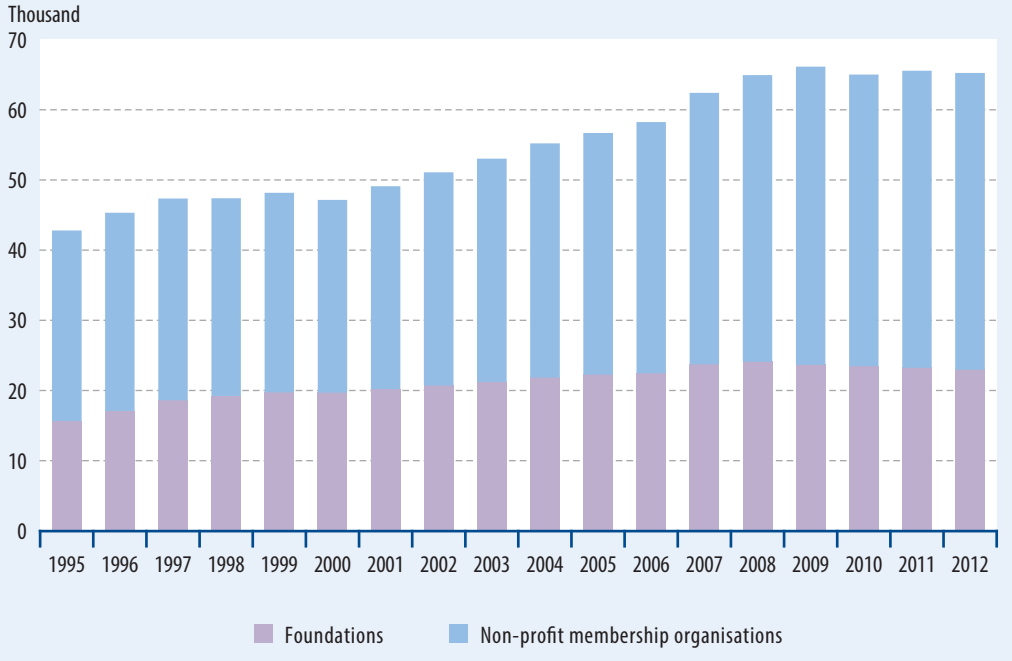
The utilization rate of kindergartens is defined as the ratio of children enrolled and registered in kindergartens at the reference date of the statistical survey to the number of places of active kindergartens.

Stadat tables
2.4.10. Infant nurseries and out of school care
2.6.3. Education at kindergartens

Civil society organizations

Keywords civil society organizations, non-profit sector, foundations, non-profit membership organizations

Figure 2.43.1. Number of civil society organizations



! *In the past two decades, both the size and the composition of the non-profit sector have fundamentally changed.*

Relevance According to the NFSSD, the responsibility and decision system ensuring sustainability must be based on the principle of subsidiarity, and one of the actors of this system is the civil sector. The Framework strategy makes a number of recommendations to civil society organizations, which, merely through their operation, contribute to strengthening the social cohesion and the trust between people and groups. Civil society organizations, churches and religious communities play an increasing role in the integration of marginalized groups, which is one of the key areas of the transition to sustainability.

Commentary The absolute dominance of membership organizations was characteristic at the beginning of the 1990s, when the number of foundations was negligible, but nowadays, roughly 35% of the non-profit sector operates as foundations. Non-profit membership organizations were established in large numbers until about 1995, which was followed by a period of stagnation and from 2000 a slow increase occurred again. Although between 1990 and 1994, a large number of private foundations were established, too, their capital was rather low. Then, the growth in the number of these organizations gradually slowed down as well. In recent years, the size of the non-profit sector seems to stabilize at a level of approximately 65 thousand organizations, of which annually 2-3 thousand organizations are „replaced" (founded or ceased) on average.

During the years, the activity structure of civil society organizations has also changed considerably. Organizations engaged in community and economic development, public safety, education and religion were characterised by a dynamic and rapid growth exceeding the average throughout the whole period. Besides, the size of recreation, cultural, health and social care and environmental subsectors has also more than doubled.

By contrast, the number of professional economic interest groups, sport clubs and fire-

brigade associations decreased in the examined period.

International outlook In 1990, the Hungarian non-profit sector was much smaller – in relative terms as well – than that of the developed Western European countries. However, following the regime change, civil society organizations have mushroomed, and their social and economic role has gradually strengthened. Regarding the number of organizations per capita, Hungary has approached the European average, but in terms of both economic power and employment, there is still a significant lagging behind.

Details The composition of the sectors of foundations and voluntary associations differ fundamentally as far as activities are concerned. The fields which were rather underdeveloped in Hungary compared to Western European countries represent much higher shares in the sector of foundations than among voluntary associations. Nevertheless, the share of Hungarian voluntary organizations in welfare services is relatively low inside the sector, in comparison with developed countries, where these are the most important fields of voluntary activities.

Recently, the structure has become more balanced. Traditionally high proportions of voluntary associations are engaged in sports and recreation. Many non-profit membership organizations can be classified within arts and culture, too. The field of education and health is characterised by the dominance of foundations. The smallest proportions of the Hungarian non-profit sector are represented by political organizations, multi-purpose grant-making organizations and non-profit unions.

The sector's total revenues amounted to HUF 1,256 billion in 2012, which means 4.5% of GDP. 40–40% of this income originated from state support, as well as basic and business activities and 20% is due to individuals' and the business sector's contribution. Non-profit organizations employed 144 thousand people, 95 thousand of which had full-time job, so the non-profit sector accounted for 4% of total employment in the national economy.

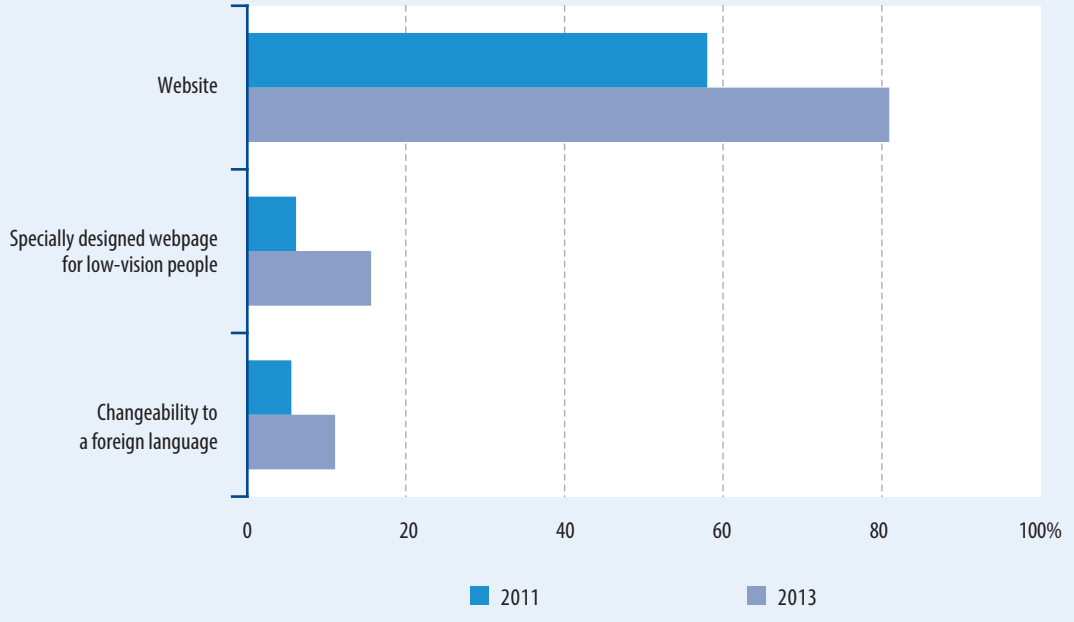
Definition Non-profit organizations: foundations (private and public foundations) and membership organizations (associations, federations, professional organizations, trade unions, public law associations, non-profit enterprises, non-profit institutions).

Stadat tables
3.2. Business units and non-profit organizations

E-government availability

Keywords e-government, services, e- administration, website

Figure 2.44.1. Availability of e-government



! *Between 2011 and 2013, the internet access to public authorities, as well as the development of services also increased.*

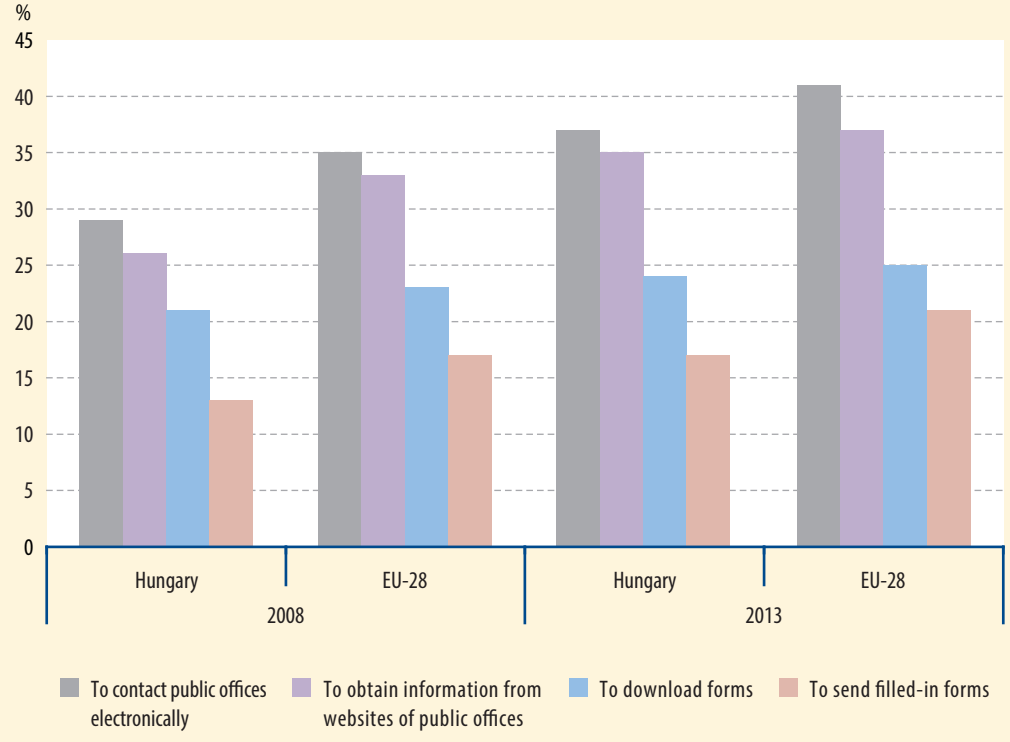
Relevance Info-communication technologies are a driving force of development in the 21st century. Through dematerialisation the many different modern information providing tools may have a positive effect on transport, trade, health as well as production processes.

Commentary The spread and variety of websites are important indicators of the state of development of e-administration. 81% of the surveyed public administration institutions had their own website in 2013. 63% of central government institutions were available on the World Wide Web, and this proportion was 83% for local governments. So the situation is reversed compared to the data two years earlier, which may be explained by the fact that, in parallel with the harmonization of the functions of central government institutions, the websites of individual institutions have been centralized as well. As a result, the various institutions do not have independent websites but became part of a larger common website. In line with this, the number of local authorities with websites also increased. Compared to 2011, the proportion of websites with the option of foreign language availability and the proportion of websites with alternative surface for low-vision people has increased. Forms could be downloaded from 45% of public authorities' websites and in case of 10% of websites, the completed forms could be returned as well, however, full electronic services were provided by merely 3% of the websites of public authorities

International outlook In international comparison, Hungary is in the upper third of the ranking, and on the first three levels of e-government it has higher values than the EU average. In recent years, the growth rate of using e-government services slowed down and then stopped on the level of the EU. However, in Hungary, this process still continues to show an upward trend.

Details The most comprehensive indicator of the e-government usage is the rate of population which had electronic interaction with public authorities in the last 12 months. In Hungary, the rate of population which had electronic

Figure 2.44.2. **Use of e-government by individuals in the preceding 12 months**



In 2011, forms could be downloaded from 45% of public authorities' websites and in case of 10% of websites, the completed forms could be returned as well, however, full electronic services were provided by merely 3% of the websites of public authorities.

interaction with public authorities was 37% in 2013, 8 percentage points higher than in 2008. In the same period, the EU average continuously exceeded the Hungarian level. The demand side of the public authorities' services is an important indicator of the development of the information society. The usage of e-government services especially when the whole procedure is carried out electronically has significantly increased in the last two years. In 2012, 95% of Hungarian enterprises with internet connection used the web for obtaining information from public authorities' homepages. 93% of enterprises downloaded forms and 91% of them returned the completed forms electronically. On the highest level of e-government usage, the whole procedure is carried out electronically, including electric payment if required. During 2012, 86% of enterprises with internet subscription managed their administrative procedures fully through the Internet. Among these enterprises, 94% used the web for the declaration of social contributions for the persons employed, and 96% for declaration of corporate tax and VAT.

Definitions

The indicator of e-government availability shows the proportion of administrative institutions having a website, broken down by central government and local governments. The webpages in the content and style of which the institution has a say are considered as the individual websites of the institution, whether they are established by organs of higher level or the institution's IT specialists.

The indicator of e-government use by individuals shows the percentage of the population aged 16–74 years that used in the 12 months before the survey electronic administrative websites to obtain information, download forms or send filled-in forms back.

The data are from the 2013 survey. The reference period in the 2013 survey for the module about Internet usage in contact with public authorities was 2012.

3. *Economy*

Economic trends

General economic indicators

- As a consequence of the economic turmoil, GDP decreased in 2009 for the first time from 1993, following which the annual change of the indicator started to follow a path of growth again, which was broken, temporarily, in 2012 only.
- Gross fixed capital formation was declining between 2007 and 2012, somewhat rose in 2013, its value reaching nearly one-fifth of GDP.
- Domestic households' willingness to save had exceeded the EU average, however, the indicator fell to the level of the community average in the last few years.
- Government debt as a proportion of GDP decreased gradually and substantially in the second half of the 1990s, exceeding the Maastricht threshold of 60% since 2005. The debt ratio fell in a row in the two years following the peak in 2011, and it was 77% in 2013.
- Research and development expenditures were below 1% of GDP throughout two decades. Since 2008 this value has exceeded 1%. However, dynamic growth occurred only in the business enterprise sector, where nearly 70% of R&D expenditures were already measured by 2013. Based on Hungary's commitment, 1.8% of expenditures are to be spent on this activity by 2020.
- In 2013, consumer prices rose by 1.7% on average compared to the previous year, and they were only lower in 1970. So this has been the first time since our accession to the EU that we managed to meet the relevant Maastricht criterion.

Economic relations

- Foreign direct capital investments have played a dominant role in the restructuring of Hungary's economy since the regime change. The marked increase of capital inflows in the first half of the last decade changed for a much more modest rate of increase from the second half of the decade as an impact of the crisis. The amount of Hungary's direct capital investments abroad is substantially smaller than that of foreign direct capital investments in Hungary, however, its rate of increase is considerably higher than that of the latter.

Energy

- Between 2003 and 2010, our country's dependence on energy imports was around 60%; then in the following years, along with a significant decline, it became equal to the EU average.
- Renewable energy sources are becoming more involved in the energy supply: between 2000 and 2013, the amount of primary energy from renewable sources increased by about two and a half times. In 2012, they had a nearly 10% share in the total gross final energy consumption, which was more than 3/5 of the target set.
- The use of biofuels has shown an increasing trend, the 2012 value (4.6%) was almost the half of the target value set for 2020.

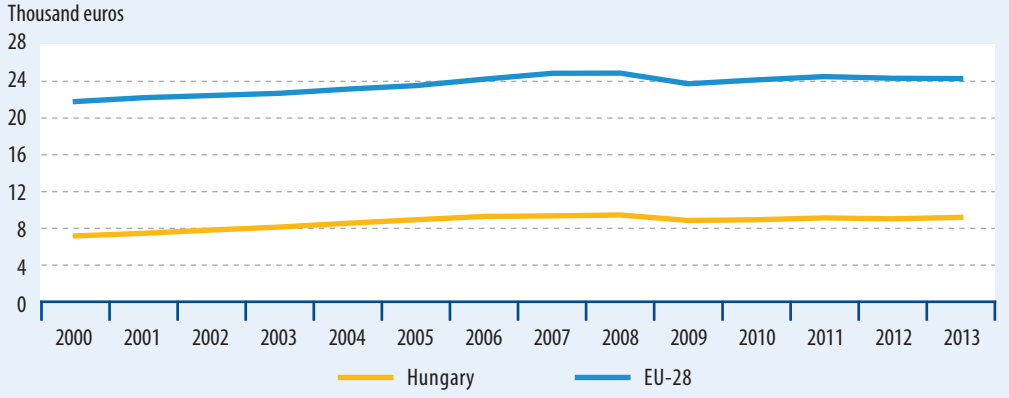
Transport

- One of the operational objectives of the European Union's Sustainable Development Strategy is decoupling economic development and demand for transport. This is not achieved in Hungary in the field of freight transport, the growth of the volume of freight transport exceeded considerably that of gross domestic product between 2000 and 2013. Growth in passenger transport, by contrast, was more moderate than GDP growth.

Gross domestic product (GDP)

Keywords **gross domestic product (GDP), GDP per capita**

Figure 3.1.1. **GDP per capita at average 2005 prices**



The growth trend of GDP per capita changed in nearly the same way as the EU average from 2000, and did not approximate that.

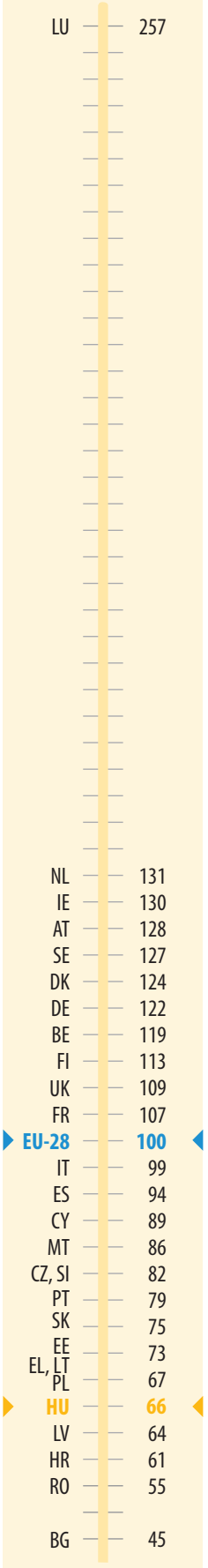
Relevance The growth rate of GDP informs on the dynamism and competitiveness of the economy. A high GDP growth rate means that society can generate additional economic resources to meet the growing economic needs of the present generation, can realize investments or other social and environmental purposes in view of higher returns in the future. Nevertheless, GDP per capita cannot be considered as a comprehensive indicator of well-being. Growing production can generate environment pollution or health problems, often leading to an increase in various expenditures, which have a positive impact on GDP but do not contribute to an improving quality of life.

Commentary Between 1997 and 2006 the growth rate of GDP was at least 3% in every year compared to the previous year. During this period, the growth was mainly due the performance of industry. In 2007, GDP rose slightly (0.5%). In the first half of 2008 industry performed well, but it started declining from the second half of the year because of the economic crisis. The performance of service industries stagnated, while agriculture grew by more than 50% due to outstandingly high yields in crop production thanks to favourable weather conditions. As a result of this, GDP still increased that year (0.9%). As a consequence of the economic turmoil, GDP decreased in 2009 for the first time from 1993, by 6.6% compared to 2008. Due to the low base in the previous year, GDP increased again in 2010 (0.8%), which was followed by a 1.8% rise in 2011. GDP diminished by 1.5% in 2012, and increased at the same rate in 2013.

International outlook The gross domestic product of the European Union stagnated in 2013 compared to the previous year. The volume of GDP was up in more than the half of EU member countries and declined in 11 member states. The most significant growths – in excess of 3% – were in Lithuania, Romania and Latvia, while the performance of the economy fell the most in Greece (3.9%) and Cyprus (5.4%).

Definition The gross domestic product is the sum of the gross value added of resident producers (industries or institutional sectors), measured at basic prices, and the balance of taxes less subsidies on products, which cannot be divided among industries or sectors. GDP per capita is obtained by dividing GDP at current market prices by mid-year population.

GDP per capita in the European Union, purchasing power standards, 2013 *(EU-28=100), %*



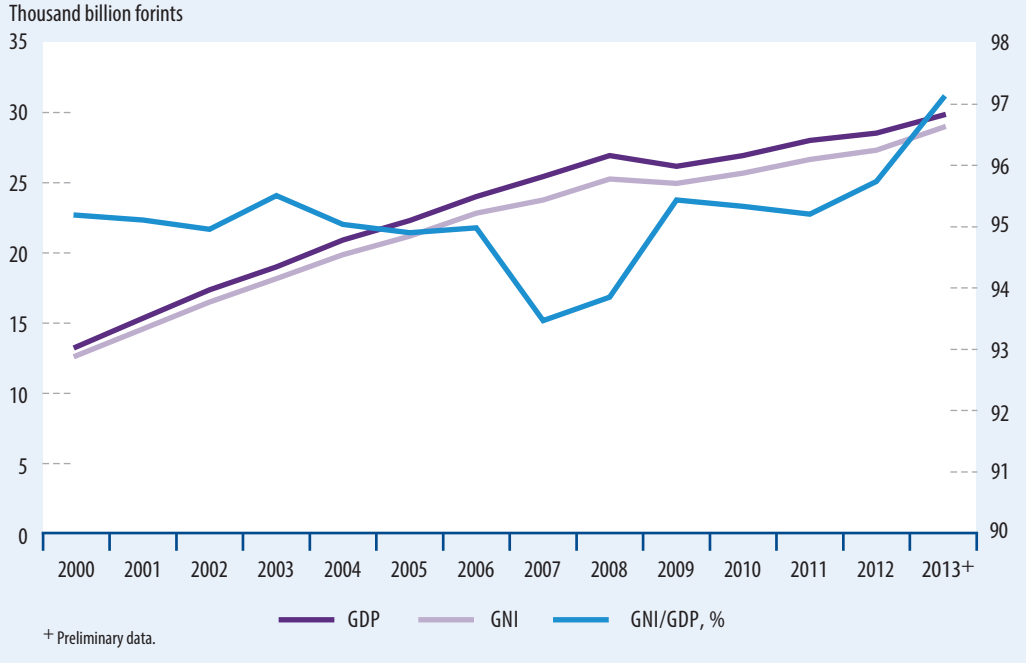
Stadat tables

3.1.1. Value and volume indices of gross domestic product
3.1.2. Value of gross domestic product in HUF, EUR, USD and PPS
3.1.3. Per capita gross domestic product (GDP)
3.1.4. Value and distribution of gross value added by industries
3.1.5. Volume indices of gross value added by industries

Gross national income (GNI)

Keywords gross national income (GNI), compensation of employees, property income, reinvested earnings, interests, dividends, EU transfers

Figure 3.2.1. Gross national income and gross domestic product



+ Preliminary data.

! *The ratio of GNI to GDP was the highest in 2013 following the turn of the millennium.*

Relevance The NFSSD finds that the international exposure of the Hungarian economy, its dependence on foreign capital and raw materials is high, which is associated with indebtedness towards the rest of the world. It is important to maintain an appropriate level of autonomy in economic political decisions. The value of GNI, as opposed to GDP, does not contain income from property produced by foreign equity investors in Hungary and the income of non-resident employees received from Hungary, however, it contains the income of Hungarian investors and employees received from the rest of the world, and the amount of the balance of subsidies received from the EU and taxes paid to the EU.

Commentary The value of GNI equalled 96.8 % of GDP in 1995. In 2000–2006 this ratio reached nearly the same level (94.9%–95.5%), but it deteriorated by 1.5 % by 2007 compared to the previous year. Between 2009 and 2012, GNI transition items were 4.3%–4.8% of GDP. An improvement was observed in 2013 (97.1%), so the value of GNI goes on approaching GDP.

Details Out of transition items from GDP to GNI, the balance of the compensation of employees was 40 billion forints in 1995 and 644 billion forints in 2013. The balance of property income was influenced by changes in the balances of reinvested earnings, dividends and interests. From 1995 to 2000, the distribution of the above factors changed radically. The balance of reinvested earnings approximately offset the balance of dividends in 1995, while interests had a considerable impact on property income, unparalleled ever since (93%). Until 2003, reinvested earnings exceeded dividends, they were nearly equal in 2004, however, from 2006 the balance of dividends accounted for more than the half of property incomes. In 2008, earnings reinvested by investors were 7.9 % of property income, which was a substantial decrease (18%) compared to the year 2007. The share of interests in property incomes increased from 24% in 2007 to 39% in 2008. From 2008, the proportion of the

three factors of property incomes changes each year. In 2009, the balance of property incomes improved by 444 billion forints. The largest change of 1,120 billion forints occurred in the balance of reinvested earnings. Net property income deteriorated again in 2010, and then in 2011 it was down by 274 billion forints compared to the previous year. The balance of reinvested earnings increased GNI by 604 billion forints in 2010, and lowered that by 71 billion forints in 2012 and by 31 billion forints in 2013. Since our joining the European Union the balance of EU transfers gradually increased until 2006, and it showed approximately the same values in the subsequent two years. In 2009 a sharp increase of 113 billion forints was recorded. In 2011 the balance of taxes paid to the EU and subsidies received from the EU was up by 85 billion forints compared to 2010. By 2012 and 2013 this value rose further, by 11 billion forints and then by 47 billion forints, respectively, compared to the preceding years.

Definitions

GNI is an indicator that can be calculated from GDP, it takes into account primary incomes received from and paid to the rest of the world. As opposed to gross domestic product, it does not contain property income produced by foreign equity investors in Hungary and the income of non-resident employees from Hungary, however, it contains the income of Hungarian investors and employees received from the rest of the world, and the amount of the balance of subsidies received from the EU and taxes paid to the EU.

The compensation of employees is defined as the total remuneration, in cash or in kind, payable by an employer to an employee in return for work done by the latter during the accounting period.

Property income is income receivable by the owners of financial assets and natural resources in return for putting the financial assets and natural resources at the disposal of other institutional units.

Interest is receivable by the owners of deposits, debt securities, loans and other accounts receivable for putting the financial assets at the disposal of other institutional units.

Dividends are a form of income from property received by the owners of shares to which these owners become entitled as a result of, for example, placing funds at the disposal of corporations.

Reinvested earnings on foreign direct capital investment: the sum of the operating surplus of the foreign direct investment enterprise and all property incomes or current transfers receivable, less all property incomes or current transfers payable, including actual remittances to foreign direct investors and all current taxes payable on the income, wealth, etc. of the foreign direct investment enterprise.

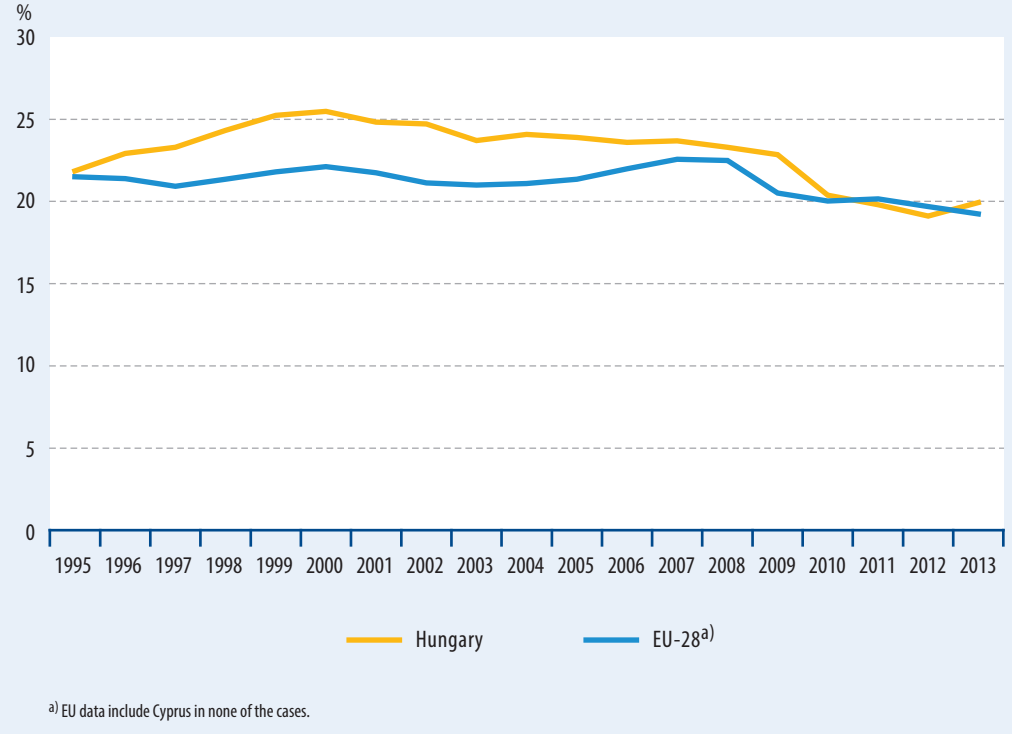
Stadat tables

3.1.12. Value and volume indices of gross national income (GNI), annual data

Gross fixed capital formation

Keywords gross fixed capital formation, gross fixed capital formation by government, gross fixed capital formation by sectors other than government, investment

Figure 3.3.1. Gross fixed capital formation as a proportion of GDP



a) EU data include Cyprus in none of the cases.

Gross fixed capital formation was declining in Hungary from 2007 to 2012, and its value as a proportion of GDP was 19.9% in 2013.

Relevance To increase natural, human and social capital it is indispensable to expand the economic (production) capital stock, which can solely be achieved through investments. The investments of – mainly domestic-owned – enterprises (non-governmental sector) are of outstanding significance even within this. The NFSSD sets a target to increase physical capital, and to replace the amortisation of public capital goods. It is an outstanding task to strengthen the stratum of entrepreneurs, to gradually increase domestic capital investments and to reduce our exposure to the rest of the world.

Commentary Gross fixed capital formation (GFCF) in the national economy as a proportion of GDP was 21.9% in 1995, compared with 21.5% in the EU. The ratio of GFCF was regularly 2–3 percentage points higher in Hungary than in the EU up to 2005. Following this, the two values – apart from the outstandingly high value in the year 2009 – gradually approximated each other, and from 2010 the EU indicator was already higher. In 2013 Hungary's ratio was more considerable again. On the whole, an increase was observed until 2000 and then a continuous decline up to 2012 in Hungary, while the ratio of GFCF – after a relatively volatile trend – has been declining since 2007 in the EU.

International outlook Gross fixed capital formation as a proportion of GDP was the highest in Estonia, the Czech Republic and Romania in 2013. The lowest proportions were measured in Greece, Portugal and Ireland.

Details Following a continuous rise from a very low value of 0.6% in 1995, the government sector's gross fixed capital formation as a proportion of GDP reached a peak of 5.1% in 2002. Following this a fluctuation could be observed, it decreased

Gross fixed capital formation as a percentage of GDP in the European Union, 2013, %

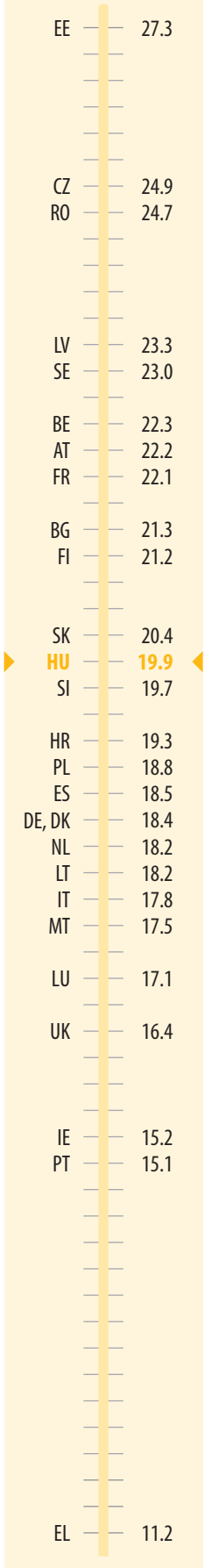
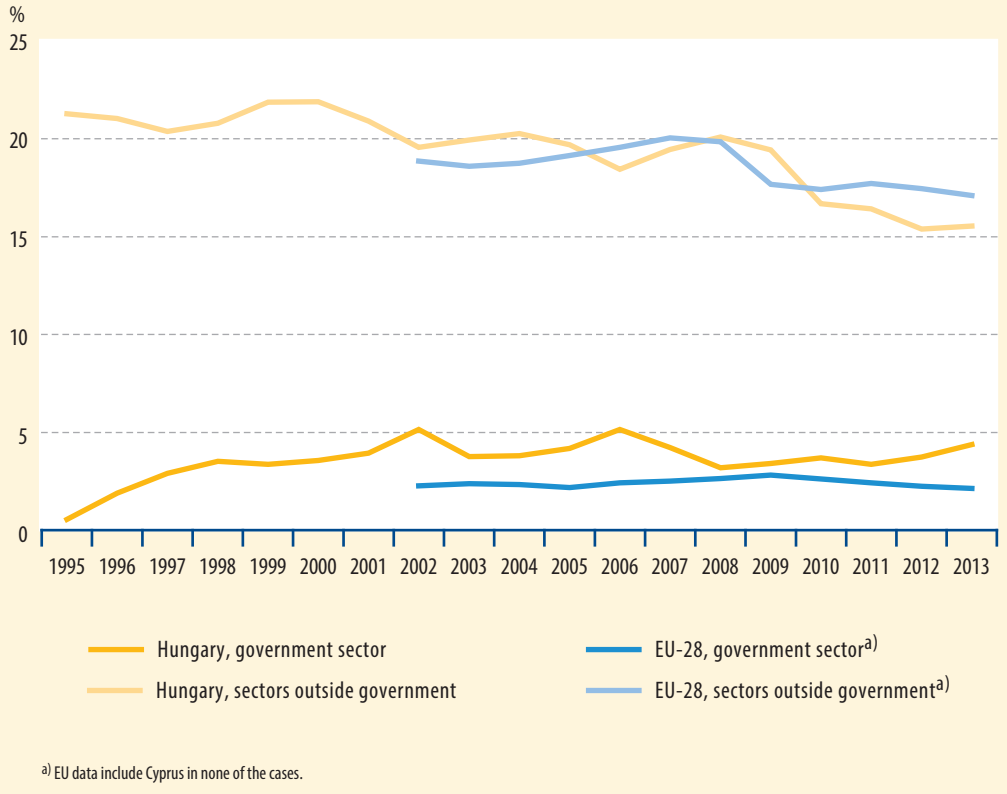


Figure 3.3.2. Gross fixed capital formation as a percentage of GDP by sectors



[a)] EU data include Cyprus in none of the cases.

The gross fixed capital formation by sectors other than government is below the EU average, and there was a declining trend in the past few years.

significantly, by 1.4 percentage points in 2003, and then grew again until 2006, and fell after that again, and its value was 4.4% in 2013. The gross fixed capital formation by Hungary's government sector was higher and more volatile than the EU average in the period under review. The gross fixed capital formation by sectors other than government was 21.3% in 1995. It varied between 19% and 21% until 2009, and then decreased continuously and substantially to the present level of 15.6%.

Definition Gross fixed capital formation contains the value of tangible and intangible fixed assets purchased or own-produced in the accounting period, the increase of used assets in value terms, capital transfer in kind from abroad and rental paid for financial leasing. The ratio is the part of GDP that the national economy spends on fixed capital formation. The amortisation of fixed capital stock in the reference period and the value of sorting out assets are not deducted from gross fixed capital formation, i.e. the latter indicates changes in national wealth due to fixed capital formation from the increase side.

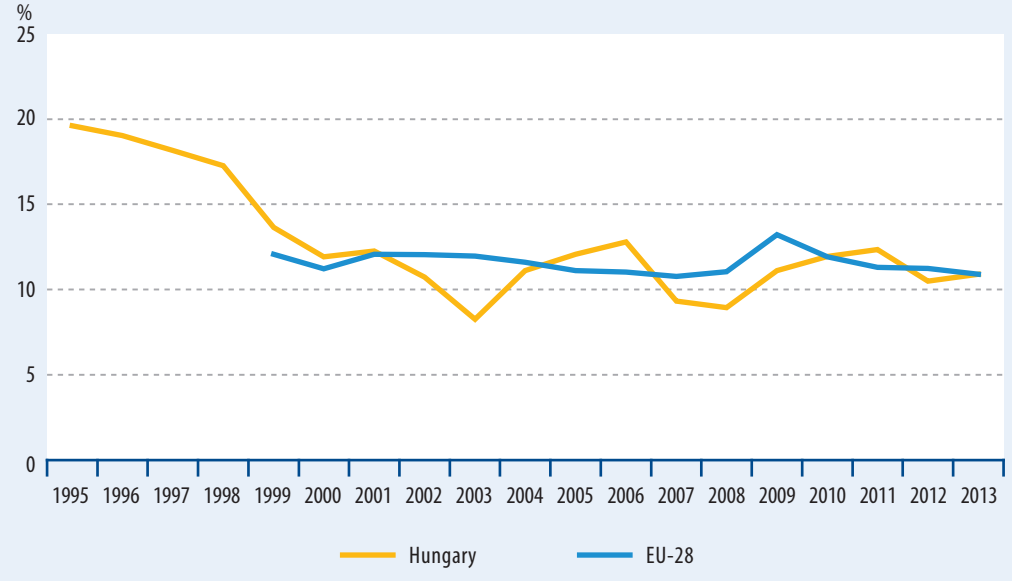
Gross fixed capital formation by government is defined as the part of GDP that the government sector spends on fixed capital formation. Gross fixed capital formation by sectors other than government is defined as the part of GDP that sectors other than government spend on fixed capital formation.

Stadat tables
3.1.8. Gross fixed capital formation

Gross savings rate

Keywords **gross savings rate, savings, disposable income**

Figure 3.4.1. **Gross household savings rate as a proportion of GDP**



! *Domestic households' willingness to save had exceeded the EU average, however, it fell to the level of the community average in the last few years.*

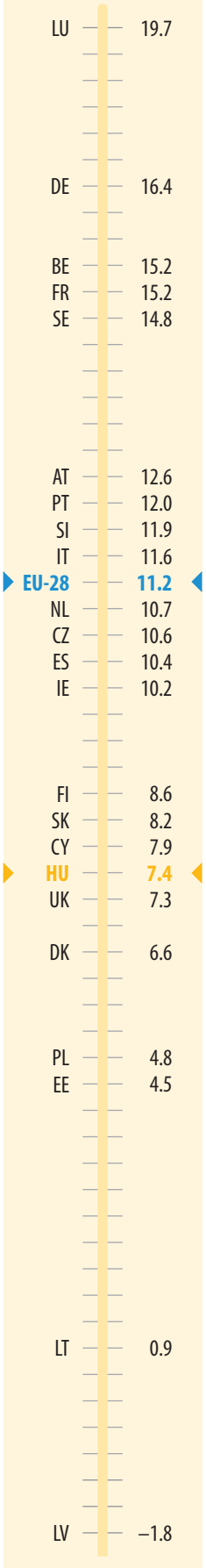
Relevance By applying the prevailing savings rate one can define the available economic resources that can be mobilised to raise productive, natural, human and social capital, improving the wellbeing of future generations. The Framework Strategy recommends families treat and transmit financial consciousness, the importance of savings as a value so that Hungary, developing in a sustainable manner, should be less sensitive in the future to financial crises.

Commentary The gross household savings rate in Hungary in the past 19 years was the highest in 1995 (19.6%). In subsequent years it decreased continuously, i.e. households accumulated a declining proportion of their income. The decrease lasted until 2003, when the value of the indicator was 8.3%. From 2004 the willingness to save started to grow again to reach 12.8% in 2006, surpassing the EU-28 average. After that it began to fall again, to 8.9% in 2008. The reason for the decrease (and also the fall in 2003) was principally the change in the construction of dwellings, within capital formation making part of savings. From 2009 there was an increase again in the value of the indicator. In the subsequent years the savings rate followed a path similar again to that of the EU-28 average.

International outlook The average savings rate seems to be quite stable in the 28 member states of the European Union, representing values of about 12% year by year. For different countries different trends are observed. Savings rates of about 16% were recorded for Germany, while there were fluctuations of about 14%–17% in Slovenia and of between 6% and 11% in Slovakia in the last 10 years.

Definition Gross household savings rate shows the percentage of households' disposable income – completed with the adjustment for the change in the net equity of private pension funds reserves – in a given period that they accumulate for the satisfaction of their later needs in financial assets or capital goods. The remaining part of the disposable income is spent on consumption, i.e. needs arising in the given period.

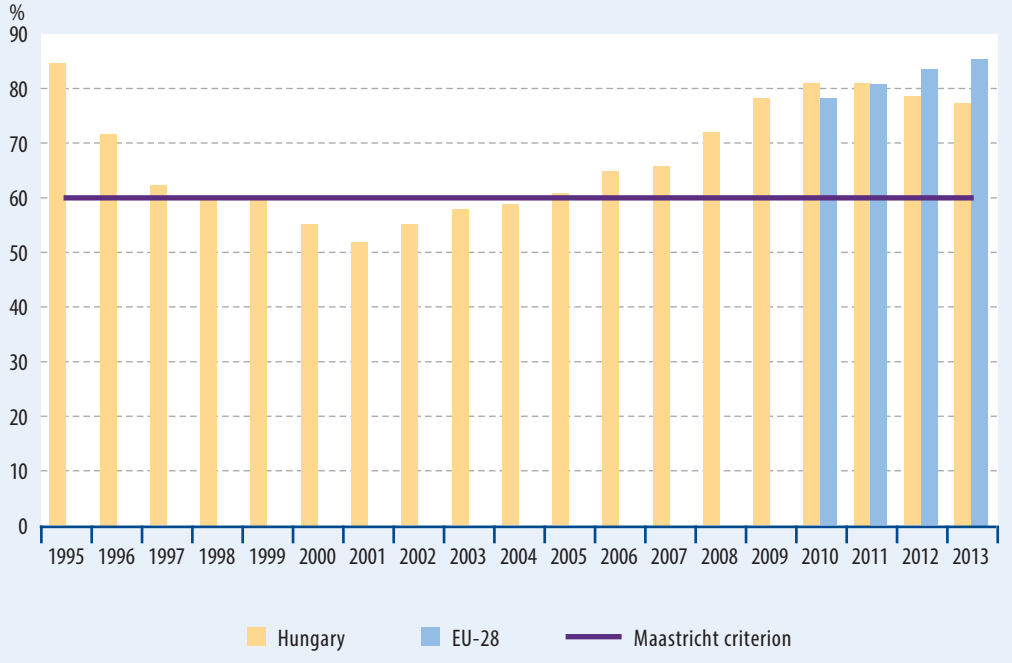
Gross household savings rate in the European Union, 2012, %



General government consolidated gross debt

Keywords **government debt, Maastricht criterion, internal and external debt**

Figure 3.5.1. **General government consolidated gross debt as a proportion of GDP**



Government debt rose uninterruptedly in Hungary between 2001 and 2011 and decreased following that.

Relevance General government consolidated gross debt is one of the criteria laid down in the Maastricht Treaty, which have to be met in order to enter the euro area. According to this, government gross debt must not exceed 60% of gross domestic product, but if it exceeds that then it has to be decreased and converged to this threshold to a sufficient extent and at a sufficient rate. The Framework Strategy lays down that when setting up the budget governance has significant responsibility in the sustainability of domestic economic capital. It is necessary to build in the Constitution a limit for the maximum of the rate of indebtedness so that expenses in the present should not cripple the managers of the future. Therefore, when setting up the budget, government has responsibility in the extent to which it burdens next generations with debt payment.

Commentary Government debt as a proportion of GDP decreased gradually and substantially in Hungary in the second half of the 1990s and reached its minimum of 52% in 2001, which was 8 percentage points below the Maastricht threshold. From then its value climbed with a continuous rise to 81% until 2011 (the indicator exceeded again 60% in 2005). The debt ratio fell in a row in the past two years, first by almost 3 percentage points and then by 1 percentage point, to stand at 77% in 2013.

International outlook The average gross debt ratio of the 28 member countries of the European Union grew in the period of 2010–2013, the value of the indicator climbing from 78% to 85% over this period. Government gross debt as a proportion of GDP was the highest in Greece (175%), Portugal and Italy (128%) as well as Ireland (123%) out of EU member states in 2013. The indicator for Hungary (77%) was 8 percentage points lower than the average for the 28 member

General government consolidated gross debt as a percentage of GDP in the European Union, 2013, %

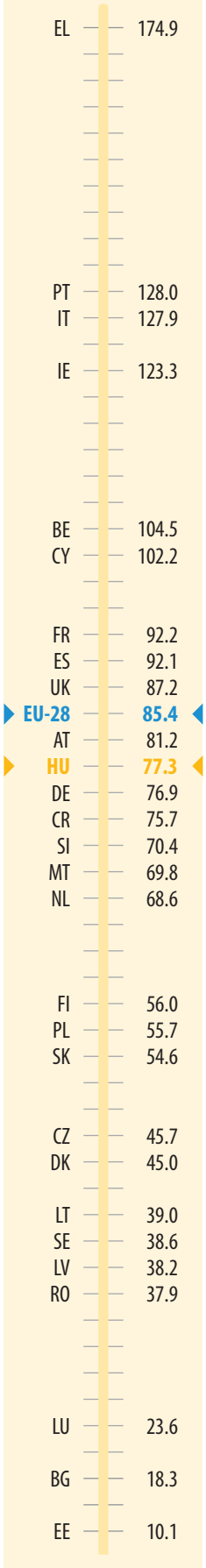
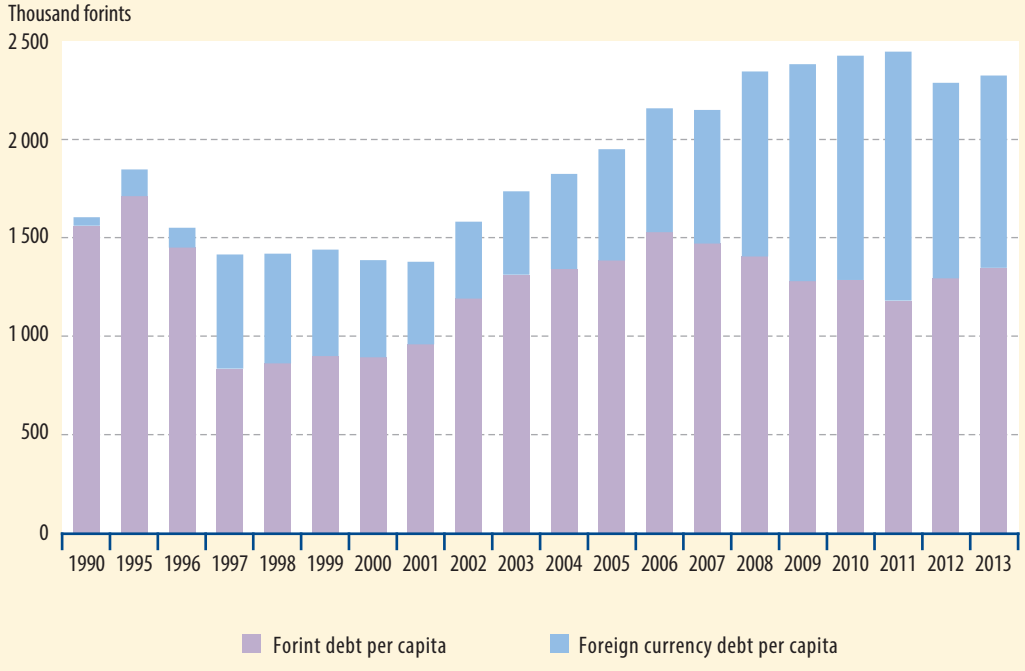


Figure 3.5.2. General government consolidated gross internal and external debt per capita at 2011 prices



! *The structure of the debt stock changed significantly from 1997 to the advantage of the proportion of external debt.*

states. The lowest values of the debt ratio were measured in Luxembourg (24%), Bulgaria (18%) and Estonia (10%).

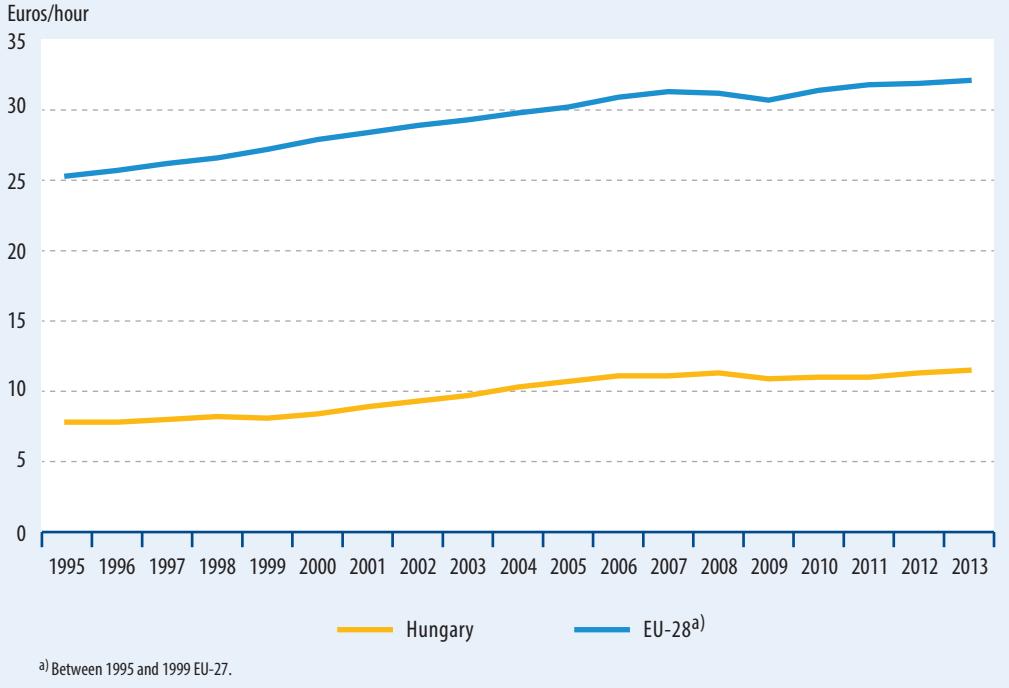
Details Per capita debt at prices of 2013 reached its minimum of HUF 1.4 million in 2001, started to increase in the next year, surpassed 2 million forints in 2006, and reached its maximum of 2.5 million forints in 2011. Debt per capita was around 2.3 million forints in the last two years. As for composition, forint debt was dominant back in the first half of the 1990s, foreign currency debt not reaching even 10%. This distribution changed by 1997, when foreign currency debt reached 41%. Afterwards there was a continuous decrease in the proportion of foreign currency debt, to 27% until 2004. The proportion of foreign currency debt started to grow again in 2004, which lasted until 2011, when it made up already over the half of the debt. In the two years following 2001 the share of foreign currency debt started to fall again. The forint exchange rate plays an important role in calculating foreign currency debt.

Definition General government consolidated gross debt does not include financial transactions within general government. It is gross, the sector's claims cannot be deducted from debt.

Labour productivity

Keywords **labour productivity, GDP, hours worked**

Figure 3.6.1. Labour productivity



a) Between 1995 and 1999 EU-27.

Labour productivity in Hungary rose until 2006 and essentially stagnated between 2006 and 2013.

Relevance The growth of the indicator contributes to improving the competitiveness of the economy, which is a key objective in the Europe 2020 strategy. The European Union must increase its competitiveness against its global trade partners and competitors. In addition to the global level there are considerable differences between member states too. Because of the economic openness of Hungary, i.e. its marked dependence on external market developments, to improve productivity and competitiveness is especially important.

Commentary Labour productivity in Hungary has risen by 47% since 1995, it was nearly 12 euros per hour worked in 2013. The dynamics of the increase slowed down after 2005, and there was a fall in 2009. In the subsequent years moderate rises were observed in productivity. The average for the 28 member states of the European Union was considerably, nearly three times higher than the figure for Hungary.

International outlook Among the member countries of the European Union (not including Croatia) the difference between the first Luxembourg and the last Bulgaria was nearly 12-fold in 2013. Hungary and the other member countries that acceded in 2004 or 2007 were below the EU average, 12 of the last 14 countries were new member states.

Definition Labour productivity is the quotient of gross domestic product (GDP) volume index and the input of hours worked, providing a figure of labour productivity in a country, also comparable internationally.

Labour productivity in the European Union, 2013, *euros/hour*

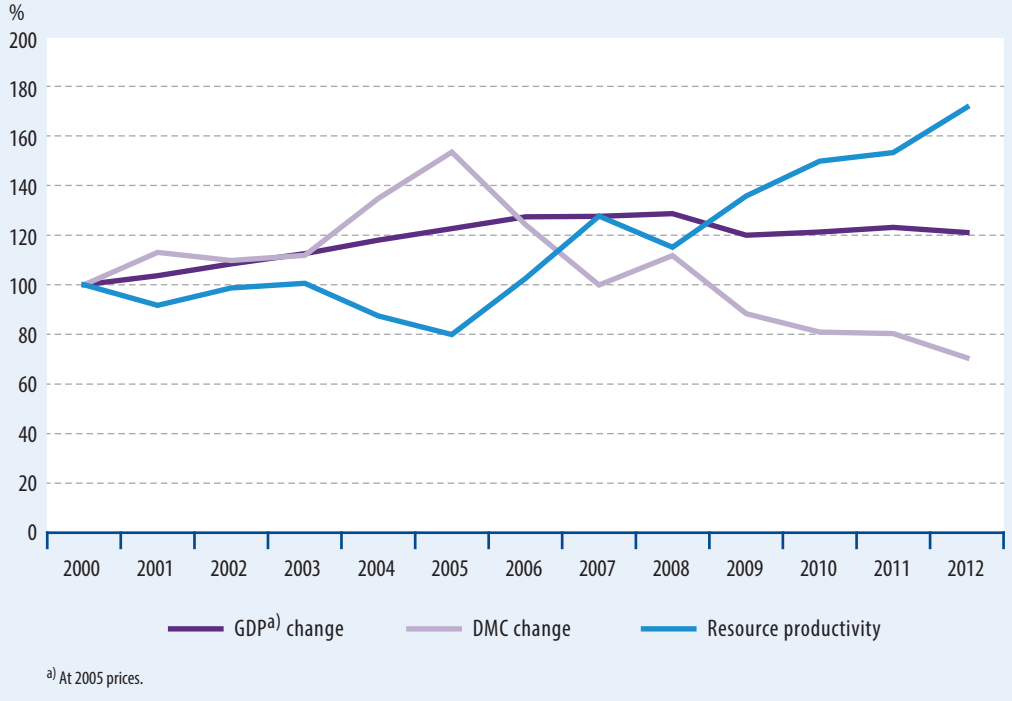
LU[a)] 58.2
DK 53.4
IE 48.8
BE 45.9
NL 45.8
FR 45.6
SE 45.5
DE 42.8
AT 39.9
FI 39.7
UK 39.2
IT 32.2
EU-28 32.1
ES
CY 21.6
SI 21.4
EL 20.2
PT 17.1
MT[a)] 14.5
SK 13.2
CZ 13.1
HU 11.5
EE 11.4
LT, PL 10.6
LV 8.4
RO 5.6
BG 4.9

a) 2012.

Domestic material consumption

Keywords **domestic material consumption, resource productivity**

Figure 3.7.1. **Change in resource productivity and its components (DMC and GDP)**



[a] At 2005 prices.

! *Resource productivity was the highest in 2012 from 2000.*

Relevance Resource productivity is the ratio of GDP to domestic material consumption (DMC). With the help of the indicator one can determine the extent to which natural resources are used along with economic growth. The rise of the indicator signals the expansion of the productivity of available resources, which provides an economic growth with less environmental damage.

Commentary The use of 1 kilogramme of resources contributed to gross national product by 0.59 EUR in Hungary in 2000. By the end of the period of 2000–2012 the value of the indicator rose significantly compared to the beginning of the period (it was 1.02 euros/kg in 2012), which was principally due to the decrease of material consumption.

International outlook In 2012 the value of the indicator was lower in countries having joined the EU in 2004 or after. The management of available (natural) resources is better in Western European countries than in the newly acceded ones. The value of Hungary's indicator (1.02 euros/kilogramme) was substantially lower than the EU-27 average (1.91), but was higher than the corresponding figure in most of the central and eastern European countries.

Details The extraction of petroleum resources and metal ores declines, and the extracted amount of non-metallic minerals and biomass varies year by year. Between 2004 and 2006, when the extraction of minerals increased significantly in line with upward demand (motorway constructions), and favourable weather conditions resulted in a higher-than-average quantity of biomass, the total of domestic raw material extraction was around 140–165 million tonnes.

Resource productivity in the European Union, 2012, *euros/kilogramme*

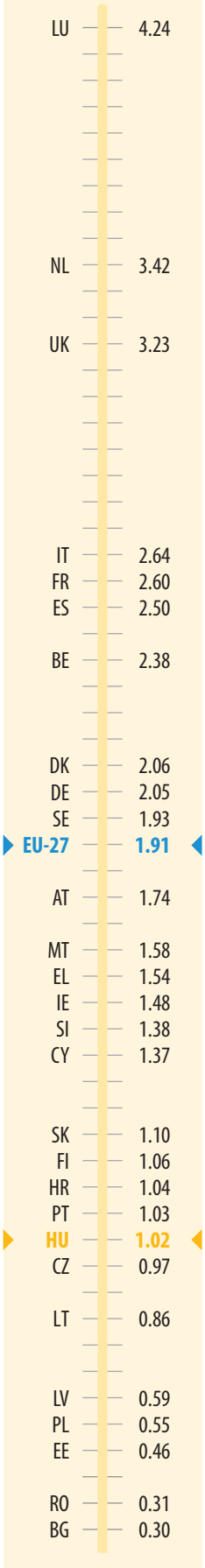
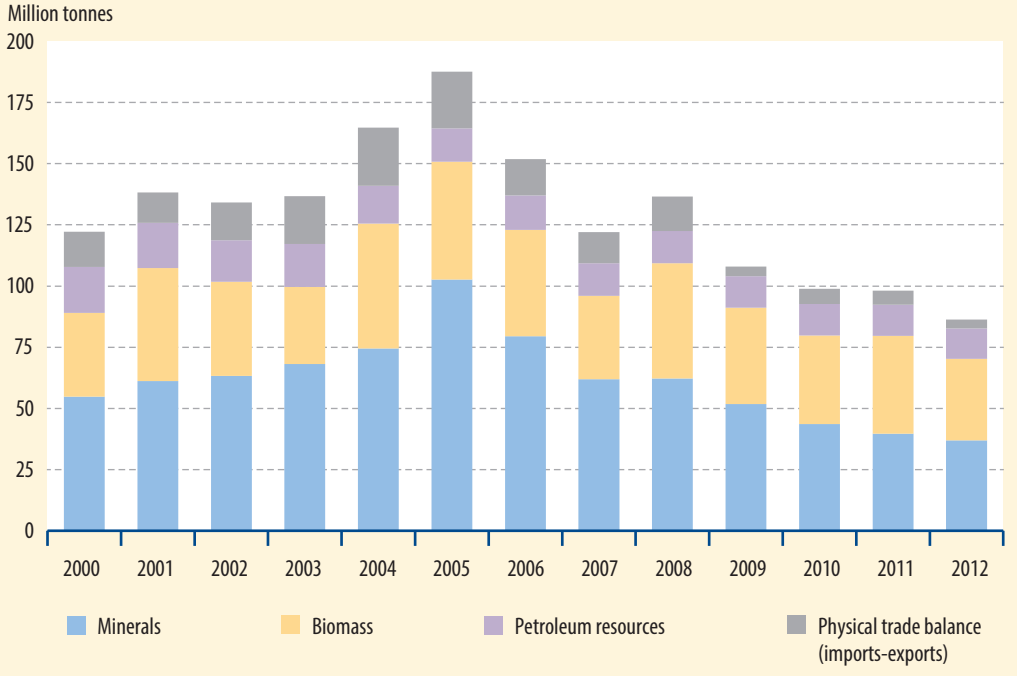


Figure 3.7.2. Components of domestic material consumption



By 2009 the value of domestic material consumption sank below the level of 2000, and the decrease has lasted ever since.

Definitions

Domestic material consumption shows the total quantity of materials used directly in the national economy. According to the definition domestic material consumption (DMC) equals the difference between all materials entering the national economy (used domestic extraction plus imports) and exported materials.

In an economic sense domestic material consumption reflects material consumption by residents of the national economy. Exports are therefore deducted to distinguish the consumption driven by domestic needs from the demand driven by needs of the export market.

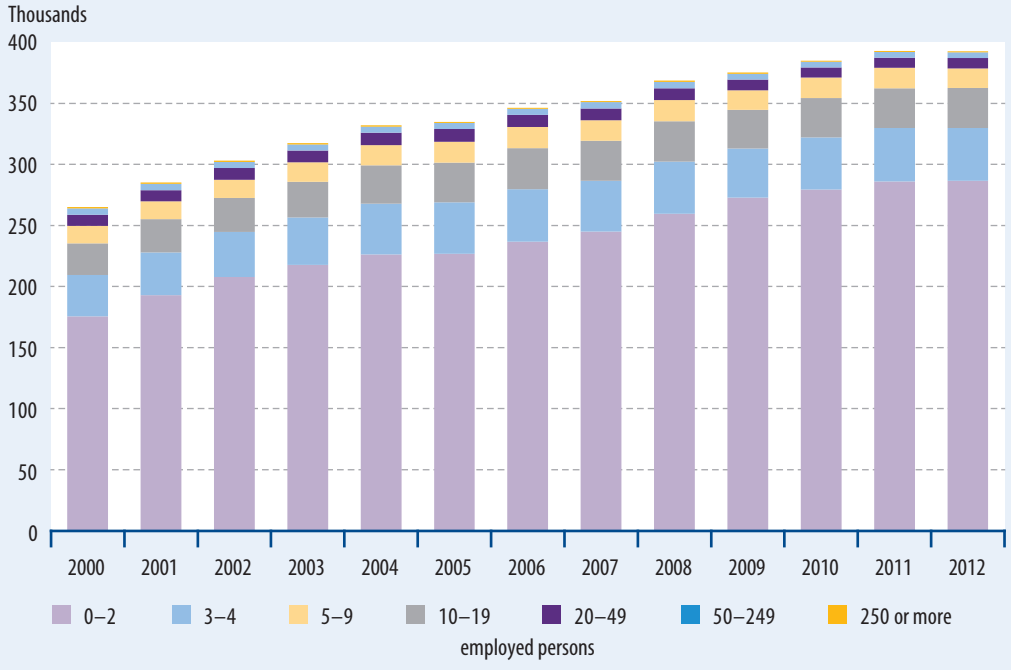
In an environmental sense the indicator is used to measure all the environmental pressures associated with the use of materials within the national economy throughout their life cycle, irrespective of whether the environmental pressures occurred in the country itself or in the country from which the product was imported.

Stadat tables
5.10.2. Material flows

Active enterprises

Keywords **active enterprises, registered enterprises, small-sized enterprises**

Figure 3.8.1. **Number of active business partnerships by staff categories**

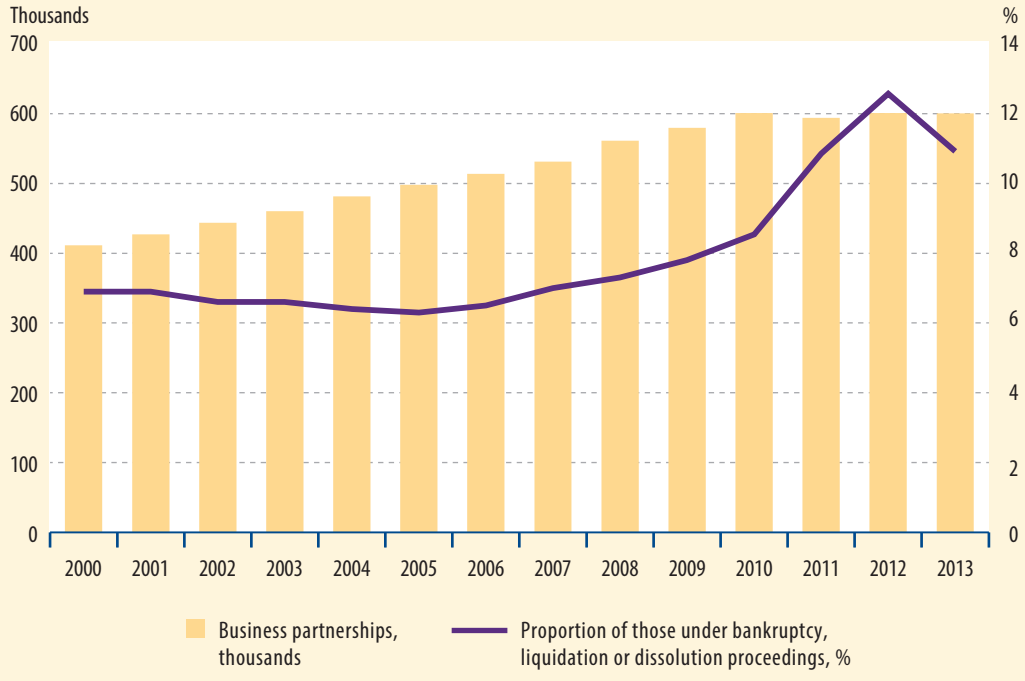


! *The increase of active enterprises since 2000 stopped in 2012.*

Relevance Both large multi-national enterprises and small- and medium-sized domestic enterprises are present in the economy of Hungary. To reinforce the latter and enhance their competitiveness on both the domestic and the external market are important objectives. The effect of the global economic crisis was perceived by foreign-owned multinational enterprises too, and small- and medium-sized enterprises became more vulnerable as well. Nevertheless, small- and medium-sized domestic enterprises continue to account for the largest proportion of employment. According to the NFSSD, developments that help start-up enterprises strengthen (e.g. business incubators) need to be realized. A further important duty is to reduce administrative costs burdening enterprises, which is a significant burden on SMEs due to the complexity and permanent changes of rules. The Framework Strategy lays down that enterprises mostly contribute to creating values and strengthening the economic capital with their mere operation, and their independent responsibility taking can further improve the sustainability of domestic economic resources. Favouring domestic suppliers and first of all local production systems and strengthening local and regional economic relations result in the long term in a larger proportion of the value added thus produced enriching people living in Hungary.

Commentary The vast majority of business partnerships in Hungary are small enterprises. Broken down by staff size 98% of active business partnerships were small enterprises in 2000, having less than 50 employed persons. Within this the share of micro enterprises, employing less than 10 persons, was 89%, which is typical of the most member countries of the European Union, too. The proportion of medium-sized enterprises, having 50–249 employed persons, was 2% and that of large enterprises, employing 250 or more persons, 0.4%. These proportions went on shifting continuously further to the advantage of small enterprises between 2000 and 2012, the share of which was 1 percentage point higher in 2012

Figure 3.8.2. Number of registered business partnerships and proportion of those under bankruptcy, liquidation or dissolution proceedings



! *The proportion of enterprises facing cessation rose by 4 percentage points as an effect of the crisis in 2008.*

than the value of start, while those of medium-sized and large enterprises shrank by 0.8 and 0.2 percentage point respectively.

Details The number of active business partnerships rose year by year, increasing by 48% in the last twelve years, and their number reached 392.5 thousand by 2012. The rate of rise ranged between 5% and 7% in the years of start (2000–2004) and diminished gradually. Since the crisis started the expansion has shown a value of around 2%. In 2008 the especially high rise (4.8%) compared to this was explained first of all by legislative changes. When starting an enterprise the simplicity of foundation, the amount of capital required for registration and the degree of responsibility are essential aspects. The number of limited liability companies and joint-stock companies rose significantly due to the substantial reduction in the year 2007 of the subscribed capital required for their foundation.

The slight decrease in the number of companies in the year 2012 was the result of legal amendments tightening up rules on company registration to restrict the potential abuses. On 1 January 2012 the one-hour company registration came to an end, and a tax number can only be issued after preliminary check by the National Tax and Customs Administration. This measure is to prevent the persons who left debts in their previous businesses or committed infringement from starting a new business. The tax authority may refuse to issue a tax number after the inquiry, furthermore, registration charges rose on 1 March 2012.

The number of registered business partnerships was 411.5 thousand in 2000, 6.9% were under bankruptcy, liquidation or dissolution proceedings. The number of business partnerships increased by 46% and the proportion of those under bankruptcy, liquidation or dissolution proceedings to 10.9% by 2013.

Definitions The number of active enterprises shows the number of registered enterprises – those existing in legal terms – performing economic activities in a particular year.

An enterprise is considered to be active if it had sales or employed persons in a particular year.

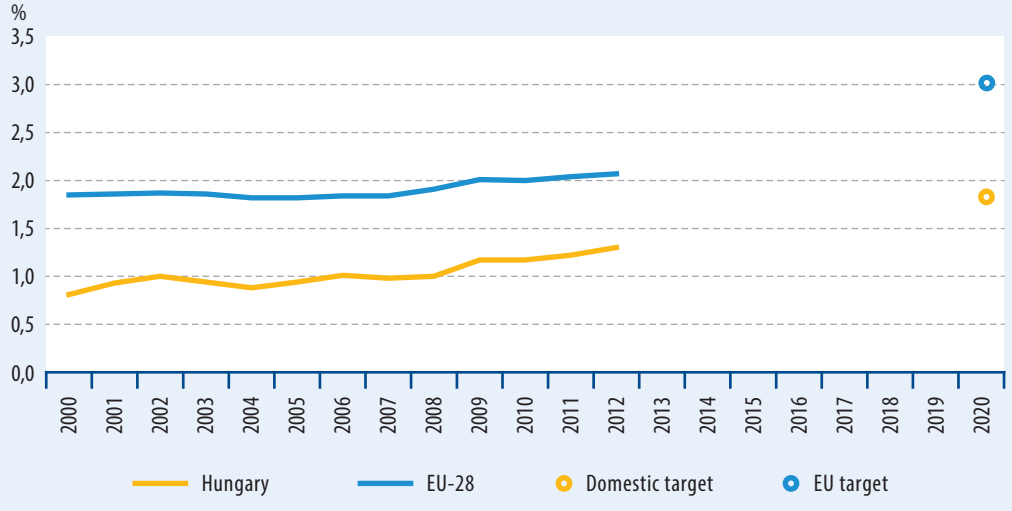
Registered units: units in administrative registers at the time of the survey, existing in legal terms, having a tax number, including those under bankruptcy, liquidation or dissolution proceedings at the particular time.

Stadat tables
3.2. Business units and non-profit organizations

Expenditures on research and development

Keywords expenditure on research and development, R&D, innovation

Figure 3.9.1. Research and development expenditures as a percentage of GDP



! *Though R&D expenditures as a proportion of GDP increased significantly compared to 2000, they were slightly lower than the path of growth aimed at.*

Relevance The Lisbon and then the Europe 2020 Strategies both set as a top priority that R&D expenditures should reach 3% of the GDP of EU member countries on average by 2020. The proportion of R&D expenditures in Europe was lower than the figures for the most significant competitors, above all the United States of America and Japan, which is primarily due to the low level of investments by enterprises. Europe should improve the conditions for investments by the business enterprise sector in R&D. The NFSSD considers it necessary to increase expenditures on innovation, and makes recommendations to the government, according to which by supporting corporate R&D&I (research and development and innovation) the government can contribute not only to the sustainability of environment but also to the development of domestic small- and medium-sized enterprises. This enhances the competitive advantage of domestic enterprises, which has advantageous effects in respect of other national capital as well.

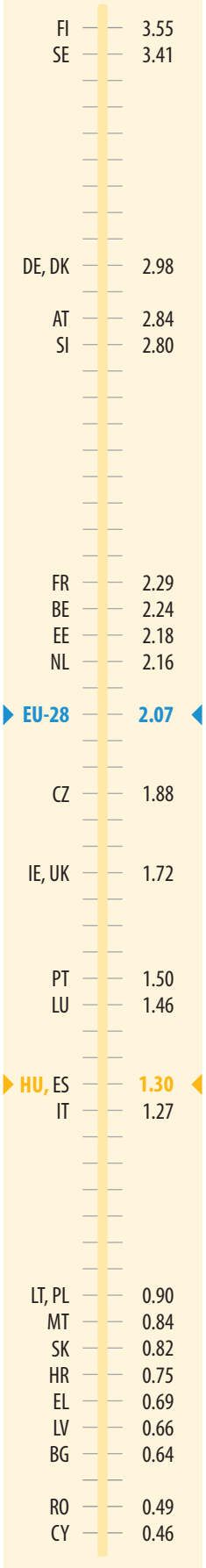
Commentary Research and development expenditures were below 1% of GDP throughout two decades in Hungary. A change can be perceived from 2008, since when this value has exceeded 1% and growth has been recorded. However, dynamic growth occurred only in the business enterprise sector, where nearly 70% of R&D expenditures were already measured by 2013. In contrast, mostly stagnation was observed in higher education and government sectors.

International outlook R&D expenditures as a proportion of GDP averaged 2.1% in the EU-28 and 1.3% in Hungary in 2012.

Definitions

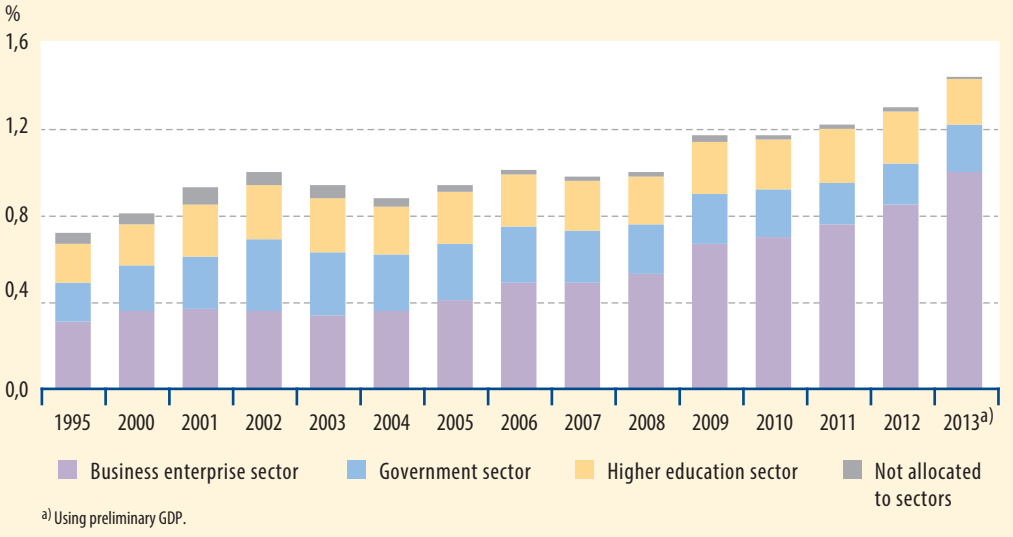
The most widespread indicator used to measure and internationally compare research and development expenditures and R&D activities expresses the amount of R&D expenditures as a percentage of GDP. Expenditures on research and development are equal to the total amount of R&D current costs and R&D capital expenditure, not including VAT, coming from whatever domestic or foreign sources and irrespective of the fact whether the financial source was originally assigned for research, development or any other purpose. Research and experimental development comprise creative work undertaken on a systematic basis in order to increase the

Research and development expenditures as a percentage of GDP in the European Union, 2012, %



SK 23.4
ES 19.0
DE 15.5
CZ, FI 15.3
DK 15.0
IT 14.9
CY, FR 14.7
PT 14.4
RO 14.3
HU 13.7
BE 12.4
EE 12.3
AT 11.9
SI 10.7
HR, NL 10.5
IE 9.3
SE 8.4
LU 8.3
PL 8.0
BG 7.6
MT 7.4
LT 6.6
UK 5.2
LV 3.1

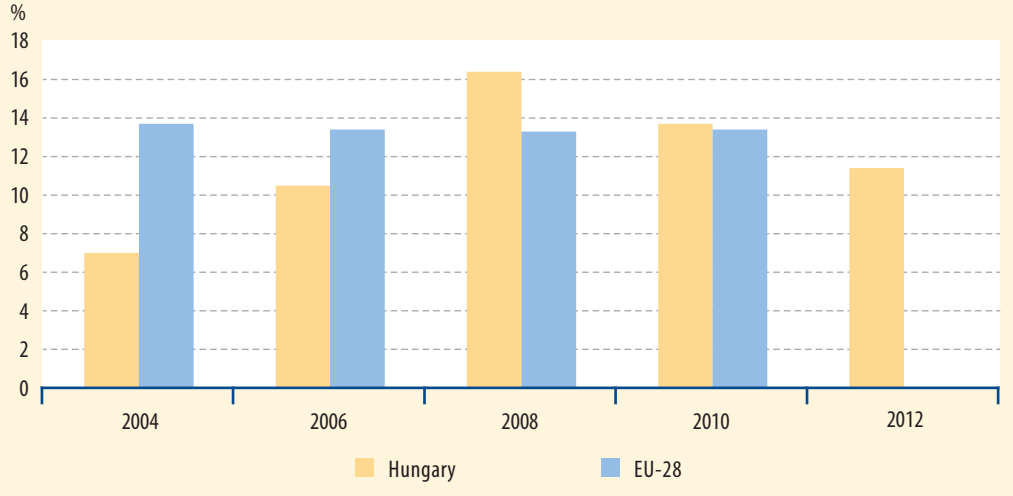
Figure 3.9.2. Research and development expenditures as a percentage of GDP by sectors



a) Using preliminary GDP.

! *The R&D expenditures of the business enterprise sector have been rising since 2004.*

Figure 3.9.3. Sales revenues from innovation as a proportion of total sales revenues of business enterprises



! *The proportion of sales revenues from innovation was declining compared to 2008.*

stock of knowledge, including knowledge of man, culture and society, and the use of this stock of knowledge to devise new applications. Sales revenues from innovation express the sales of products new to the enterprise or new to the market as a proportion of total sales re venues of enterprises. Innovation is the implementation of a new or significantly improved product (good or service) or process, a new marketing method, or a new organisational method, in business practices, workplace organisation or external relations.

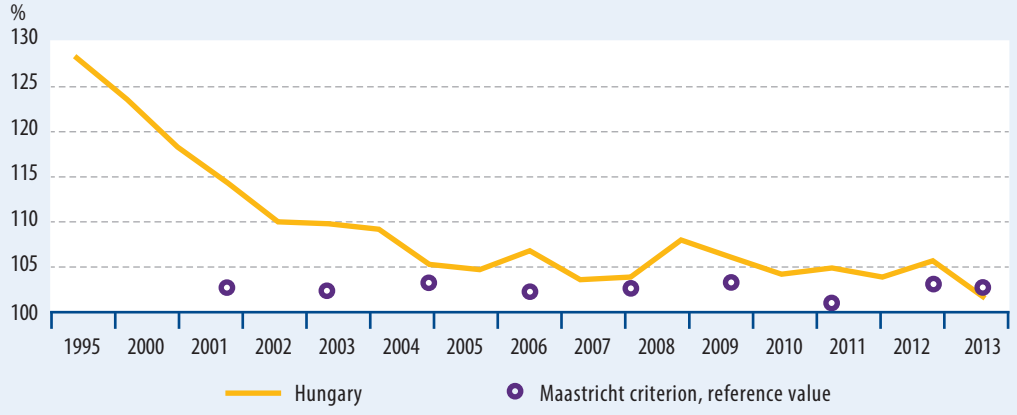
Sales revenues from innovation as a proportion of total sales revenues of business enterprises in the European Union, *%*

Stadat tables
3.4.1. Main ratios of R&D
3.4.2. R&D units and R&D staff number
3.4.3. R&D expenditures
3.4.4. Total R&D expenditures by financial source
3.4.5. Number of publications of R&D units

Consumer price index (inflation)

Keywords consumer price index, inflation, consumer prices, food prices, motor fuel prices, energy carrier prices

Figure 3.10.1. Consumer price index (previous year=100.0%)



! *In 2013, consumer prices rose by 1.7% on average compared to the previous year, and they were only lower in 1970 (1.3%).*

Relevance Inflation causes serious damage if it stands at a high level and fluctuates. Instability is disadvantageous to the economy, consumers as well as business enterprises. In case the inflation rate fluctuates, i.e. the change of prices differs significantly from time to time, the result is uncertainty. Because of fluctuating and unpredictable rates of inflation it is more difficult for consumers and enterprises to plan in the long term, the volume of investments and the level of savings may decline, so market efficiency deteriorates. When preparing for the introduction of the euro EU member states need to meet the convergence criteria laid down in the Maastricht Treaty. In accordance with one of the criteria the inflation rate of member states shall not surpass by more than 1.5 percentage points the inflation rate of the three best performing EU member states.

Commentary In the past two decades, inflation was the highest in the years following the regime change. The annual rate of increase of consumer prices decelerated continuously from the second half of the 1990s, and the rate of annual inflation fell below 10% in 2000 for the first time after a long period. Although due to the change of the VAT and excise duties this trend was temporarily interrupted in 2004, it continued in 2005 and inflation fell to 3.6%. A further acceleration was recorded in 2006, predominantly as a consequence of the change of VAT and other taxes on products. Consumer prices rose at a considerably higher rate in 2007 than in previous years, by 8.0%, which stemmed from administrative measures introduced at the beginning of the year and a higher rate of food price rise compared to the preceding years. The annual growth rate of prices decelerated somewhat further in 2008 and 2009, but was broken again in 2010, when it reached 4.9%. One of the most important factors of this price rise was the increase of excise tax from 1 January, in addition, the impact of the higher price rise of motor fuels than in previous years could also be observed. In 2011, prices rose at a lower rate than in the previous year, by an average 3.9% over a year. Prices were up by 5.7% in 2012, at a higher pace than in the previous year, which was caused predominantly by the increase of VAT at the beginning of the year, excise tax increases and a more marked rise of motor fuel prices. In 2013, consumer prices rose by 1.7% on average compared to the previous year, which was 4 percentage points lower than what was measured in 2012. The highest part in the development of consumer prices in 2013 was mainly played by administrative and government price measures. Within this, consumer prices in 2013 were influenced the most markedly by price measures reducing overhead costs. Besides, the introduction of the financial transaction duty, and the excise tax on tobacco products, raised in December 2012 and reflected by prices at the beginning of 2013, had significant effects, as well as the in-year increase of the margin on tobacco products.

Harmonised index of consumer prices (HICP) in the European Union, 2013, *(previous year=100.0), %*

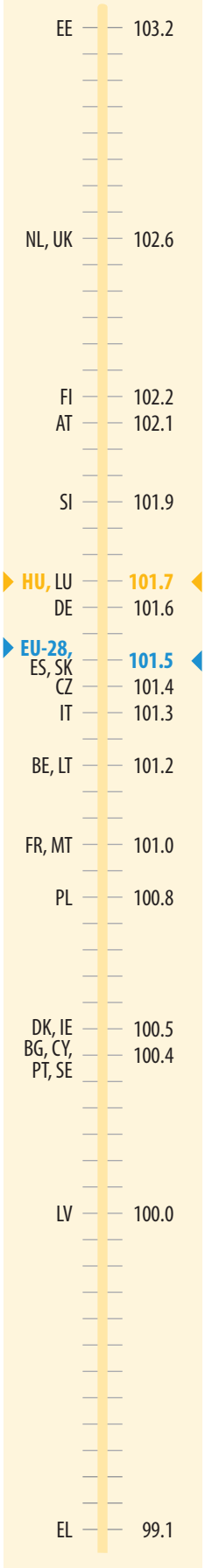
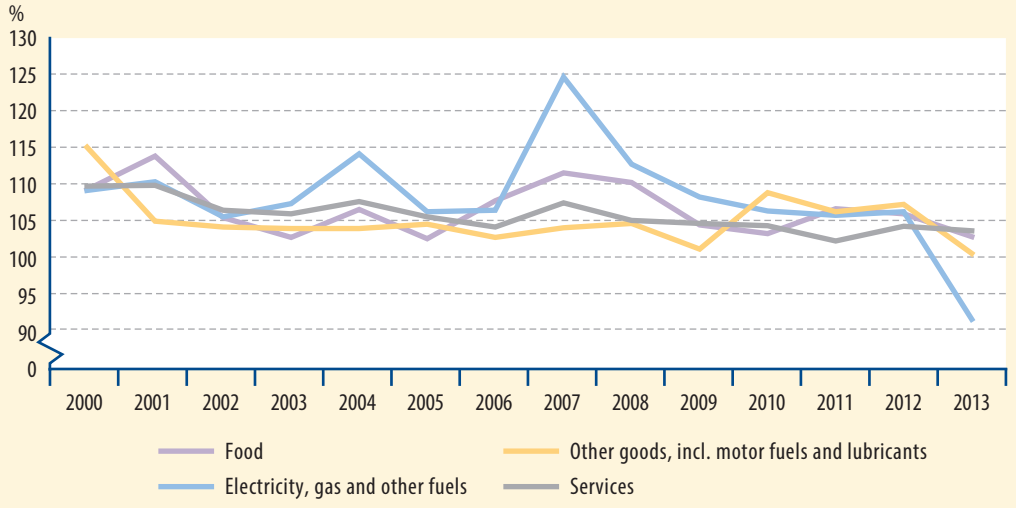


Figure 3.10.2. Consumer price index in selected main groups



! ***The evolution of the consumer price index was dominated by the price change of food and electricity, gas and other fuels – both categories representing large weight in the consumer basket in the last few years.***

International outlook Analysing the development of the harmonised index of consumer prices, the annual average consumer price increase of the already 28 member states of the European Union decreased from 2.6% in 2012 to 1.5% in 2013 based on Eurostat data. Although the price level increase sank to a very low level, there was already a lower inflation in the EU in 2009, when the rate of annual inflation was merely 1%. In 2013, inflation decelerated in almost all EU member states, at the same time it decreased at one of the most intensive rates in Hungary. Additional relatively marked deceleration was recorded for Poland (from 3.7% to 0.8%), Cyprus (from 3.1% to 0.4%) and Portugal (from 2.8% to 0.4%). Back in 2012 the highest price increase within the European Union was measured in Hungary, and in 2013 Estonia and Romania stood at the top with annual average price increases of 3.2%. In addition, the rate of price rise was above the average – exceeding 2% – in the United Kingdom, the Netherlands, Croatia, Finland and Austria. In Greece the impact of consumption decreasing as a result of the economic crisis was reflected in prices too, there was deflation there, prices falling by 0.9% on average over a year.

Details One of the most dominant factors of the development of the consumer price index is food, representing significant weight in consumption, too, and accounting for some one-quarter of the consumer basket. The 2.8% annual average consumer price increase of food was substantially lower in 2013 than the 5.9% level measured in the earlier year, however, continued to exceed the total consumer price index. The development of food prices last year was dominated by more favourable yields in agriculture on the one hand, noting that because of the severe drought damage in the year 2012 the producer prices of certain agricultural products were outstandingly high.

In the last year the development of consumer prices – and within these electricity, gas and other fuel prices – was dominated by government price measures. In the group of electricity, gas and other fuels the price increase recorded for earlier years turned into price decrease in 2013, which was the effect of the price measure reducing overhead costs, entering into effect in the case of piped gas, electricity, district heating and bottled gas.

Definitions The consumer price index is an indicator measuring the monthly average consumer price changes of goods purchased and services used by households.

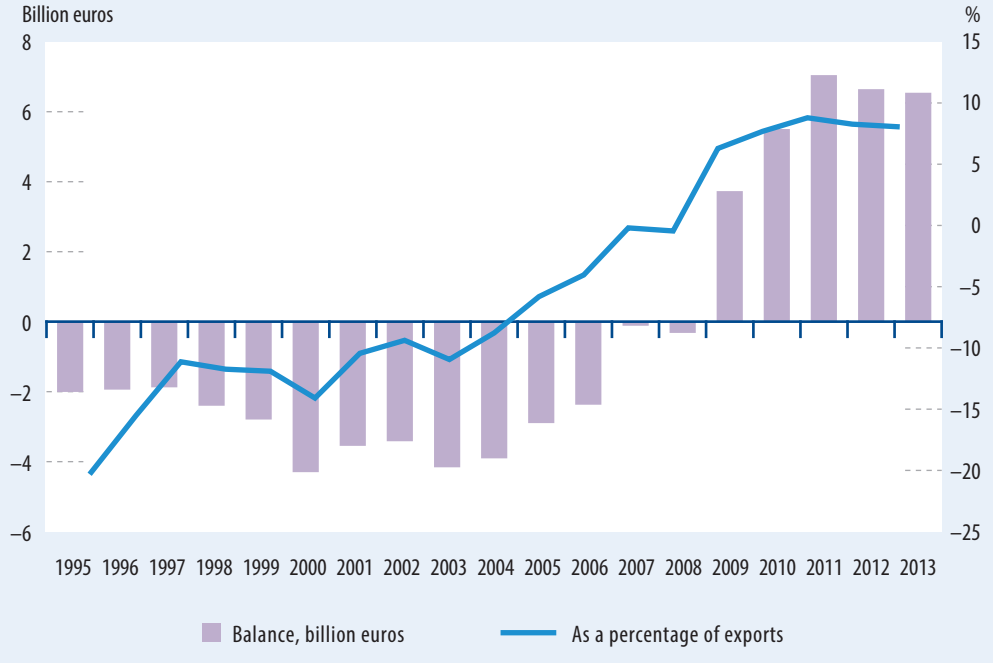
Harmonised index of consumer prices (HICP): a consumer price index reflecting EU recommendations, aimed to ensure international comparisons across the member countries of the European Union.

Stadat tables
3.6.1. Time series of consumer prices
3.6.2. Harmonised consumer price indices
3.6.5. Consumer price indices by detailed groups of expenditure

Balance of external trade in goods

Keywords **external trade in goods, exports, imports**

Figure 3.11.1. Balance of external trade in goods



! *The balance of external trade improved considerably following EU accession, a considerable surplus was registered following 2009.*

Relevance The indicator shows the difference between exports and imports, that is the balance of trade in goods. The balance of external trade in goods is an important component of the current account.

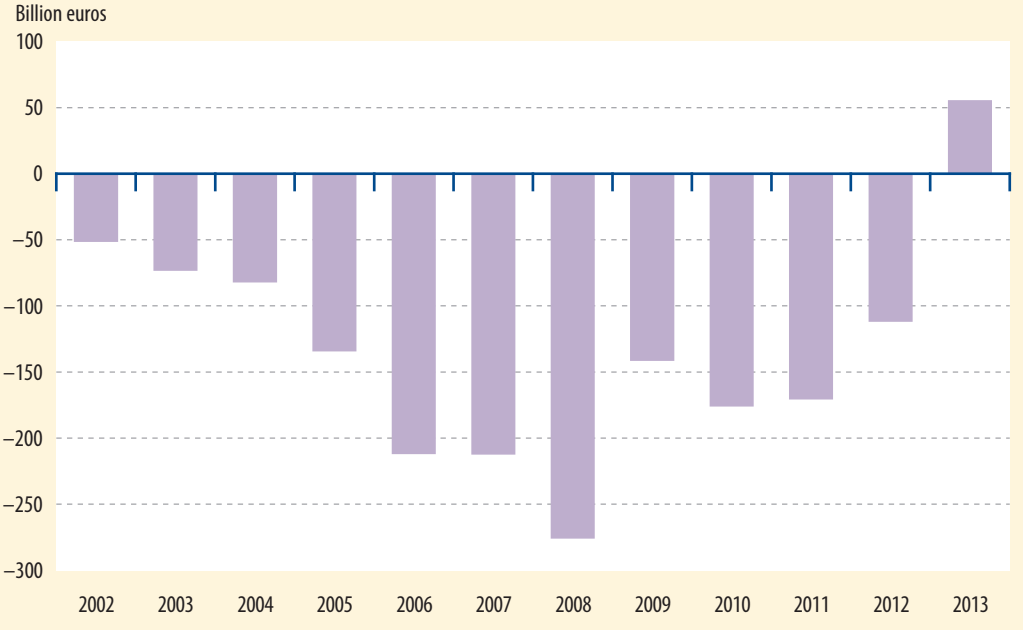
Commentary Between 1995 and 2008 the balance of external trade in goods was in deficit in Hungary. In the second half of the 1990s large foreign capital inflows basically altered the structure of the economy and extended the possibilities of enterprises. Companies founded with foreign capital made investments in Hungary, which together with the growth of imports for consumption purposes caused the deterioration of the balance. Following accession to the European Union the balance gradually improved, exports grew at a higher rate than imports, due to production for export purposes. In 2007 the balance was nearly in balance.

After the outburst of the financial crisis in 2008, the balance of external trade improved spectacularly along with the stagnation and later the fall of domestic consumption. From 2009 the balance of external trade of Hungary had a higher and higher surplus year by year. The main reason for the improvement of the balance was the decrease in imports for consumption purposes and the increased exports of communication and later – along with the development of capacities of domestic car factories – car industry products. In 2011 the balance exceeded 7 billion euros, and the surplus as a percentage of exports was nearly 9%. The balance, and the surplus measured as a percentage of exports reached similar values in 2012 and 2013, equalling about 6.5 billion euros and 8% respectively following a slight decrease.

The proportion of our trade with the EU has stood at a similar level for years, in 2013 the share of EU member states was 77% in exports and 72% in imports, the balance showing a surplus permanently.

International outlook The European Union, our most important trade partner, could not back out of the impact of the crisis either. Following the

Figure 3.11.2. Balance of external trade of the European Union (EU-28)



The balance of external trade in goods improved in the European Union after the global economic crisis and had already a surplus in 2013.

recession a marked expansion was recorded in the external trade of member countries, lasting until the outburst of the 2008 financial crisis, when the deficit reached a record level of 276 billion euros.

The majority of member states fell into recession in 2009, however, because of the lower decrease of imports than that of exports the balance of external trade improved. In 2010–2011 a marked (two-digit) growth started in respect of both exports and imports, the rate of increase of imports slightly exceeding that of exports. The balance of external trade of the EU moved in a favourable direction in 2012, which resulted from the 8% growth of exports as well as the 4% expansion of imports. In 2013 the balance of external trade of the European Union had a surplus for the first time after a long while, reaching nearly 56 billion euros according to preliminary data, which was due to the decrease of imports compared to the previous year and the growth of exports compared to the same base.

Definition

The balance of external trade in goods shows the difference between the value of exports and imports, i.e. the balance of trade in goods.

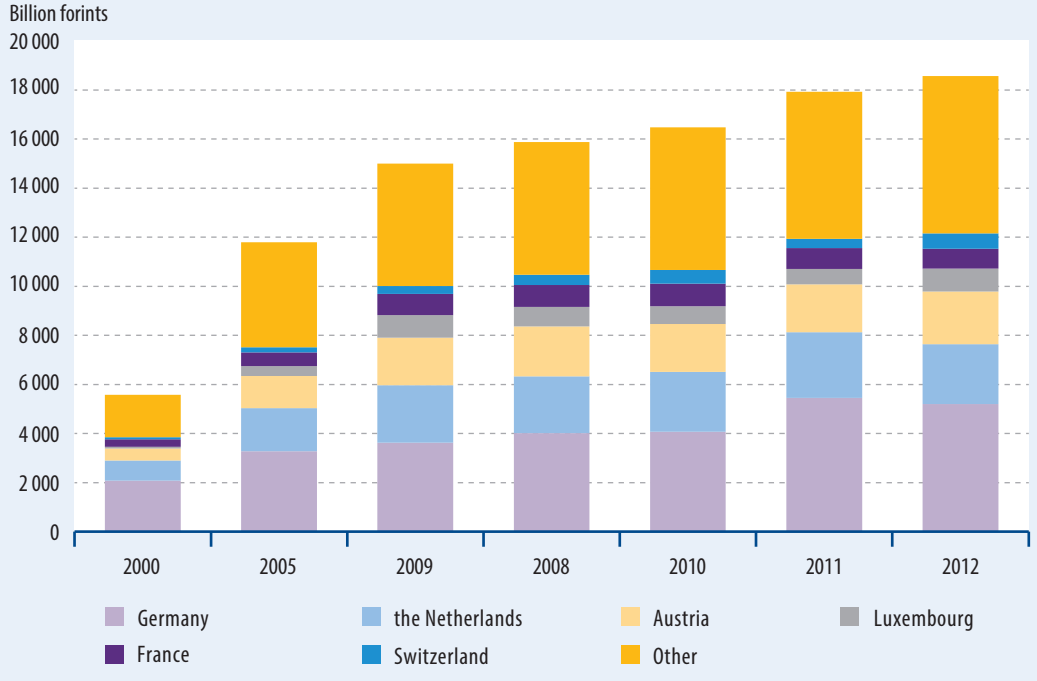
The relative balance of external trade is the proportion of the balance to goods exports, expressing the relative size of external trade deficit or surplus.

Stadat tables
3.5. External trade

Foreign direct capital investments

Keywords **foreign capital, working capital, capital investments**

Figure 3.12.1. Largest FDI investors in Hungary by home countries



Source: National Bank of Hungary.

! *The capital stock increases and a substantial part of it comes from countries of the European Union.*

Relevance The free movement of capital plays an important role in world economic trends. Foreign direct capital investments have played a dominant role in the restructuring of Hungary's economy since the regime change, contributing significantly to the increase of productivity, the creation of new workplaces, the modernisation of technology and the improvement of export capacities. As found in the Framework strategy, the international exposure of Hungary's economy, its dependence on foreign capital and raw materials is high, which is associated with substantial indebtedness to the rest of the world.

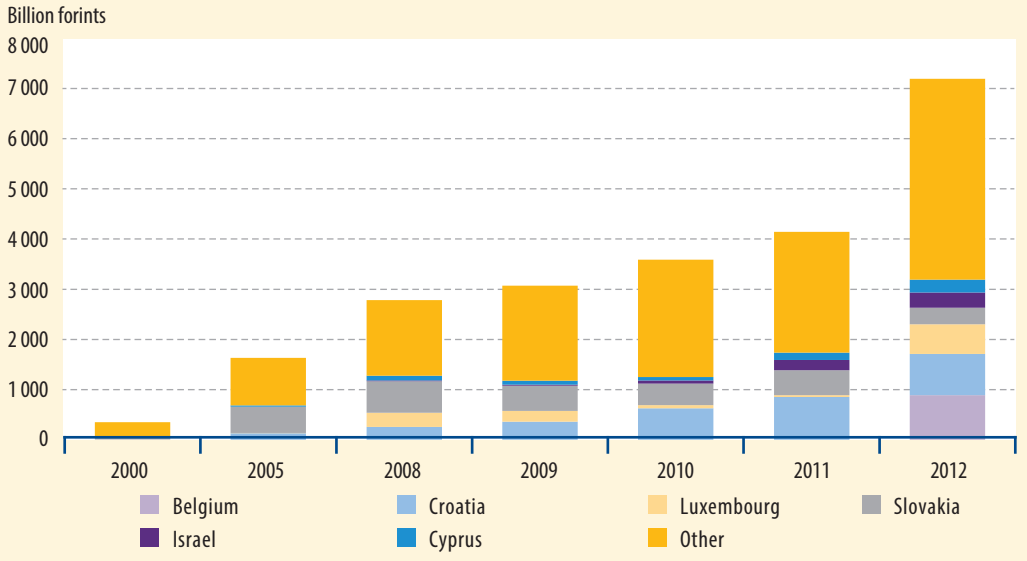
Commentary At the end of 2012 the amount of the stock of direct capital investment inflows (shares, other equities, reinvested earnings) to Hungary was 18,573 billion forints, surpassing that in the previous year by 3.6%. The marked increase of foreign direct capital inflows in the first half of the last decade (of 24% in 2003 and of 19% in 2005 compared to the previous year) changed for a much more modest rate of increase from the second half of the decade as an impact of the global economic crisis.

More than two-thirds of the stock of foreign investments was recorded in service branches in 2012. The largest out of these were professional, scientific and technical activities (31%), wholesale and retail trade and the repair of motor vehicles and motorcycles (11%) as well as financial and insurance activities (9%).

Manufacturing accounted for less than one quarter, 24% of the stock of investments. The most significant with this was the manufacture of computer, electronic and optical products (4.2%), followed by the manufacture of rubber, plastics and other non-metallic mineral products (4.0%) and the manufacture of transport equipment (3.7%).

The stock of Hungary's direct capital investments abroad was 7,191.2 billion forints at the end of 2012 (shares, other equities and reinvested earnings together), growing by 74% compared to the figure recorded for the same period of the previous year. Although the amount of Hungary's direct capital investments abroad is smaller than

Figure 3.12.2. Hungary's outward foreign direct investment by largest host countries



Source: National Bank of Hungary.

! *The rate of increase of Hungary's direct capital investments abroad is considerably higher than that of foreign capital investments in Hungary.*

that of foreign capital investments in Hungary, its rate of increase is considerably higher.

Out of Hungary's investments abroad administrative and support service activities were the most significant with 31%, followed by financial and insurance activities with a share of 23%, professional scientific and technical activities with 10% and by wholesale and retail trade and the repair of motor vehicles and motorcycles with 4%.

The share of manufacturing in Hungary's capital investments abroad is smaller than in foreign direct capital in Hungary, its share of the total stock was only 15%, while this proportion was 24% in investments in Hungary.

Within manufacturing the manufacture of basic pharmaceutical products and pharmaceutical preparations is in the leading position with a 5% share, followed by the manufacture of coke and refined petroleum products and of computer, electronic and optical products with shares of 4% each. The 14% share of mining and quarrying was also substantial.

Details Since foreign capital first emerged in Hungary the position of the three largest investor countries has been unchanged: Germany has been the first, the Netherlands the second and Austria the third. Their share of foreign direct capital was 28%, 13% and 12% respectively in 2012. These three countries made up more than the half of all investments in 2012 too. Investments form Luxembourg (5%), France (4%) and Switzerland (3%) were also considerable. Our major investor partners are member countries of the European Union, nearly three-quarters of the direct capital investment stock in 2012 came from the EU-27 (the share of Europe was 79%).

Out of countries receiving Hungary's direct capital investment the most significant ones in 2012 were Belgium with a share of 12%, Croatia with 11% and Luxembourg with 8%. In 2012, 62% of the stock of Hungary's direct capital investments was in European countries, which proportion was 41% in the EU-27.

Definition Direct foreign investment enterprise: an enterprise with or without legal personality, in which an investor resident in another economy owns 10% or more of the ordinary shares or voting power or has a corresponding share. Data do not refer to enterprises in which the share of foreign direct investments is under 10% and those pursuing activities abroad with the passive function of channelling funds.

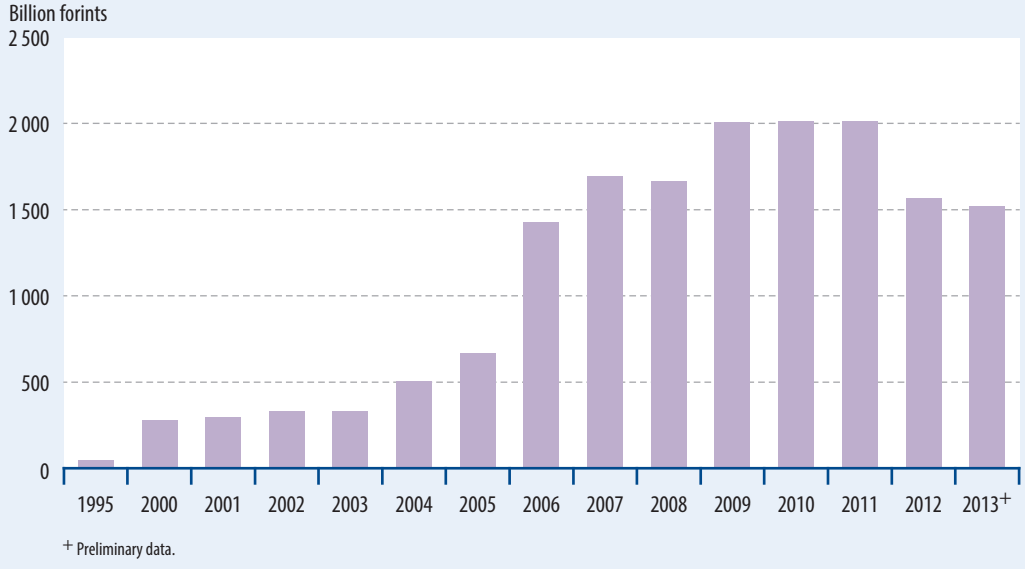
Stadat tables

3.1.26.1. Foreign direct investment enterprises by industries
3.1.27.1. FDI of foreign direct enterprises by industries
3.1.28. FDI by countries and groups of countries of origin
3.1.29. Hungarian direct investment abroad by economic branches
3.1.30. Hungarian direct investment abroad by countries and groups of countries of destination

Income paid as dividends to the rest of the world

Keywords **dividends, property income, special purpose entities (SPEs)**

Figure 3.13.1. Income paid as dividends to the rest of the world



Income paid as dividends to the rest of the world grew considerably after 2005, stood at nearly the same level between 2009 and 2011, and then decreased in 2012 and 2013.

Relevance According to the NFSSD the international exposure of the Hungarian economy, its dependence on foreign capital and raw materials is high, which is associated with substantial indebtedness to the rest of the world. Therefore it is an outstanding task to strengthen the stratum of entrepreneurs, to gradually increase domestic capital investments and to reduce our exposure to the rest of the world. Income paid as dividends to the rest of the world is a kind of property income received by the non-resident owners of Hungarian enterprises and paid to the rest of the world, to which they become entitled as a result of placing funds at the disposal of enterprises. From 2006, special purpose entities (SPEs), recorded in the system of national accounts, had an impact on property incomes either received from or paid to the rest of the world.

Commentary The amount of dividends paid to the rest of the world increased more than eleven times from 1995 (45.5 billion forints) to 2004 (503.2 billion forints). Compared to the growth of 35 billion forints in 2002 in comparison with the previous year a slight fall of 1.4% occurred in 2003 and a drastic rise in 2004 (54%). For 2005 a repeated growth – though lower compared to the previous year – was recorded, amounting to 164 billion forints. In 2006 there was an increase in dividends paid to the rest of the world which has been unparalleled to date. The 667.2 billion forints of dividends paid to the rest of the world in the year 2005 grew to 1,428.2 billion forints. This significant rise was not already the case in 2007, what is more, the growth rate decelerated to about one-third of that in the previous year. A slight decrease was registered for 2008, so dividends paid to the rest of the world were 1.7% lower than in the year 2007. There was a growth again in 2009, the rate of change reaching 20%. The amount of dividends paid to the rest of the world was nearly the same in 2010 and 2011, then decreased by 22% in 2012, and following this was a further 44.2 billion forints lower in 2013 than in the previous year.

Definitions Dividends are forms of property incomes received by the owners of shares to which these owners become entitled as a result of placing funds at the disposal of enterprises.

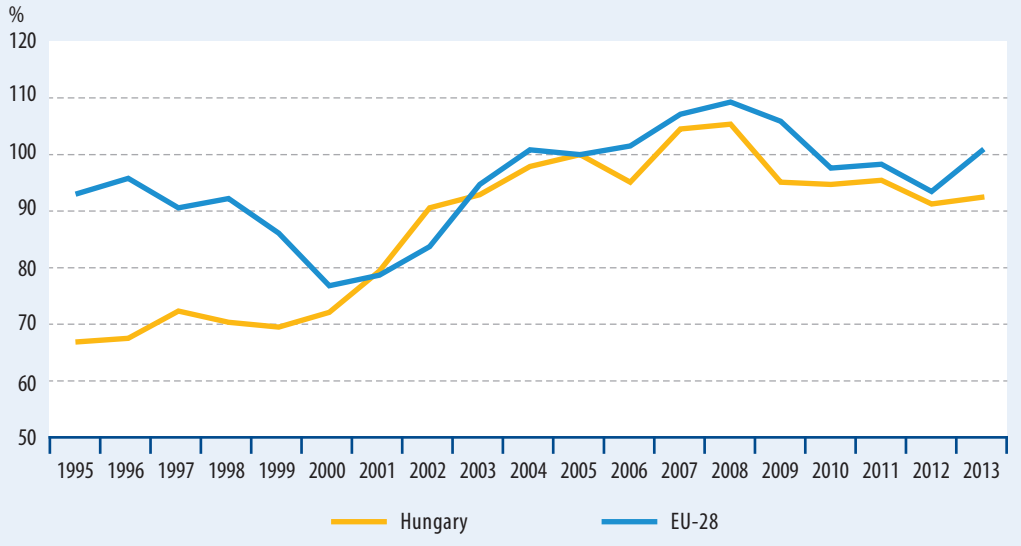
SPEs: enterprises in which the share of foreign direct investments is under 10% and those pursuing activities abroad with the passive function of channelling funds.

BG 151.65
LV 136.69
EE 131.28
SK 126.89
LU 121.02
CZ 113.61
MT 112.06
FI 109.97
BE 108.84
LT 107.34
DK 107.01
RO 106.73
IT 105.50
FR 104.28
SE 104.25
NL 104.23
SI 104.06
HR 103.80
AT 103.36
EU-28 100.68
PL 97.65
DE 96.89
ES 95.54
PT 94.33
CY 93.39
IE 92.59
HU 92.43
UK 87.90
EL 85.82

Index of international price competitiveness

Keywords **price competitiveness, exchange rate, productivity, labour costs**

Figure 3.14.1. **Real effective exchange rate index** (2005=100.0)



! ***The real effective exchange rate index of Hungary increased by nearly 13 percentage points between 2008 and 2013. (The decrease of the index indicates the improvement of competitiveness.)***

Relevance International price competitiveness affects first of all the indicators of economic resources out of the indicators of sustainability. It directly influences the development of GDP and indirectly changes in government debt and in employment rate. And sustainable resource management contributes to the long-term competitiveness of the Hungarian nation in addition to ensuring a higher level of life for current generations and making the nation more resistant to regional or global, as well as environmental or economic crises.

Commentary The index increased significantly, by more than a half in Hungary from 1995 to 2008 (with a temporary decrease in 2006). An improvement started following 2008, the positive change was primarily due to the substantial weakening of the forint exchange rate. The exchange rate (NEER) of our currency against the 37 countries examined weakened by nearly 15% between 2005 and 2013.

International outlook The performance of Hungary in respect of the development of the index of price competitiveness has been largely similar to the EU-28 average since the beginning of the 2000s. Compared to the base of the year 2005 the highest growth of the exchange rate index was in Bulgaria, and the most favourable change was in Greece. The decrease in the price competitiveness of Bulgaria was due to the strengthening of the national currency and the increase of labour costs, while in the case of Greece the strengthening was due to a significant decline of labour costs compared to the level in the year 2005.

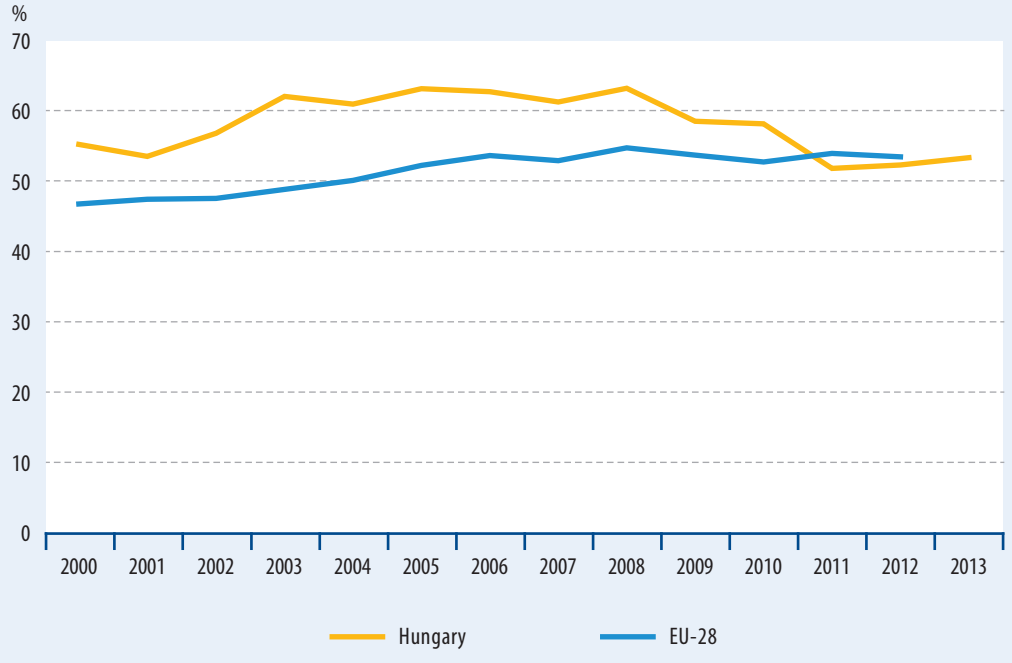
Definition The index of international price competitiveness is used to assess a country's (or currency area's) price competitiveness relative to its principal competitors in international markets. To assess the indicator the real effective exchange rate (REER) index is used, which takes into account the change of labour costs per unit of the particular country relative to the 37 countries examined (=EU-28 + 9 other countries: Australia, Canada, United Sates, Japan, Norway, New-Zealand, Mexico, Switzerland and Turkey.) in addition to the change of the nominal effective exchange rate (NEER). An increase in the index indicates the deterioration of competitiveness.

Real effective exchange rate index in the European Union, 2013 *(2005=100.0), %*

Energy import dependency

Keywords energy import dependency, energy dependency, imports

Figure 3.15.1. Energy import dependency



! *Between 2003 and 2010, our country's dependence on energy imports was around 60% then in the following years it decreased by about 10 percentage points and became identical with the EU average.*

Relevance The use of fossil fuels, the imports of fuels and the resulting risk of safety of supply set significant tasks for our energy management. To make supply safe it is indispensible on the one hand to increase the share of renewable energy sources – in line with endowments, and to reduce one-way dependency, to diversify import sources on the other. The climate and energy package of the European Union, and the energy strategy for 2020 also underline these objectives.

Commentary A significant proportion of our country's primary energy supply is imported, based on preliminary data in 2013 53% of the domestic use came from imports. We also import not only primary but secondary energy carriers (petrol, electricity). Over the past years, our 60% dependence, which was typical from 2003 to 2010, declined to about 50%, i.e. the level of the EU average. Within imports the volume of hydrocarbons (measured in terajoules) is the largest, with a special regard to that of natural gas, 90% of which comes from imports, mainly from Russia. In our country, the economically exploitable oil reserves are also scarce, in 2000 domestic production still covered 25% of our domestic oil needs, but the relevant figure was only 15% in 2013. The use of coal is on the decrease as a result of shutting down and converting conventional power plants, however, even along with a decline in consumption, a growing proportion of coal comes from imports. In addition to the import of fossil fuels, electricity imports also grow rapidly.

International outlook The energy import dependency of the EU showed a minimal but steady increase in the past decade, principally because of expanding energy needs and the increasing importance of natural gas imports. More than 50% of the energy consumed in the

Dependence on energy imports in the European Union, 2012, %

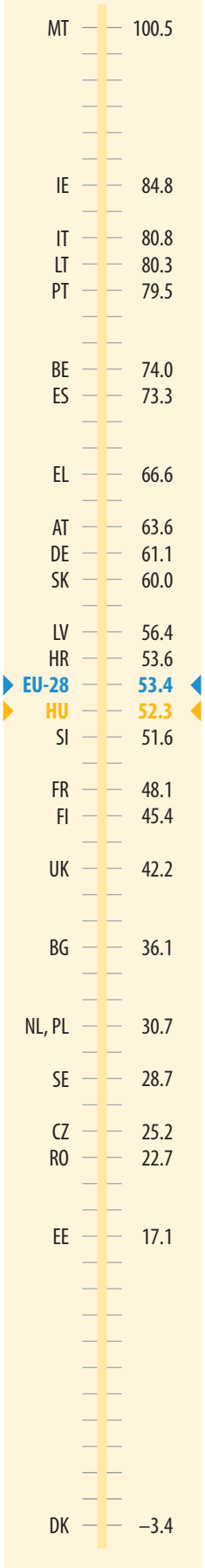
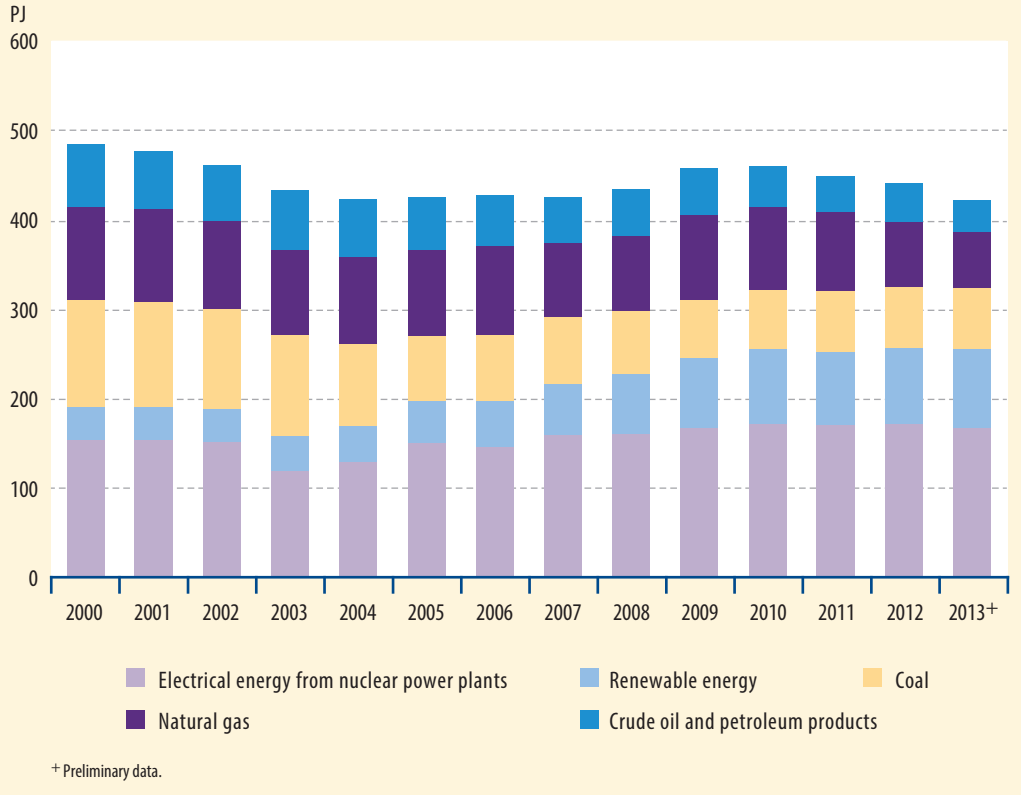


Figure 3.15.2. Production of primary fuels in calorific value



+ Preliminary data.

Source: National Environment and Energy Centre, Hungarian Energy and Public Utility Regulatory Authority.

! *The falling extraction of fossil fuels is offset by the expansion of electricity production in the nuclear power plant and by renewable energy.*

EU has come from imports since 2004. In 11 of the 28 member states, - primarily in Northern and Eastern Europe - the dependence on imported energy was well below 50%, while 17 countries had values of above 50%. Of the latter ones, the energy needs of Malta, Cyprus and Luxembourg are almost completely covered by imports. The dependence on energy was negative (-3.4%) only in Denmark. Hungary with a rate (52%) similar to the EU average belongs to the group of the moderately energy-dependent countries.

Details Hungary's conventional fuel stocks (hydrocarbons and coal) have been largely exhausted over the last decades. Between 2000 and 2013, considering the composition of the primary energy production measured in calorific value, the extraction of natural gas decreased by 39%, while the respective figures of crude oil and coal were nearly halved. Our coal production fell sharply, currently only lignite and brown coal are mined in Hungary, the hard coal mining ceased in 2005. The falling extraction of fossil fuels is offset by the rising share of nuclear power in electricity production and by renewable energy. In the primary energy production, the share of renewables increased from 7.4% in 2000 to 21% in 2013.

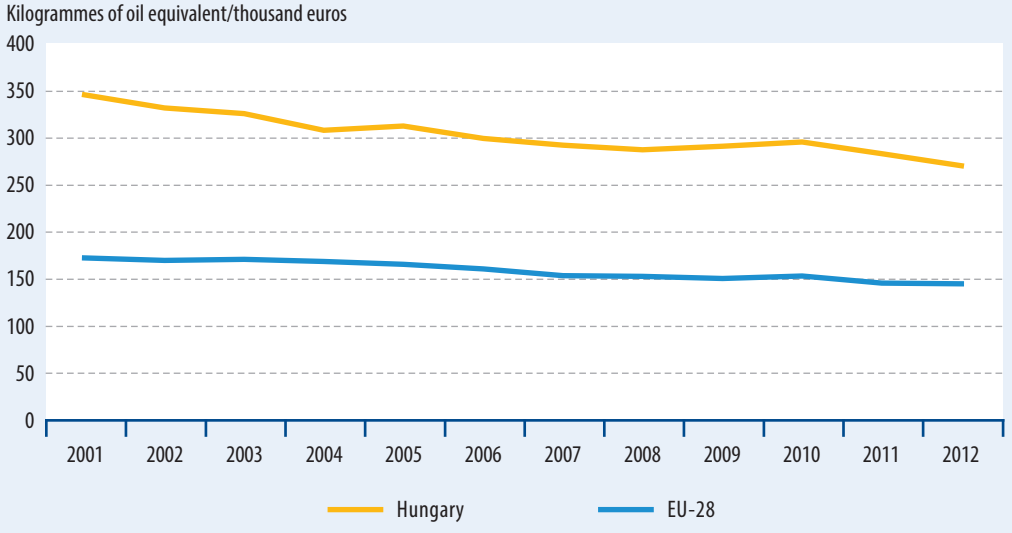
Definition The indicator of energy import dependency expresses the extent to which a particular country relies on imported energy sources in order to meet domestic energy needs. The indicator can be calculated by dividing the volume of net imports by the sum of gross domestic primary energy consumption and stock formation. Net imports are the difference between total imports and total exports. Energy dependency can also have a negative sign – in case of a net exporter –, and a positive value above 100% refers to stock formation.

Stadat tables
5.7.2. Primary energy production in calorific values
3.8.1. Primary energy balance

Energy intensity

Keywords **energy intensity, direct energy use**

Figure 3.16.1. Energy intensity



! ***Energy intensity fell by 22% between 2001 and 2012.***

Relevance Energy consumption as a proportion of GDP informs on the energy need of economic development. The general aim is to make these two independent from each other, taking into account both energy supply and environmental aspects. However, energy intensity is capable to characterize energy efficiency on the level of the national economy only with limitations, the internal structure of the economy (e.g. energy-intensive divisions), the composition of energy sources used (fossil or renewable sources), and the geographical endowments of a country (e.g. climatic conditions) can influence the indicator.

Commentary Hungary's indicator of energy intensity fell by 22% between 2001 and 2012, which was influenced by the significant restructuring of the economy and the increase of efficiency of energy production and consumption, too.

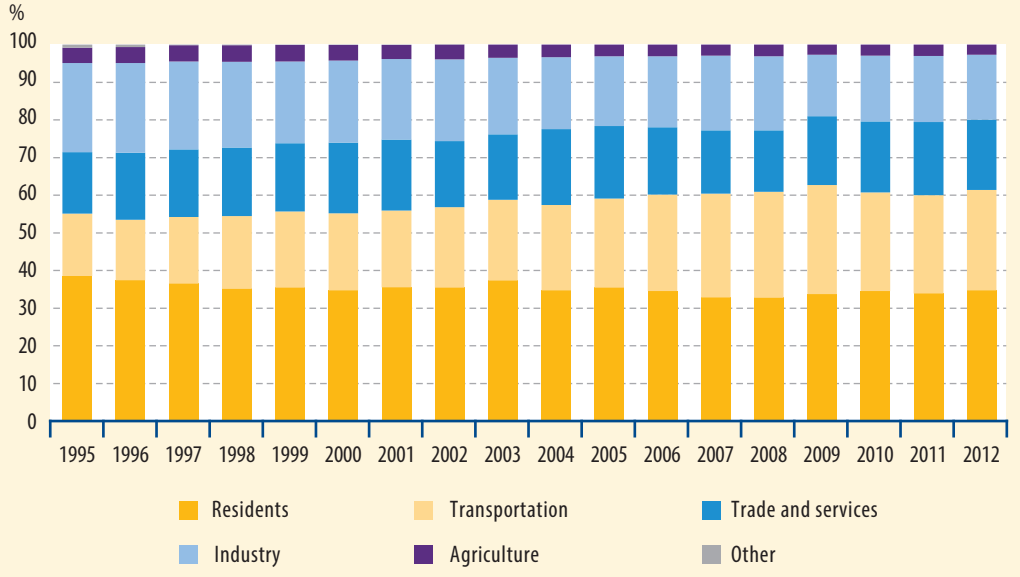
International outlook Despite the significant decrease, the domestic value (269 kilogrammes of oil equivalent / 1,000 euros) is almost twice the EU average (143 kilogrammes of oil equivalent / 1,000 euros). The largest decrease in terms of energy intensity was observed in Slovakia (45%), Lithuania (45%), Bulgaria (36%) and Romania (35%) among the 28 member states of the EU between 2001 and 2012, but because of the high base the indicators for these countries were still high. In 2012, the energy consumption per unit of GDP was the lowest in Ireland (83 kilogrammes of oil equivalent / 1,000 euros) and Denmark (87 kilogrammes of oil equivalent / 1,000 euros), while the values of Bulgaria (670 kilogrammes of oil equivalent / 1,000 euros) and Estonia (479 kilogrammes of oil equivalent / 1,000 euros) were far above the EU average showing the highest energy intensity. Hungary was the ninth among the 19 countries having a higher figure than the EU average.

Details Domestic direct energy use was virtually unchanged after the recession following the regime change, however, it decreased by 8.4% in 2012 compared to the previous year. The energy use of the residents is still the largest, its share was 35% in 2012. This is followed by the transportation sector (27%), whose share is dynamically growing, and is now ahead of the trade and services sector (19%), as well as the industrial sector (17%) which previously had a

Energy intensity in the European Union, 2012,
kilogrammes of oil equivalent/thousand euros

BG	669.9
EE	478.7
RO	378.8
CZ	355.4
SK	329.3
LV	328.6
PL	298.7
LT	291.6
HU	**268.7**
SI	227.7
HR	225.6
FI	204.0
BE	172.2
CY	167.0
EL	165.7
NL	149.4
SE	148.2
MT	147.4
PT	146.5
EU-28	**143.2**
FR	142.9
ES	136.4
LU	133.8
DE	129.2
AT	123.9
IT	117.3
UK	105.1
DK	87.2
IE	82.8

Figure 3.16.2. Direct energy use by sector



! *The shares of industry and transport were essentially exchanged by the end of the period.*

larger proportion. Heating accounted for 40%–45% of the final energy useof households. Within direct energy use gaseous and liquid hydrocarbons have a dominant role.

Definitions Energy intensity is the quotient of gross inland energy use and GDP in a particular calendar year, where energy use is given in kilogrammes of oil equivalent. Gross value added is calculated at constant prices of the year 2000.

The indicator for agriculture, industry or services is the quotient of the final energy use and the gross value added of the particular section.

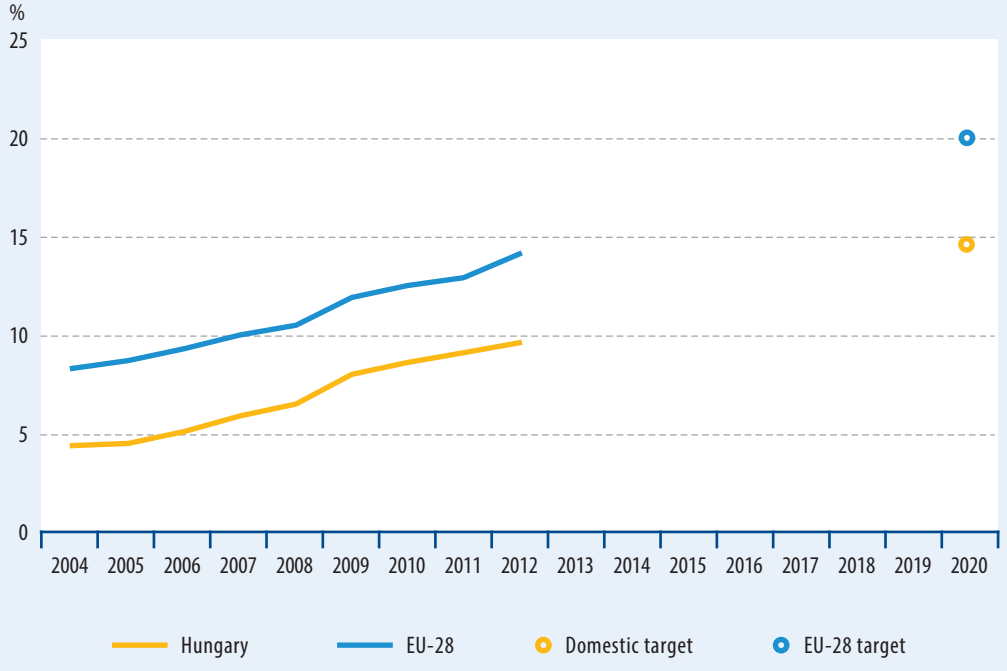
The indicator of direct (final) energy use gives the direct energy use of the different divisions in tonnes of oil equivalent (one tonne of oil has a net heat equivalent of 41 868 megajoules), including the sum of final energetic, and non-energetic and material-type use, excluding use with the purpose of transformation into other fuels.

Stadat tables
5.7.1 Final energy consumption

Renewable energy sources

Keywords **renewable energy sources, electricity**

Figure 3.17.1. **Share of renewable energy sources in total energy use**



! ***Hungary must increase the share of renewable energy sources to 14.65% until 2020 according to the Renewable Energy Utilisation Action Plan; in 2012 this figure was 9.6%.***

Relevance The aim of the energy policy of the European Union is to reduce dependence on fossil fuels, in addition, to cut the emissions of many different pollutants, including particularly greenhouse gases. EU Directive 2009/28/EC serves this goal, according to this the rate of use of renewable energy sources should be increased to 20% up to 2020 in the community energy consumption. The directive also defines the targets to be achieved at member state level, which, in case of Hungary, is 13% within the total gross final energy consumption. Our country, in line with its Renewable Energy Utilization Action Plan, committed to reach a higher rate of 14.65%, while in respect of electricity, we have a commitment of 10.9%. The NFSSD notes that the use of renewable resources and the transition to renewable resources currently incurs additional costs for economic agents. As these costs should be paid anyway by the economic agents after the depletion of non-renewable resources, the support of those investments which are aimed at the more effective substitution of non-renewable resources is justified. Among the activities to be supported, the production of green energy plays a key role. This makes it necessary to increase the share of biomass, geothermal, hydro, solar and wind energy, agricultural by-products as well as biofuels and biogas within energy use by providing subsidies for their utilization as well as for investments into such technologies.

Commentary Renewable energy sources are increasingly being used in the energy supply of our country: between 2000 and 2013, the amount of primary energy from renewable sources, as a result of an approximately two and a half fold increase, rose from 34.7 PJ to 86.9 PJ. Within the total gross final energy consumption, their share was 9.6% in 2012, i.e. more than 3/5 of the intended target. The intensive use of renewable

The share of renewable energy sources in the total energy use in the EU, 2012, %

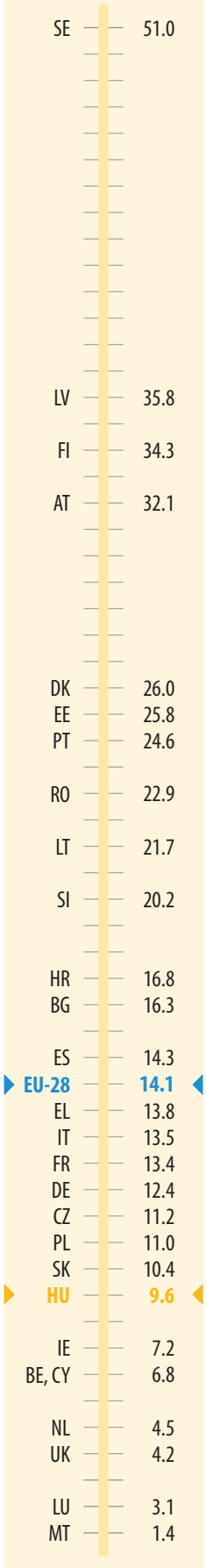
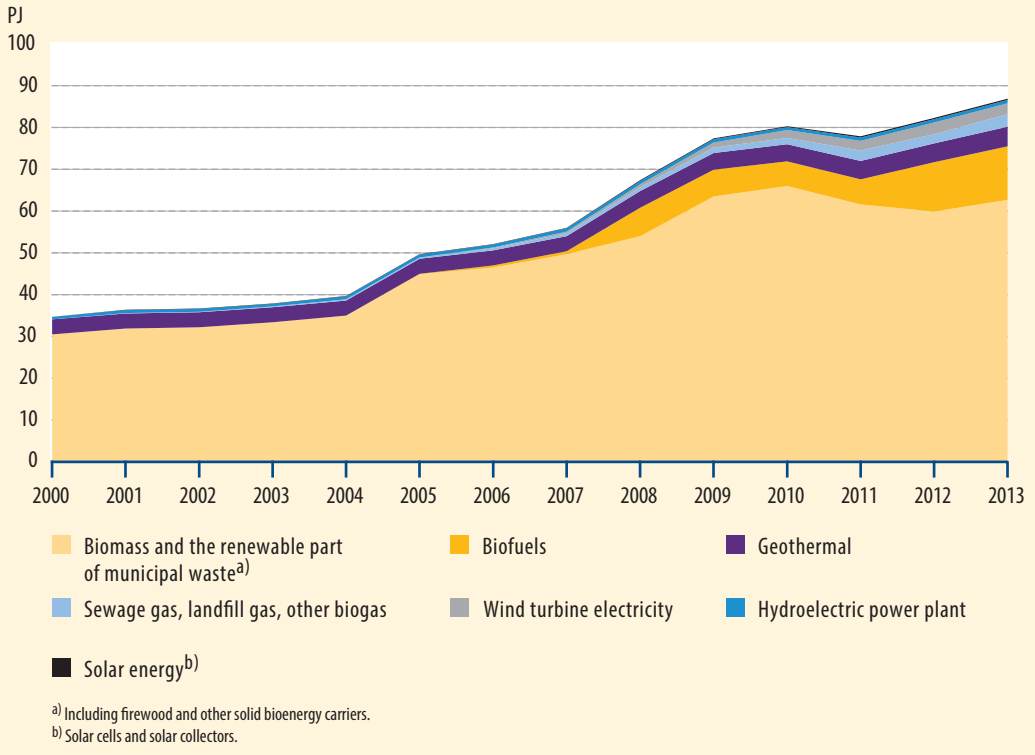


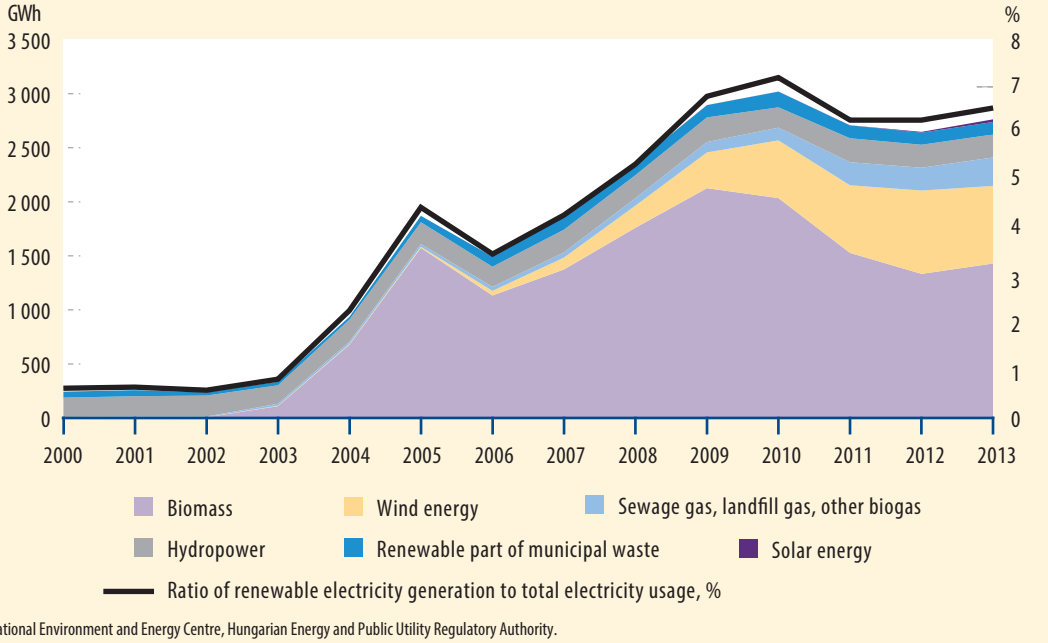
Figure 3.17.2. **Energy produced from renewable energy sources and waste qualified as basic energy sources, by sources of energy**



a) Including firewood and other solid bioenergy carriers.
b) Solar cells and solar collectors.

The most important renewable energy source is biomass and the renewable part of municipal waste, which have a combined share of nearly 72% in renewable energy production.

Figure 3.17.3. **Volume and proportion of electricity produced from renewable energy sources and waste**



Source: National Environment and Energy Centre, Hungarian Energy and Public Utility Regulatory Authority.

The share of wind energy gradually increases in green electricity generation, its share grew to 26% by 2013.

energy sources began in 2003, mainly due to the favourable support system (‚KÁT' – compulsory takeover system) which resulted in an upswing in biomass-based power generation. Renewable energy sources are used primarily for heat and power generation or, to a lesser extent, as biofuel use. Within renewable-based energy production, energy produced from biomass and the renewable portion of municipal waste[1] has the highest share, until 2010 it was above 80% then decreased to 72% by 2013. The biomass may come from by-products generated in crop production and forestry as well as from animal husbandry, food processing (vegetable oil industry), municipal wastes and industrial wastes. The domestic use of biofuels amounting to 15% of energy from renewable sources has doubled since 2011. The other sources of energy jointly represent only 13%. From 2007, the biogas, landfill gas (biogas produced in landfill sites) and sewage gas based production have been growing dynamically, their share increased from 1% to 3.5%. Wind-based power generation also shows a steadily increasing trend. A moderate growth occurred in the use of geothermal energy, its share remained around 5%.

International outlook In 2012, the energy produced from renewable energy sources gave 14% in the EU-28's total energy use, which was more than two thirds of the target set for 2020. Of the member states, the proportion of their utilization is the highest in Sweden accounting for about 51% of the energy consumption. Latvia and Finland shared the second and third places in the ranking with values of 36% and 34%. Based on the 2012 data, the national target for 2020 was already exceeded in Bulgaria, where the target was 16%, in Estonia, where a 25% target was determined and in Sweden, where a 49% target was set. The value of Hungary is 4.5% below the EU average.

Details In our country, the amount of „green" electricity produced from renewable energy sources has increased by more than tenfold since 2000, in 2013 it reached 2,763 gigawatt hours. The share of green electricity amounting to 6.56% of the electricity consumption slightly exceeded 60% of the national target set for 2020.

Renewable-based electricity generation has become more intensive since 2003 because of the incentive effect of the feed-in system (KÁT) - which is one of the forms of operating grants - in the framework of which producers could sell the electricity at a higher price than the market price. In 2006, because of restrictions on the amount taken over, the production decreased, but subsequently it started to increase again and the share of renewable electricity production reached its highest share of 7.2% in 2010. In the last three years, the production slightly decreased, which is partly explained by the fact that two co-fired power plants (the Bakony Power Plant and partially the Mátra power plant) were removed from the KÁT system.

The most significant volume and proportion are also represented by biomass in renewable-based electricity generation. Though its use has decreased by 30% since 2010, nevertheless it provided more than half of the production (52%) in 2013. In green electricity production, considering its significance, wind power follows biomass, which has been showing a steadily increasing trend since 2007, though its volume (718 GWh) slightly decreased in 2013 because of less favourable wind conditions. Its weight is still significant, it represents more than a quarter (26%) of domestic green electricity production. The biogas, landfill and sewage gas-based electricity generation has greatly expanded in recent years, its share increased to nearly 10% by 2013. The significance of hydropower has increasingly decreased since 2003, it gave 7.7% in domestic green electricity production in 2013. The share of electricity generation based on waste incineration was 4.2%. According to the records of the Hungarian Energy and Public Utility Regulatory Authority in 2012 three mixed and five biomass power plants, 22 hydroelectric power plants as well as four waste-incineration-based power plants operated in the country.

Definition The indicator shows the share of renewable energy sources (hydroelectric and wind power, solar thermal and photovoltaic energy, geothermal energy, biomass, biogas, biofuels, municipal waste) within total gross energy consumption.

Stadat tables

5.7.3. Share of renewable resources and waste in electricity production

5.7.4. Production of primary energy from renewable resources and waste, by sources

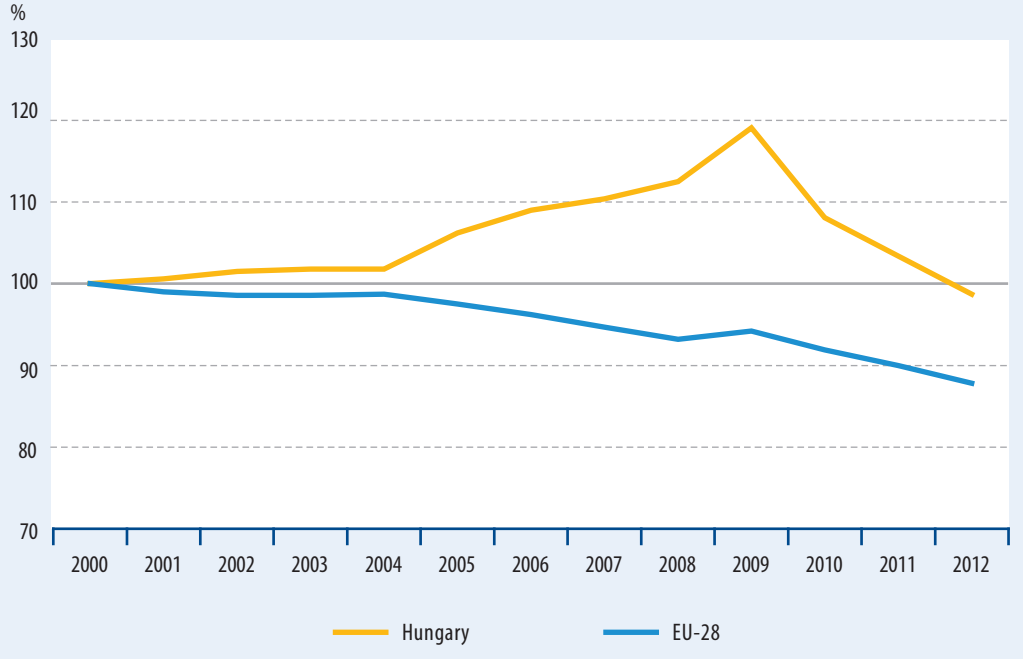
[1] Due to data protection, these two energy sources are shown together.

SI 118.4
PL 111.6
HR 104.5
LU 102.8
AT 100.3
BG 100.1
RO 100.0
HU 98.7
CZ 98.6
SK 96.0
PT 95.0
FI 93.2
IT 91.2
NL 90.9
DK 89.4
LV 88.5
LT 88.2
EU-28 87.8
CY 87.6
BE 87.2
FR 87.1
EE 84.0
ES 83.3
EL 82.7
MT 81.4
DE 80.4
UK 79.3
SE 79.1
IE 78.0

Energy use of transport

Keywords **energy use, transport**

Figure 3.18.1. **Energy use of transport as a proportion of GDP** (2000=100.0)



! *Since our accession to the EU, 2012 has been the first year when the growth of energy use in transport did not exceed the pace of economic development.*

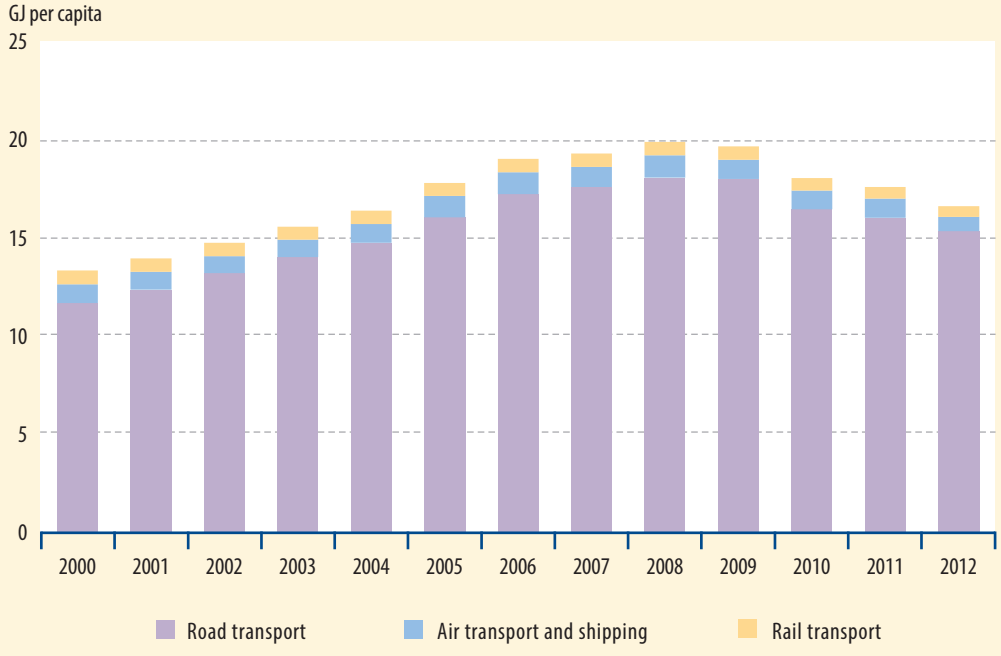
Relevance Current transport practices have inherent negative side effects, it would be desirable to create a transport system being in equilibrium with economic growth, but increasing at a slower pace than that. The programme formulated at the Gothenburg Summit of the European Council is related to this, according to which measures should be introduced to separate increase in traffic and growth rates of GDP. In addition – in accordance with the National Framework Strategy on Sustainable Development – the sustainable energy useof transport should be established as well as declining greenhouse gas emissions. In absolute terms the separation of energy use and GDP is achieved when only economic performance increases and environmental pressure does not do so. A relative separation occurs when the growth rate is positive for both components, but energy use increases at a lower rate than GDP.

The energy use of transport relative to GDP in the European Union, 2012 , *(2000=100.0), %*

Commentary Compared to 2000, the index value decreased by 1.3 percentage points by 2012, due to the fact that the energy use growth in the transport sector was less than the growth of GDP. Among the modes of transport, the energy use of road transport having a more than 90% market share thus exerting the most influence upon the value of the index has increased by 26% (in absolute value) since 2000, but compared to last year it decreased by 5%.

International outlook The decoupling of energy use and economic performance was the most significant in Ireland (22%) as well as in Sweden and the United Kingdom, where the energy use of transportation decreased by 21% in the proportion of GDP between 2000 and 2012. Slovenia (118%) was the other extreme, where the two phenomena are still strongly correlated with each other. Hungary (99%), against the declining EU average (88%), belongs to the group of countries of moderately high values.

Figure 3.18.2. Per capita energy use of transport by mode of transport



The per capita energy use of transport, which grew after 2000, fell as a consequence of the crisis.

Details The continuous growth of per capita energy use of transport stopped in Hungary after the crisis started in 2008. Considering the transport sector as a whole energy use rose by 24% between 2000 and 2012, however, because of the fall it barely exceeded the level of 2004. Looking at the different modes of transport it was the specific energy use of road transport that increased the most (by 31%), while at the same time the energy use of rail as well as air and inland waterway transport fell by a quarter.

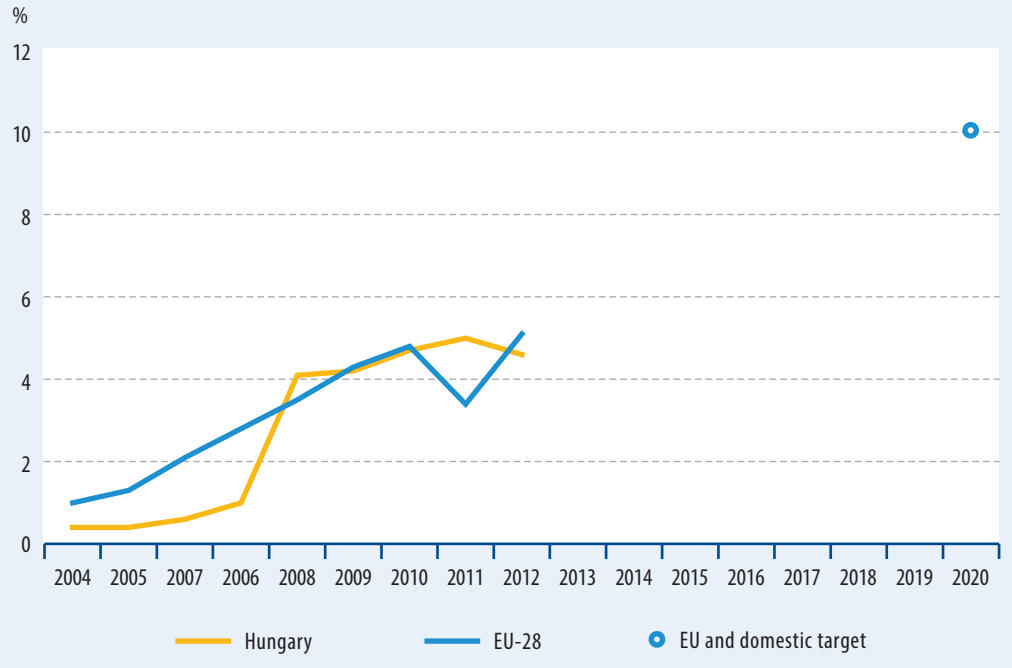
Definition The indicator of energy use of transport relative to GDP is calculated as the quotient of energy use of transport and GDP (2000=100.0). Energy use includes commercial and individual modes of transport (road, rail, inland waterway and air transport), but excludes maritime and pipeline transport.

SE 12.6
AT 7.7
FR 7.1
DE 6.9
PL 6.1
DK, IT 5.8
CZ 5.6
EU-28 5.1
NL 5.0
LT, SK 4.8
HU 4.6
BE 4.5
IE, RO 4.1
UK 3.7
LV 3.1
SI 2.9
LU 2.2
EL 1.1
MT 1.0
ES, FI, HR, PT 0.4
BG, EE 0.3
CY 0.0

Biofuel use in transport

Keywords **biofuels, transport, renewable energy**

Figure 3.19.1. Proportion of biofuel use in transport



Back in 2004 the share of biofuels was only 0.4% in fuel consumption, however, since 2008 it has been moving around the EU average.

Relevance Biofuels are intended to replace a part of fossil fuels. According to EC Directive 2009/28 on Renewable Energy Sources fuels from renewable energies should achieve an at least 10 per cent share in all EU Member States by 2020. The renewed directive puts a high emphasis on the sustainability, too, of the target. No biofuels can be applied which in their life cycle result in a less than 35% saving of carbon dioxide compared with fossil fuels, and exert a negative effect on biodiversity, food production and land use. The increase in biofuel use is based on the rationale that transport is one of the largest energy-using sectors representing about a quarter of the total final energy consumption. According to the NFSSD, the production of green energy is emphasized in the activities to be supported. This means inter alia that the share of biofuels in energy consumption should be increased, which can be promoted by the support of investment into and use of such technologies.

Commentary Biofuel consumption in transport has been regulated in Hungary since 2005. In the first period, lasting until 2009, the use of biofuels was encouraged by a tax allowance, which changed for compulsory distribution later on. In our country, the use of biofuels showed a growing trend, their proportion within the total fuel consumption was only 0.4% in 2004, however, since 2008 it has been moving around the EU average. The 2012 value (4.6%) is almost half of the target set for 2020. Biofuels basically fall into two categories: bioethanol produced during the fermentation of carbohydrates of plant origin which is primarily obtained from wheat and corn as well as biodiesel obtained from the pressing of oleaginous plant parts, mainly rape and sunflower are used to this. Liquid biofuels in Hungary are produced predominantly from maize and rape, and to lower extents from sunflower and other cereals. Two bioethanol plants operate in the country: the Dunaföldvár factory of Pannonia Ethanol and the Szabadegyház plant of Hungrana.

The proportion of the use of biofuels for transport in the European Union, 2012, %

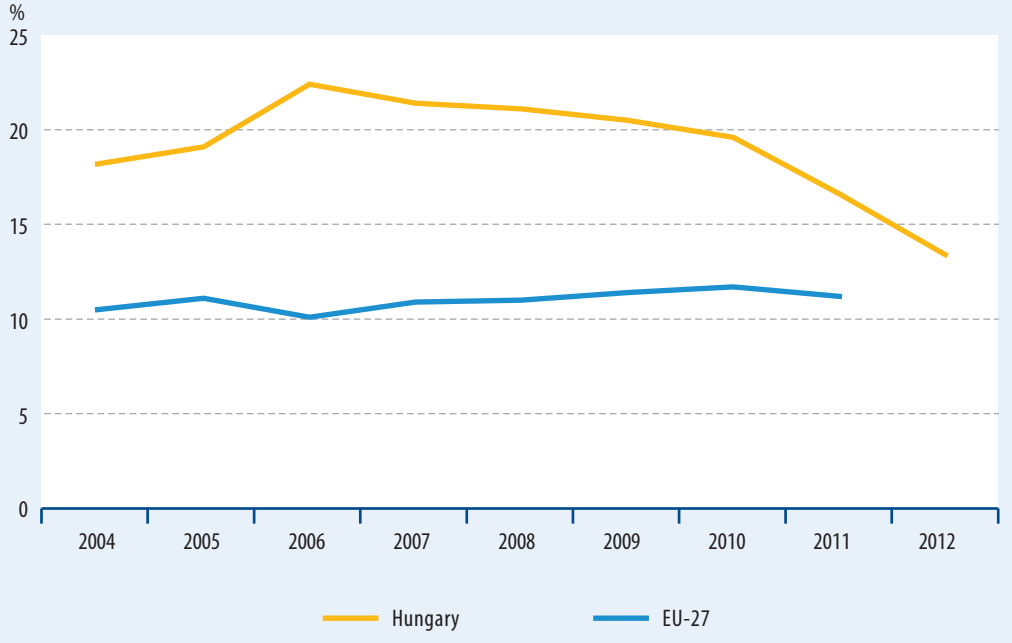
International outlook The use of biofuels in transport is spreading quickly in the Union, their proportion soared fivefold between 2004 and 2012. Their share remained the largest in Sweden, where bio-ethanol powered buses have been used in public transport for more than 15 years, in addition to cars and buses biogas is also used to operate trains. In 2012, this indicator was about two and a half times higher in Sweden (12.6%) than the EU average (5.1%). Austria is in second place (7.7%), which, besides Germany, is one of the biggest users of biodiesel. The use of renewable fuels is less widespread in Cyprus, Bulgaria, Estonia, Spain, Finland and Portugal as well as in Croatia, their proportion was less than 1%. Denmark recorded the highest growth, where there was a more than six-fold increase in the use of biofuels between 2010 and 2012.

Definition The indicator of biofuel use in transport is defined as biofuel use as a proportion of total fuel use in the transport sector.

Combined heat and power generation

Keywords combined heat and power, renewable energy

Figure 3.20.1. Proportion of electricity generated by CHP (combined heat and power) systems

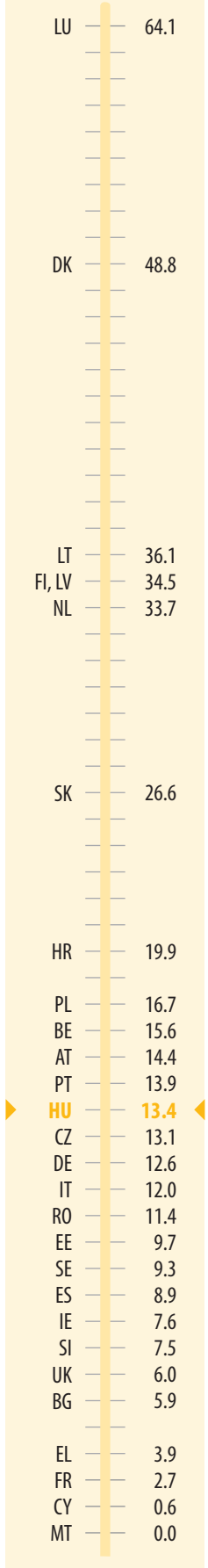


! *In our country, the proportion of electricity cogeneration was approximately two-fold higher than the stagnant EU average between 2006 and 2009, however, in 2011 it was only one and a half times higher.*

Relevance In classic heat and power generating systems power plants produce power, while heating centres heating and hot water. In case of classic power plants the heat generated is usually considered waste heat, and is dissipated through cooling towers by evaporating and cooling cooling water. Cooling therefore causes further losses of electricity and water. CHP (Combined Heat and Power) systems conduct the steam – generated typically by combusting fuel – to turbines, generate electricity, and use the remaining heat for heating purposes, too, through heat exchangers. So the 30%–40% energy utilisation efficiency of conventional condensing power plants can be increased to 75%–80%. According to the relevant EU directive (2004/8/EC) combined heat and power generation is to be promoted since this technology implies primary energy savings, reduces considerably network losses, has lower emissions of pollutants and enhances the safety of supply. The NFSSD made recommendations for the government to support environmental technologies. According to the Framework Strategy, previous waste materials can be utilized again in the economy, which serves the protection of our natural resources.

Commentary Renewable electricity production and combined heat and power generation have been supported in Hungary by compulsory reception and guaranteed administered prices since 2002. The proportion of electricity generated in cogeneration systems producing two different types of energy within a process increased until 2006 then started to decline and compared to the EU average our comparative advantage is more and more decreasing. Until 2010, the share of cogeneration constantly hovered around 20%, which was almost double the EU average (the highest figure of 22% was reached in 2006). After this, the production of electricity in combined power plants has fallen, their share was only 14% in 2012. This decrease is partly explained by the

Combined heat and power generation in the European Union, 2012, %



fact that the obligatory feed-in privileges of CHP electricity and heat producers were discontinued on 1 July 2011.

International outlook In the EU-28, the share of electricity cogeneration practically hardly changed in gross electricity production (it was about 11%), and it increased by 0.7 percentage points between 2004 and 2011. In the technology-leading countries (Denmark, Lithuania, Finland, Latvia and the Netherlands) this figure was 34-49%, in Luxembourg it was an even higher at 64%. Denmark produces almost the half (49%) of its electricity in CHP systems, and several of its district heating supply systems, too, are based on this technology. In the field of cogeneration, Lithuania and Ireland were the fastest developing countries, because their production increased approximately three-fold in the period under review. Malta, Cyprus, France and Greece use cogeneration the least, where its proportion was less than half of the EU average. In 2011, the Hungarian value (16.6%) was one and a half times higher than the EU average.

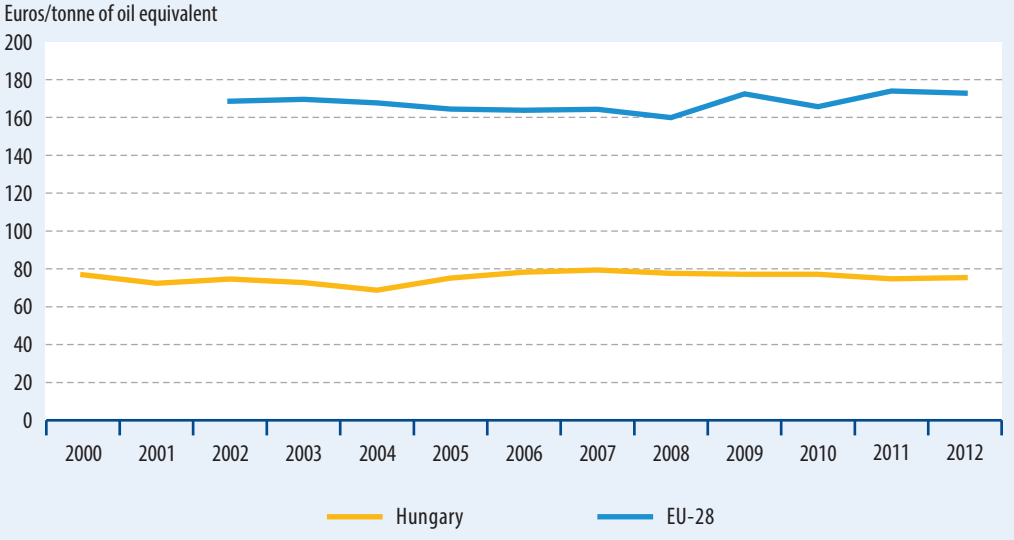
Definition The indicator of combined heat and power generation shows the quantity of electricity produced by combined heat and power generating (CHP) systems as a proportion of total electricity produced.

Stadat tables
5.7.3. Share of renewable resources and waste in electricity production
5.7.4. Production of primary energy from renewable resources and waste, by sources

Implicit tax on energy

Keywords **implicit energy tax, energy use**

Figure 3.21.1. **Tax revenues from energy use per final energy use**



The value of tax revenues from energy use is stagnant in Hungary.

Relevance Many countries apply energy taxes, which is one way of implementing the "polluter pays" principle. According to a recommendation of the EU Sustainable Development Strategy to Member States, taxes on labour should be more and more shifted to taxation on resource and energy use and environment pollution, thus promoting the increase of employment along with the reduction of negative environmental impacts, in a cost-effective way. Through these taxes the attitude of consumers can be influenced, they are encouraged for more energy-efficient use and to use cleaner energy sources. The national framework strategy also sets out these objectives. It also requires to review the whole system of energy subsidies (subsidies relating to renewable energy sources, energy saving, energy efficiency improvements and the takeover price of electricity) as well as the excise and value added taxation of energy carriers taking into account their sustainability performance.

Commentary The average tax revenues from a unit of energy use were essentially unchanged in Hungary between 2000 and 2012, these types of taxes did not reach even the half of the EU average. An income-type tax structure burdening labour is typical in Hungary, similarly to the Visegrád countries.

International outlook In terms of the average EU-28, the ratio of taxation to final energy use calculated per tonne of oil equivalent marginally increased by only 2.6% between 2002 and 2012. Tax revenues on energy use were the highest in Denmark (304 euros/tonne of oil equivalent) and the lowest in Slovakia (48 euros/tonne of oil equivalent). The domestic value was about one and a half times higher than in Slovakia.

Definition The indicator of implicit tax on energy shows tax revenues from energy use relative to final energy use. The measurement unit of the indicator is euros/tonne of oil equivalent, where tax revenues are calculated in euros (values adjusted by final use deflator) and the quantity of energy used in tonnes of oil equivalent.

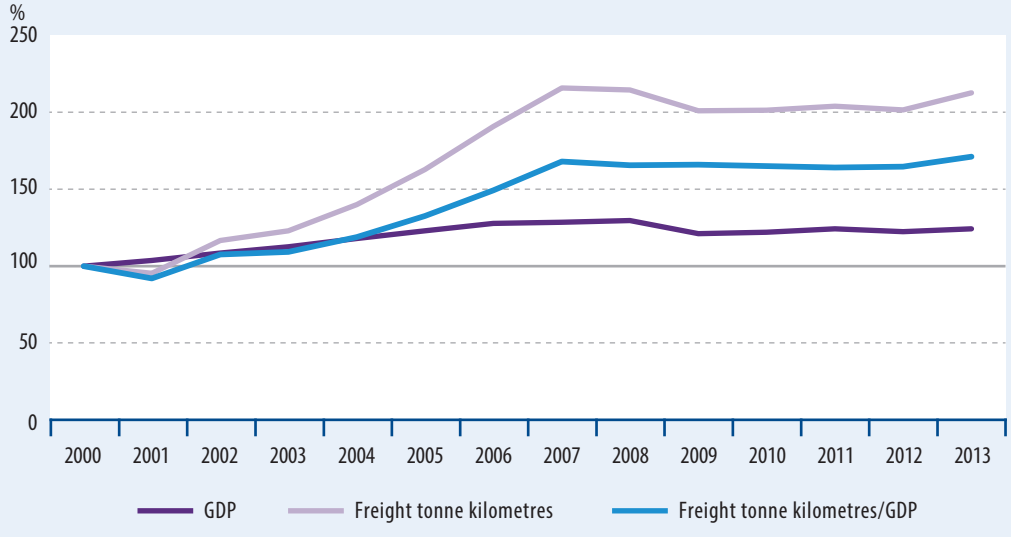
Implicit energy tax in the European Union, 2012,
euros/tonne oil equivalent

DK	303.6
UK	276.3
IT	233.4
SE	216.9
MT	200.4
EL	186.1
DE	185.3
LU	181.3
NL	180.2
EU-28	**172.8**
SI	172.2
IE	172.1
FR	161.6
AT	145.0
CY	141.3
PT	134.1
FI	127.6
ES	114.2
BE	102.4
PL	96.4
EE	91.1
HR	87.4
CZ	79.1
HU	**75.4**
LV	70.4
LT	69.7
RO	68.1
BG	65.5
SK	47.5

Volume of freight transport relative to GDP

Keywords **freight transport, freight tonne kilometres**

Figure 3.22.1. Freight transport performance relative to GDP (2000=100.0)



The volume of freight transport rose considerably from year to year at the beginning of the 2000s, however, this rate has broken since the beginning of the crisis.

Relevance According to the EU transport policy objective approved in 2011 freight transport over 300 kilometres of distance should be shifted from road to rail or other modes of freight transport until 2030. According to the national strategy, too, the objective is a change in the composition of transport, a shift to more environment-friendly modes of transport in the medium and the longer run. In freight traffic, rail and water transport may be helped instead of road traffic by tariffs reflecting environmental costs, the establishment of logistic centres, i.e. the organisation of transport sub-divisions into a common system and their co-ordination. In case of rail transport the aim is to apply up-to-date technologies and enhance punctuality and reliability.

Commentary The volume of transport rose to a higher extent than the growth of GDP (volume index calculated at average prices of the year 2000) from 2002, but this trend broke during the years of the crisis. The volume of transport increased at a rate exceeding GDP growth in 2013 again. The trend in which the economy moved from warehousing to flow-based production continued. Between 2000 and 2013 the average growth rate was 1.8% in case of GDP and 8.7% for the volume of freight transport. The growth was not even, due to the crisis a decrease was recorded in case of both indicators in 2009 compared to the previous year, and then fluctuations between slight rises and decreases. In 2013, growth was registered in the case of both indicators, and that of the volume of freight transport exceeded substantially the increase of GDP.

International outlook One of the operational objectives of the European Union's Sustainable Development Strategy is decoupling economic development and demand for transport. This objective was only met during the economic recession. In periods of economic growth, the volume of freight transport increased at a higher rate than GDP. This trend clearly holds for countries where GDP is below the EU-28 average. However, there are also member countries with higher GDP levels where transport growth was higher than GDP growth (e.g. Germany). In the pre-crisis period the volume of freight transport (freight tonne kilometres) relative to GDP showed a continuous increase, however, a temporary decline was recorded from 2007 to 2009. In 2010 a slight increase was observed and later a decrease

Freight transport performance relative to GDP in the European Union, 2012,
freight tonne kilometres/GDP

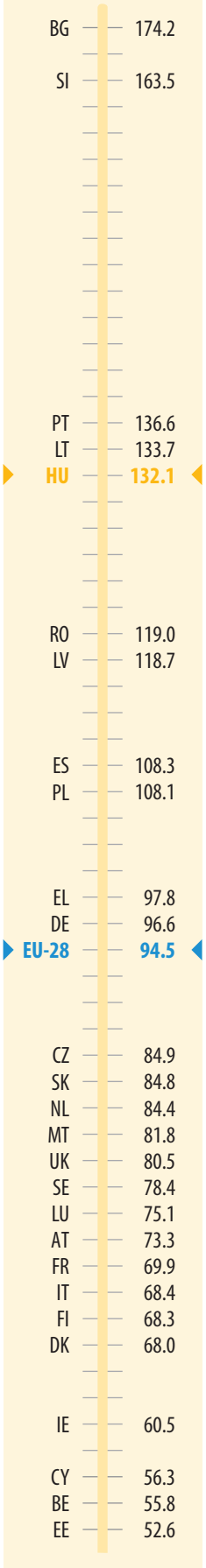
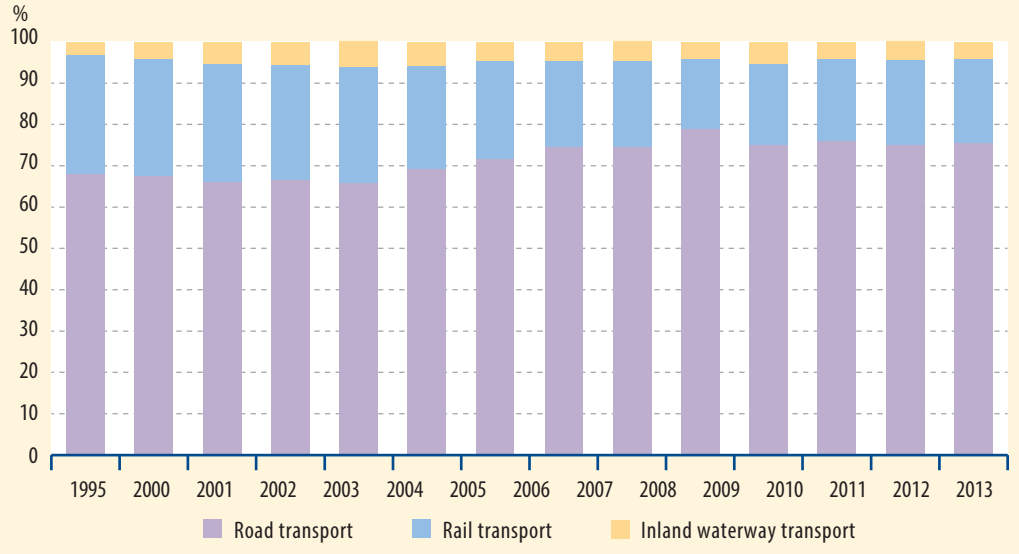


Figure 3.22.2. Distribution of freight transport by modes of transport



Freight transport is dominated by road freight transport.

again. Between 2000 and 2012 the share of road freight transport slightly increased in the 27 member states of the European Union. The trend can be divided into two periods. Between 2000 and 2009 the proportion of road freight transport was up from 73.7% to 77.5%, while the share of transport by rail and inland waterway networks declined. Then between 2009 and 2012 it was the proportion of transport by rail and inland waterway networks that increased, by 2 percentage points.

Details Freight transport continued to be dominated by road freight transport, no substantial shift was observed towards modes of transport burdening the environment to a lower extent. The share of road transport in the volume of freight transport measured in tonne kilometres was 75.5%, that of rail transport 20.5% and the share of waterways transport 4.1% in Hungary in 2013. The trend of road freight transport, increasing since 2004, was broken in 2009, lessened by nearly 4% in 2010 and has practically stagnated since then. In parallel with this the share of rail transport declined continuously from 2000, but grew from 2010. The share of waterways freight transport is negligible.

The crisis mostly hit road freight transport. Declining construction and engineering sectors required less building and raw materials to be transported. Using the data of present EU member countries the share of domestic rail freight transport in 2000 was significantly higher than the community average, though this advantage decreased considerably by 2009. The domestic share of waterways freight transport was lower than the average for the EU-27, by 1.3 percentage points on average in the period between 2000 and 2010. The proportion of road freight transport in 2012 was 75.1% in member countries of the EU-28 as well as in Hungary.

Definitions

The indicator of freight transport volume relative to GDP (2000=100.0) is the data of freight road, rail and waterways transport – measured in freight tonne kilometres (delivery of one tonne of goods over one kilometre) and indexed to 2000 – as a proportion of GDP (GDP volume index calculated at average prices of the year 2000). Data on rail and inland waterways transport refer to inland transport ("territoriality principle"), regardless of the registered markings on the vehicle or vessel. Data on road freight transport contain both the domestic and international performance of vehicles registered in the country.

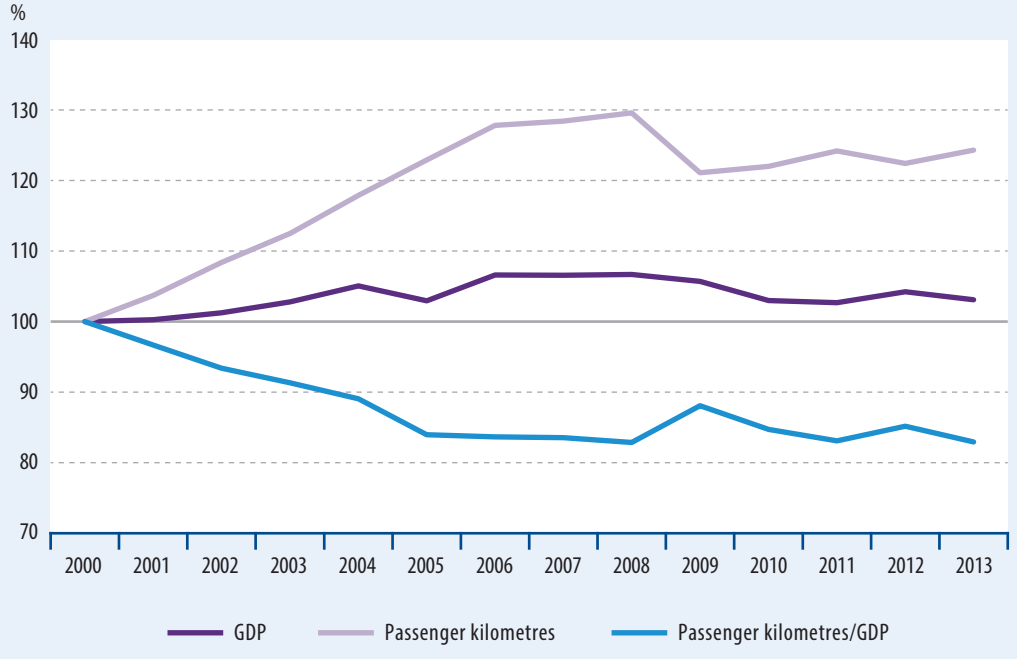
The indicator of the distribution of freight transport covers data on road, rail and waterways freight transport, measured in freight tonne kilometres (transport of one tonne of goods over one kilometre), and irrespective of the registered nationality of vehicles in case of rail and waterways transport. Data on road freight transport contain both the domestic and international performance of vehicles registered in the country.

Stadat tables
4.6.3. Goods transport, total

Volume of passenger transport relative to GDP

Keywords **passenger transport, passenger kilometres**

Figure 3.23.1. Passenger transport performance relative to GDP (2000=100.0)



The growth of the volume of passenger transport was lower than that of the economy in Hungary between 2000 and 2013.

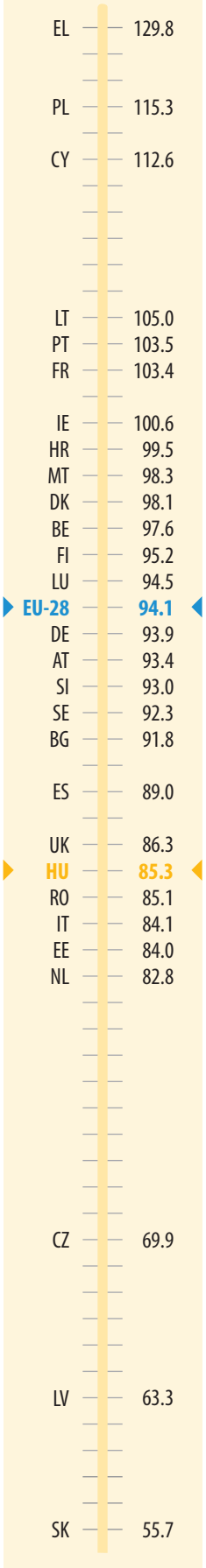
Relevance Despite high automotive fuel prices the use of passenger cars still dominates passenger transport. In the long term, the purpose is to develop long-distance public transport and the modes of fixed track transport – to create the related systems, to put stops and stations in order and to organise the different technical facilities into a common system. A well-structured system, providing quality services, can encourage motor vehicle users to use public transport.

Commentary The volume of passenger transport was nearly 77 million passenger kilometres in 2013, decreasing by nearly 1% compared to the previous year. The value of the indicator rose by 3% in total from 2000. GDP increased by about a quarter in total in this period. The performance indicator calculated as the quotient of these two decreased by 17%, which indicates that the expansion of the economy did not require the volume of passenger transport in Hungary to rise at the same or a higher rate than the increase of gross domestic product.

International outlook According to the distribution by modes of transport, rail transport represents a low proportion within the member countries of both the EU-15 and the EU-27. In contrast, Hungary is in position three in respect of the proportion of passengers using rail transport, and is only overtaken by Austria (11.0%) and Denmark (9.9%). The share of passenger vehicle traffic in inland passenger transport rose from 62% to 68% in Hungary between 2000 and 2013, but even so it is considerably lower than the EU average (82%). Bus transport was used in more than 20%, while rail transport in 10% of the cases in Hungary, which proportions were 9% and 7%, respectively, in the EU.

The EU and the member states introduced measures to improve the economic and environmental performance of all modes of transport, including the shift of traffic from

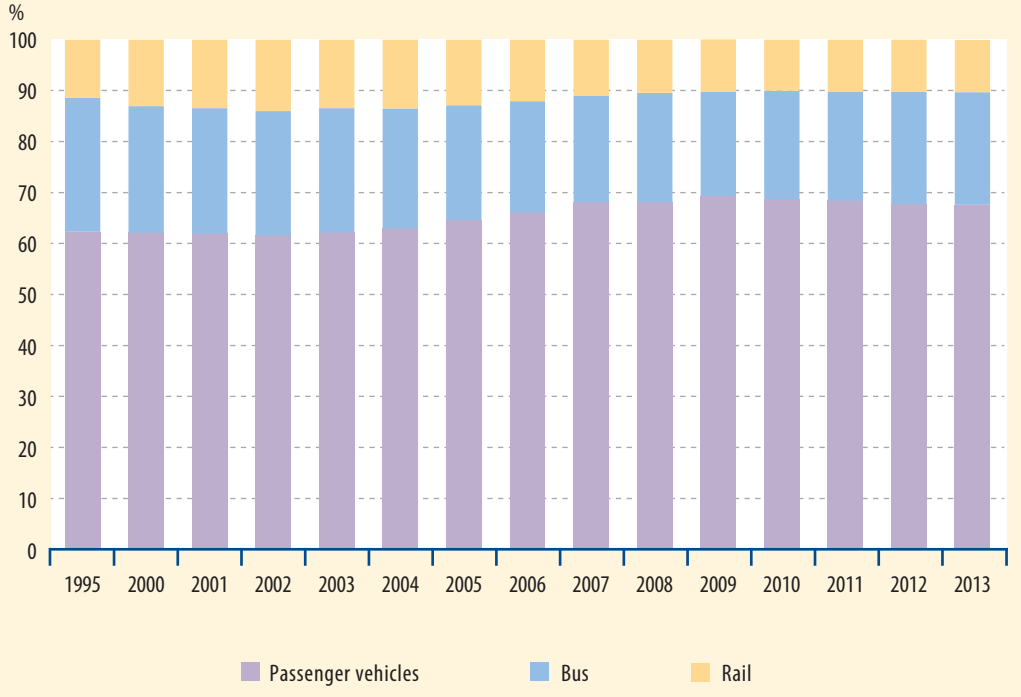
Passenger transport performance relative to GDP in the European Union, 2012, *(2000=100.0), %*



AT 11.4
NL 10.3
DK 10.1
HU 9.8
FR 9.3
SE 8.9
DE 8.4
UK 8.0
CZ 7.5
EU-28 7.4
BE 7.1
SK 7.0
PL 6.7
IT 6.1
ES 5.6
FI 5.2
LV 4.9
LU 4.6
RO 4.5
PT 4.1
HR 3.6
BG 3.0
IE 2.8
SI 2.5
EE 1.8
LT 1.2
EL 0.7

Rail transport as a proportion of total passenger transport in the European Union, 2012, %

Figure 3.23.2. Distribution of passenger transport by modes of transport



Over two-thirds of passenger transport is represented by passenger car traffic, burdening the most the environment.

public roads to rail and waterways. Solutions include the possibility of changing production and logistics processes and transport habits, and as good interconnection of the different modes of transport as possible.

Definitions The volume of passenger transport is a figure measured in passenger kilometres (transport of one passenger over one kilometre), while the GDP indicator is the volume index of gross domestic product at prices of 2000. The indicator compares the growth rates of these two to each other. Land passenger transport covers the volume data (passenger kilometres) of inland transport by passenger cars, buses and trains.

The percentage distribution of passenger transport contains passenger kilometres covered in the national area by passenger vehicles, buses or coaches and trains, irrespective of the markings on vehicles. The methodologies of data collections of the different member states are not harmonised at community level.

Stadat tables
4.6.8. Interurban passenger transport
4.6.9. Urban passenger transport

Annex 1

Eurostat's and HCSO's indicator system of sustainable development

With respect to the structure, the domestic indicator system of sustainable development has closely followed the system of Eurostat earlier on. The indicators of the European indicator set form a hierarchical system, at three levels. (Headline) indicators at level one provide an overall view of major trends in the different areas. Level two corresponds to the sub-themes of the system, and – together with the indicators of level one – measures the fulfilment of the main objectives. Indicators at level three (analysis indicators) allow for the deeper analysis of the different sub-themes. In contrast to the problem-oriented approach preferred by the EU, which classifies the indicators by branch policy, our present publication applies a thematic breakdown.

Eurostat's indicator system			Domestic indicator system*
Theme	Level one		Indicator number and name
	Sub-theme	Level two	Indicator number and name
		Level three	Indicator number and name

** The light background colour of indicators of the domestic indicator system refers to the three parts of the publication. Green: environment; claret: society; blue: economy.*

Comparability with the EU's indicator system is ensured by the table below.

Eurostat's indicator system			Domestic indicator system
Socio-economic development	Real GDP per capita, growth rate and totals		3.1. Gross domestic product (GDP)
	Economic development	Investment by institutional sectors	3.3. Gross fixed capital formation
		Dispersion of regional GDP per inhabitant	
		Net national income	
		Household saving rate	3.4. Gross savings rate
	Innovation, competitiveness and eco-efficiency	Real labour productivity growth per hour worked	3.6. Labour productivity
		Total R&D expenditure	3.9. Expenditures on research and development
		Real effective exchange rate	3.14. Index of international price competitiveness
		Turnover from innovation	3.9. Expenditures on research and development
		Energy intensity of the economy	3.16. Energy intensity
	Employment	Total employment rate	2.6. Employment rate
		Employment rate, by sex	2.6. Employment rate
		Employment rate, by highest level of education attained	2.6. Employment rate
		Dispersion of regional employment rates, by sex	2.6. Employment rate
		Unemployment rate, by sex	2.8. Unemployment rate 2.9. Long-term unemployment rate
		Unemployment rate, by age group	2.8. Unemployment rate

Eurostat's indicator system			Domestic indicator system
Sustainable consumption and production	Resource productivity		3.7. Domestic material consumption
	Resource use and waste	Generation of waste excluding major mineral waste	1.27. Municipal waste
		Components of domestic material consumption	3.7. Domestic material consumption
		Domestic material consumption by material	3.7. Domestic material consumption
		Municipal waste generation and treatment, by type of treatment method	1.27. Municipal waste; 1.29. Methods of municipal waste treatment
		Generation of hazardous waste, by economic activity	1.30. Generation of hazardous wastes
		Emissions of sulphur oxides (SOx), by source sector	1.3. Ammonia emissions – acidifying compounds
		Emissions of nitrogen oxides (NOx), by source sector	1.3. Ammonia emissions – acidifying compounds
		Emissions of non-methane volatile organic compounds (NMVOC), by source sector	1.4. Ozone precursors emissions
		Emissions of ammonia (NH3), by source sector	1.3. Ammonia emissions – acidifying compounds
	Consumption patterns	Electricity consumption of households	2.23. Household electricity consumption
		Final energy consumption by sector	3.16. Energy intensity
		Consumption of certain foodstuffs per inhabitant	2.19. Nutrient and food consumption
		Motorisation rate	2.25. Passenger car fleet
	Production patterns	Organisations and sites with EMAS registration	
		Ecolabel licenses	1.33. Eco-labelled products
		Area under agri-environmental commitment	1.20. Proportion of areas subject to agri-environmental measures
		Area under organic farming	1.19. Organic farming
		Livestock density index	1.17. Livestock density
Social inclusion	People at risk of poverty or social exclusion		
	Monetary poverty and living conditions	People at risk of poverty, after social transfers	2.12. At-risk-of-poverty rate
		Persistent-at-risk-of-poverty rate	2.12. At-risk-of-poverty rate
		People at risk of poverty, after social transfers, by sex	
		At-risk-of-poverty rate, by age group	2.12. At-risk-of-poverty rate
		At-risk-of-poverty rate, by household type	
		Severely materially deprived people	
		Relative median at-risk-of-poverty gap	2.13. Relative at-risk-of-poverty rate
		Inequality of income distribution	2.14. Inequality of income distribution

Eurostat's indicator system			Domestic indicator system
Social inclusion	Access to labour market	People living in households with very low work intensity	2.15. Rate of persons living in jobless households
		In-work-at-risk-of-poverty rate	
		Long-term unemployment rate, by sex	2.9. Long-term unemployment rate
		Gender pay gap in unadjusted form	2.11. Gender pay gap
	Education	Early leavers from education and training	2.38. Early school leavers
		At-risk-of-poverty rate, by highest level of education attained	
		Persons with low educational attainment, by age group	2.36. Persons with low educational attainment
		Life-long learning	2.41. Lifelong learning
		Tertiary educational attainment, by sex, age group 30–34	
		Low reading literacy performance of pupils	2.37. Low reading literacy performance of students
		Individuals' level of computer skills	2.40. Computer skills
		Individuals' level of internet skills	2.24. Internet use
Demographic changes	Employment rate of older workers		
	Demography	Life expectancy at age 65, by sex	2.27. Life expectancy
		Total fertility rate	2.2. Total fertility rate
		Crude rate of net migration plus adjustment	2.3. Internal migration; 2.4. International migration
	Old-age income adequacy	Aggregate replacement ratio	
		At-risk-of-poverty rate of elderly people	2.12. At-risk-of-poverty rate
	Public finance sustainability	General government gross debt	3.5. General government consolidated gross debt
		Duration of working life	
Public health	Healthy life years and life expectancy at birth, by sex		2.27. Life expectancy
	Health and health inequalities	Death rate due to chronic diseases, by sex	2.34. Death rate by major causes of death
		Healthy life years and life expectancy at age 65, by sex	2.27. Life expectancy
		Suicide death rate, total by age group	2.33. Suicide death rate
		Suicide death rate, males by age group	2.33. Suicide death rate
		Suicide death rate, females by age group	2.33. Suicide death rate
		Self reported unmet need for medical examination or treatment, by income quintile	2.30. Failed medical examinations due to financial reasons

Eurostat's indicator system			Domestic indicator system
Public health	Determinants of health	Index of production of toxic chemicals, by toxicity class	
		Urban population exposure to air pollution by particulate matter	1.5. Particulate matter emissions
		Urban population exposure to air pollution by ozone	1.4. Ozone precursors emissions
		Proportion of population living in households considering that they suffer from noise	
		Serious accidents at work	
Climate change and energy	Greenhouse gas emissions		1.1. Greenhouse gas (GHG) emissions
	Climate change	Greenhouse gas emissions by sector (including sinks)	1.1. Greenhouse gas (GHG) emissions
		Greenhouse gas emissions intensity of energy consumption	1.2. Greenhouse gas intensity of energy consumption
		Projections of greenhouse gas emissions	
		Global surface average temperature	1.6. Annual mean temperature
	Share of renewables in gross final energy consumption		3.17. Renewable energy sources
	Primary energy consumption		
	Energy	Energy dependence	3.15. Energy import dependency
		Gross inland energy consumption by fuel	
		Electricity generated from renewable sources	3.17. Renewable energy sources
		Share of renewable energy in fuel consumption of transport	3.19. Biofuel use in transport
		Combined heat and power generation	3.20. Combined heat and power generation
		Implicit tax rate on energy	3.21. Implicit tax on energy
Sustainable transport	Energy consumption of transport relative to GDP		3.18. Energy use of transport
	Transport and mobility	Modal split of passenger transport	3.23. Volume of passenger transport relative to GDP
		Volume of freight transport relative to GDP	3.22. Volume of freight transport relative to GDP
		Volume of passenger transport relative to GDP	3.23. Volume of passenger transport relative to GDP
		Modal split of freight transport	3.22. Volume of freight transport relative to GDP
		Energy consumption by transport mode	3.18. Energy use of transport
		Investment in transport infrastructure by mode	

Eurostat's indicator system			Domestic indicator system
Sustainable transport	Transport impacts	Greenhouse gas emissions by transport mode	1.1. Greenhouse gas (GHG) emissions
		Emissions of nitrogen oxides (NOx) from transport	
		People killed in road accidents	
		Emissions of particulate matter from transport	1.5. Particulate matter emissions
		Average CO_2 emissions per km from new passenger cars	
Natural resources	Common bird index		1.21. Changes in the population of farmland birds
	Biodiversity	Sufficiency of sites designated under the EU Habitats directive	1.23. Protected natural areas
		Deadwood	1.26. Health conditions of forests
	Fresh water resources	Water exploitation index	1.10. Public water abstraction
		Population connected to urban waste water treatment with at least secondary treatment	1.11. Municipal wastewater treatment
		Biochemical oxygen demand in rivers	1.12. Biochemical oxygen demand of rivers
	Marine ecosystems	Fishing fleet, total engine power	1.13. Change in land use
	Land use	Build-up areas	1.25. Logging and current increment
		Forest increment and fellings	
Global partnership	Official development assistance as a share of gross national income		
	Globalisation of trade	EU imports from developing countries, by income group	
		EU imports from developing countries by group of products	
		EU imports from least developed countries by group of products	
		Aggregated measurement of support for agriculture	
	Financing for sustainable development	Total EU financing for developing countries, by type	
		Foreign direct investment in developing countries, by income group	
		Official development assistance, by income group	
		Untied official development assistance	
		Bilateral official development assistance by category	
	Global resource management	CO_2 emissions per inhabitant in the EU and in developing countries	

Eurostat's indicator system			Domestic indicator system
Good governance	Policy coherence and effectiveness	New infringement cases	
		Transposition deficit	
	Openness and participation	Voter turnout in national and EU parliamentary elections	
		E-government on-line availability	2.44. E-government availability
		E-government usage by individuals	2.44. E-government availability
	Economic instruments	Shares of environmental and labour taxes in total tax revenues from taxes and social contributions	1.31. Proportion of environmental taxes

Further indicators in the domestic indicator system	
1.7. Amount of precipitation	2.20. Retail sales
1.8. Number of heat days and freezing days	2.21. Utility gap – supply of municipal services
1.9. Areas exposed to drought	2.22. Water consumption of households from public water supply
1.14. Sales of fertilizers	2.26. Tourism-related spending
1.15. Sales of pesticides	2.28. Perceived health
1.16. Nutrient balance	2.29. Hypertension – chronic diseases
1.18. Floods and inland inundation	2.31. Percentage rate of smokers
1.22. Natural vegetation assets of Hungary	2.32. Alcohol consumption
1.24. Proportion of native tree species	2.35. Standardized mortality ratio (SMR)
1.28. Packaging waste	2.39. Disadvantaged (D) and multi-disadvantaged (MD) students
1.29. Methods of municipal waste treatment	2.42. Capacity of kindergartens and infant nurseries
1.32. Environmental protection expenditures	2.43. Civil society organizations
2.1. Dependency ratio	3.2. Gross national income (GNI)
2.5. Economic activity	3.8. Active enterprises
2.7. Self-employment rate –atypical employment	3.10. Consumer price index (inflation)
2.10. Average age at the time of leaving the labour market	3.11. Balance of external trade in goods
2.16. Gross debt-to-income ratio of households	3.12. Foreign direct capital investments
2.17. Proportion of flats with no bathroom	3.13. Income paid as dividends to the rest of the world
2.18. Structure of consumption	

Type of indicator evaluation*

1. Environment

Chapter	Number	Indicator	Type of evaluation
Air	1.1.	Greenhouse gas (GHG) emissions	1
	1.2.	Greenhouse gas intensity of energy consumption	3
	1.3.	Ammonia emissions – acidifying compounds	3
	1.4.	Ozone precursors emissions	3
	1.5.	Particulate matter emissions	3
Climate	1.6.	Annual mean temperature	3
	1.7.	Amount of precipitation	3
	1.8.	Number of heat days and freezing days	3
	1.9.	Areas exposed to drought	–
Water	1.10.	Public water abstraction	3
	1.11.	Municipal wastewater treatment	3
	1.12.	Biochemical oxygen demand of rivers	3
Land	1.13.	Change in land use	3
	1.14.	Sales of fertilizers	3
	1.15.	Sales of pesticides	3
	1.16.	Nutrient balance	–
	1.17.	Livestock density	3
	1.18.	Floods and inland inundation	–
	1.19.	Organic farming	3
	1.20.	Proportion of areas subject to agri-environmental measures	3
Wildlife	1.21.	Changes in the population of farmland birds	3
	1.22.	Natural vegetation assets of Hungary	–
	1.23.	Protected natural areas	–
	1.24.	Proportion of native tree species	3
	1.25.	Logging and current increment	3
	1.26.	Health conditions of forests	3
Waste	1.27.	Municipal waste	3
	1.28.	Packaging waste	3
	1.29.	Methods of municipal waste treatment	3
	1.30.	Generation of hazardous wastes	3
Environment control	1.31.	Proportion of environmental taxes	3
	1.32.	Environmental protection expenditures	3
	1.33.	Eco-labelled products	3

** The detailed description of the types is available in sub-chapter "Evaluation of indicators" (page 6) in the Introduction.*

Chapter	Number	Indicator	Type of evaluation
Demography	2.1.	Dependency ratio	3
	2.2.	Total fertility rate	2
	2.3.	Internal migration	–
	2.4.	International migration	–
Employment	2.5.	Economic activity	3
	2.6.	Employment rate	1
	2.7.	Self-employment rate – atypical employment	–
	2.8.	Unemployment rate	3
	2.9.	Long-term unemployment rate	3
	2.10.	Average age at the time of leaving the labour market	3
	2.11.	Gender pay gap	3
Living conditions	2.12.	At-risk-of-poverty rate	3
	2.13.	Relative at-risk-of-poverty rate	–
	2.14.	Inequality of income distribution	3
	2.15.	Rate of persons living in jobless households	3
	2.16.	Gross debt-to-income ratio of households	3
	2.17.	Proportion of flats without bathroom	3
Consumption	2.18.	Structure of consumption	–
	2.19.	Nutrient and food consumption	–
	2.20.	Retail sales	–
	2.21.	Utility gap – supply of municipal services	3
	2.22.	Water consumption of households from public water supply	3
	2.23.	Household electricity consumption	3
	2.24.	Internet use	3
	2.25.	Passenger car fleet	–
	2.26.	Tourism-related spending	–
Health	2.27.	Life expectancy	3
	2.28.	Perceived health	3
	2.29.	Hypertension – chronic diseases	3
	2.30.	Failed medical examinations due to financial reasons	–
	2.31.	Percentage rate of smokers	3
	2.32.	Alcohol consumption	–
	2.33.	Suicide death rate	3
	2.34.	Death rate by major causes of death	–
	2.35.	Standardized mortality ratio (SMR)	–
Education	2.36.	Persons with low educational attainment	3
	2.37.	Low reading literacy performance of students	3
	2.38.	Early school leavers	1
	2.39.	Disadvantaged (D) and multi-disadvantaged (MD) students	3
	2.40.	Computer skills	3
	2.41.	Lifelong learning	3
	2.42.	Capacity of kindergartens and infant nurseries	–
Social relations	2.43.	Civil society organizations	3
	2.44.	E-government availability	–

Chapter	Number	Indicator	Type of evaluation
General economic indicators	3.1.	Gross domestic product (GDP)	3
	3.2.	Gross national income (GNI)	3
	3.3.	Gross fixed capital formation	3
	3.4.	Gross savings rate	3
	3.5.	General government consolidated gross debt	2
	3.6.	Labour productivity	3
	3.7.	Domestic material consumption	3
	3.8.	Active enterprises	3
	3.9.	Expenditures on research and development	1
	3.10.	Consumer price index (inflation)	2
Economic relations	3.11.	Balance of external trade in goods	–
	3.12.	Foreign direct capital investments	3
	3.13.	Income paid as dividends to the rest of the world	–
	3.14.	Index of international price competitiveness	3
Energy	3.15.	Energy import dependency	3
	3.16.	Energy intensity	3
	3.17.	Renewable energy sources	1
	3.18.	Energy use of transport	3
	3.19.	Biofuel use in transport	1
	3.20.	Combined heat and power generation	3
	3.21.	Implicit tax on energy	3
Transport	3.22.	Volume of freight transport relative to GDP	3
	3.23.	Volume of passenger transport relative to GDP	3

Index

Indicators

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Indicators

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