



HUNGARIAN
CENTRAL
STATISTICAL
OFFICE 

HUNGARY IN FIGURES



2012



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

GENERAL CHARACTERISTICS

Official name	Hungary
Capital	Budapest
Official language	Hungarian
Currency	Forint (HUF)
Area, sq km	93,030
Population, thousands	9,909
Population density, inhabitants per sq km	107
Number of counties	19
Number of settlements	3,154
Of which: towns	328
Number of parliamentary representatives	385
Number of Hungary's representatives to the European Parliament	22
Length of motorways, km	1,516
Length of railway network, km	7,806
Largest airport	Budapest Ferenc Liszt International Airport
Highest point, m	Kékes, 1 014
Longest rivers, km	Tisza, 596 Danube, 417
Largest lake, sq km	Balaton, 594
Number of world heritage sites	8
Number of protected natural areas	2,232
Area thereof, thousand hectares	897
Forest area, total, thousand hectares	1,928
Climate	continental
Annual mean temperature (Budapest), °C	13.0
Annual amount of precipitation (Budapest), mm	384

Distance on public roads between Budapest and some European cities

		(km)	
Athens	1,570	London	1,670
Belgrade	400	Madrid	2,620
Berlin	910	Moscow	1,980
Bratislava	194	Paris	1,460
Brussels	1,370	Prague	570
Bucharest	830	Rome	1,250
Copenhagen	1,290	Stockholm	1,920
the Hague	1,450	Vienna	250
Helsinki	2,570	Warsaw	680
Kiev	1,155	Zagreb	342
Ljubljana	432		



1. Population, vital events

Table 1.1. Main demographic data at the beginning of the year

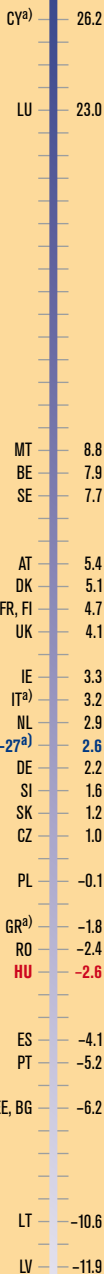
Denomination	2001	2010	2011	2012	2013
Resident population*					
Males, thousand	4,851	4,757	4,744	4,725	4,716
Females, thousand	5,349	5,257	5,242	5,207	5,193
Total, thousand	10,200	10,014	9,986	9,932	9,909
Number of females per thousand males	1,103	1,105	1,105	1,102	1,101
Distribution of population by character of settlements,^{a)} %					
Budapest	17.2	17.2	17.4	17.4	17.5
Other towns	52.0	52.2	52.3	51.9	51.8
Villages	30.8	30.6	30.4	30.7	30.7
Foreign citizens residing in Hungary^{b)}					
Number, thousand persons	110	198	207	143	141
Of which: distribution by citizenship, %					
Romanian	38	37	37	29	25
Ukrainian	8	9	8	8	8
German	7	9	10	11	12
Serbian ^{c)}	12	9	8	6	3
Chinese	5	6	6	7	8
Slovakian	1	3	4	5	5

* Population data between 2001 and 2011 are calculated on the basis of the census on 1 February 2001, while those of 2012 and 2013 are calculated on the basis of the census on 1 October 2011.

^{a)} According to administrative classification as of 1 January 2012.

^{b)} Until 2011 without the data of refugees.

^{c)} Until 2011 with Montenegrins.



^{a)} Data of 2011.

1. Actual increase or decrease of population per thousand inhabitants, 2012 (%)

Figure 1.1. Population of largest towns in Hungary and population density of regions, 1 January 2013

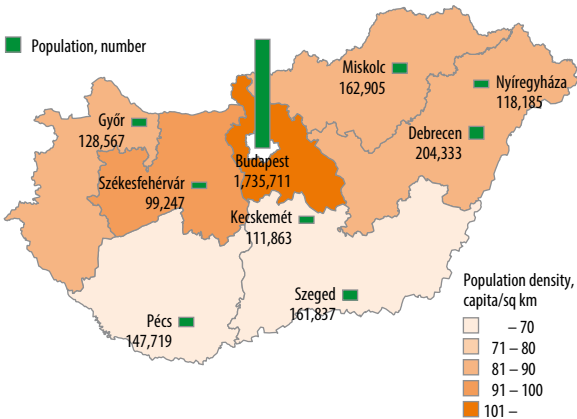
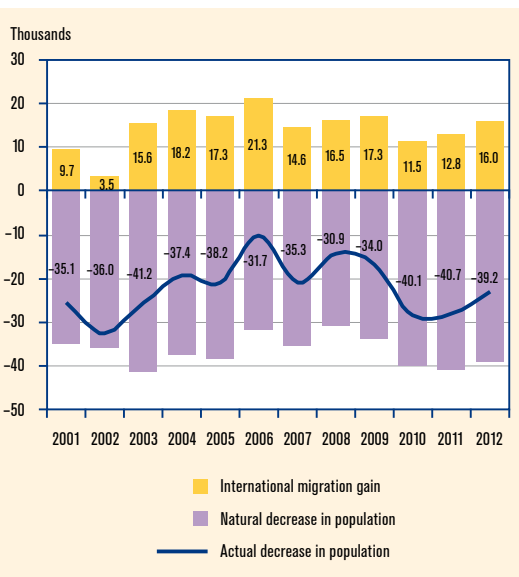


Table 1.2. Major vital events

Denomination	2001	2009	2010	2011	2012
Per thousand inhabitants					
live births	9.5	9.6	9.0	8.8	9.1
deaths	13.0	13.0	13.0	12.9	13.0
marriages	4.3	3.7	3.6	3.6	3.6
divorces	2.4	2.4	2.4	2.3	2.2
Infant mortality, per thousand live births	8.1	5.1	5.3	4.9	4.9
Proportion of children born outside marriage, %	30.3	40.8	40.8	42.3	44.5
Total fertility rate	1.31	1.33	1.26	1.24	1.34
Average life expectancy at birth, years					
males	68.2	70.1	70.5	70.9	71.5
females	76.5	77.9	78.1	78.2	78.4

IE 2.05
FR 2.01
UK 1.96
SE 1.90
FI 1.83
BE 1.81
NL, LT 1.76

Figure 1.2. Factors changing the number of population*



* Population data between 2001 and 2011 are calculated on the basis of the census on 1 February 2001, while those of 2012 are calculated on the basis of the census on 1 October 2011.

DK 1.75
EU-27 1.57
SI 1.56

Table 1.3. Age structure of population, dependency ratio at the beginning of the year

Denomination	2001	2010	2011	2012	2013
Old-age population as a percentage of child population	91.3	112.6	114.7	116.4	118.9
Age structure					
Aged 14 or younger	16.6	14.7	14.6	14.5	14.4
Aged 15–64	68.3	68.6	68.7	68.6	68.4
Aged 65 or older	15.1	16.6	16.7	16.9	17.2
As a percentage of 15–64 year-olds					
Child population	24.3	21.5	21.3	21.1	21.1
Old-age population	22.2	24.2	24.4	24.6	25.1

EE, LU 1.52
BG 1.51
MT 1.49

SK 1.45
CZ 1.43
AT, GR 1.42
IT 1.40

DE, ES 1.36
CY, PT 1.35
LV 1.34

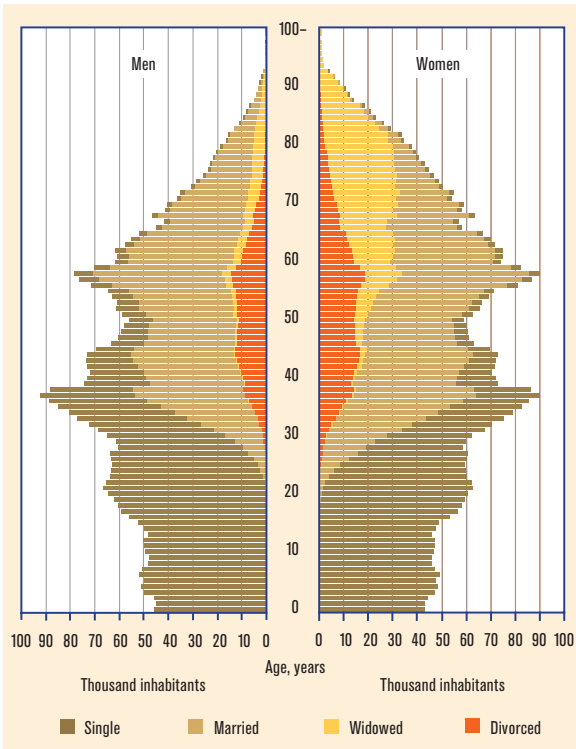
PL 1.30

RO 1.25

HU 1.23

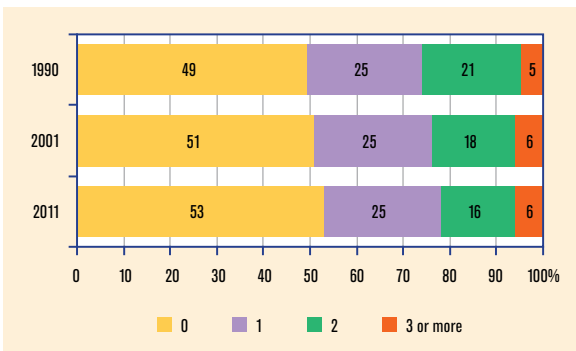
2. Total fertility rate, 2011

Figure 1.3. Population number by sex, age and marital status*,
1st January 2013



* Data of persons living in a registered partnership with same sex partners from 1st July 2009 are included in the data of married people, while data of widowed and divorced categories contain data of widowed or divorced registered partners.

Figure 1.4. The distribution of families by the number of dependent children



ES 25.2

GR 24.5

PT 16.4

LV 15.2

IE 15.0

SK 14.0

LT 13.5

BG 12.4

CY 12.1

HU 11.0

IT 10.8

EU-27 10.6

EE 10.4

PL 10.2

FR 9.9

SI 9.0

SE 8.1

UK 8.0

FI 7.8

DK 7.7

BE 7.6

RO 7.3

CZ 7.0

MT 6.5

DE 5.6

NL 5.3

LU 5.2

AT 4.4

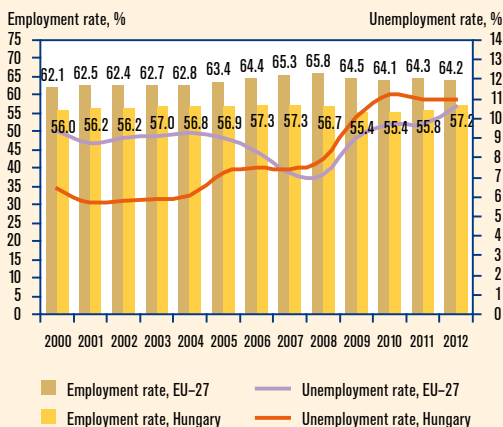
2. Employment, unemployment

Table 2.1. Characteristics of employment and unemployment

(within population aged 15–64)

Denomination	2010	2011	2012
Employment			
Number of employed persons, thousand	3,750.1	3,779.0	3,842.8
Employment rate, %	55.4	55.8	57.2
males	60.4	61.2	62.5
females	50.6	50.6	52.1
Proportion of part-time employees, %	5.5	6.4	6.6
Proportion of employees with a fixed-term contract in all employees, %	9.6	8.9	9.4
Unemployment			
Number of unemployed persons, thousand	474.5	467.6	474.8
Unemployment rate, %	11.2	11.0	11.0
males	11.6	11.0	11.3
females	10.8	11.0	10.7

Figure 2.1. Employment and unemployment rates of population aged 15–64



3. Unemployment rate, 2012 (within population aged 15–64)

(%)

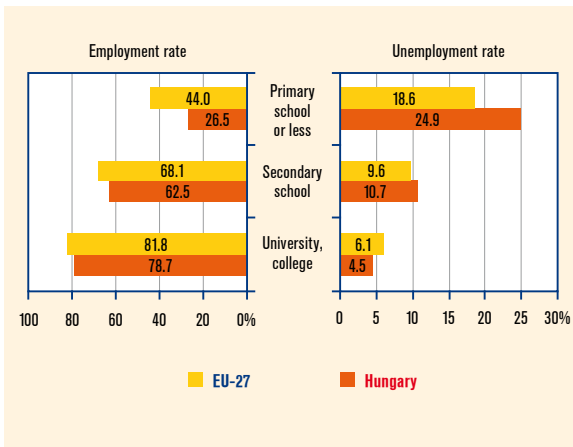
Table 2.2. Number of employed persons in some major industries, 2012

(within population aged 15–64)

Industries	Persons, thousand	Year-on-year change, %	Proportion of women, %
Agriculture	197.3	+8.2	25.7
Industry	905.6	-0.1	35.8
Of which:			
manufacturing	798.4	-1.0	37.5
energy industry	35.1	-7.6	23.6
Construction	243.0	-7.4	8.4
Trade and repair	540.4	-0.3	54.4
Transport and storage	260.6	+0.9	24.3
Hotels and restaurants	162.9	+0.2	58.4
Information, communication	103.3	+12.9	28.8
Financial intermediation, insurance	93.6	+2.3	65.6
Real estate, renting and business activities	23.0	+9.5	40.4
Public administration, health, education	897.7	+3.1	68.2
National economy, total	3,842.8	+1.7	46.4

Figure 2.2. Employment and unemployment rates by highest qualification, 2012

(within population aged 15–64)



3. Income, consumption

INCOME

Table 3.1. Income
(previous year = 100.0%)

Denomination	2009	2010	2011	2012
Real income per capita	96.4	97.1	102.6	..
Real wages and salaries per earner	97.7	101.8	102.4	96.5
Real value of pension ^{a)} per pensioner	94.3	99.1	101.2	100.1
Volume of social transfers in kind	99.1	95.6	99.8	..

^{a)} Until 2011, the term pension includes pensions and pension-type benefits, while since 2012 it contains pensions, benefits, annuities and other provisions.

Figure 3.1. Earnings

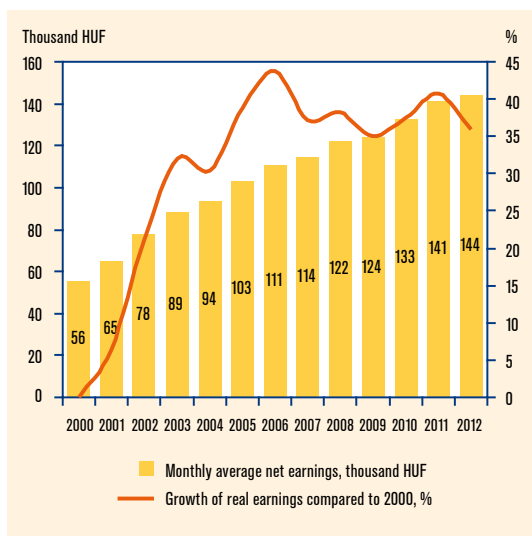
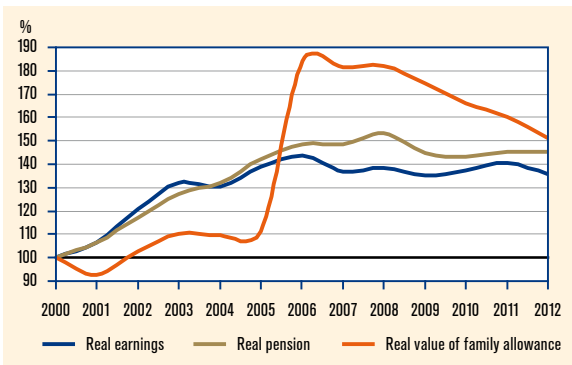


Table 3.2. Average monthly earnings by main groups of staff
(HUF)

Denomination	2010	2011	2012
Average gross earnings			
Manual workers	136,257	144,233	153,921
Non-manual workers	273,059	284,061	296,309
National economy, total	202,525	213,094	222,990
Average net earnings			
Manual workers	97,626	100,352	100,316
Non-manual workers	169,834	183,199	190,454
National economy, total	132,604	141,151	144,040

Figure 3.2. Real value of earnings, pension* and family allowance
(2000 = 100)

* Until 2011, the term pension includes pensions and pension-type benefits, while since 2012 it contains pensions, benefits, annuities and other provisions.

Table 3.3. Pensions and family supports, 2012

Denomination	Pensions ^{a)}	Child care allowance	Child care fee	Family allowance
Expenditure on provisions, billion HUF	3,349.7	61.8	89.4 ^{b)}	343.2
As a percentage of GDP	11.8	0.2	0.3	1.2
Average number of recipients, thousand	2,889.7	168.0	81.8	1,167.6 ^{c)}
Average monthly amount of provisions, HUF	96,600	30,640	91,050	24,491 ^{d)}

a) Until 2011, the term pension includes pensions and pension-type benefits, while since 2012 it contains pensions, benefits, annuities and other provisions.

b) Data from statistical data provision.

c) Number of families.

d) Calculated per family.

CONSUMPTION

Figure 3.3. Structure of expenditures of households in Hungary and the European Union, 2011

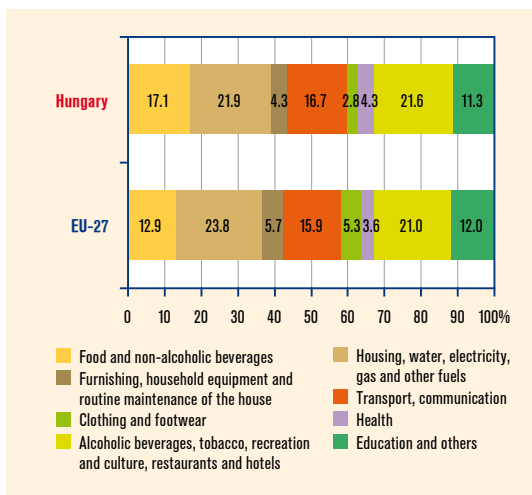


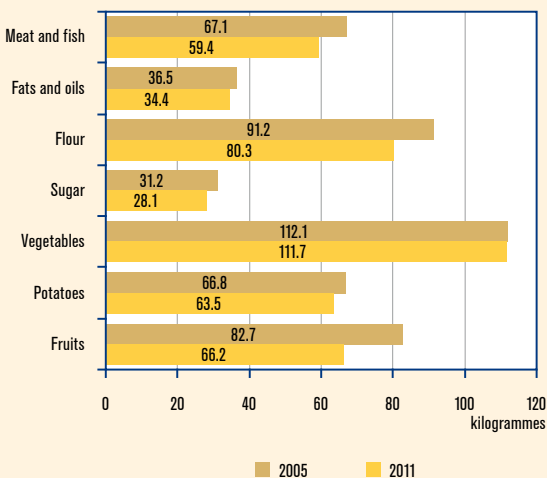
Table 3.4. Actual consumption of households

Denomination	2010	2011	2012	
	volume, previous year=100.0		distribution, %	
Actual consumption expenditure of households	97.0	100.5	98.6	81.7
Social transfers in kind, from government	95.3	99.7	95.1	15.8
Social transfers in kind, from non-profit institutions	97.9	100.9	100.1	2.5
Total	96.7	100.4	98.1	100.0

5. Household final consumption expenditure as a percentage of GDP, 2012

Table 3.5. Consumer durable goods per hundred households, 2011

Consumer durable goods	Households without children	Households with children	Lowest income decile	Highest income decile	Total
Dishwasher	9	19	5	23	12
Microwave oven	87	93	75	93	89
Washing machine, automatic and semi-automatic	83	88	61	93	84
Air conditioner	4	6	1	11	4
Television, colour	155	184	146	178	164
Of which: plasma, LCD	14	21	8	31	16
Digital camera	31	55	20	65	38
DVD	46	81	52	68	57
Home theatre equipment	6	15	7	13	9
Desktop computer (PC)	41	80	43	65	53
Laptop	20	29	10	43	23
Mobile phone	154	258	183	177	186
Passenger car	51	72	28	80	58

Figure 3.4. Annual food consumption per capita

4. Health

Table 4.1. Primary health care, inpatient service

Megnevezés	2010	2011	2012
Primary health care			
Inhabitants per GP and family paediatrician, person	1,548	1,546	1,545
Annual number of visits at a GP's consultation	10,994	11,129	11,211
Annual number of home visits by a GP	586	547	510
Number of patients directed to specialists' consultations by a GP	2,255	2,279	2,244
Number of patients sent to hospital by a GP	84	92	91
Annual number of home visits per nurse	329	323	293
Number of consultations in occupational health care services, thousand	51	37	43
Inhabitants per pharmacy	3,935	3,979	4,137
Inpatient service			
Hospital beds in operation per ten thousand inhabitants	71	71	70
Share of active beds, %	62	62	61
Number of nursing days, million	19.9	19.7	19.1
Average length of nursing in acute wards, days	5.3	5.2	5.2
Average length of nursing in chronic wards, days	28.4	28.5	28.5
Number of discharged patients, thousand	2,458	2,488	2,372
One-day hospital care, thousand cases	130.1	181.6	205.9

Figure 4.1. Number of hospital beds and their occupancy rate by major maintainers, 2012

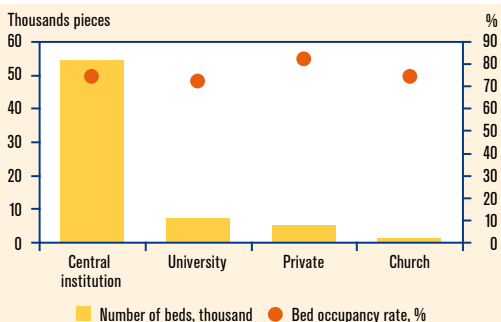
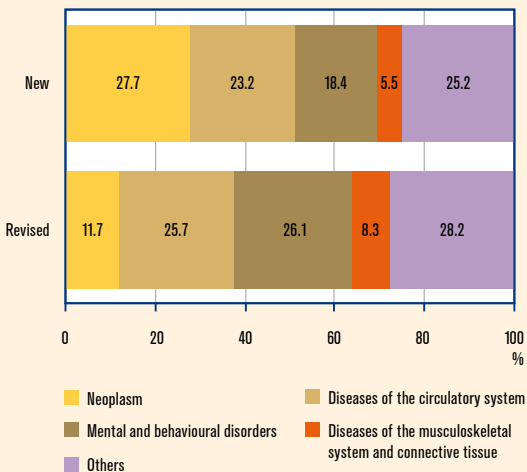


Table 4.2. Number of consultations in the most visited outpatient services per hundred inhabitants, 2012

Fields of specialisation	Number of contacts	Interventions	Working hours performed by specialists
Laboratory diagnostics	142	1,672	6.6
Physiotherapy	70	401	0.4
Dentistry	72	207	44.1
Ophthalmology	24	129	7.0
Rheumatology	31	156	7.5
Internal medicine	40	112	14.4
Otolaryngology	22	83	6.1
Neurology	13	82	6.0
Neonatology and paediatrics	17	72	7.7
Surgery	26	75	7.2

Figure 4.2. Main diagnoses in case of new and revised disability awards, 2011

5. Education

Table 5.1. Data on school year 2012/2013^a

Denomination	Kinder- garten	Primary school	Voca- tional school	Second- ary school	College, univer- sity
Number of full-time pupils/students, thousand	340.2	742.9	126.7	413.7	233.7
Of which:					
share of girls, %	48.3	48.2	37.6	52.5	52.1
share of pupils/ students in state or local government institutions, %	91.4	86.6	79.2	74.2	98.1
Pupils/students per group/class	23.2	20.3	22.3	26.7	–
Pupils/students per teacher	11.2	10.3	12.1	11.2	16.5 ^{a)}

^{a)} Compared to the total number of students.

Figure 5.1. Full-time pupils/students as a percentage of population of corresponding age

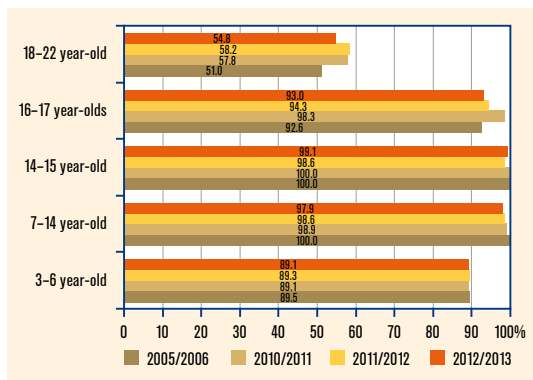


Table 5.2. Students with G.C.S.E., graduates

Denomination	2005	2011	2012
Students with G.C.S.E. as a percentage of 18 year-olds	61.7	65.7	62.0
Graduates as a percentage of 22 year-olds	25.1	28.0	28.4
20–24 year-olds with at least secondary education, %	83.4	83.3	83.5
25–64 year-olds by qualification, %			
Of which: with at most primary education	23.6	18.2	17.9
with at least secondary education	76.4	81.8	82.1
with tertiary education	17.1	21.1	22.0

7. Share of participants in education in age group 15–24, 2011 (%)

Table 5.3. Students in tertiary undergraduate (Bachelor) and postgraduate (Master) trainings by ISCED fields of training* (%)

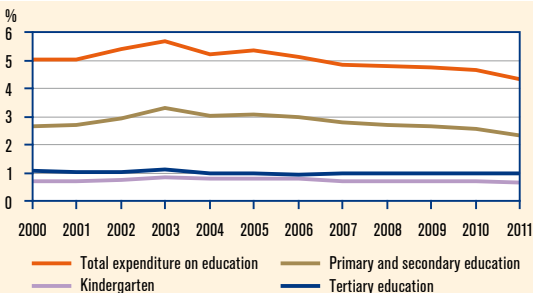
Denomination	2001/2002	2012/2013 ⁺
Teacher training and education science	14.1	4.8
Arts	2.2	3.1
Humanities	10.4	7.9
Social sciences	11.0	10.0
Business and administration	13.9	17.4
Law	5.0	3.8
Natural sciences	2.9	5.4
Computing	3.9	3.6
Engineering, manufacturing and construction	15.6	20.9
Agriculture	3.6	2.4
Health and welfare	9.1	12.0
Services	8.3	8.2
Not classified by fields of training	–	0.5
Total	100.0	100.0

* Including students in university and college level education and in undivided training.

Table 5.4. Services related to education (%)

Denomination	2010/2011	2011/2012	2012/2013
Primary school pupils who attend day-time home services	46.1	46.5	47.6
receive meals	71.0	73.0	73.9
Vocational school students who live in student hostels	8.1	7.8	7.7
Secondary school students who live in student hostels	9.1	8.9	8.7
receive meals	19.9	19.7	19.0
hold a scholarship	1.9	1.4	1.5
Students in tertiary undergraduate and postgraduate education ^{a)} who live in student hostels	18.9	18.7	18.9

^{a)} Including students in university and college level education and in undivided training.

Figure 5.2. Government expenditures on education as a percentage of GDP

6. Science

Table 6.1. Research and development data by sectors, 2012

Denomination	Government sector	Higher education sector	Business enterprise sector	Total
Expenditures, million HUF	52,528	66,958	238,671	363,683 ^{b)}
Personnel in headcount, persons	9,541	23,647	23,298	56,486
Researchers in headcount, persons	5,726	16,551	14,742	37,019
Share of women among researchers, %	41.5	37.8	19.2	30.9
Hungarian-language articles per 100 researchers, ^{a)} number	49	170	5	55
Foreign-language articles per 100 researchers, ^{a)} number	87	172	4	62

a) The indicators were made using the staff number in full-time equivalents (FTE), based on the measurement unit representing one person working full-time in R&D activities.

b) Including government funds spent on the honorariums and salary supplements of those having scientific degrees, and also on the salary of holders of state scientific scholarships.

Figure 6.1. Proportion of R&D expenditures financed by business enterprises

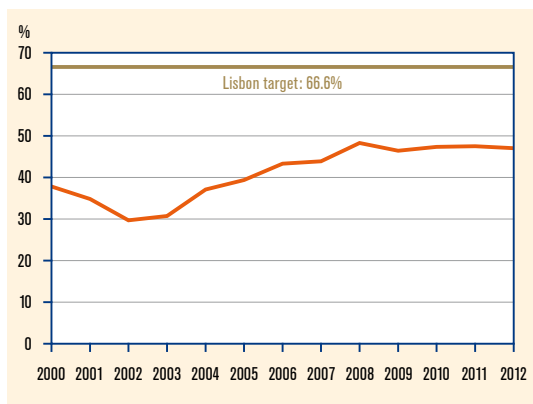


Figure 6.2. Use of R&D expenditures

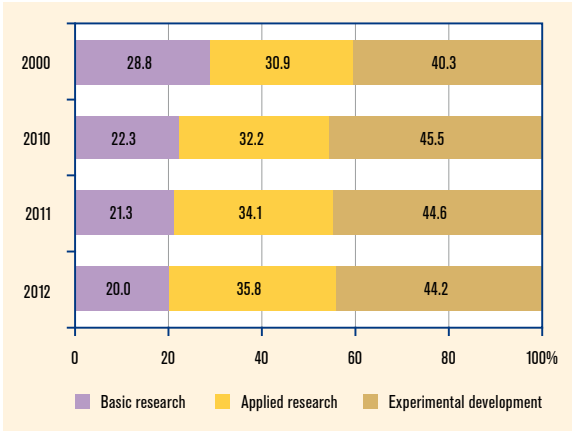


Table 6.2. Distribution of researchers* by field of science, 2012

Field of science	Distribution, %
Natural sciences	26.9
Engineering and technology	33.4
Medical sciences	10.8
Agricultural sciences	5.2
Social sciences	13.2
Humanities	10.5
Total	100.0

* Calculated based on headcount of researchers.

7. Culture, sports

Table 7.1. Selected indicators of cultural life

Denomination	2010	2011	2012
Number of titles of published books and booklets	12,997	12,456	12,080
Number of copies of published books and booklets, thousand	34,416	34,251	30,649
Theatre attendance per thousand inhabitants	458	475	515
Concert attendance per thousand inhabitants	99	120	111
Museum attendance per thousand inhabitants	946	845	840

Table 7.2. Books by nationality of author

Denomination	2010	2011	2012	
	number of titles			previous year = 100.0
Total published books	12,480	11,821	11,645	98.5
Of which:				
Hungarian	8,929	8,429	8,081	95.9
American (USA)	1,740	1,711	1,795	104.9
British	458	418	502	120.1
German	487	421	479	113.8
French	185	165	163	98.8
Of which: youth and children's literature	1,062	1,141	1,244	109.0
Of which:				
Hungarian	465	548	532	97.1
American (USA)	260	273	290	106.2
British	106	61	96	157.4
German	102	77	157	203.9
French	40	35	44	125.7

Table 7.3. Theatre guest performances, 2012

Denomination	Hungarian theatres abroad	Foreign theatres in Hungary
Number of countries	39	40
Number of performances	1,268	386
Attendance, thousand	661	59
Attendance per performance	521	153

9. Households with access to the internet, 2012

(%)

Figure 7.1. Data of creative cultural communities

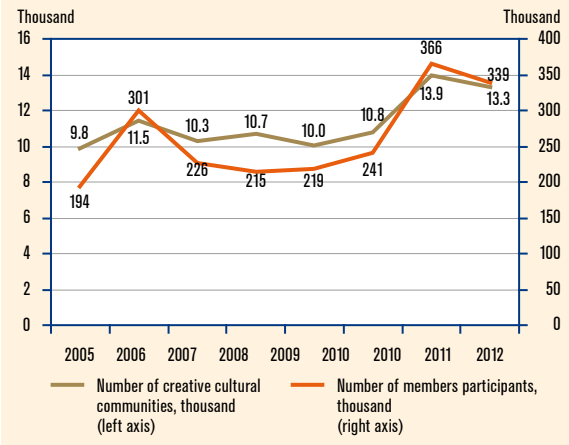
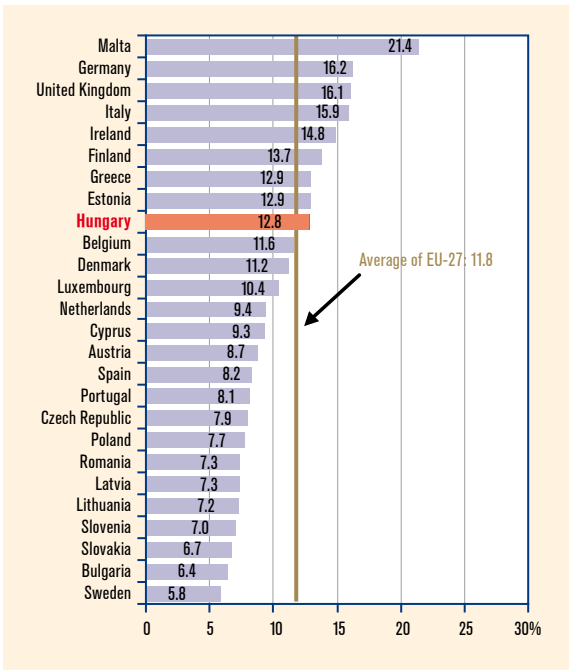


Figure 7.2. Share of students of arts and humanities in tertiary education, 2011



8. Economic growth, investments

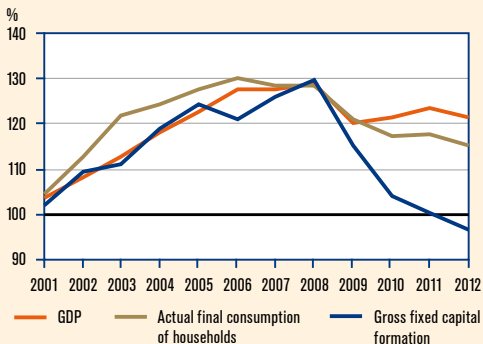
Table 8.1. Gross domestic product

(%)

Industries	Distribution, %, 2012 ^{a)}	Change in volume		
		2010	2011	2012
GDP, total	100.0	1.3	1.6	-1.7
Of which:				
agriculture, forestry and fishing	3.9	-14.9	22.4	-21.2
industry	27.3	11.4	2.9	-1.1
construction	3.7	-9.0	-5.3	-6.4
wholesale and retail trade, repair of motor vehicles and motorcycles, accommodation and food service activities	11.9	-3.5	0.7	-1.2
transportation and storage	6.2	3.2	0.3	-2.5
information and communication	5.2	2.0	2.4	3.4
financial and insurance activities	4.5	-4.7	-5.6	-3.0
real estate activities	8.8	-0.2	0.3	-1.2
public administration and defence, compulsory social security; education, human health and social work activities	17.0	0.2	2.0	0.0
Domestic use of GDP, total	92.2	-0.5	0.1	-3.7
Actual final consumption, total	74.6	-2.3	0.3	-1.7
Of which:				
actual final consumption of households	64.5	-3.3	0.4	-1.9
actual final consumption of government	10.0	3.8	-0.3	0.0
Gross fixed capital formation	17.2	-9.5	-3.6	-3.8

^{a)} In case of production, total of branches, at basic prices = 100.0; in case of use, total GDP = 100.0.

Figure 8.1. GDP and its main components of use
(2000 = 100)



* Preliminary data.

10. Volume index of GDP per capita, 2012

(previous year=100.0)

Figure 8.2. Export (+) and import (-) surplus as a proportion of GDP

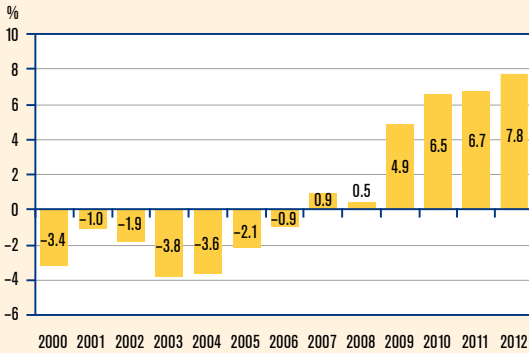
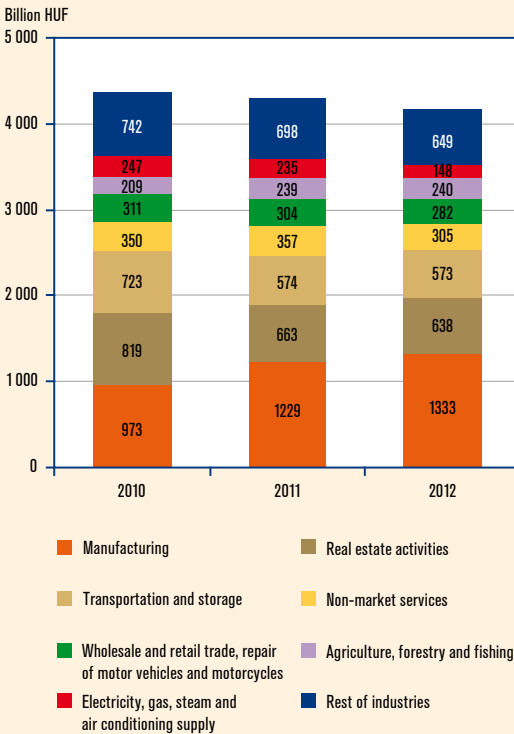


Figure 8.3. Expenditures on investment



9. Balance

Table 9.1. Balance of current account and its sub-balances*

(million EUR)

Denomination	2010	2011	2012
Balance of current account	1,065	808	1,704
Of which:			
goods	3,215	3,393	4,071
services	2,932	3,173	3,407
incomes	-5,472	-6,244	-6,204
current transfers	390	486	430

* Source of data: National Bank of Hungary

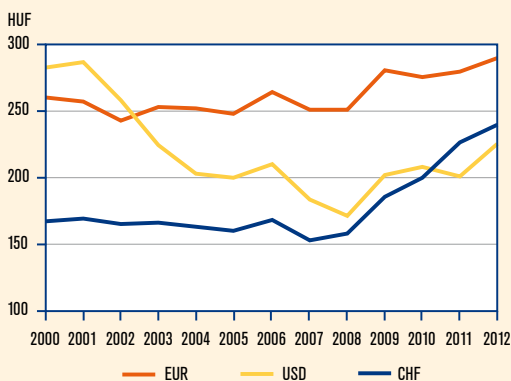
Table 9.2. Balance of general government and its sub-systems

(according to European System of Accounts)

(billion HUF)

Denomination	2010	2011	2012
General government	-1,143	1,195	-532
Of which:			
central government	-960	1,001	-736
social security funds	47	25	-3
local governments	-230	169	208

Figure 9.1. Annual average foreign exchange rates



11. The 'Maastricht' debt of the general government sector as a proportion of gross domestic product, end of 2012

Figure 9.2. The „Maastricht” deficit of the general government sector as a proportion of gross domestic product

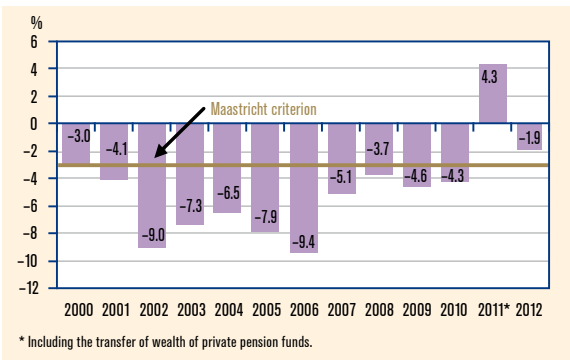
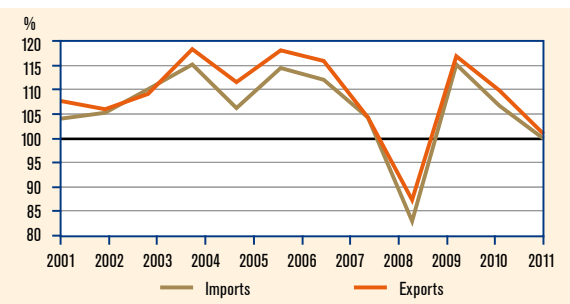


Table 9.3. External trade in goods and services, 2012

(million EUR)

Denomination	Imports	Exports	Balance
Goods			
Food, beverages, tobacco	3,900	6,541	2,641
Crude materials	1,849	2,723	874
Fuels, electric energy	9,324	3,175	-6,148
Manufactured goods	24,948	24,917	-32
Machinery and transport equipment	33,246	42,734	9,489
Total	73,267	80,090	6,823
Services			
Travel	1,537	3,781	2,244
Transport services	2,404	3,484	1,080
Business services	8,001	8,555	554
Government services	156	91	-65
Total	12,098	15,912	3,814

Figure 9.3. Volume of imports and exports of goods (previous year = 100)



10. Prices

Table 10.1. Consumer prices

(previous year =100.0)

Denomination	2010	2011	2012
Food and non-alcoholic beverages	102.8	107.3	106.0
Alcoholic beverages and tobacco	108.8	100.2	114.6
Clothing and footwear	99.7	103.0	102.5
Housing, water, electricity, gas and other fuels	105.5	104.6	105.8
Furnishing, housing equipment and routine maintenance of the house	101.7	100.3	103.4
Health	105.2	102.9	103.6
Transport	111.2	107.1	106.1
Communication	101.0	100.7	104.6
Recreation and culture	102.9	100.6	101.4
Education	100.6	99.7	101.8
Restaurants and hotels	104.2	102.7	104.6
Miscellaneous goods and services	102.2	100.9	106.7
Total	104.9	103.9	105.7

Table 10.2. External trade price indices and terms of trade

(previous year =100.0)

Denomination	2010	2011	2012
Import price index	101.7	105.0	104.2
Export price index	101.6	103.3	102.9
Terms of trade	99.9	98.4	98.8

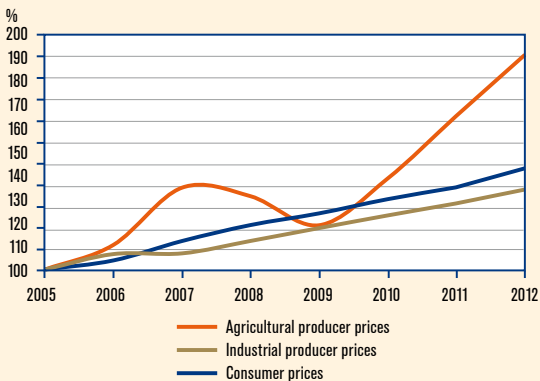
12. Relative consumer price level, 2012

(EU-27=100.0)

Table 10.3. Average consumer prices of selected goods and services

(HUF)

Denomination	2010	2011	2012
Pork, leg, without bone and hoof, kilogram	1,110	1,150	1,280
Bread, home-made type, kilogram	295	321	326
Milk, 2.8%, litre	201	226	231
Flour, prime quality, kilogram	122	172	165
Sugar, white, granulated, kilogram	192	300	300
Potatoes, kilogram	140	161	108
Beer, lager, 0.5 litre, bottle	172	176	185
LCD television, 76–82 cm, piece	123,439	110,680	98,250
Museum admission tickets, piece	641	666	708
General monthly public transport ticket, piece	6,710	6,810	6,940
Gasoline, unleaded, 95 octane, litre	336	383	426
Diesel oil, litre	320	380	435
Electricity, daytime, 10 kW/h	466	468	485
Natural and manufactured gas, 10 m ³	1,150	1,270	1,360
Water charges, m ³	301	316	331

Figure 10.1. Producer and consumer prices
(2005 = 100)

DK 910

LT 612

BG 605

FR 585

CZ 469

LV 453

HU 414

RO 336

SK 304

DE 279

EU-27 275

EE 264

UK 244

PL 242

SE 239

AT 212

FI 182

EL 151

BE, LU, ES 150

IT 109

SI 75

NL 71

CY 30

PT 6

11. Agriculture, industry, services

AGRICULTURE

Figure 11.1. Gross agricultural production
(2000=100)

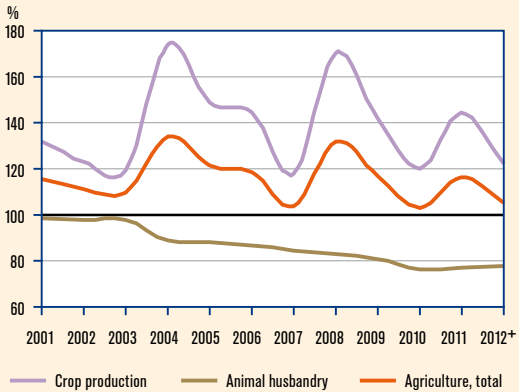


Table 11.1. Production of basic crop products

Denomination	2010	2011	2012 ^{a)}	
	thousand tons			as % of EU-27 ^{a)}
Wheat	3,745	4,107	4,013	2.9
Maize	6,985	7,992	4,763	11.7
Sunflower	970	1,375	1,317	16.3
Sugar-beet	819	856	882	0.7
Vegetables	1,144	1,475	1,363	1.3
Fruits	766	513	822	0.5
Grape	295	450	356	1.8

^{a)} Data of 2011.

Figure 11.2. Structure of production of agricultural products

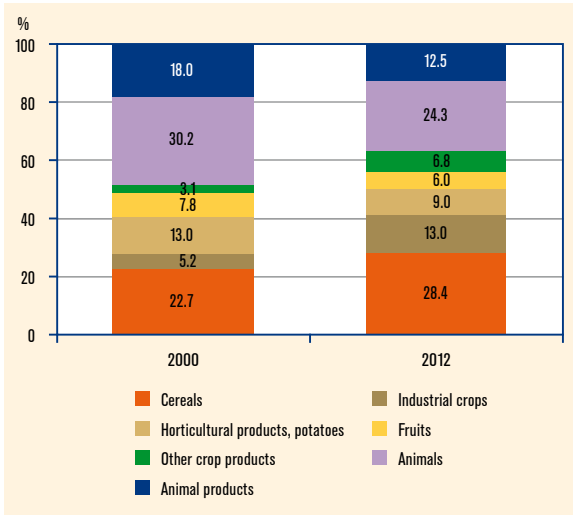


Table 11.2. Livestock (1 December)

(thousand heads)

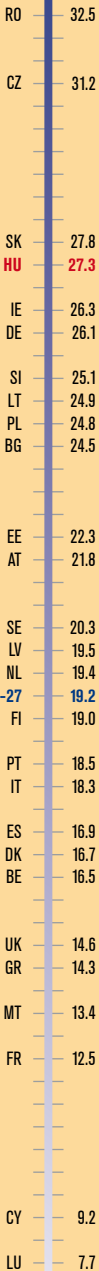
Denomination	2010	2011	2012
Cattle	682	694	753
Pigs	3,169	3,025	2,956
Sheep	1,181	1,081	1,147
Poultry	42,213	41,488	38,199
Horses	65	74	76

Table 11.3. Production of major animal products

Denomination	2010	2011	2012 ^{a)}	
	in natural units			as % of EU-27 ^{b)}
Animals for slaughter, thousand tons	1,329	1,333	1,347	..
Cows' milk, million litres	1,641	1,667	1,751	1,3
Hen eggs, million	2,732	2,458	2,360	2,2
Wool, tons	4,070	3,820	3,820	2,1
Honey, tons	16,500	17,500	..	9,1

a) Preliminary data.

b) Data of 2011.



INDUSTRY, CONSTRUCTION, DWELLINGS

Figure 11.3. Distribution of industrial production and sales by size of enterprises, 2012

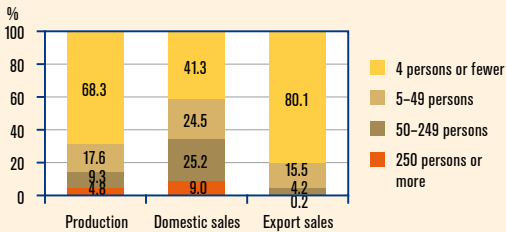


Table 11.4. Distribution of industrial production and sales,* 2012

(%)

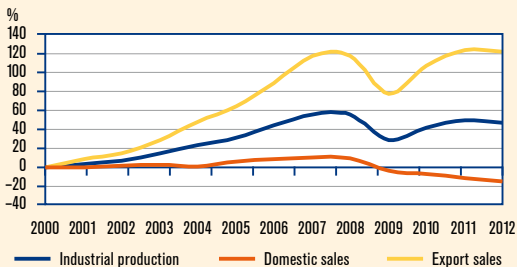
Branch, branch group	Major branch group, share from industrial ^{a)}		
	production	export	domestic
		sales	
Machinery branches	44.6	60.8	7.2
Chemical industry	21.5	17.1	20.2
Manufacture of food products, beverages and tobacco	10.9	5.8	14.0
Electricity, gas and water supply	6.8	2.6	44.5
Manufacture of basic metals	6.9	6.3	5.4
Other	9.3	7.4	8.6
Total	100.0	100.0	100.0

* Excluding water and waste management.

^{a)} At current prices, the group of businesses with at least 5 employees = 100.0.

Figure 11.4. Volume indices of industrial production and sales

(2000 = 100)



14. Proportion of industry in gross value added, 2012

(%)

Figure 11.5. Distribution of construction output by staff size, 2012

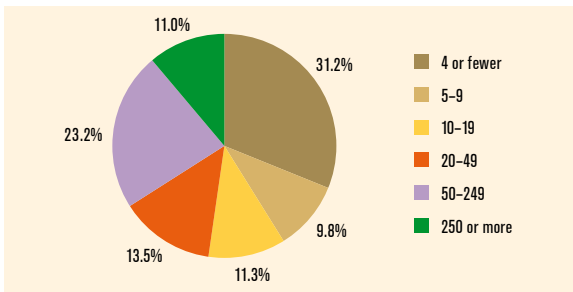


Table 11.5. Volume of output of construction units
(previous year = 100.0)

Denomination	2010	2011	2012
Construction of buildings	94.5	88.5	92.4
Construction of civil engineering works	84.5	96.2	96.0
Construction units total	89.6	92.2	94.1

Table 11.6. Dwelling construction and cessation

Denomination	2010	2011	2012
Number of built dwellings	20,823	12,655	10,560
Number of ceased dwellings	2,549	2,752	2,183
Basic floor space of built dwellings, sq. m	92	103	107

Table 11.7. Dwelling stock, inhabitants per dwellings, 1 January 2013

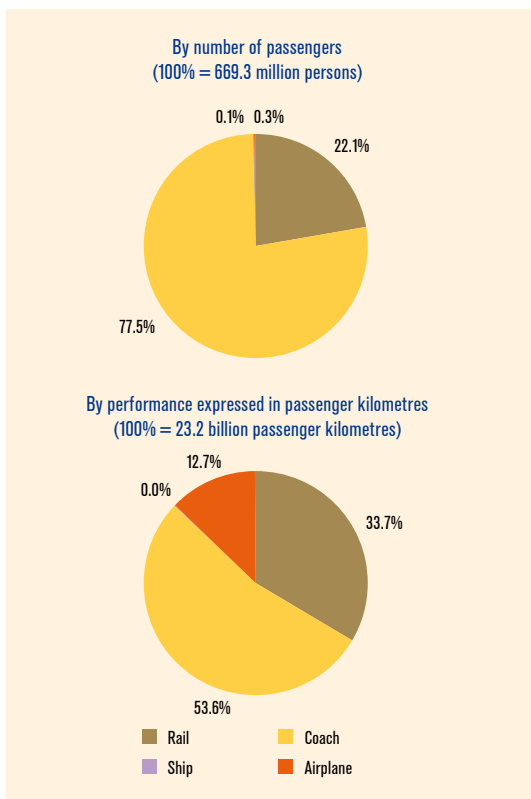
Type of settlement	Number of dwellings, thousand	Inhabitants per hundred dwellings, persons	Average basic floor space of built dwellings, sq. m	Inhabitants per hundred rooms, persons
Budapest	907	191	64.2	77
Other towns	2,238	229	76.3	84
Villages	1,257	242	88.1	84
Total	4,402	225	77.2	83

TRANSPORT

Table 11.8. Goods transport performances, 2012

Denomination	Performance, billion freight tonne kilometres	Changes in performance, previous year = 100.0	Share of international traffic, %
Railway	9.1	99.7	84.4
Road	33.7	97.7	72.8
Inland waterway	2.0	107.7	99.8
Pipeline	5.8	104.0	69.1
Total	50.6	99.1	75.5

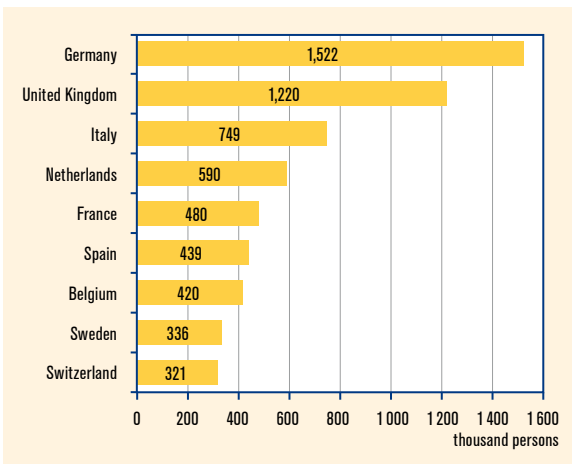
Figure 11.6. Distribution of interurban passenger transport performances in 2012



15. Proportion of rail transport performance in total inland goods transport, 2011 (%)

Table 11.9. Number of passengers transported in urban public transport

Denomination	(Million persons)		
	2010	2011	2012
Bus	1,152	1,139	1,114
Tram	449	453	442
Trolleybus	95	94	89
Underground	302	303	306
Suburban railway	70	70	70
Total	2,067	2,059	2,021

Figure 11.7. Passenger transport of Budapest Ferenc Liszt International Airport by main partner countries in 2012
(total = 8 million 504 thousand persons)

INTERNET, TELEPHONY

Figure 11.8. Internet subscriptions by type of connection

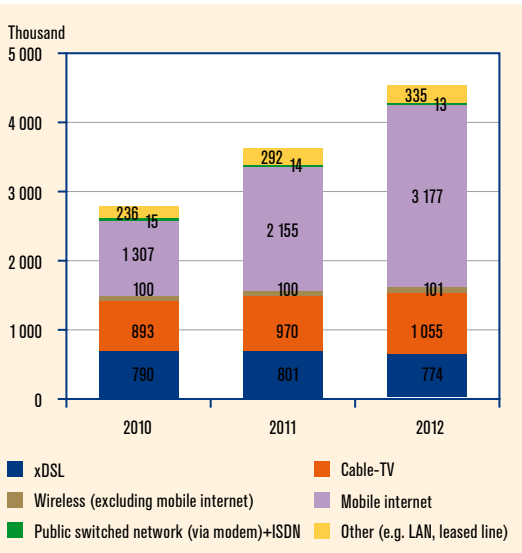


Table 11.10. Services available on the website of enterprises

(As a proportion of enterprises with website, %)

Denomination	2010	2011	2012
Product and service information	86.9	87.7	86.0
Online ordering	26.7	25.5	25.7
Vacancies, online application option	21.2	20.1	20.2
Possibility of making a customized product	23.7	18.4	13.8
Online traceability of orders	12.9	12.3	12.1

16. Proportion of e-shoppers in the population in 12 months before the survey, 2012

(%)

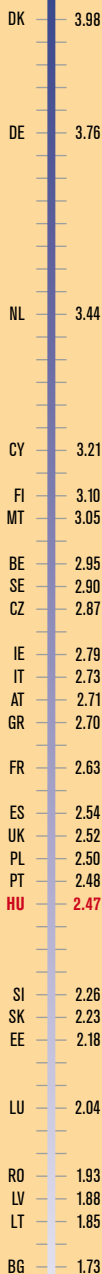
Table 11.11. Main data of telephony, 2012

Denomination	Fixed-line telephony	Mobile telephony
Number of fixed main lines and mobile phone subscriptions, thousand	2,930	11,579
Number of fixed main lines and mobile phone subscriptions per hundred inhabitants	29.5	116.7
Number of initiated calls, million	1,425	8,045
Calls per line or subscription, number	486	695
Length of calls per line or subscription, minutes	1,786	1,555
Average length of initiated calls, minutes	3.7	2.2

Table 11.12. Information and communication tools in households

(As a proportion of households, %)

Denomination	2009	2010	2011
Mobile phone	93.2	94.7	95.4
Desktop computer	58.6	59.5	59.1
Laptop	26.0	31.0	35.1
Hand-held computer	3.9	4.7	4.5
Internet connection	60.5	65.2	68.6
Of which: broadband internet connection	52.2	60.8	68.0



TOURISM

**Table 11.13. Number of foreign visitors in Hungary
by main countries** (thousand persons)

Country	2010	2011	2012
Slovakia	8,404	8,825	9,971
Romania	7,614	7,575	7,901
Austria	6,696	6,649	7,233
Germany	3,135	3,026	3,188
Serbia, Montenegro, Kosovo	2,329	2,964	2,658
Ukraine	1,819	1,831	1,863
Poland	1,540	1,331	1,603
Bulgaria	1,191	1,380	1,443
Czech Republic	1,003	916	1,041
Croatia	868	934	756

**Table 11.14. Number and expenditures of foreign visitors
in Hungary by purpose of travel, 2012**

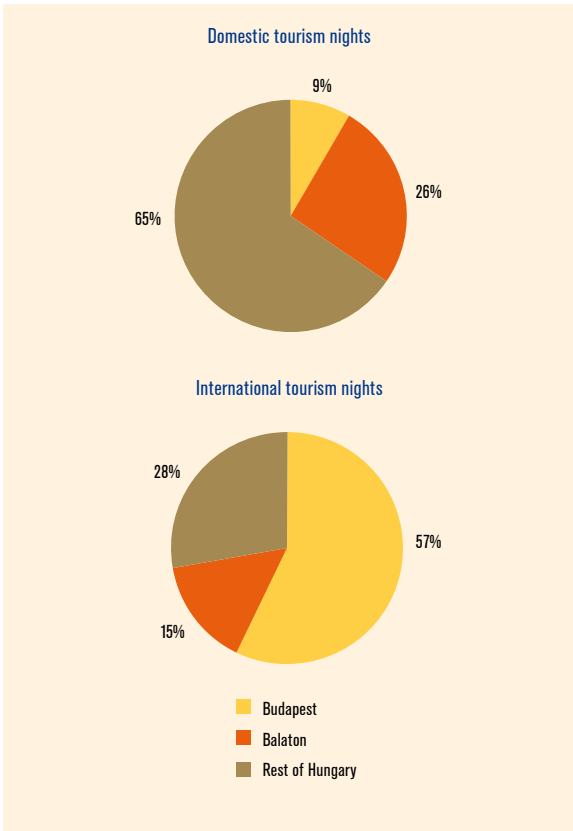
Motivation	Visitors		Visitor expenditures	
	number, thousand	distribution, %	billion HUF	distribution, %
Leisure tourism	13 489	31.0	689	58.7
Of which: visiting friends and relatives	4,472	10.3	146	12.4
Medical and health tourism ¹	1,961	4.5	142	12.0
Business tourism	1,390	3.2	120	10.2
Of which: conference tourism	127	0.3	12	1.0
Tourist motivation total	14,879	34.2	809	68.9
Studying	340	0.8	31	2.6
Shopping	10,571	24.3	147	12.5
Working	2,034	4.7	87	7.4
Transit travel	15,527	35.6	98	8.4
Other	214	0.5	3	0.3
Non-tourist motivation total	28,686	65.8	366	31.1
Grand total	43,565	100.0	1,175	100.0

^{a)} The motivation of medical treatment and health preservation contains the following sub-motivations after the extension of the motivation list of the 2012 questionnaire: medical treatment, health preservation, plastic and other surgery as well as dentistry.

Table 11.15. Turnover of catering units

Year	Public catering units	Canteens	Total
Distribution, %			
2010	84.6	15.4	100.0
2011	86.0	14.0	100.0
2012	86.2	13.8	100.0
Volume index, previous year = 100.0			
2010	96.9	110.1	98.7
2011	97.5	86.4	95.8
2012	100.3	97.1	99.8

Figure 11.9. Regional distribution of tourism nights spent at public accommodation establishments, 2012



RETAIL TRADE

Figure 11.10. Volume of retail sales
(2005 = 100%)

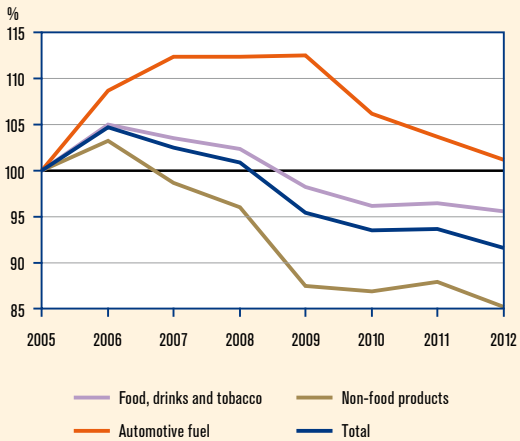


Table 11.16. Changes in retail sales, 2012 (%)

Denomination	Distribution of sales	Changes in sales, previous year = 100.0
Retail sales of food, beverages and tobacco	45.4	-0.9
Of which:		
Sales in non-specialized stores	40.9	-1.2
Sales in specialized stores	4.4	+2.1
Retail sales of non-food products	35.6	-3.5
Of which:		
Sales in non-specialized stores	3.0	-0.2
Textiles, clothing and footwear	4.9	+1.6
Furniture and electrical goods	11.6	-11.0
Books, information technology and other manufactured goods	8.6	-3.1
Pharmaceutical and medical goods, cosmetics articles	6.0	+0.5
Mail orders and internet	1.1	+37.1
Automotive fuel	19.0	-2.5
Total	100.0	-2.2

18. Volume index of retail sales, 2012

(previous year=100,0)

Figure 11.11. Changes in the consumer prices and sales of automotive fuels
(same period of the previous year = 100%)

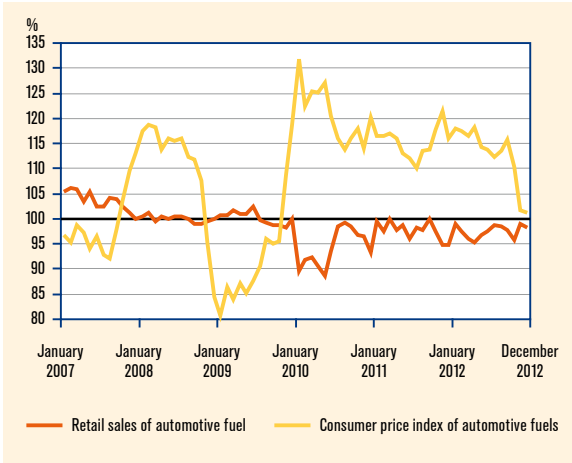
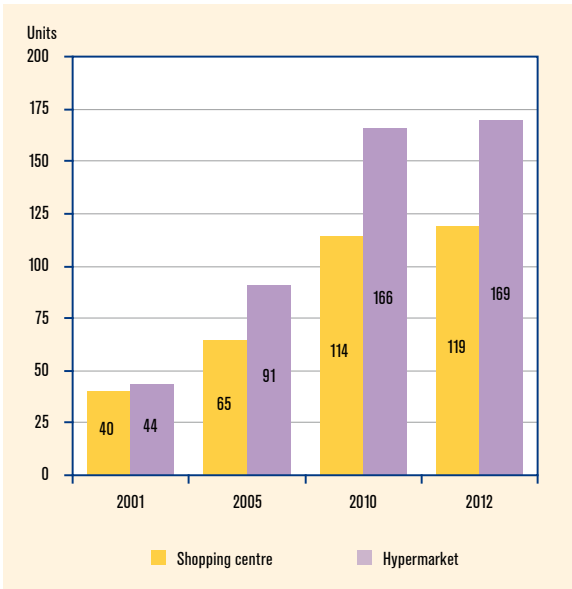


Figure 11.12. Changes in the number of shopping centres and hypermarkets

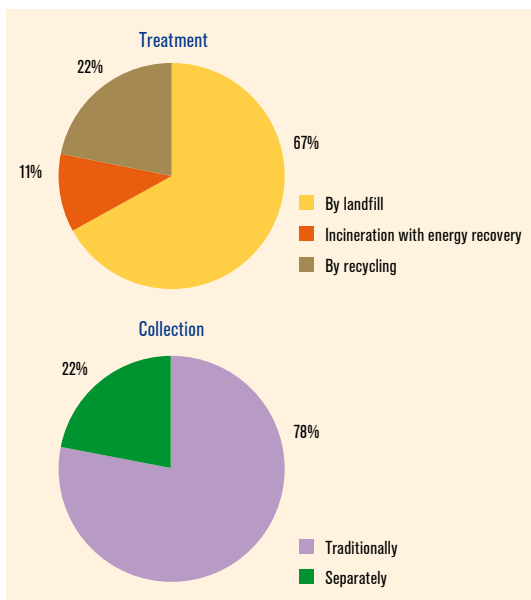


12. Environment

Table 12.1. Environmental data

Denomination	2009	2010	2011
Forest area, thousand hectares	1,913	1,922	1,928
Municipal wastewater treated in public water treatment plants, total, million m ³	507.5	553.4	473.5
Proportion of at least biologically treated municipal wastewater, %	75.7	96.8	98.1
Municipal solid waste, kilogram/person	430	403	382
Proportion of dwellings covered by waste removal services, %	92.2	92.3	91.3
(Gross) emissions of carbon dioxide, kilogram/person	5,098	5,168	5,008
Emissions of non-methane volatile organic compounds (NMVOC), kilogram/person	14	11	10
Emissions of sulphur dioxide, kilogram/person	6	3	4
Emissions of particulate matter with a diameter of less than 10 µm (PM ₁₀), kilogram/person	6	4	4

Figure 12.1. Collection and treatment of municipal solid waste, 2011



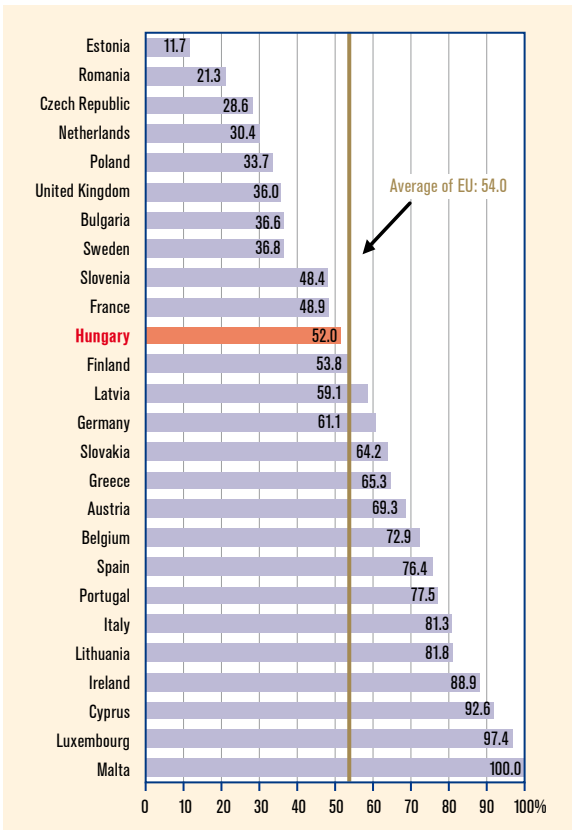
19. Particulate matter with a diameter of less than 10 µm (PM₁₀) in towns per cubic metre of air (microgrammes)

Table 12.2. Energy consumption

Year	Total		Consumption per unit of GDP, previous year = 100.0
	petajoules	previous year = 100.0	
2010	1,085.0	102.8	101.5
2011	1,053.1	97.1	95.5
2012	999.3	94.9	96.5

Figure 12.2. Energy dependency of EU and its member states, 2011*

(proportion of net imports within gross domestic consumption)



* Denmark is a net exporter.



Water

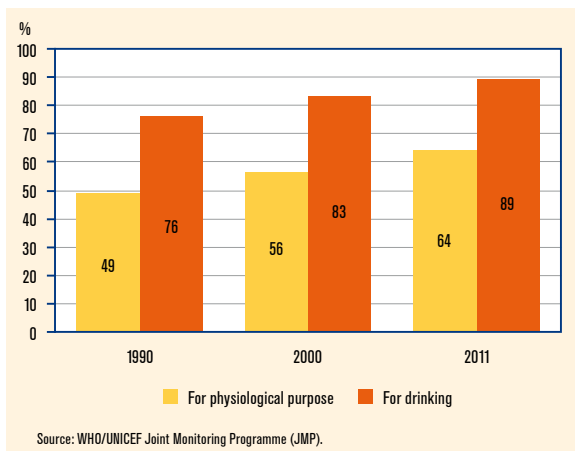
In December 2010, the United Nations (UN) General Assembly declared 2013 as the United Nations International Year of Water Cooperation. The Budapest Water Summit (<http://budapestwatersummit.hu/>) in October, outstanding among the several events of the year, aims at contributing to elaborate sustainable development goals concerning water and at providing specific guidelines to determine development policy priorities in the world after 2015.

VOLUME OF RESOURCES AND DEMANDS COMING CLOSER TO EACH OTHER

Since man found his way to the space, our Earth has also been referred to as the Blue Planet. Although the volume of water of some 1400 million cubic kilometres represents only 1% of our planet's mass, it covers more than seven-tenths of its surface. Merely 35 million cubic kilometres (2.5%) of this huge volume is suitable for human consumption. Water resources management is only sustainable if mankind uses no more than the volume of water circulating in the enormous distillation powered by solar energy – 400 thousand cubic kilometres/year. A large part of this volume is “lost” as well – falls into oceans, feeds polar ice or glaciers, is not available (uninhabited virgin forests) or is omitted because of pollutions –, the actually utilisable **renewable water resource** remains approximately **2 thousand cubic metres** per year for each of the inhabitants on our planet. However, the **demand for water** is **600–1000 cubic metres/head**. The lower value is obtained from twice higher industrial and seven times higher agricultural use, as is the case at present, compared to man's daily drinking water and physiological consumption (60 cubic metres/year including losses and waste). The higher consumption takes into account daily nutrient demand (2000 kcal/head), which also contains the natural water intake of plants and animals serving as food. The 1000 cubic metres/head are a limit of stress at the same time, under that the management becomes more and more difficult because of scarcity. On the example of ecological footprint, water footprint exists, too, which is estimated at 1240 cubic metres/head/year at global level (2480 cubic metres/head/year in the United States and 700 in China).

The volume of demands and resources come fatefully close to each other. Because of the difficulties stemming from development (the increasing number of inhabitants on our planet implying growth of demands for water by industry, agriculture and households, urbanisation, frequently unsolved waste water treatment, and the more and more markedly perceivable climate change) our water resources are more and more scarce.

Figure 1. Availability of water to population of Earth



The regional and temporal distribution of both resources and demands are very varied, and the two often do not coincide with each other. At present nearly 800 million people on Earth meet with difficulties in accessing healthy drinking water and 2.5 billion in accessing washing facilities. The situation of the rural population is more unfavourable: 81% of them access appropriate volumes of drinking water and 47% access water for washing and cooking, compared with 96% and 80% respectively of citizens.

Table 1. Water demand of producing certain food items

Food item	Water demand, litres
1 piece of apple	70
150 grammes of beef	2,025
100 grammes of vegetables	20
1 slice of bread	40
1 hamburger	2,400



Typically poorer regions face the most severe lack of water, the most threatened countries at present are Somalia, Sudan, Nigeria, Iraq, Pakistan, Uzbekistan, Egypt, Turkmenistan and Syria, while Iceland, Norway and New-Zealand are the best supplied with water. Hungary belongs to moderately exposed countries.

WATER AND SUSTAINABILITY

Water difficulties become increasingly complex, and traditional water management is less and less suitable for solving them. We come up against the issue of sustainability when these difficulties are connected with similarly cross-border problems, becoming more and more urgent for mankind, such as overpopulation, food supply, nature protection and growing social disparities.

Though the volume of water available for mankind is unchanged, permanent population growth reduces its per capita volume alarmingly (there were 27 thousand cubic metres per

IS SUSTAINABILITY STILL POSSIBLE?

This question is also raised in the title of the latest (year 2013) report of Worldwatch Institute, operating its European office in Copenhagen, and engaged in global, principally “green” issues. According to a short definition by the UN World Commission on Environment and Development: “Sustainable development is a development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” An increasing number of specialists have doubts about it both at home and all over the world, many simply talk about a paradox. The financial crisis related to the population, climate and resources crisis amplified doubts markedly. Nevertheless, everyone agrees that mankind – and especially its developed part, considered to be lucky – must establish basically new forms of saving, for the sake of its own survival.

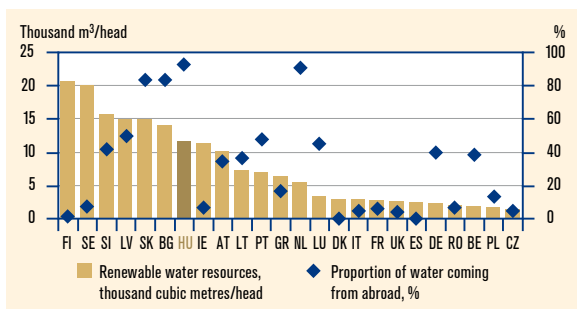
each of the inhabitants on Earth per year back at the beginning of the 20th century). The increase of demands is caused not primarily by the expansion of personal needs but much more so by that of agricultural ones serving nutrient demand. According to José Graziano da Silva, the Director-General of FAO, the key to **sustainable water management** is held by agriculture. Many ways of saving have been known to date: introduction of modern irrigation systems, construction of reservoirs, recycling, and protection of water bases. However, soon new forms of saving, too, must be looked for. Many specialists already urge for switching over to another type of, less intensive – and at the same time less water-requiring – agriculture. Its general spread in the developing world could lower food shortage, growing in spite of intensive food production, without considerably raising water consumption. The separation and use of waste water by purpose, the deeper exploitation of the possibilities provided by sea-water-based nutrition, the study of closed circulations in large regions and institutional reform, indispensable for changes, offer further possibilities. Wasting water in the developed world – irrigation of gardens and golf-courses, WC – cannot already be long sustained either.

There are regions in the world where forced innovation concerning water is notable already today. In Singapore, water imported from Malaysia, waste water after ultra clean treatment and desalinated sea water are mixed, then distributed in the network, and children are strictly educated already from kindergarten age to save water. The food safety of China, the most populous country in the world, depends on water, too. It can reduce its import dependence only by increasing its irrigation capacity, which, however, can have (and already has) serious consequences on the environment, while setting imports free enhances its defencelessness, and raises at the same time water abstraction in exporting countries.

HUNGARIAN WATER SITUATION CONTROVERSIAL

Hungary lies in one of the mostly closed basins on Earth, and has substantial but very **vulnerable** water resources. Per capita water resources are some 12 thousand cubic metres per year, one of the highest figures in Europe. However, own resources resulting from runoffs within the country equal only 600 cubic metres/head per year, one of the lowest on the continent.

Figure 2. Annual average of long time series of renewable water resources



The distribution of water mass coming from abroad and precipitation is extremely uneven both in time and space, which causes floods, inland inundation and drought. Our national geographic endowments make us one of the countries in Europe mostly exposed to floods. Lowlands in the country – mainly the Great Plain and especially the Tisza valley – are often hit by floods as well as drought and inland inundation. There are settlements almost all over the Great Plain and in smaller districts in the northern, western and southern parts of the country where the quality of drinking water can be questioned from some point of view. The largest problem is the arsenic content of waters – mainly artesian wells in Southern Great Plain. This affects nearly one and a half million people, while the quantity of ammonium ion exceeding the limit value in piped drinking water restricts 2.5 million of our compatriots from accessing healthy drinking water.

Since the turn of the millennium all settlements in the country have been connected to the **public piped drinking water system**. At the same time the proportion of supplied dwellings rose from 92% to 95%. The capacity of the public sewerage system does not reach this level but the progress is significant. The share of settlements connected to the sewerage system has increased from 27% to 56% since 2000, there were 1391 localities with no sewerage connection at all in the country in 2011. Waste water was piped through the public sewerage system from the half of dwellings one decade ago compared with already nearly three-quarters (73%) of them in 2011. The purity of water bases is basically influenced by the degree to which waste water piped through the system can be treated and by what is done to waste water from households not connected to the public

sewerage system. This latter is referred to as municipal liquid waste, the volume of which became less and less in parallel with the expanding capacity of the public sewerage system: 3.7 million cubic metres compared with 6.1 million cubic metres ten years ago. The volume of municipal waste water piped to the public sewerage system but not treated or treated at most mechanically decreased at an even higher rate – to less than a tenth.

Table 2. Public water supply, sewage piping and treatment

Indicator	2000	2011
Volume of abstracted water, thousand cubic metres	721,362	600,116
Volume of water supplied to households, including volume of water supplied through common wells, thousand cubic metres	388,062	340,156
Length of piped water network, thousand kilometres	62	66
Drinking water transported to settlements, cubic metres	580	3,481
Waste water piped through sewerage system, thousand cubic metres	530,484	475,159
Proportion of biologically treated waste water, %	58.5	97.8
Average water charge for households, HUF/cubic metre	138	316
Average sewage piping and treatment charge for households, HUF/cubic metre	110	362

The volume of public piped water used by households, and consequently the volume of generated waste water decreased sharply following the regime change, and slightly later. In 2011, 40% less public piped water was used in households compared to 1990, and 46% less waste water was collected – not only from households – through the public sewerage system, despite the growing length of the network. The most probable reason for this change, favourable from the point of view of sustainability, is the some thirty-fold rise of water and sewerage charges in 20 years, but environment consciousness may also play a part in this. Public water and sewerage charges for households are high compared to our earnings, 3%–4% of households' revenues. The costs of network maintenance make up 2% of charges in developed countries compared with only 0.2% in Hungary. Because of declining consumption, water stagnates in the somewhat over-sized and over-aged network, which has a negative impact on the purity of piped water, of excellent quality on two-thirds of the area of the country.

STRATEGIC TASKS OF WATER MANAGEMENT IN HUNGARY¹

- *Legal regulation of public water works, solution of contradictions between property and service structures.*
- *Accurate register of public utility works, asset valuation.*
- *To reconsider the regulation of water charges for the sake of missing reconstructions.*
- *The neglected network does not only have negative impact on quality but also raises losses because of leaking.*
- *To reduce drought damage the encouragement of water storage instead of rapid drainage of waters, utilisation of rainwater (56 cubic kilometres per annum), even by constructing reservoirs on hills.*
- *To store floods in reservoirs. (Only 2 of the 12 reservoirs along River Tisza as included in the 2003 Vásárhelyi Plan were constructed.)*
- *Promotion encouraging further economy.*

¹ *Source:* Magyarország vízgazdálkodása: helyzetkép és stratégiai feladatok [Water management in Hungary: situation report and strategic tasks]. Magyar Tudományos Akadémia, Budapest, 2011.

To reconsider water management is influenced by many factors. Water consumption is expected to increase again sooner or later – which can be moderated by the spread of ecological approach –, since the recovery after the crisis will enhance the use of water resources. Climate change can have serious consequences, too: the approach towards a Mediterranean character and extremities can make the distribution of precipitation and our hydrological conditions even more uneven.

RETURN TO AN AQUATIC WAY OF LIFE: ANCIENT DRÁVA PROGRAMME

In the Carpathian Basin enormous areas were flooded permanently or temporarily along our meandering rivers before river regulations were started. After all, flood control (18th–19th centuries) was forced by the increase of the population, the spread of agriculture, and the need for safe residence and navigation. Its consequences, however, raised new problems to solve in many cases. Ormánság has been the largest wet plain in the country to date, with Dráva in its centre. Oxbow lake fisheries – which can be considered a key element of farming on flooded areas – before flood control were a way of cultivation adapted to the natural movements of the river, taking use of its floods, which focused on fish and grassland management, hunting and forest use. River regulations, the drainage of marshlands and the cutting of forests abolished this well-balanced state consistent with the hydrological conditions of Dráva and based on circulation. The basis of the Ancient Dráva Programme is the still possible degree of landscape rehabilitation, and based on this the establishment of an operable economy and conditions of life. In the first step four anabranches would be reconnected to the circulatory system of Dráva,² partly restoring flow conditions before the river regulation and the fauna of the waterside. Thus, a part of arable land areas in excess at present can become again wooded areas, fields, grassland areas, gardens or orchards, and traditional ways of farming can revive (mushroom and herb picking, bee-keeping, rough grazing).

² On the Croatian side of the river a similar intervention is to be implemented on a backwater of River Vuka in the frame of the INTERREG programme of the EU. INTERREG funds are allocated to areas split by boundaries but uniform geographically where the neighbouring states cooperate to solve certain problems.

Budapest, the city of spas


‘Spas are like *wet monasteries* where undisturbed you can give over your body and mind to sober and deserved rest.’

(Sándor Márai)

The concept Budapest, the city of spas’ gained wide support in the 1930s. The Hungarian capital was also chosen as the permanent seat of the International Spa Association in 1937, as ‘no other city has a better reason for this than Budapest, which was blessed by the nature with medicinal waters of excellent effect’. This initiative, which was although interrupted by the second world war, survived the storm of politics. Thermal waters are still the cardinal element of Budapest’s image and the driver of tourism. **Among the capitals of the world, Budapest has the most medicinal and thermal water springs.** There are 118 sunk and natural springs in its territory, which give together 30 thousand cubic metres, i.e. 70 million litre water a day. The mineral content and the temperature of waters are different, between 21 °C and 78 °C, and, depending on their composition, they are used for curing spinal complaints, joint and vascular problems, orthopaedic disorders and injuries, for correcting calcium deficiency in the skeletal system and for the follow-up treatment of paralytic diseases. As drinking cures, they are used as a remedy for stomach and kidney complaints. Beyond the curative effect, the great variety of institutions based on thermal waters performed various duties throughout history: they served as the scene for sports, games, entertainment, religious rituals, personal hygiene, or even for love encounters or as a meeting point of the intellectuals.

HISTORY IN WAVES

In **Roman times**, the public, military and private baths were already fed by the springs at the foot of Buda hills. Archaeological excavations dug up the remains of 14 bathing places. In the present-day Flórián square, for example, the remains of a military spa hospital can be seen as well. After the fall of the Roman Empire, the storms of the great migration of nations ruined the thermaes of Aquincum. **Barbarian tribes** believed that



splashing in the marble pools was a vicious habit. The bathing culture began to develop again after the christianization and the foundation of the Hungarian Kingdom. In the **12th and 13th centuries**, the Knights of the order of St. John maintained a spa hospital at the Danube bank, where the injured and sick crusaders having returned from the Holy Land were cured. In the St. Elizabeth spa hospital built at the foot of the Gellért hill, near the present-day Rudas bath, erysipelas and leprosy were among others also cured with thermal waters therapy.

In the age of Matthias I., the royal baths were the privilege of the aristocracy. From the Buda Castle, an arched corridor led to the pools of the Rác bath, which was one of the favourite places of entertainment of crowned heads. Guests coming from a great distance to the royal court often returned to the steam baths in exchange for considerable amounts, a great variety of luxury goods, e.g. tooth glass made of gold, expensive essential oils, etc. Peasants and wine-growers could bathe in the magically curative thermal waters accumulated in the pits of Felhévíz of Buda.

During the **Ottoman occupation** of Hungary, besides thermal baths, so-called 'hamams' suitable for religious purposes were established as well. Most of the pool rooms of the Rudas, Rác, Király and Császár baths with cupola are still in existence. The most significant Turkish bath of the age is now operating under the name of Veli Bey Bath of the Order of the Brothers Hospitallers. The bath houses left behind as the heritage of the Turks became the property of the treasury after 1686. Later, they were donated as a reward for services rendered to the court, thus, they were operated privately thenceforth.

The achievements of medical sciences, balneology and well drilling techniques gave a new impetus to the development in the **18th and 19th centuries**. The extensive exploration of mineral waters started, and the collection of data on their curative power started in 1812 on the proposal of Pál Kitaibel. The spread of the baths was promoted by a tax exemption fixed by law in 1876, and their popularization was managed by a national association. The **age of enlightenment** and the **reform era** were also favourable to the spa culture. Bath services, besides medical services, appeared as part of the spa culture. A codex for proper behaviour in baths was also created. According to the strict morals of the age, people



The Rudas bath at the time of the Turkish occupation

were allowed to bathe mainly in full-body dresses. Only loose women went in the water without a corset and black silk stockings. The Császár bath with 64 rooms, a café and a dance hall was considered the centre of social life of the age. The Sáros bath, on the site of the present-day Gellért bath, was the popular place of entertainment of poorer people, where sluts and drinking also belonged to bathing. The Rudas bath was known for sad statistics: according to the chronicles of Adolf Ágai publishing under the pen-name Porzó, the most suicides were committed here in the second half of the 19th century.

THE HISTORICAL SPAS OF BUDAPEST

Gellért bath • The “miraculous” springs spurting up on its territory were already mentioned in the 15th century. During the Turkish occupation, it was recorded as one of the largest springs with the hottest waters. In the 17th century, the site was named Sáros bath because of the fine spring silt that was pushed up together with the spring water and settled at the bottom

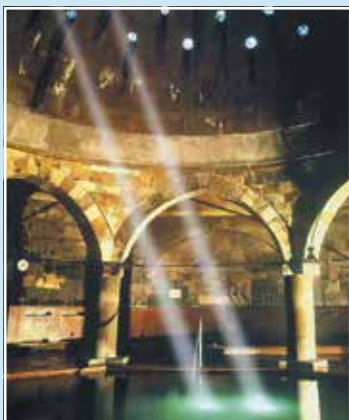


of the pools. In 1917, the Gellért Thermal Bath and Hotel was built on its territory. In 1927, it was expanded with a wave-bath and later in 1934 with an effervescent bath. In World War II, the bath for women was seriously damaged, and the building was renovated in 2007. At present, it has a unit providing complex medical bath services.

Numerous institutions gained their present splendid appearance in the first half of the 20th century, among others, the Széchenyi spa built according to the plans of Győző Czigler and the Gellért spa built on the site of the former Sáros bath in secessionist style. Along with the high budget investments, tourism flourished as well. According to statistics of the age, in 1930, some 10 thousand foreign visitors arrived in the Hungarian capital with the aim of bathing, mainly Germans and Austrians. Spa guests were brought to Budapest by special trains. In the shadow of impressive palaces, the cult of open-air baths and swimming pools gained more and more ground, too. In complexes enabling outdoor splashing, like the Palatinus completed in 1919, thermal waters were used as well. The National Swimming Stadium planned by Alfréd Hajós opened its doors in 1930 in the Margaret Island.

The spas suffering serious damages in **World War II** were brought under state control after the war. The new establishments built in the periphery of the capital, in Csepel, Albertfalva, Újpest and Cinkota, served the function of personal hygiene, since there were few bathrooms in these quarters. In order to meet the needs of the working class and young people doing sports, a significant development of open-air baths and swimming pools started. The Szabad-ság (at present Dagály) bath called simply ‘public washbasin’

Király bath • The bath was built by the Turks far from the springs to ensure the opportunity for bathing even in the case of an eventual siege within the walls of the castle.



Its water was supplied at that time, and is being supplied now, from the surroundings of the present-day Lukács bath. In 1796, the bath was acquired by the König family and its name and current form stem from the family (Király-King-König). The bath was damaged in World War II and was completely renovated in 1950.



The Palatinus open-air swimming pool in the 1930s

was opened in 1948. Lacking cafés, swimming pools became important meeting points of social and intellectual life in the late Kádár era. The Lukács bath for example was long considered a place for intellectual refreshment of the age.

After the regime change, a new wave of reconstruction started again in the monument spas of the capital. The Széchenyi, Lukács and Gellért spas were all renewed. In line with EU norms, the pools were equipped with water filtering and circulation units. In the years before the turn of the millennium, spas were not only identified with the picture of pensioners playing chess in the thermal waters, since in Rudas parties with

Rác bath • The records during the Turkish occupation mention different names of the bath on the territory of the present-day Rác bath. Its current name comes from the Rascians (Serbs), who lived in the surroundings of the bath, and in German it was named Raitzenbad. World War II caused serious damages in the complex of buildings, and later, partly due to the renovation of the Elisabeth Bridge, some parts of the buildings were demolished. Until 1963, it was operated with temporary renovation; then, it was closed for two years and reopened in 1965. In



the 1980s, the cupola halls were not used any longer, and the state of the bath worsened day by day. The bath was closed again in 2002 due to restoration. Although the complete reconstruction was accomplished, the bath still not operated in the summer of 2013.

film projections called Cinetrip were organized, about which films were shot by the CNN and the BBC as well. The demands of the younger generations are met by the new adventure baths and aquaparks equipped with water slides promising spectacular water attractions.

PUBLIC BATHS OF BUDAPEST

The public baths of Budapest, besides stimulating the economic performance of the capital through their tourist attractive force, play a role in improving the life quality and health status of the population, as well as in learning a health-conscious life-style. The establishment and operation of public baths in Hungary and so in Budapest, the infrastructural conditions and the services which can be provided are regulated by an order thus ensuring the possibility of bathing as smoothly as possible.

In 2011, the total number of public baths (hereafter baths) was 62 in Budapest, 13% of all baths in the country. **Most of the baths in the capital (57%)** had only units with permanent operation, 27% had only units with seasonal operation, while in 16% of the institutions there were pools with permanent and with seasonal operation as well. Some two thirds of the baths were operated independently on their own territory, 26% of them were operated in some kind of accommodation establishments and 9.7% on the territory of

Rudas bath • Its surroundings began to develop in the age of Béla IV, after the Mongol invasion. On the current place of the bath, a hospital with a thermal bath was built by the Knights of the order of St. John. The Rudas bath was built between 1566 and 1572 by Sokoli Mustafa pasha of Buda. In the centuries after the liberation of Buda, the bath



was gradually expanded and restored. The swimming pool was opened in 1896, and the bath was officially declared a spa in 1928. From 1936, the bath was visited exclusively by men, but in 2005, after the reconstruction of the bath, separate days for women and common bathing days were introduced.

other service providers. The total area of baths, open-air baths and swimming pools of Budapest was nearly 643 thousand square kilometres, six tenths of this was tended green space.

By the **type of baths**, there are medicinal baths, thermal baths, adventure baths, swimming pools, swimming instruction pools, open-air swimming pools and other baths, which cannot be classified in these types. However, it is important to mention that several types of baths may be operated in one institution. In nearly six tenths of the baths in Budapest, only one type of baths can be found, mainly those medicinal baths, swimming pools and swimming instruction pools belong to them, where, due to the character of the institution or the built-up density of the surroundings, it is not possible or necessary to extend the range of services. The international trend of trying to meet all needs of guests with different demands and age structure as far as possible in order to increase the turnover can be observed in the baths of Budapest as well. In order to achieve this aim, slightly more than four tenths of the baths in Budapest had more types of baths to offer in 2011; within this, 18% of them had two, 16% had three and 10% had four or more types of bath services on their territories. Some two thirds of the baths in Budapest had swimming pools, but the proportion of institutions with swimming instruction pools was nearly 40% as well. In 15% of the spas, adventure baths were also at the disposal of guests,

St. Lukács bath • According to historical records, the Knights of the order of St. John engaged in curing and later the orders of Rhodes and Malta established baths on its present-day area from the 12th century. By the developments of Fülöp Palotay, it became a spa of international fame after he had purchased the bath in 1884 from the treasury, and the institution had been expanded with a spa hotel, an up-to-date hydrotherapy department and a new swimming pool. People wishing to be healed came from all over the world, and after their successful cure, they placed marble plates on the wall of the bath's courtyard to express their gratitude. The drinking cure hall of the bath was built in 1937.



The first department to ensure complex medical bath facilities (daytime hospital) in Budapest was established in 1979 in the Lukács bath. In 1999, the open-air pools of the swimming pool section were modernized.

while the number of institutions having medicinal or thermal baths, which are subject to strict regulation in respect of establishment and operation, was 18 and 8, respectively.

Among **services offered by baths**, those aiming at health preservation are available mostly in medicinal baths. In 8 of the baths in Budapest, medical examinations were performed, and in 13 of them, guests received some kind of medical treatment in 2011. Among medical treatments, hydrotherapy was available in all the 13 baths, balneotherapy was performed in 12, mechanotherapy in 11 institutions, while guests were cured with electrotherapy in 7, with inhalation in 3 and with reflexology and phototherapy in 1–1 baths. Among services with easier licensing requirements, wellness treatments were performed in 15 baths of Budapest, while in 41 institutions, saunas were available for those wishing to rest and relax. In order to serve the guests as widely as possible, most baths offer more and more services. Only 10 of the baths in Budapest offered the guests no other services than the basic ones. The proportion of institutions providing only one service beyond bathing was considerably higher (35%); among them, the proportion of those offering only sauna besides using the pools was significant. 45% of the baths of the capital offered two or three plus services beyond their basic



MEDICAL TREATMENTS

The name **balneotherapy** is originated from the Latin *balneum* (bath) word. Balneotherapy means healing with medicinal waters, which comprises all treatments using medicinal and thermal waters, but drinking cures, inhalation, mud treatments and effervescent baths also belong here.

Hydrotherapy means all treatments with normal waters using the physical characteristics (temperature, lifting power, pressure) of water. Weight bath, underwater water beam massage, etc. belong here.

Mechanotherapy comprises all treatments where mechanical energy is used for healing, such as therapeutic gymnastics and massage.

With **electrotherapy**, tissues are stimulated with weak electric impulses, which may have blood supply stimulating and pain relieving effect. By the type of treatment, galvanotherapy, diathermy, diadynamic treatments and high-frequency treatments can be distinguished.

Inhalation is first of all used to treat the chronic diseases of the respiratory system. With the help of a special instrument, vaporized medicinal water or medicament solution are inhaled into the respiratory system. The inhalation of saline or iodized waters helps removing discharges, while calcic waters reduce inflammation.

Reflexology is a science based on experiences; it means the stimulus of certain skin areas, points and zones. The answer to the stimulus is a reflex in the related organ, part of the body, stimulating the self-healing processes in the organism.

Phototherapy uses the artificially produced components of heliotherapy (sunshine therapy), such as ultraviolet, visible light, infrared and laser radiation.

Széchenyi bath • The bath celebrates the centenary of its opening this year. The Széchenyi bath owes its existence to Vilmos Zsigmondy, a mining engineer and the pioneer of deep boring in Hungary, who, during borings for hot springs in the City Park, found a sulphur spring at the present-day Heroes' Square in a depth of 970 metres. The well built on the spring fed an artesian bath consisting of marble and stone tubs from 1881, but the temporary type of bath met less and less the demands of the age. The new building constructed on the basis of the plans of Győző Czigler opened its gates on 16th June 1913, and it was one of the largest bath complexes in Europe. In addition to the steam bath and the public bath, private baths equipped with mirrored tables and sofas were also established. The bath was expanded in 1927 with public bathing departments for men and women and an open-air pool. Since 1938, the pools have been fed by the Saint Stephen spring bored by Ferenc Vajna, geologist. The 1.250 m deep well is one of the hottest thermal springs of Europe providing 6 thousand cubic metres water of 77 °C a day. The well weathered the storms of World War II, but the building was seriously damaged. In the middle of the 1960s, further transformations took place including the creation of a group thermal section in bathing suits. In 1997 and 2003, the one-time beauty of the bath was restored with further reconstruction works.

activity, almost all of them provided the possibility of sauna and wellness treatments. In the majority of baths offering medical examinations and treatments, wellness treatments and sauna were also on the list of services, but, due to the strict regulation for the two former service types, this combination of services was only characteristic of certified medicinal baths.

In 2011, the maximum daily capacity of baths in Budapest was 73 thousand guests, 13% of the total capacity in the country. In the capital, guests could make use of the services of baths for a longer time than the national average. The average number of days of operation was 302 in Budapest, 28 days more than in the whole country. Some 6 million **guests** visited the baths of Budapest, 19% of the total national turnover of guests. The number of tickets sold was more than 3 million, while that of season tickets exceeded 460 thousand, which accounted for 16% and 40% of the ticket and season ticket turnover in the country, respectively. The total **revenues** of the baths in Budapest amounted to HUF 9.5 billion, which were 25% of the revenues of baths in the country. The composition of revenues was similar in the capital and in the country: the majority of revenues (60–70%) derived from tickets and season tickets; the

Veli Bej bath of the Order of the Brothers Hospitallers • Its construction was commissioned by Sokoli Mustafa pasha in 1574. The square heart of the building has survived hundreds of years, only the entrance hall was destroyed in the 18th century. At that time, the name of the bath was already Császár bath. In 1806, it was purchased by Károly Marczibányi, a king's counsel who donated it later to the Order of the Brothers Hospitallers in Buda. The bath was renovated by a mission helping those in need keeping the original state of the building. From 1965, the bath was directed by the National Institute of Rheumatology and Physiotherapy. In 2000, the Order of Hospitallers got back the building, and the bath is on the territory of the Hospital of the Order of Hospitallers in Buda at present too. Besides its five Turkish pools with different water temperatures, a brand new wellness section is also at the disposal of guests. Its name in the 18th century is preserved today by the Császár–Komjádi Béla Sports Swimming Pool.



proportion of revenues from holiday vouchers and medicinal treatments supported by the National Health Insurance Fund was under 10% both in respect of the Budapest and the national average, while the share of payments of voluntary and private health insurance funds did not reach 1% in total revenues.

MEDICAL AND WELLNESS TOURISMS

Due to the medicinal and thermal waters, the beneficiaries of tourism directed towards Budapest are, in addition to the baths, the public accommodation establishments of the capital; based on this demand factor, some of them are operated as **medical and wellness hotels**. The basic difference between the two types of hotels is that, from 2012 on, medical hotels are only those accommodation establishments having certified medicinal waters, which are registered at the Health Resort and Spa Department of the National Public Health and Medical Officer Service, while there are no such strict legal requirements in case of wellness hotels. In 2012, 3 medical and 4 wellness hotels were operated in the capital, one tenth and 2.4% of all such types of hotels in the whole country, respectively. The capacity of medical hotels slightly exceeded that of wellness hotels: the former type of hotels had 839 rooms and 1,693 bed-places in 2012, by 358 and 569 more, respectively than the latter one.

Similarly to the bed-places, the turnover of guests was also higher in the medical hotels than in the wellness hotels of Budapest. In institutions having certified medicinal waters, 122 thousand guests spent 328 thousand tourism nights, both figures are nearly 60% more than the figures of wellness hotels. The vast majority of guests arrived from abroad in case of both types of hotels; in medical hotels, their share in the total turnover was higher (88%) than the average of all accommodation establishments of Budapest, while in case of wellness hotels, it did not reach the average (77%). In medical hotels, the number of guests per bed-places was 72, by 2 more than in wellness hotels and by 11 more than the average of accommodation establishments in Budapest.

Table 1. Major data of medical and wellness hotels and those of all public accommodation establishments, 2012

Denomination	Medical hotels	Wellness hotels	Public accommodation establishments, total
Number of units	3	4	275
Number of rooms	839	481	21,896
Number of bedplaces	1,693	1,124	50,429
Number of guests	122,178	78,182	3,090,957
Of which: foreign	107,435	60,089	2,691,786
Number of tourism nights	328,465	209,314	7,412,561
Of which: foreign	302,809	172,947	6,522,604
Average length of stay, days	2.7	2.7	2.4
Of which: foreign	2.8	2.9	2.4
Number of guests per bed-places	72	70	61

The vast majority of guests in medical and wellness hotels arrived from Europe, and within this, from the EU member states: in 2012, their proportion to all foreign guests was 64% and 49%, respectively in medical hotels and 91% and 77%, respectively in wellness hotels. The turnover of guests in the medical hotels of Budapest was significantly influenced by guests arriving from the Far East, since nearly three tenths of guests in these accommodation establishments came from Asia, and among the 10 most important source countries Japan was the first and South Korea was the second. Besides the EU member states and the two above mentioned Asian countries, Russia and the United States played a significant role in the tourism of the medical hotels in Budapest (7.0% and 5.3% of all foreign guests arrived from these two countries to the observed accommodation establishments). In case of wellness hotels, among extra-EU countries, Serbia and Russia had a considerable role in 2012 with a share of 4.0% and 3.1%, respectively in the total turnover of foreign guests.

Table 2. The ten major source countries in the foreign guests turnover of medical hotels in Budapest, 2012

Country	Guests in medical hotels	
	number, persons	share, %
Japan	12,048	11.2
South Korea	10,289	9.6
Germany	8,327	7.8
Russia	7,563	7.0
Italy	6,328	5.9
United States	5,740	5.3
United Kingdom	4,695	4.4
Spain	4,446	4.1
Netherlands	3,724	3.5
Czech Republic	3,286	3.1
Other countries	40,989	38.2
Total	107,435	100.0

Table 3. The ten major source countries in the foreign guests turnover of wellness hotels in Budapest, 2012

Country	Guests in wellness hotels	
	number, persons	share, %
Czech Republic	9,007	15.0
Austria	6,742	11.2
Germany	5,520	9.2
Romania	5,241	8.7
Slovakia	5,094	8.5
United Kingdom	2,774	4.6
Serbia	2,415	4.0
Italy	2,202	3.7
Poland	1,937	3.2
Russia	1,858	3.1
Other countries	17,299	28.8
Total	60,089	100.0

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The primary source of data in the publication is the Hungarian Central Statistical Office, while international data are from the Eurostat database. All other sources are indicated in footnotes where they were applied.

Further sources of primary topics:

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On the front cover and on pages 42 and 44 photos of Ferenc Szabó can be seen.

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