

II. GENERAL AND ECONOMIC INDICATORS

Demography

The population of the Czech Republic has been falling in absolute terms since 1994, in line with the 11 other European countries with declining populations. This continues the trend since 1980 of a decline in population growth rate, mainly as a result of decreasing birth rates. The observed decline in ferti-

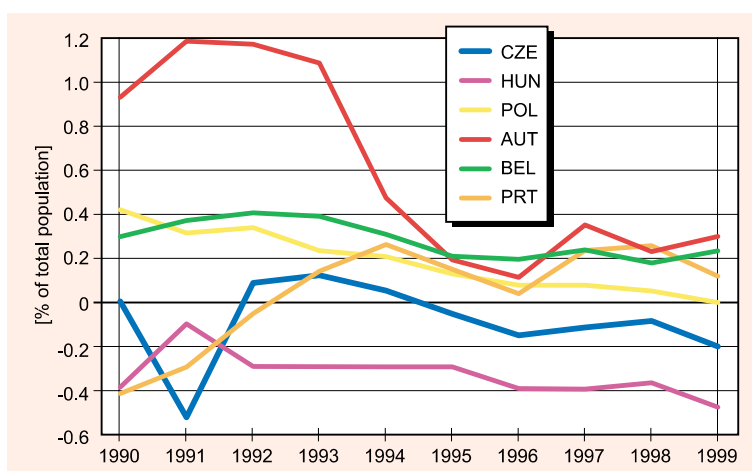
Box 2.1. Basic demographic data for the EU Member States and Accession countries, 1998

Country	Area (thousand sq. km)	Population (m) 1998	Population density (per sq. km.) 1998	Capital	% of total population in capital
France	552	58.8	107	Paris	16
Spain	506	39.4	78	Madrid	7
Sweden	450	8.9	20	Stockholm	8
Germany	357	82.1	230	Berlin	4
Finland	338	5.2	15	Helsinki	10
Poland	313	38.7	124	Warsaw	4
Italy	301	57.0	189	Rome	5
United Kingdom	243	59.2	242	London	12
Romania *	238	22.2	95	Bucharest	9
Greece	132	10.5	80	Athens	28
Bulgaria *	111	8.3	75	Sofia	13
Hungary	93	10.1	109	Budapest	19
Portugal	92	10.0	108	Lisbon	18
Austria	84	8.1	96	Vienna	20
Czech Republic	79	10.3	131	Prague	12
Ireland	70	3.7	53	Dublin	26
Lithuania *	65	3.7	57	Vilnius	16
Latvia	64	2.5	38	Riga	33
Slovakia *	49	5.4	110	Bratislava	8
Estonia	45	1.4	32	Tallinn	29
Denmark	43	5.3	123	Copenhagen	26
Netherlands	42	15.7	385	Amsterdam	5
Belgium	30	10.2	335	Brussels	9
Slovenia *	20	2.0	98	Ljubljana	14
Luxembourg	2	0.4	164	Luxembourg-Ville	5
EU 15 average	216	24.9	116		13.3

Source: OECD

Note: * refer to 1997 data

Box 2.2. Population change, international comparison, 1990-99



Source: Economist Intelligence Unit

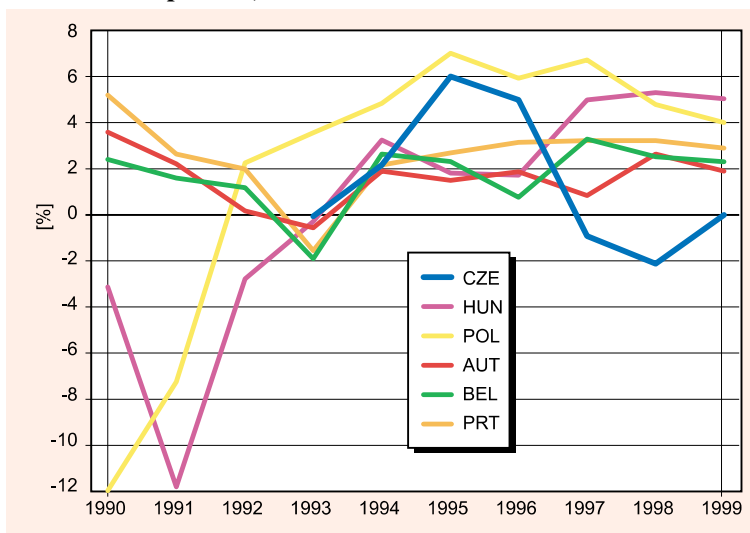
lity, as well as in the marriage rate, has led in recent years to debates in the Czech Republic on the changes in reproductive behaviour. It is not clear whether these represent a natural process bringing the Czech Republic into line with western European reproductive behaviour or a reaction to the economic and social changes since 1989.

Economic growth

Economic transition started immediately after the November 1989 'Velvet Revolution' that marked the fall of Communist rule. The beginning of the transformation process was marked by a sharp decline in economic output that

lasted until 1993. The former Czechoslovakia was peacefully divided into two new countries, the Czech and Slovak Republics, on 1 January 1993. The next stage of transformation was characterised by relatively fast economic revival, as the economy experienced thorough restructuring and widespread changes in ownership. During the last two years however the economic situation has deteriorated as a result of problems that were not adequately resolved earlier in the transformation process. The first signs of that the recession was ending (a year-on-year increase in GDP) appeared in mid-1999. At that time GDP per capita in the Czech Republic was roughly 60 percent of the EU15 average level (the EU average is about 21 thousand USD at PPPs), and the gap between the Czech Republic and the poorest EU states was a modest 10-20 percent.

Box 2.3. Real GDP growth per capita, international comparison, 1990-99

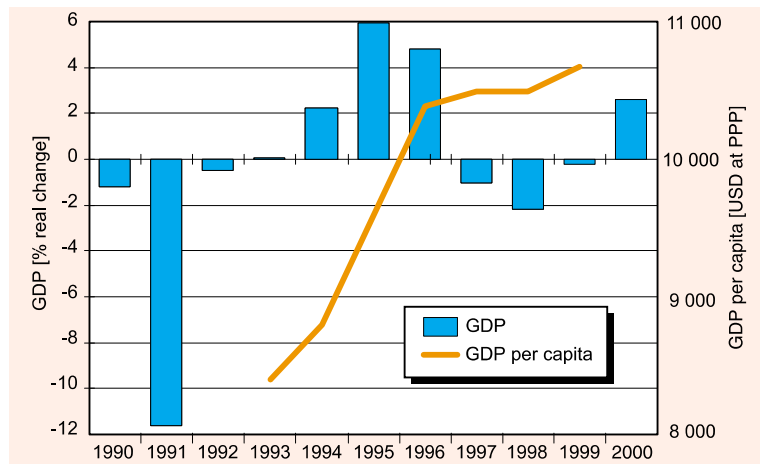


Source: Economist Intelligence Unit

The Czech Republic is a country in the process of transition from a centrally planned economy to a market-oriented one. Now, after ten years, the transition to private ownership is virtually complete, with only a handful of large state-owned enterprises remaining (such as the national telecommunications company, the railways, some

health care facilities, the postal service and the largest banks) and these are mostly also targeted for privatisation.

Box 2.4. Real growth in GDP and per capita GDP in the Czech Republic, 1990-2000



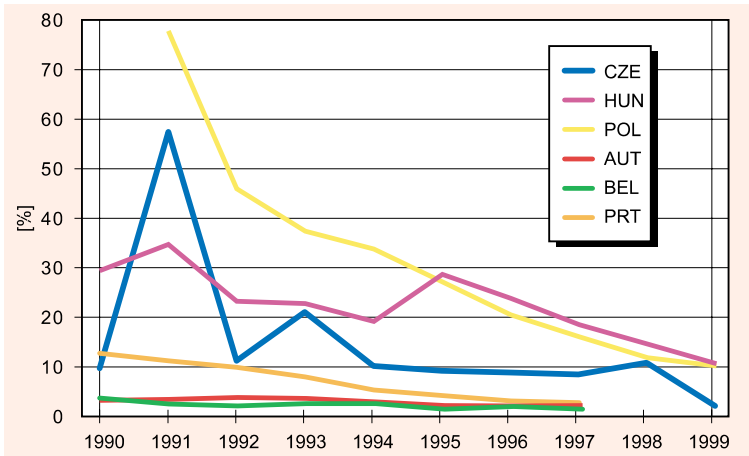
Source: Economist Intelligence Unit

Note: GDP in the Czech Republic can be calculated correctly since 1993, before that it was National Revenue. Data for 2000 are predictions by the Ministry of Finance

Following the fall of the old regime, it was generally felt that the deep price distortion that was a feature of Communist rule had to be changed as quickly as possible. This demanding policy was naturally accompanied by a sharp increase in the prices of many consumer goods and services. The result was a high rate of inflation in the first years of transition (1991: 56.6 percent, 1992: 11.1 percent, 1993: 20.8 percent, when Value Added Tax was introduced). The

main macroeconomic policy priority came to be anti-inflation measures. The inflation rate then quickly dropped to about 8 percent where it remained for several years. In December 1999 the Czech Republic recorded 2.1 percent inflation, the lowest rate of the 1990s (a similar EU average of 2.9 percent was recorded in 1995/94; in 1998/97 it was only 1.1 percent). The main reasons for this positive development were the slowly fading economic recession, falling food and oil prices and less price deregulation by the government.

Box 2.5. Inflation, international comparison, 1990-99

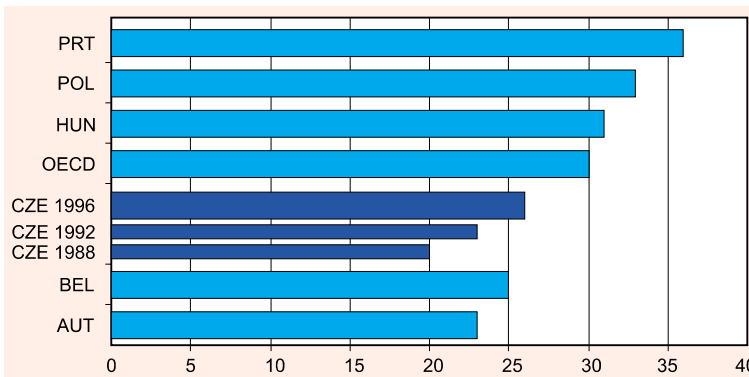


Source: Economist Intelligence Unit

Incomes and consumption

Communist Czechoslovakia had an exceptionally equal income distribution. Even in comparison with other ‘real socialist’ countries, people with higher education had low earnings and the main societal disparity in earnings was the division between men and women. The result was a strongly demotivating effect on individual work performance and the economy as a whole. Shifts in income structure are thus part of a comprehensive change bringing the Czech Republic back into the family of economically advanced countries. Simultaneously however, a guaranteed subsistence minimum was newly codified and the previously non-existent minimum wage established and several times - especially since 1998 - increased.

Box 2.6. Income inequality (as expressed by the Gini coefficient), international comparison, 1996



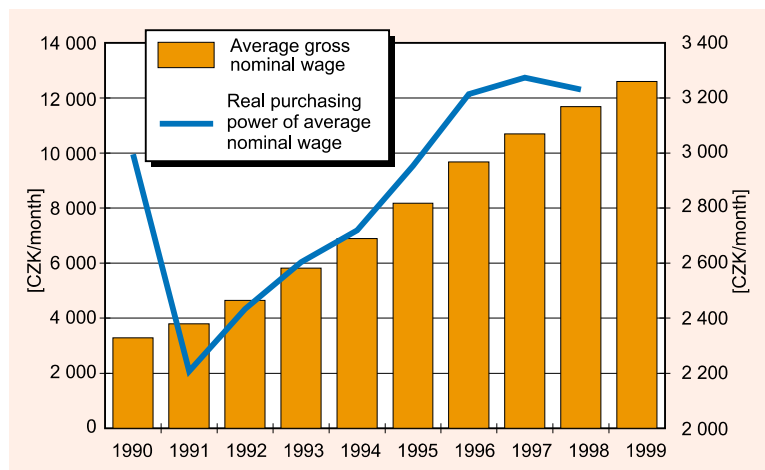
Source: World Bank, Income surveys, Luxembourg Income Study

Note: Gini coefficient measures the extent to which the distribution of income among individuals or households within an economy deviates from a perfectly equal distribution. Thus a Gini coefficient of zero represents perfect equality, while an index of 100 implies perfect inequality

Time series and international comparisons show that the Czech Republic is leaving its communist past behind as far as income inequality is concerned. At present the Czech Republic exhibits approximately the same level of inequality as Sweden, and is approaching that of ‘social market’ countries such as Germany or the Netherlands. In contrast,

the level of inequality is and will probably also remain lower than in liberal countries like the UK or USA. Fortunately, income inequality in the Czech Republic is much lower than in Eastern European countries in transition (especially the former Soviet Union) where with mounting poverty and other social ills it is appropriate to speak of economic and social polarisation.

Box 2.7. Wage development in the Czech Republic (Average gross nominal wage and Real purchasing power of average nominal wage at 1989 consumer price level), 1990-99



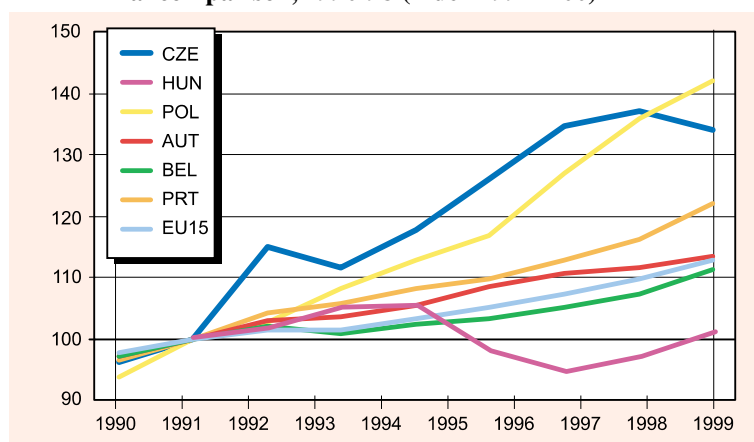
Source: Research Institute for Labour and Social Affairs

Under the communist regime, incomes were determined primarily by demographic factors such as sex, age, and the number of economically active members and dependent children in a household. This corresponded to the principle of basic needs as the dominant factor determining distribution of income.

Factors such as education, work performance and job status (especially

self-employment and participation in management) have come to the fore. This corresponds to a market-based income distribution, which is the dominant principle in the advanced economies with which the Czech Republic is converging. The government has proposed many changes to the Labour Code that would align Czech legislation with that of the EU; these proposals also aim to reduce gender pay discrimination.

Box 2.8. Trends in private consumption, international comparison, 1990-98 (index 1991=100)



Source: OECD

The total number of households has to date been rising faster than the population is growing (the fall in the number of children and preference for single- and two-generation households). The real purchasing power of household incomes fluctuated, especially during the early period of transformation (1989-91) when it fell by a quarter. The rise in the real purchasing power of the average household incomes from 1992 to the present has played a key role in ensuring social stability although the rise in incomes ran ahead of the real increase in GDP, causing economic imbalance and contributing to economic recession in the Czech Republic (peaking from 1997 to 1999).

Box 2.9. Structure of household expenditures, international comparison, 1997

	Share of expenditure of households (% of households' consumption)							
	Food, beverages, tobacco	Clothing and footwear	Gross rent, fuel and power	Furniture, furnishings, household operation	Medical care and health expenses	Transport and communication	Recreation, entertainment education and culture	Miscellaneous goods and services
Czech Republic	33	7.8	18.6	4.7	1.0	8.5	17.2	9.3
Portugal	27	8.5	10.7	7.5	5.2	16.3	8.3	16.5
Austria	16.8	7.4	20.1	8.1	5.4	16.3	8.1	17.7
Belgium	15.7	6.6	20.1	9.4	12.1	12.7	6.3	15.9

Source: OECD

Material standards of living were influenced by a complicated pattern of developments in the economic environment in the 1990s. There were fast and differentiated changes in both household incomes and prices that had a fundamental impact on household expenditure and its structure. The structure of expenditure was marked by the high share of expenditure on food and the low share of housing costs at the beginning of transition. Within ten years the expenditure structure of Czech households, despite the still large gap, has started to resemble the structure in western European countries.

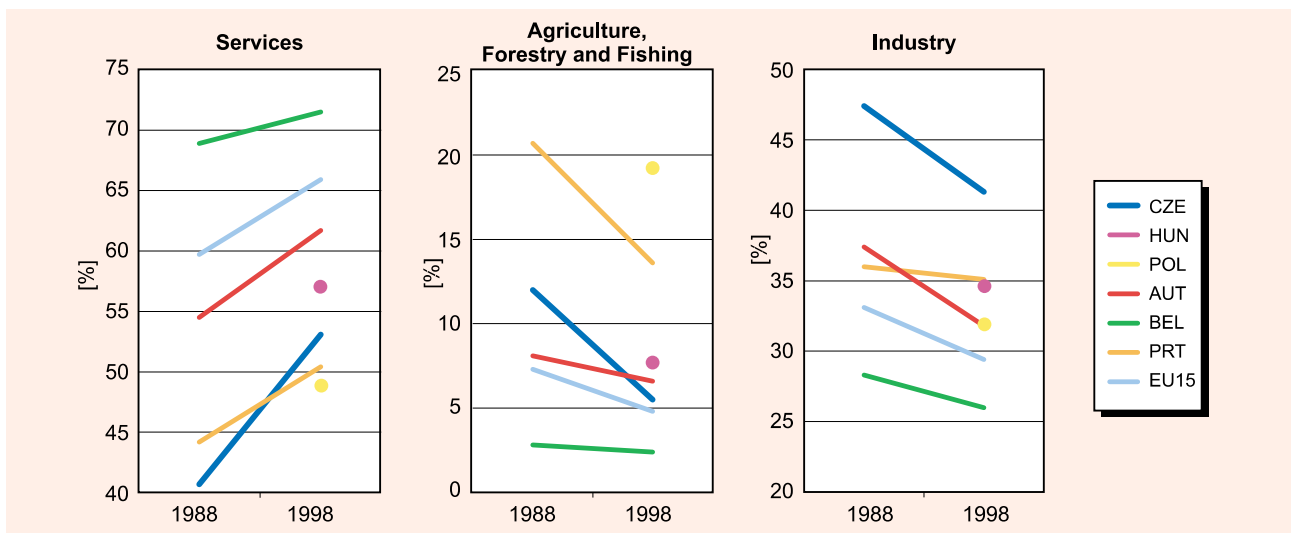
Employment

The steep increase in employment in the service sector also represents a convergence of trends in the Czech Republic with those in the EU. It was driven by the expansion of wholesale and retail trade, and an increase in the numbers of hotels and restaurants, financial intermediaries and public administration. Also, large businesses began to 'outsource' services (ie. they closed departments that offered services to employees), which results in a statistical shift of employees from the industrial to the service sector. On the other hand, the number of employees in agriculture and forestry decreased rapidly (from 630 thousand in 1990 to 264 thousand workers in 1997). These changes are indicative of the process of economic restructuring and overall transition. The latest data for the Czech Republic (1998) correspond to the figures presented above: employment in agriculture was 5.5 percent, and in services it was 53.1 percent.

The changes in ownership and extensive restructuring of the economy, together with increasing and changing demands for educational qualifications in the workforce, was inevitably accompanied by some socially negative phenomena. Over a short period of time, unemployment therefore

became a feature of the Czech Republic. Unemployment was as low as 3-4 percent for much of the 1990s, but after 1996 rose steadily, to reach 9.4 percent in 1999. The steep rising trend during the last two years and the large differences between regions are worrying. The government has been tackling the adverse situation through the National Employment Plan. This policy document suggests that the rate of unemployment should fall back to an acceptable level after a temporary period at the same level as the EU15 average (10.6 percent in 1997).

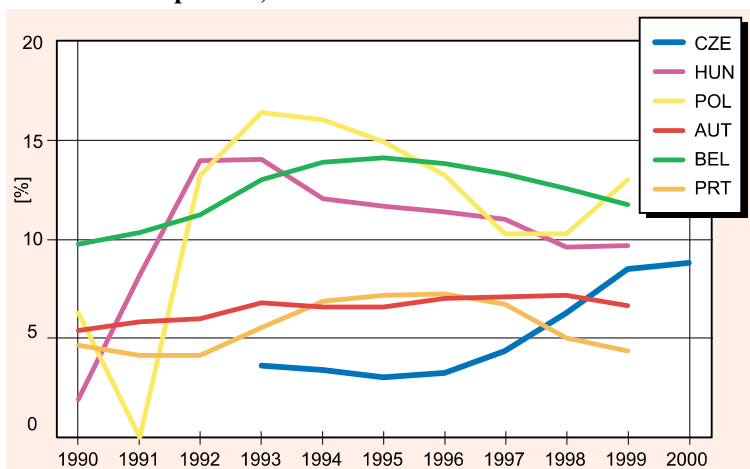
Box 2.10. Civilian employment in services, agriculture and industry, international comparison 1988 and 1998



Source: Labour Force Statistics, OECD

Note: Services refer to the tertiary sphere of national economies: wholesale and retail trade, restaurants and hotels, transport, storage and communications, finance, real estate, insurance and business services, community, social and personal services, and providers of government services

Box 2.11. Unemployment rate, international comparison, 1990-2000



Source: Economist Intelligence Unit

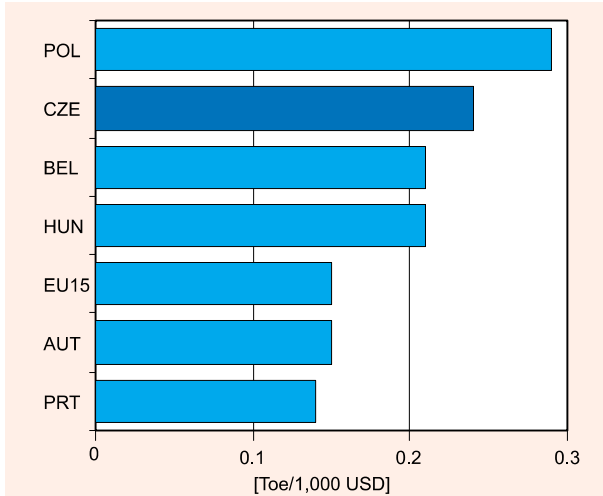
(Data for 2000 are predictions by the Ministry of Finance)

Energy

The main problem in the Czech energy sector lies in the high energy intensity of the national economy and the high proportion of solid fuels in domestic primary energy consumption. Since 1990 consumption of primary energy sources and intensity of energy use have exhibited favourable trends - a 20 percent decline between 1990 and 1997 - but the energy required to produce a unit of GDP is still high in the Czech Republic at almost twice the EU average.

The main reason why energy demand is so high in the Czech Republic compared to advanced EU countries is lower energy efficiency generally and the historical structure of industrial production, where the share in GDP of energy-intensive industries, such as metallurgy and building material production, remains high. Another reason is the structure of primary energy sources and the structure of end consumption, with a higher proportion of solid fuels in both cases. The extensive use of solid fuels does however help to reduce dependence on imports and curb the growth of the nation's trade deficit. Renewable energy comprised 1.7 percent of the consumption of primary energy in 1998, and government policy is to increase share of renewable energy to 6 percent by 2010.

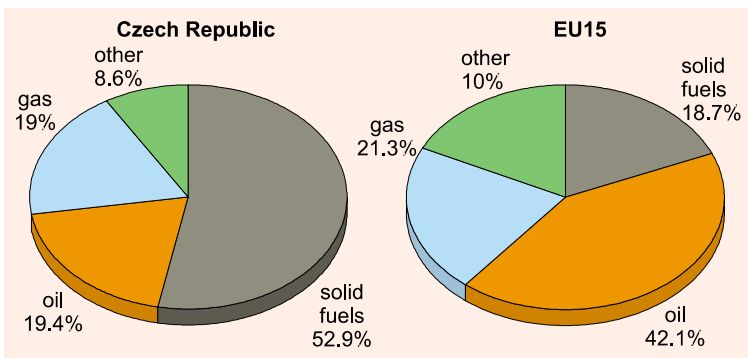
Box 2.12. Total final consumption of energy per unit of GDP, international comparison, 1997



Source: OECD

Note: Toe stands for tons of oil equivalent. GDP at 1991 price levels and PPPs

Box 2.13. Structure of energy supply by primary source in the Czech Republic and EU, 1997



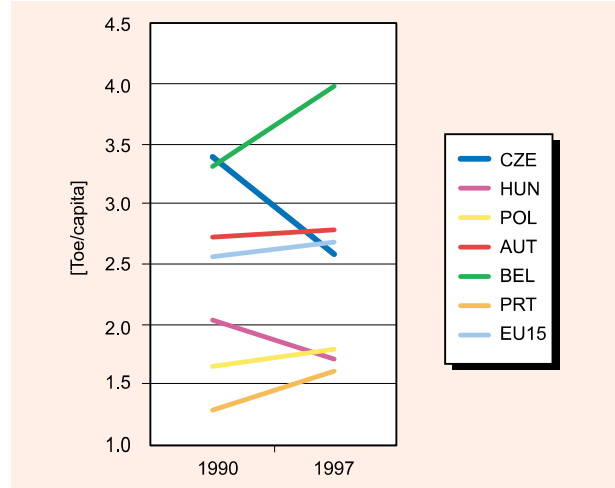
Source: OECD

Through investment in modern technology, atmospheric emissions from the energy sector decreased significantly and at a uniquely rapid pace. Strict emission limits and changes in energy prices - although still insufficient - have also brought favourable effects. After decades of distortion, market energy prices, including all production and distribution costs, are finally in sight.

The Czech Republic's Climate Change Mitigation Strategy (Resolution no. 480/1999) obliges the Ministers of environment, finance, industry, transport and agriculture to take into account key points of the Strategy in their sectoral policies. Energy demand is to be curbed by the elimination of energy subsidies and distorted energy prices, through information campaigns and public access to information on energy saving opportunities, improved credit for SMEs to invest in energy saving

measures, obligatory audits, obligatory energy labelling, support to energy consulting and the introduction of more stringent technical standards.

Box 2.14. Total final consumption of energy per capita, international comparison, 1990 and 1997



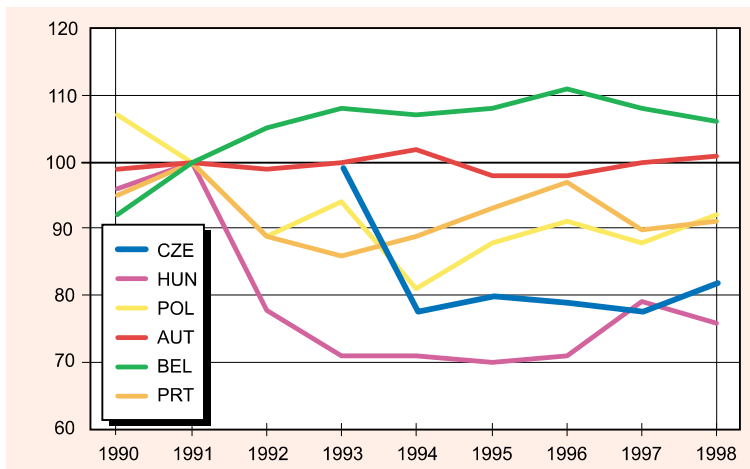
Source: OECD

Key categories of mitigation measures in the power and heat sector are: fuel switching from coal to natural gas, improvement of energy efficiency through implementation of new power and heat production technologies (15-20 percent better energy efficiency), implementation of combined heat and power production (with energy efficiency improvements of around 40 percent), and reduction of losses in the transmission and distribution of power and heat. The Temelín nuclear power plant, the second in the Czech Republic, will begin operation in 2001 (first unit) and 2002 (second unit) and as an alternative to the burning of brown coal will lower national CO₂ emissions by 6.5 percent by 2004.

Agriculture

The agricultural sector in the Czech Republic has not escaped the process of economic transformation and restructuring either. The changes have affected all players in the sector - farmers, the food processing industry, and wholesale and retail trade. All these substantial changes took place as Czech producers were exposed to competition from all over the world and from the EU in particular. Contributions of agriculture to Gross value added decreased by almost one half from 1988 to 1998.

Box 2.15. Trends in agricultural production, international comparison, 1990-98 (index 1991=100)



Source: OECD

Note: Data refer to agricultural disposable production for any use except as seed and feed; for the Czech Republic index 1989-91=100; data for Belgium include Luxembourg

The most recent period in the development of the agriculture sector has been characterised by an increase in subsidies to producers of all types. A new phase of agricultural policy has begun, whose main goal is to adjust Czech agriculture to the EU's Common Agricultural Policy. Better product quality and improved hygiene in food processing are imperatives for future development - government expenditure for the monitoring of contaminants in food alone has been 20-40 million CZK per year). Market conditions in the sector are such that consumer prices for many commodities in the Czech Republic have reached world price levels.

Box 2.16. The contribution of agriculture to gross value added, international comparison, 1988 and 1998

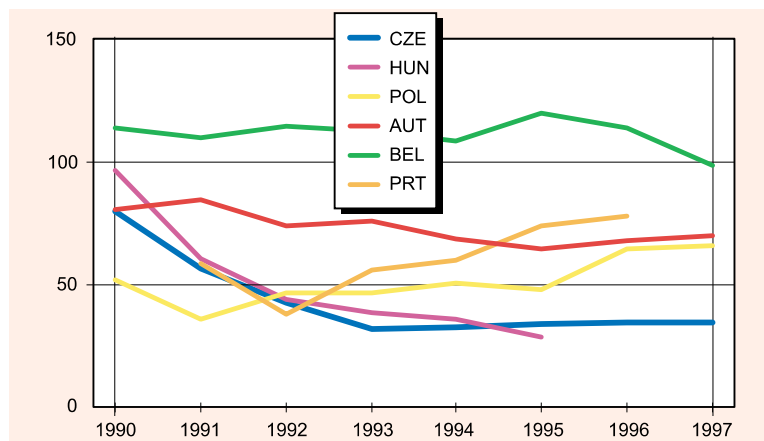
	1988 (%)	1998 (%)
Austria	2.7	2.4
Belgium	2.4	1.5
Czech Republic	8.4	2.7
Hungary	7.1	6.1
Poland	7.1	4.8
Portugal	5.5	4.1

Source: OECD

Note: Gross value added according to the 1993 System of National Accounts and the International Standard Industrial Classification

An important change in the government's approach to the environmental impacts of agriculture has recently been expressed in the gradual reform of assistance programmes. The changes have focused on the non-productive functions of agriculture, conservation of landscape and assistance for less favourable regions (two-thirds of productive capacity is situated on land of poor quality in poor climatic conditions), and their impact has been positive from an environmental perspective. Interest in organic agriculture has increased, with the number of organic farms increasing from 3 in 1990 to 358 in 1998, with their area increasing from 480 ha to 71,000 ha over the same period (the area further increased to 111,000 ha in early 2000). The result of this trend is a level of organic production similar to that in the EU.

Box 2.17. Trends in consumption of pesticides, international comparison, 1990-97 (index 1985=100)

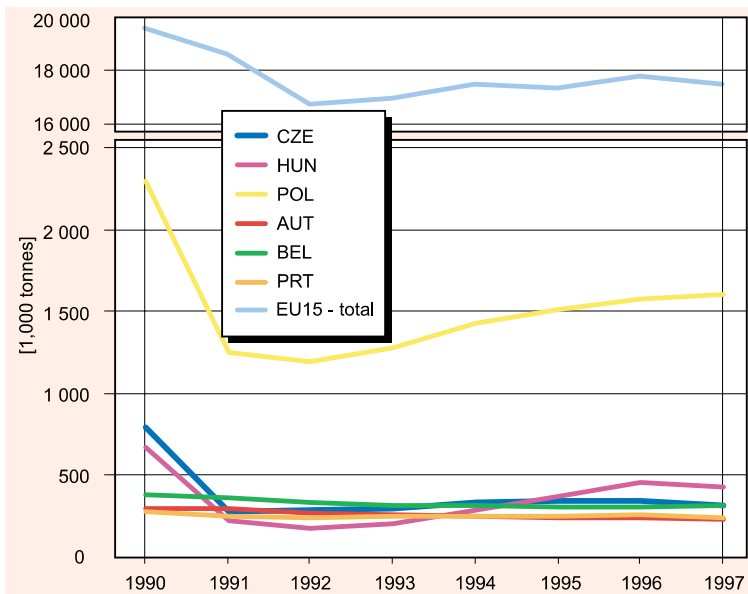


Source: OECD

Note: Data refer to active ingredients of insecticides, fungicides and herbicides. They may include other pesticides such as plant growth regulators and rodenticides. Data for Belgium include Luxembourg

The overall consumption of pesticides in the Czech Republic declined by about 60 percent between 1989 and 1999, to reach a value of 0.97 kg/ha of active substance. This figure represents substantially lower consumption than in EU countries and is largely the result of the less favourable economic conditions faced by Czech farmers.

Box 2.18. Apparent consumption of commercial fertilisers (NPK), international comparison, 1990-97



Source: OECD

Note: Box 2.18. concerns total agricultural consumption of commercial fertilisers. Data relate to apparent consumption during the fertiliser year (generally 1 July to 30 June). Data for the Czech Republic before 1992 are Secretariat estimates. Data for Belgium include Luxemburg

Consumption of industrial fertilisers also decreased substantially to 65.6 kg of net nutrients per hectare of agricultural land, although this decrease is very uneven and some crops are still quite intensively fertilised. Thus consumption of industrial fertilisers reached the lowest value since the 1960s. The total amount of applied nutrients remains well below consumption in developed countries in Europe (51.1 kg/ha of nitrogenous fertilisers applied to cultivated areas in the CR in 1999, compared to 70 kg/ha in the EU in the mid 1990s). These trends are very favourable from the point of view of environmental pollution and are especially important in view of the rising relative significance of non-point pollution sources.

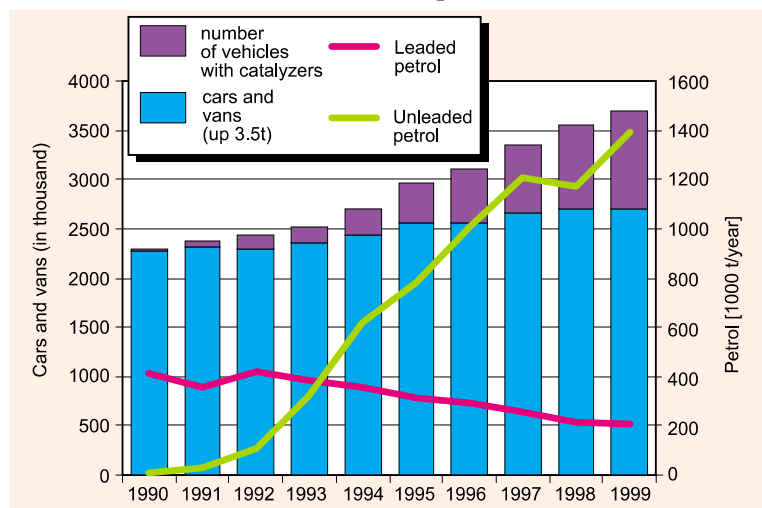
Transport

As in other developed countries, transport in the Czech Republic is one of the main detrimental influences on the environment and human health. Pollution associated with vehicles has reduced in relative terms as a result of improved vehicle technology

(such as the increased use of cars equipped with catalytic converters from 19,000 in 1990 to 981,000 in 1999, lower noise levels, lower fuel consumption and emissions) and the sale of unleaded petrol. About 70 percent of total petrol sales in 1999 were of unleaded petrol, and Czech Republic will implement measures to comply with the Protocol on Heavy Metals to the UN ECE Convention on Long-Range Transboundary Air Pollution, which requires the phase-out of production and distribution of leaded petrol by 1 January 2001.

These positive relative changes have however been outstripped by increasing traffic intensity, larger engine size and longer trips so that the overall trend in absolute environmental impact continues to be negative. Total emissions of CO₂ and NO_x from road transport rose between 1990 and 1999, with NO_x emissions particularly worsening quality of life in cities. The development in modal split is also unfavourable. In the period from 1990 to 1999 car use increased by 50 percent at the expense of public transport, and there was a 13 percent decrease in use of urban public transport. Since 1990 there has also been a decrease of about 35 percent in passenger rail transport.

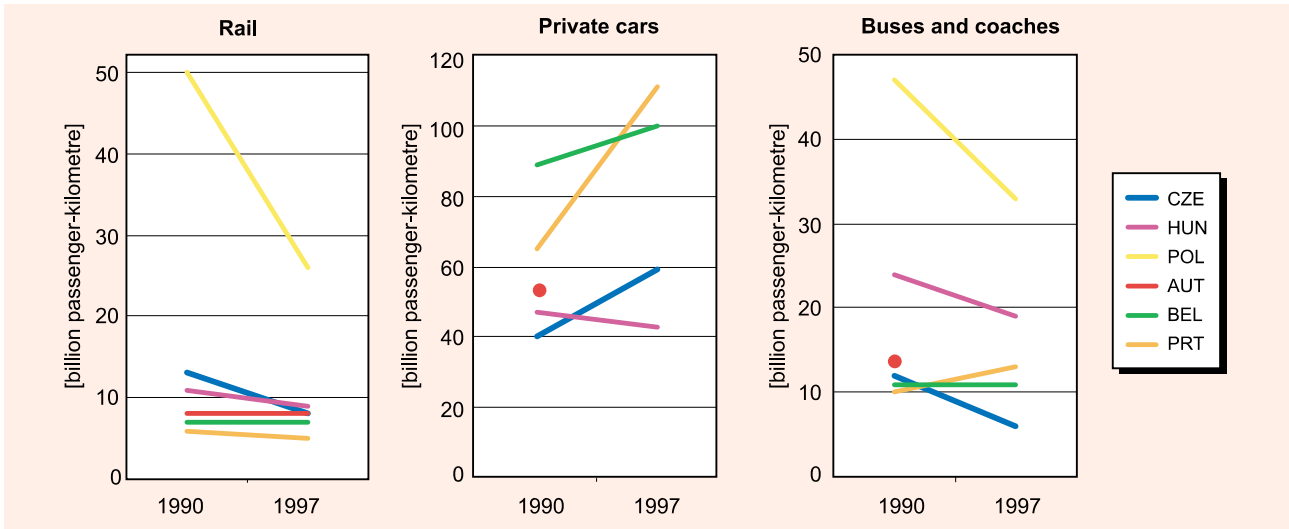
Box 2.19. Car ownership and petrol sales in the Czech Republic, 1990-99



Source: Centre for Transport Research

The density of roads (including motorways) is lower in the Czech Republic than the EU average: it was 0.7 km/km² in 1998, whilst the corresponding EU average was 1.0 (ranging from 0.2 in Finland to 4.6 in Belgium).

Box 2.20. Use of private car and of buses and coaches, international comparison, 1990 and 1997

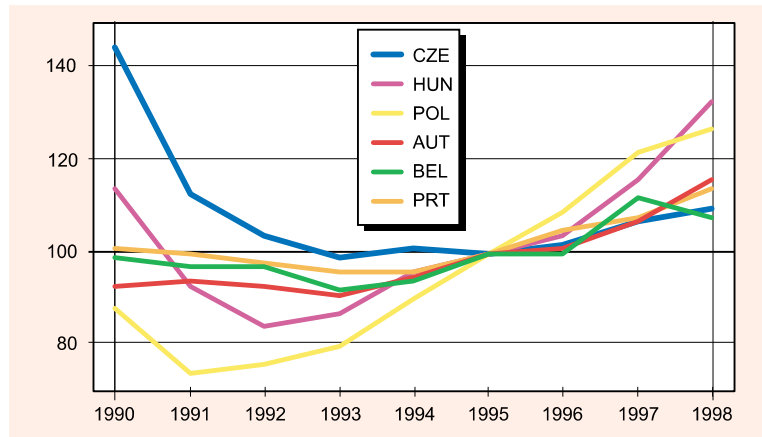


Source: OECD

The number of passenger cars and vans in the Czech Republic rose from 2.4 million in 1990 to 3.7 million in 1999 - an increase of 50 percent. Car use in the capital, Prague, is especially problematic, with an increase in vehicle ownership of 64 percent during the period. Car ownership now stands at one vehicle per two inhabitants, which means that Prague goes beyond even the most motorised capitals in Europe where the ratio is typically 1 car per 2.2-2.3 inhabitants. Since 1992 the city has been gradually implementing an integrated transport policy to combat these problems (including the introduction of Park & Ride).

Industry

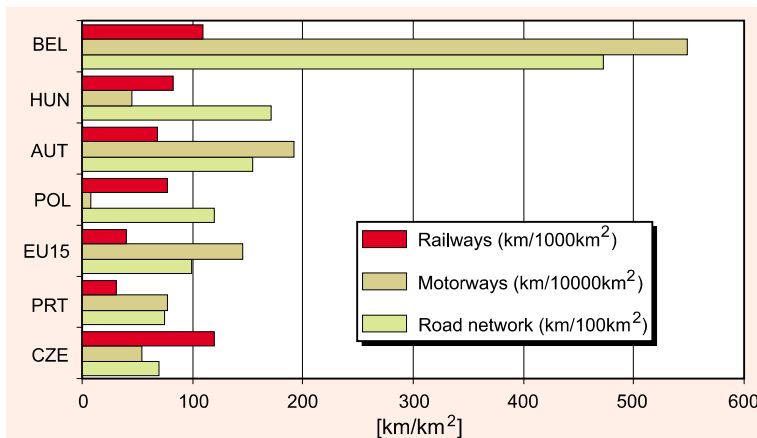
Box 2.22. Trends in industrial production, international comparison, 1990-98 (index 1995=100)



Source: OECD

Note: Index includes mining and quarrying, manufacturing and gas, electricity and water generation/distribution

Box 2.21. Transport infrastructure - density of roads, motorways and railways, international comparison, 1996



Source: OECD

The Czech Republic has traditionally been a highly industrial country. During the communist regime the emphasis was on heavy industry: coal mining, steel, heavy machinery and bulk chemicals. Industry as a whole is undergoing deep and often painful restructuring and its negative social consequences. Contributions of industry to Gross value added decreased by about 10 percent from 1988 to 1998.

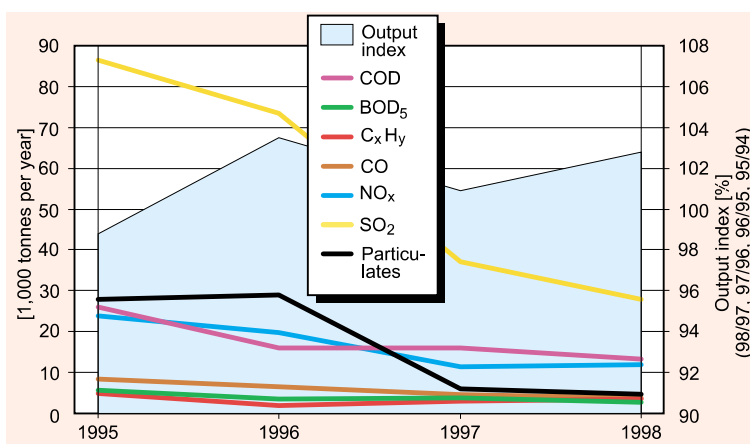
Box 2.23. The contribution of industry to gross value added, international comparison, 1988 and 1998

	1988 (%)	1998 (%)
Austria	32.4	33.1
Belgium	33.0	28.7
Czech Republic	48.8	43.7
Hungary	32.3	33.8
Poland	43.6	36.5
Portugal	35.4	35.7

Source: OECD

Industrial policy has respected the environmental requirements that have become gradually integrated into it. Great emphasis was placed on the implementation of environmental management systems in firms under the ISO 14000 series of standards and the EU's eco-management and audit scheme (EMAS). In 1998-99 the National Cleaner Production Program was prepared with the aim of decreasing the environmental impacts of production while increasing competitiveness. Implementation of Directive 96/61/EC on integrated pollution prevention and control (IPPC) will result in a fundamental change in industrial development and restructuring.

Box 2.24. Eco-efficiency of the chemical industry in the Czech Republic, 1995-98



Source: Czech Statistical Office

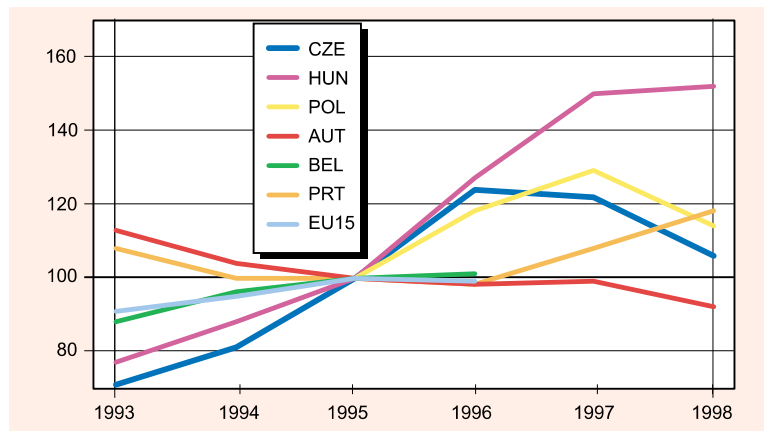
Eco-efficiency combines environmental and economic performance. It allows to make production processes more efficient and create new and better products and services with less pollution and less resources along the entire value chain. Major com-

panies in the Czech Republic are well aware of this concept - they focus as much on value creation as on resource use and pollution reduction.

Tourism

In the past ten years tourism in the Czech Republic has become an important economical and social phenomenon with a significant international impact. About 80 percent of tourists arriving in the Czech Republic visit Prague and other cities, and the remaining 20 percent visit areas with cultural and natural attractions, i.e. environmentally sensitive areas (around water and mountains).

Box 2.25. Trends in international tourist receipts, international comparison, (index 1995 = 100), 1993-98



Source: OECD

Note: Indicator based on receipts expressed at 1995 price levels and exchange rates

Box 2.26. International tourist receipts, 1998

International tourist receipts - 1998	Million USD
CR	3,274
HU	2,584
POL	8,002
PRT	4,732
AUT	11,423
BEL	5,003

Source: OECD

As a result of the almost exclusive use of motor vehicles as a means of transport, over 100 million tourists each year place pressure on the local environment.

Box 2.27. Modal split of tourist arrivals in the Czech Republic, 1995-98

Tourist arrivals	1995	1996	1997	1998
Total number (million)	98	109	108	103
By road (%)	95.8	94.4	94.4	93.8
By railway (%)	2.9	4.2	4.2	4.7
By air (%)	1.3	1.4	1.4	1.4

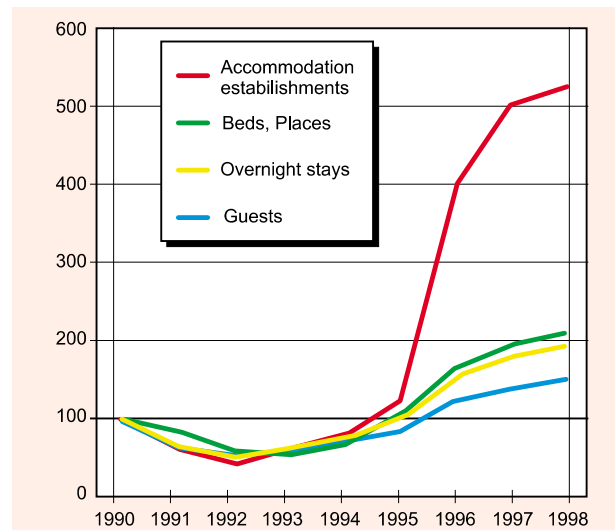
Source: Czech Statistical Office

Despite it is not expected that the number of tourists to the Czech Republic will increase radically it is necessary to develop the currently poor tourist infrastructure so as to diversify centres of tourist interest and reduce excessive stress on the limited number of tourist areas. Number of accommodation facilities has risen significantly since 1990.

Across the whole of the Czech Republic, hikers can make use of a unique system of marked trails, opening the most attractive parts of the country to nature lovers. This system has been developed and maintained by the Czech Tourists' Club since 1889. Rambling trails (including educational trails), skiing and cycling paths together form a network of around 40 thousand kilometres at present. The rambling trails also form part of the

international long-distance trails of the European Rambling Association (E.R.A). The complete network of marked tourist trails in the Czech Republic is shown in hiking maps that are available at bookshops and tourist information centres.

Box 2.28. Accommodation establishments in the Czech Republic, (index 1990 = 100), 1990-98



Source: Czech Statistical Office