

Ministry of the Environment
of the Czech Republic



Czechs in a Consumer Paradise (!?)

Trends in Consumption of Czech Households
Over the Past Twenty Years

Petra Kušková

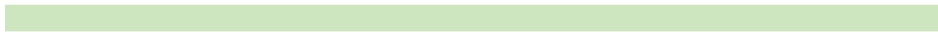
Alena Marková, Klára Najmanová

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Table of Contents

1.	INTRODUCTION	6
1.1	Increase in wealth	7
1.2	Consumption and needs	8
2.	DEMOGRAPHIC SITUATION IN THE CZECH REPUBLIC AND CZECH HOUSEHOLDS	9
2.1	Number of households is increasing and the number of their members is decreasing	10
2.2	There is the greatest number of complete families, but the number of people living alone is rapidly increasing	10
3.	BASIC CHARACTERISTICS OF CONSUMPTION IN CZECH HOUSEHOLDS OVER THE PAST TWENTY YEARS	12
3.1	In spite of some differences, the level of czech consumption is gradually approaching that of western countries	13
4.	HOUSEHOLDS' EXPENDITURES FOR CONSUMPTION	14
4.1	Expenses are increasing, especially housing and energy expenditures	15
4.2	Households spend most of their income on consumption and do not save much	17
5.	FOOD	19
5.1	Structure of meals has improved, but there has been an increase in imported food products	19
5.2	Boom in organic food consumption	22
6.	ENERGY AND HOUSING	24
6.1	Households require overall less energy, but the consumption of electrical energy is increasing	24
6.2	One third of households depends on remote central heating, one third still uses solid fuels	26
6.3	Water consumption	28
7.	ITEMS OF LONG-TERM USE AND INDUSTRIAL PRODUCTS	29
7.1	Increasing number of objects of long-term use in households	29
7.2	Czechs do not follow fashion much, but consumption of clothing is increasing	31
8.	MOTORISM	32
8.1	Number of trips made by cars is increasing more than trips by public transportation	34
9.	DRIVING FORCES FOR CONSUMER BEHAVIOUR	35
9.1	Material and post-material values	35
9.2	Life style	36
9.3	Advertising	37
10.	CONSUMPTION BACKGROUND	39
10.1	Czechs enjoy shopping and require low prices	39
10.2	Hypermarket boom	40
10.3	Czechs have more free time	41
10.4	Czechs more often travel abroad and they travel more frequently by airplane	42

11.	ENVIRONMENTAL IMPACTS OF CZECH HOUSEHOLDS' CONSUMPTION	44
11.1	Only part of czech households is motivated towards environmentally friendly behaviour	44
11.2	Consumption is based on imports	45
11.3	Wastes	46
11.4	The impact of households on climate change	47
11.5	Ecological footprint	48
12.	DATA SOURCES	49
12.1	The Czech Statistical Office	49
12.2	Sociological studies and public opinion surveys	49
12.3	Other czech studies	50
12.4	Marketing study	50
13.	CONCLUSION	51
	List of references	52
	List of abbreviations	54
	List of tables and graphs	54

1. Introduction

At the present time, the developed world is confronted with an unprecedented increase in consumption, which has accelerated especially in the last decade. Phrases like “consumer society” are common and citizens are very frequently termed “consumers”. Modern society has made possible mass production and mass consumption, which is reflected in human thinking and priorities.

Private consumption in the OECD countries has increased substantially in the past twenty years and is expected to copy the increase in Gross Domestic Product to the year 2020 (OECD, 2002, 2008a). Predictions for the EU-25 foresee doubling of consumption by 2030 (EEA, 2005). The unprecedented increase in consumption is also connected with increasing impacts on the environment.

While product and technological innovations have substantially reduced energy and material intensity for a great many kinds of consumer goods, it has been found that the ever increasing volume of consumed and discarded goods and the structure of consumer demand predominate over the numerous advantages. By 2030, it is expected that the household energy consumption will increase by 1.4 % p.a. on average in the OECD countries and the number of kilometres travelled per person in transportation will increase by 1 % p.a. (OECD, 2008a).

Consumer behaviour is very varied and motivation depends not only on the financial situation of individuals or families, but also reflects local traditions and habits, social position, age, the group to which the person belongs and culturally determined taste.

The Czech Republic has undergone some fundamental changes in the past decades. The greatest change occurred in 1989, when the Velvet Revolution took place and the country began to “return” to Europe after forty years of Communism. A decisive moment occurred in the area of consumption, because there was a lack of consumer goods in the economically dysfunctional Communist regime prior to 1989. This began to change rapidly after 1989. Almost twenty years have passed since the Velvet Revolution; during this period the Czech society has undergone a number of changes in life style and recognized values. The Czech Republic now has a level of consumption that approaches that of its western neighbours.

This study focuses on consumption in Czech households and intends to demonstrate trends in this area over the past twenty years and to provide a picture of this sphere, particularly in relation to the environmental impacts of the behaviour of households. The role of households in any economy is very important, mainly because households promote economic growth through their expenditures. Households are just as important from the standpoint of environmental pressures: demands on resources, waste generation and capacity to affect industrial and commercial activity through households’ purchasing power. At the present time, 30 – 40 % of environmental problems can be attributed to households (Hirschl et al., 2003).

Immediately after 1989 there was a recession lasting several years in almost all socio-economic indicators (energy consumption, industrial production, agricultural production, polluting emissions, etc.). Current trends in consumer patterns are again exhibiting a growth in the Czech Republic and their indirect environmental impacts are on the rise as well.

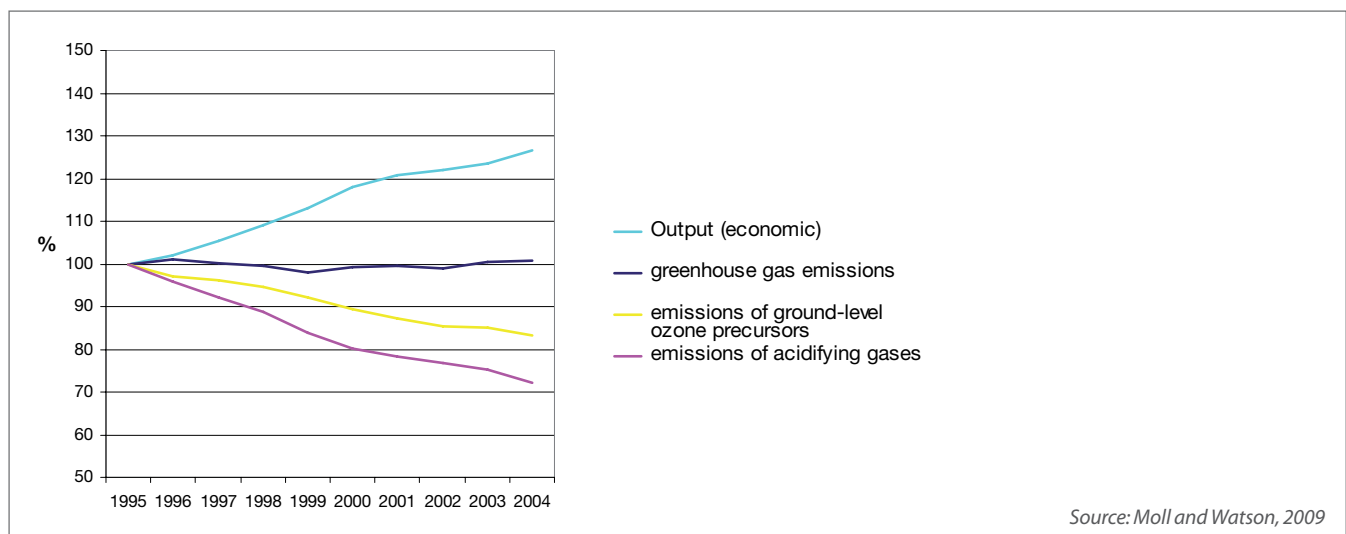
Czech consumption trends are similar to elsewhere in Europe: the amount of time spent with activities, such as cooking, is shortened in favour of free-time activities and recreation. The growing consumption of materials is related to increasing incomes, decreasing prices of commodities and increased supply of various kinds of goods on the market. The greatest revenues are achieved by chain stores with the lowest prices and the incomes of the largest businesses have increased more than ten times since 1993.

The problem of high consumption has consequences in the three main spheres (Michaelis and Lorek, 2004):

- The increased production exhausts renewable and non-renewable resources and causes irreversible changes in ecosystems.
- There is an increasing inequality between the rich North and poor South: changes in the quality of the people's lives, especially in Europe during the twentieth century, did not affect a major portion of mankind.
- An increasing economic standard does not necessarily lead to improved quality of life.

Unsustainable consumption patterns, especially in the developed North, were designated in Agenda 21 as one of the main driving forces in burdening the environment and one of the main causes of contemporary unsustainable development (OSN, 1993).

Graf 1.1: Economic output growth and direct environmental pressures, EU-25 (all economic sectors)



Regarding country's economic situation, not only the rate of growth of consumption in households but also the magnitude of their expenditures in the Gross Domestic Product is important. A change in consumer behaviour like reduction or increase in demand for goods and services has a substantial impact on economic growth in the country. And here we encounter a basic paradigmatic discrepancy in resolving key aspects of the relationship between consumption and the environment or sustainable development. Increasing consumption, which is a threat to the environment, is considered to be favourable from an economic point of view. The key question arises of how to reduce the impacts of consumption on the environment and simultaneously retain the running economy. One of the answers lies in the idea of sustainable consumption that, on the one hand, maintains a high standard of living and, on the other hand, minimizes impacts on the environment (OSN, 1988).

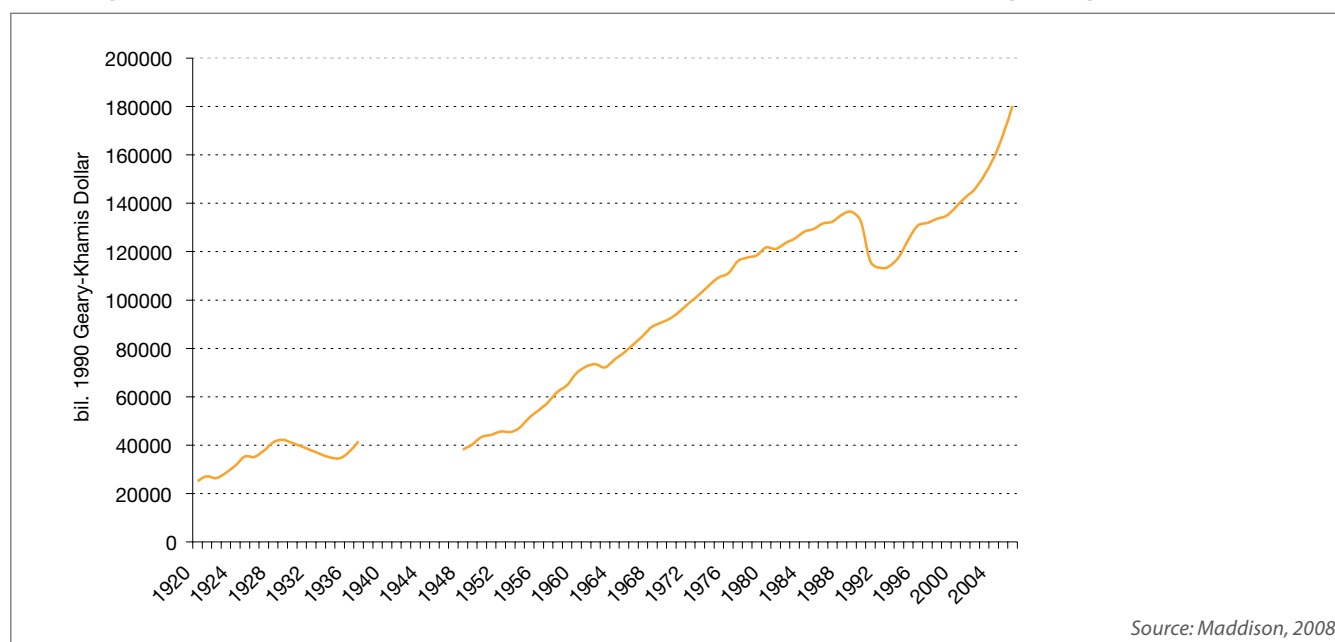
A number of foreign studies emphasized two basic questions that, unfortunately, have not been completely answered at the present time: whether sustainable consumption means consuming less or in a different way (Michaelis and Lorek, 2004). A combination of both seems to be the most probable response.

1.1 Increase in wealth

Real incomes increased at least seven-times in Europe during the twentieth century and consumption patterns changed substantially in parallel. In 1900, most European countries (including the Czech lands as part of the Austro-Hungarian Empire) created a Gross Domestic Product comparable to current developing countries and most of the inhabitants lived in rural areas. For example, in Britain, which was the richest and most developed country in the beginning of the 20th century, over half of household expenditures covered food, alcohol, clothing and energy. Expenditures for these items have declined to approximately one third of all expenditures in Europe at the present time. So, a scope has been created for a number of new consumption categories. It seems that this trend is going on (Michaelis and Lorek, 2004).

The Czech Republic has substantial qualifications for economic development and thus also suitable conditions for high consumption. In the 19th century, it was the most industrially advanced country of Austria-Hungary and the Czech lands were amongst the most developed countries in Europe prior to the 2nd World War.

Graph 1.2: Historical trends in GDP for Czechoslovakia (after 1993 for the Czech Republic plus Slovakia)



The post-war Communist regime (1948–1989) tended to be restrictive besides other areas in the level and variety of personal consumption. The main target of economic development was first and foremost the heavy industry as a basis for military strength. Large volumes of unified products were prioritized over bigger variety of goods and services. The Communist regime preferred satisfaction of basic needs to consumer preferences (Večerník, 1996).

Nonetheless, since the establishment of the Czechoslovakia in 1918, the economy has been growing except for a few temporary fluctuations. Gross Domestic Product per person has increased six times since 1918 (see Graph 1.1). At present, the Czech Republic belongs in all characteristics amongst the rich northern countries, whose Gross Domestic Product is from 50 % formed by consumption.

1.2 Consumption and needs

According to the definition of the Organization for Economic Cooperation and Development (OECD), household consumption includes choosing, purchasing, using, maintaining, repairing and discarding of any product or service. Nonetheless, it does not include consumption by the public sector or intermediate consumption of products and services by the production sector (OECD, 2002).

The basic motivation compelling people to purchase consist of needs, which are one of the basic forces in the market. Needs are satisfied through material and nonmaterial goods. Basic needs are unavoidable things, without which humans are not capable to survive (food, clothing, sleep, etc.). Basic needs include also physiological needs, satisfaction from work or a feeling of belonging to a group of people. Higher needs does not have to be necessarily satisfied and can be delayed. These include for example gifts and vacations.

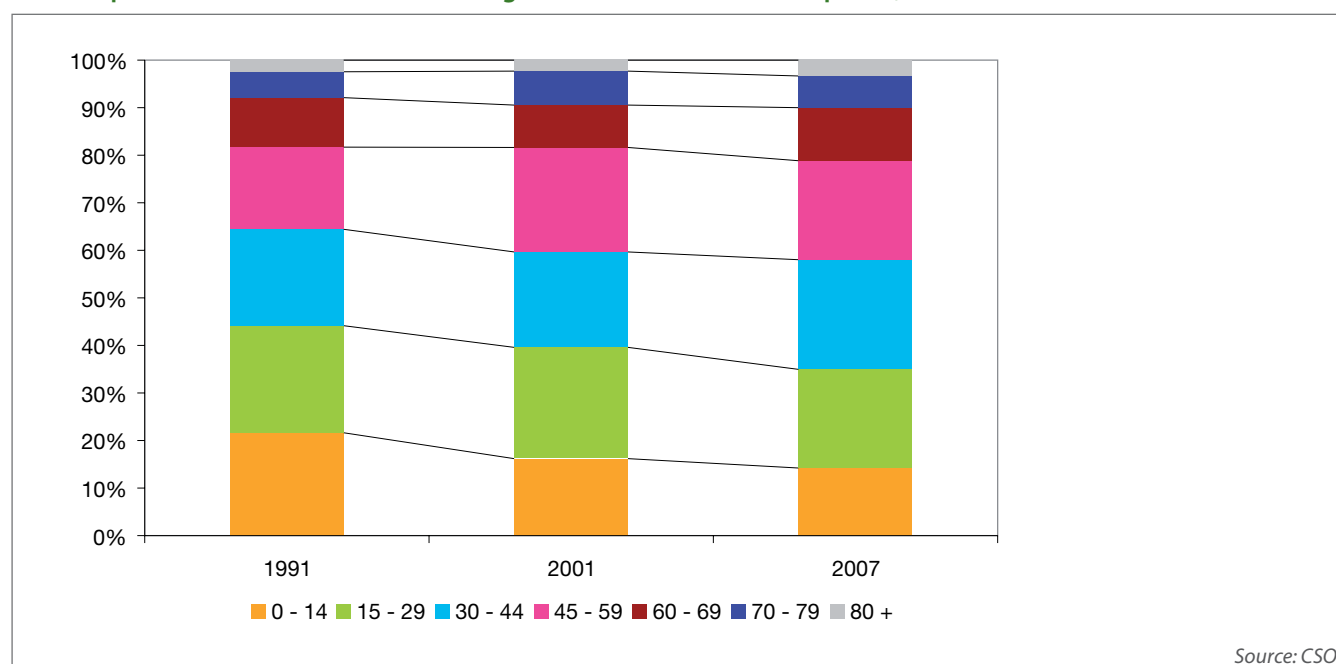
In the contemporary world, incidental and artificially created needs play very important role. Incidental needs arise from a certain impulse (e.g. the buyer is attracted by the smell of fresh bread or an interesting thing). Artificially created needs are created by advertising and fashion; people buy things that they do not need in any way and that are not necessary to purchase (Maslow, 1943). Excessive consumption encompasses higher incidental and artificially created consumption. For example, people frequently react to the latest fashion; they buy goods or modify their life style according to the latest trends (mobile telephones, cars, holiday destinations, etc.). Similar conduct frequently leads to purchasing of new goods much sooner than the old one is worn out, only because it is no longer in fashion.

2. Demographic Situation in the Czech Republic and Czech Households

The number of inhabitants underwent relatively great changes after 1989. The birth rate decreased substantially during the 1990's and the Czech Republic had one of the lowest gross birth rates both, in Europe and in the world, at the turn of the century. However, this trend changed after 2000 and, at the present time, the large generation of people born in the 1970's (called Husák's children¹) is establishing families. In 2006, for the first time within twelve years, a positive natural population increase was reported (number of live births exceeded the number of deaths). However, demographers point out that this is only a temporary phenomenon and that fewer children will be born in the near future. Currently, the fertility level (number of live-born children per woman) is 1.28 (2005), which is practically the lowest level in Europe (the average for EU-25 equalled 1.48 in 2005) and is not sufficient for clean reproduction. Nonetheless, at the present time, the number of Czech inhabitants is slightly increasing due to migration: between 2000 and 2007, the number of inhabitants increased by about 5000 and the Czech Republic has currently 10.3 million inhabitants.

Similar to the other European countries, the Czech population is ageing. The average age of men is 38.8 years and 41.8 years for women. By the end of 2007, over 1.5 million people older than 64 years lived in the Czech Republic, i.e. 16 % of the total population (slightly less than the European average: the value for EU-27 equalled 16.6 % in 2005). According to demographic forecasts, the number of people over 64 years of age shall increase in the coming decades to a level of two million and the Czech Republic is expected to have three million seniors in the middle of the 21st century. At the same time, there is a constant decrease in the number of young people in productive age. In connection with the expected decrease in the number of inhabitants, the proportion of older people will continue to increase, leading to further changes in consumer behaviour. Graph 2.1 gives a more detailed picture of trends in the age structure of the inhabitants of the Czech Republic.

Graph 2.1: Trends in the inhabitants' age structure of the Czech Republic, 1991–2007

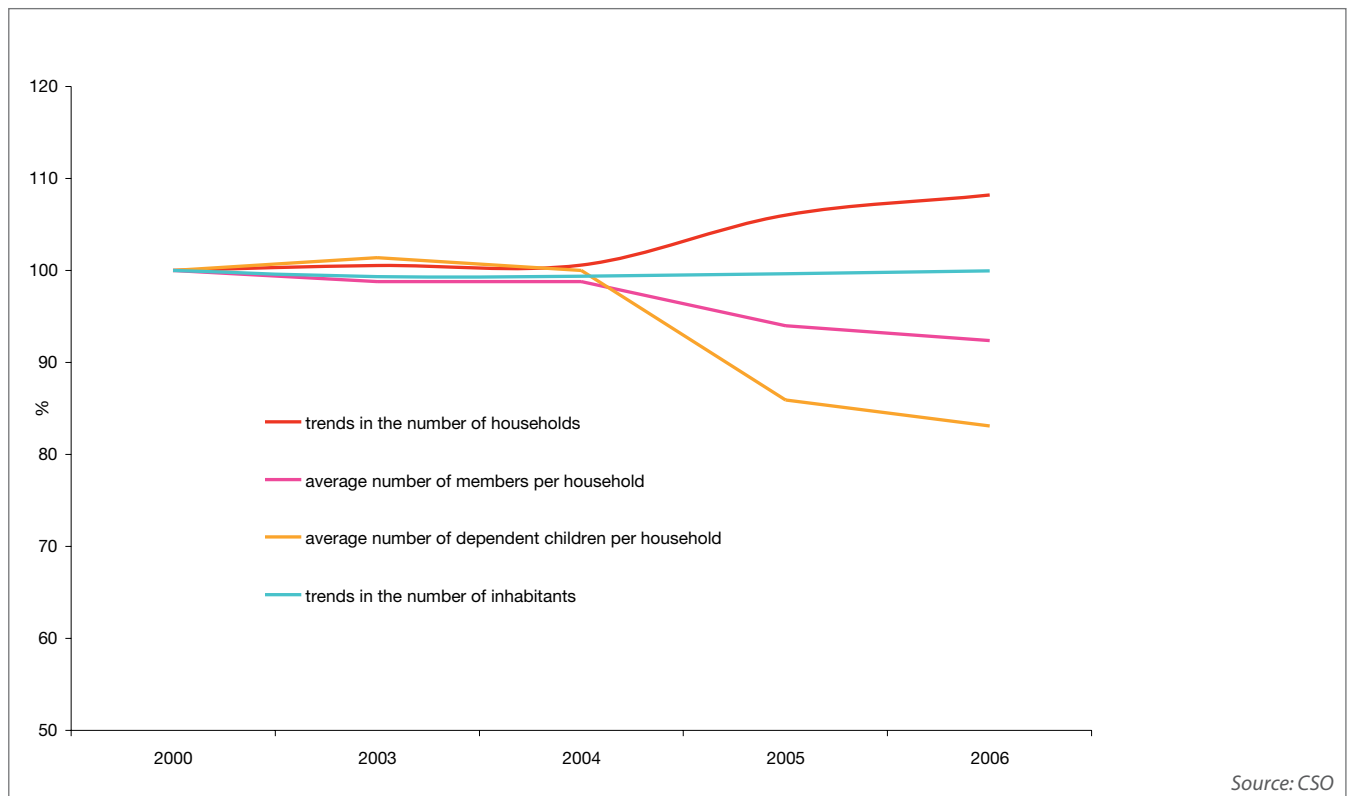


¹ The term comes from pro-natalist policies of the communist authority of former president Gustav Husák.

2.1 Number of households is increasing and the number of their members is decreasing

Similar to the rest of Europe, the amount of Czech households is increasing and the number of their members is decreasing. This trend was confirmed by the Census of People, Apartments and Buildings (SLBD). There were 3 984 thousand households in the Czech Republic in 1991, while this number increased to 4 216 thousand households in 2001. This means an increase by approximately 230 thousand households over ten years. The average number of household members decreased slightly: from 2.5 in 1991 to 2.4 in 2001. In spite of the increase in the birth rate, there has been a reduction in the number of children living in a single household, from 0.71 in 2000 to 0.59 in 2006 (see Graph 2.2).

Graph 2.2: Trends in households, 2000–2006



The number of members living in one household has decreased and each member has a larger living area than formerly. Residential area has increased by 50 % since the 1970's (from 12.4 m² per person in 1970 to 18.6 m² per person in 2001) and further increased by 12 % between 1991 and 2001 (by 2 m² per person).

2.2 There is the greatest number of complete families but the number of people living alone is rapidly increasing

The size and character of households is closely connected with the social climate in society, especially with models of family behaviour and coexistence, attitudes towards families, children and old people, inter-generation relationships and, last but not least, changes in life style and values.

According to the economic classification, half of households consist of employees, one third of pensioners, 13 % of self-employed people and 5 % of unemployed people (Graph 2.3).

The most common type of Czech household consists of complete families, although their number is constantly decreasing. In 1970, they constituted 70 % of all Czech households and in 1980 this was still two-thirds; however, in 2001, they corresponded to only slightly more than half. It is possible that post-revolutionary changes accelerated the disintegration of families. The number of incomplete families (corresponding to 13.5 % in 2001) has increased probably in connection with the higher divorce rate.

Households are getting less numerous; there has been a decrease in the number of children living in a single family and an increase in the number of households of individuals. The substantial changes in reproductive behaviour, which occurred over a relatively short period of time, could also be responsible for the reduction in the size of households and the decrease in the number of complete families. Most young people delay marriage and establishment of a family to a higher age, and some of them never do this. There is also a substantially increasing fraction of unmarried persons in the population, who frequently establish independent households (CSO, 2005).

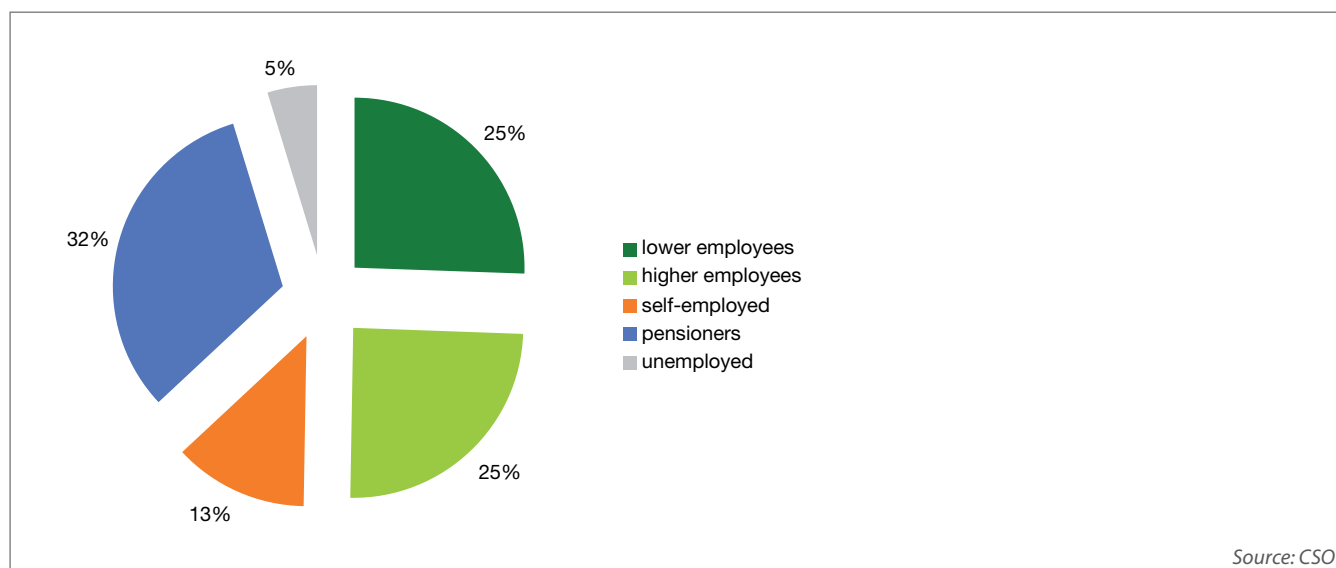
A relatively frequent phenomenon at the present time includes living together in non-family households, where several people rent one apartment at once (during the last census in 2001, there were 2 % of such households).

However, the increase in the number of households of individuals is considered to be the most important phenomenon. In 2001, there were 1.3 million households with one member in the Czech Republic, representing almost one third of all households and 12.5 % of the population. Their number increased almost three times over last thirty years: only 668 600 (19.1 %) households of individuals in 1970 and 514 700 (16.0 %) households of individuals in 1961.

Nonetheless, this is not a mass phenomenon; those living alone tend to be older people who have lost their partners. Trends that are common elsewhere in Europe, such as independence of younger individuals, are retarded in the Czech Republic due to the dysfunctional housing market.

All previously mentioned demographic and social factors and trends naturally affect patterns of consumption. The fact that families and households in Europe and also in the Czech Republic are getting smaller and the population is ageing leads to fundamental changes in the structure and volume of consumption (which they affect, together with a broad range of other technical and economic factors). Smaller households have greater energy and infrastructure requirements per person, as they do not share common facilities with other members. Therefore, an inhabitant of a self-contained household consumes more energy and produces more wastes.

Graph 2.3: Structure of Czech households



3. Basic Characteristics of Consumption in Czech Households Over the Past Twenty Years

Following the forty-year period of Communism, when practically no consumer goods were available, and after a period when Czech households did not have sufficient finances to purchase them, a period of unprecedented high consumption has occurred. After the long period of self-denial in the Communist period, when the vast majority of consumer goods was lacking on local counters, the Czech customer was “hungry” for consumption. And he is very easily manipulated. Advertising has a very strong effect in the Czech environment. As pointed out in the study by the Czech sociologist Jiří Večerník, a very rapid shift occurred in Czech society from “Communism” to “Consumism” (Večerník, 2004).

The traditional secularization of society became an excellent environment for materialism and the consequent excessive shopping. Czechs enjoy shopping and many families devote themselves to shopping activities, e.g. on Sunday, which is unusual in other European countries. Similarly, as in the old times or in countries with a religious tradition, families used to spend and still spend their common free time on Sunday visiting churches and relatives, shopping has now become a very common phenomenon in the Czech Republic. According to the survey made by the *StemMark Agency* (2007), shopping in shopping centres is the seventh most common weekend and free-time activity of interviewed families.

According to Večerník (2006), Czechs belong to the West in terms of supply but belong to the East in terms of income. Following the long period of “penury”, the Czech consumer is hungry for consumption but, according to OECD data, still has only 55 % of purchasing power of the average in OECD countries (OECD, 2008b). Individual consumption in the Czech Republic at the present time is about 62 % of the average OECD countries. Nonetheless, wages and salaries have been increasing for a long time, the Czech crown is getting stronger, households are often running into debts and their spending is constantly increasing. Households are a driving force for the Czech economy due to their consumption. Up to one half of the Gross Domestic Product is generated through household consumption (see Table 3.1).

Table 3.1: Expenditures for GDP, for final consumption by households and the fraction of final consumption by households in the GDP (CZK bil., constant 2000 prices), 1996–2007

Year	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
GDP	2116	2100	2085	2112	2190	2244	2286	2368	2474	2631	2810	2994
Household consumption	1076	1099	1090	1120	1135	1162	1188	1259	1295	1327	1399	1482
% of GDP	50,83	52,32	52,29	53,03	51,85	51,79	51,95	53,14	52,32	50,46	49,8	49,5

Zdroj: MF

3.1 In spite of some differences, the level of czech consumption is gradually approaching that of western countries

Over the past years, the behaviour of households has passed through a number of different stages. Especially the first years after the revolution (1990 – 1992) households were greatly affected by the psychological uncertainty of potential consequences of transformation steps and division of the Czechoslovak state and currency. The sharp increase in household consumption in 1990 and the related decrease in the level of savings reflected fears related to removal of price restrictions at the beginning of 1991. Prior to this, Czech households were overwhelmed by a shopping fever, when they purchased mainly consumer goods. The reduced level of savings was a result of more liberal conditions for travelling and the possibility to (very limited) purchase exchangeable currency. After fifty years of experience with centralized economy, the consumer did not trust predictions about a better market conditions after removal of fixed prices and preferred immediate consumption (Abraham, 2004).

As a result of removing fixed prices in 1991, the prices increased by 57 % but the supply of consumer goods in the market increased only slowly. Unemployment increased at the same time and atmosphere of uncertainty grew amongst the population. Subsequently, consumption decreased rapidly and there was a sudden increase in the level of savings from 0.3 % in 1990 to almost 8 % in 1991; the rapid reduction in household consumption was the main factor influencing the decrease in GDP by 11.5 % (Abraham, 2004).

Households reduced consumption and increased savings also in 1992, when the main source of uncertainty was the anticipated division of the Czechoslovak Federation and currency. Consumer restraint continued and the level of savings remained at a high value compared to the past.

In 1993, a second, different stage began. This stage can be termed either catching up on consumption or massive renewal of goods of prolonged use. The following factors were important in this stage:

- Massive supply of attractive goods and services as a result of activities in the private sector and removal of import restrictions.
- A rapid increase in real incomes, possibility for some groups of the population to increase their consumption as a consequence of restitution and the consumer effect of coupon privatization.
- Rapid development in housing and sales of real estates, promoted by the range of new financial products available (construction savings, mortgages).

The growth of wealth in Czech households accelerated in this period. People accumulated modern items of prolonged use, such as electronic appliances, computers and also purchased real estates (Abraham, 2004). Since then, the increase in consumption is continuing to the present time. As mentioned above, consumer patterns are a result of the cultural environment and habits (Janáček, 1999, cited in Abraham, 2004).

At present, some economic journalists speak about a “consumer revolution” in the country. A group of “nouveau riche” has also appeared, driving luxurious consumption (Večerník, 2008).

The level of consumption in Czech households is becoming similar to the countries of Western Europe; nonetheless, the Czech customer differs from his western neighbours in a number of respects. He is concerned more with price than with quality; however, as incomes grow, an increasing number of people are looking for quality. In many respects, a shift has not yet occurred from materialism to post-materialism in the sense of the definition of Ronald Inglehart (more information is given in Chapter 9.1 Material and post-material values), although, in some areas, such as increasing demand for organic products, a certain shift from materialism to post-materialism can be observed in a small part of the population.

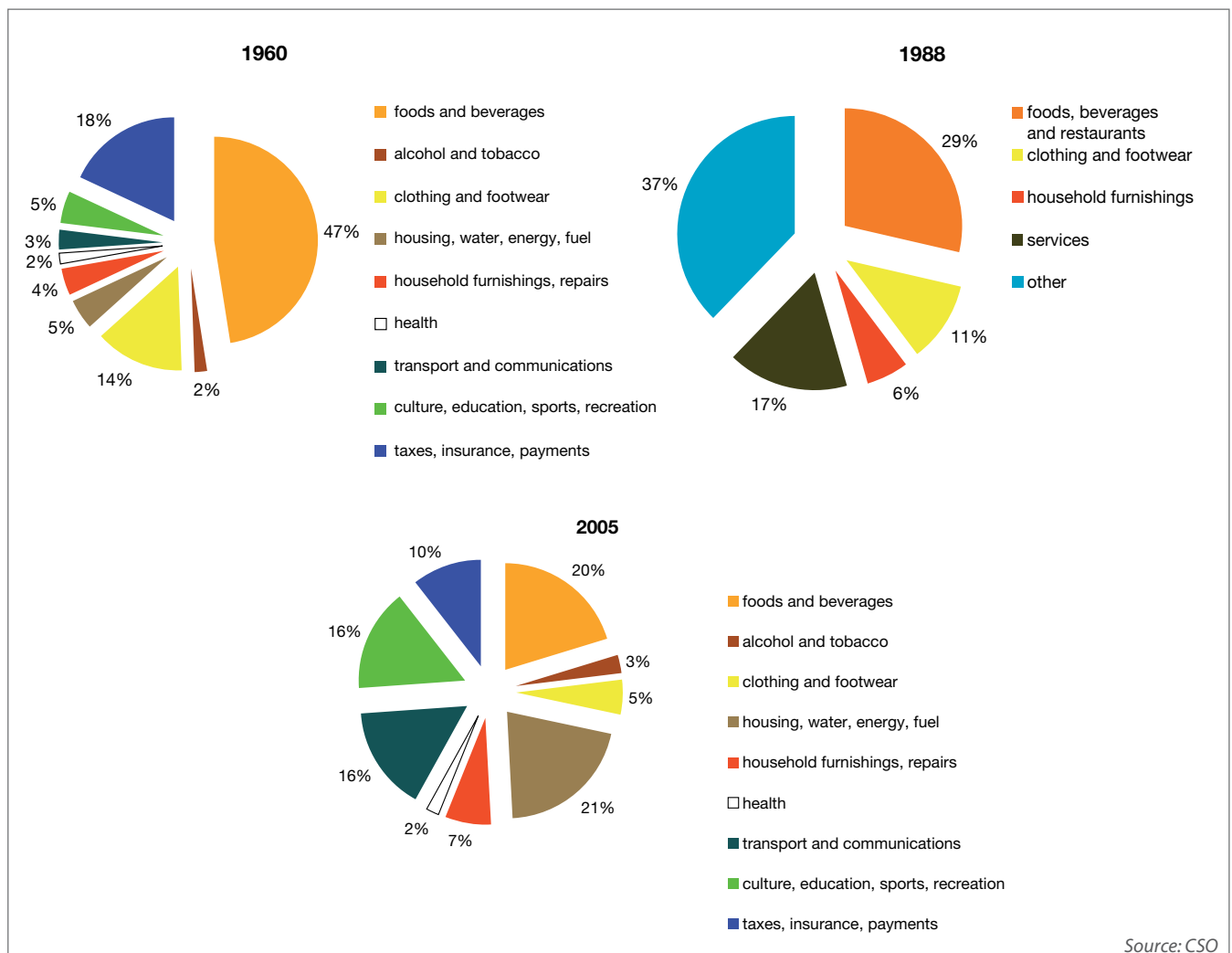
Studies have also shown that Czechs frequently shop intuitively and can thus be easily attracted by offers of various discounts. They are very much willing to spend money for consumer goods, reflected in the increasing debts of households. Needs created artificially by marketing and advertisements motivate people to purchase goods they don't need for money they don't have (Večerník, 2008).

4. Households' Expenditures for Consumption

Like the entire area of consumption, the structure of households' expenditures has also altered substantially in the last few decades. A fundamental change lies in the substantial reduction in the expenditures for foods in the past 30 – 40 years, which has created a scope in the households' budgets for other consumption categories appearing on the market over the years.

The expenditures for food and beverages decreased from almost half of the total expenditures in 1960 to one third to the time prior to the Velvet Revolution (the graph depicts 1988) and one fifth in 2005 (see Graph 5.1). Household budgets are burdened mostly by expenditures for housing, water and energy (from 5 % to 19 %), caused by increasing prices of energy more than rent; at least one third of households still live in housing with regulated rents (Večerník, 2008). A smaller part of expenditures goes for clothing and footwear (although these expenditures have grown in absolute values). The contributions of other categories to the total expenditures are practically identical, except for expenditures for transportation and communications, whose fraction has increased five times (from 3 % to 15 %). It is probably due to the increase in travelling, the private car boom and also the revolution in the use of communications services (mobile telephones, internet).

Graph 4.1: Households' expenditure structure, 1960, 1988, 2005

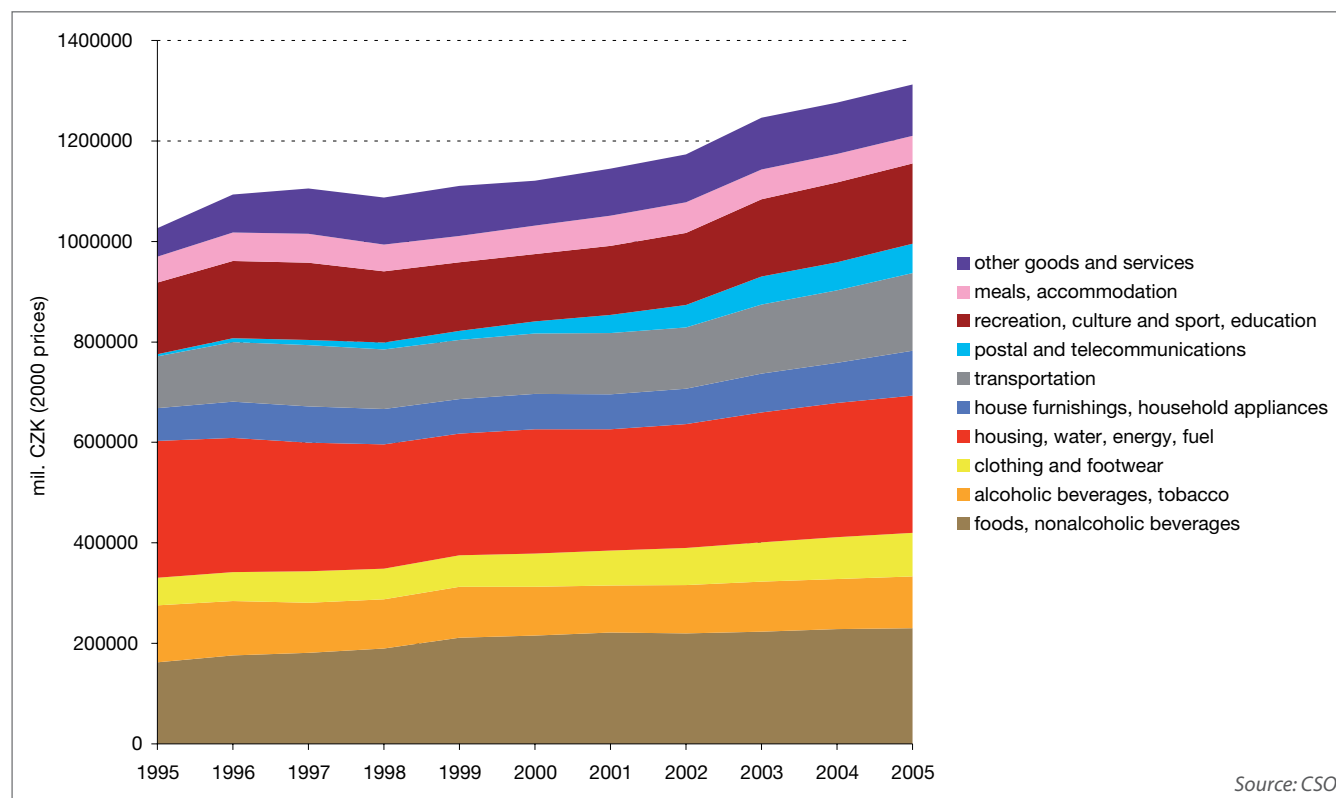


Source: CSO

4.1 Expenses are increasing, especially housing and energy expenditures

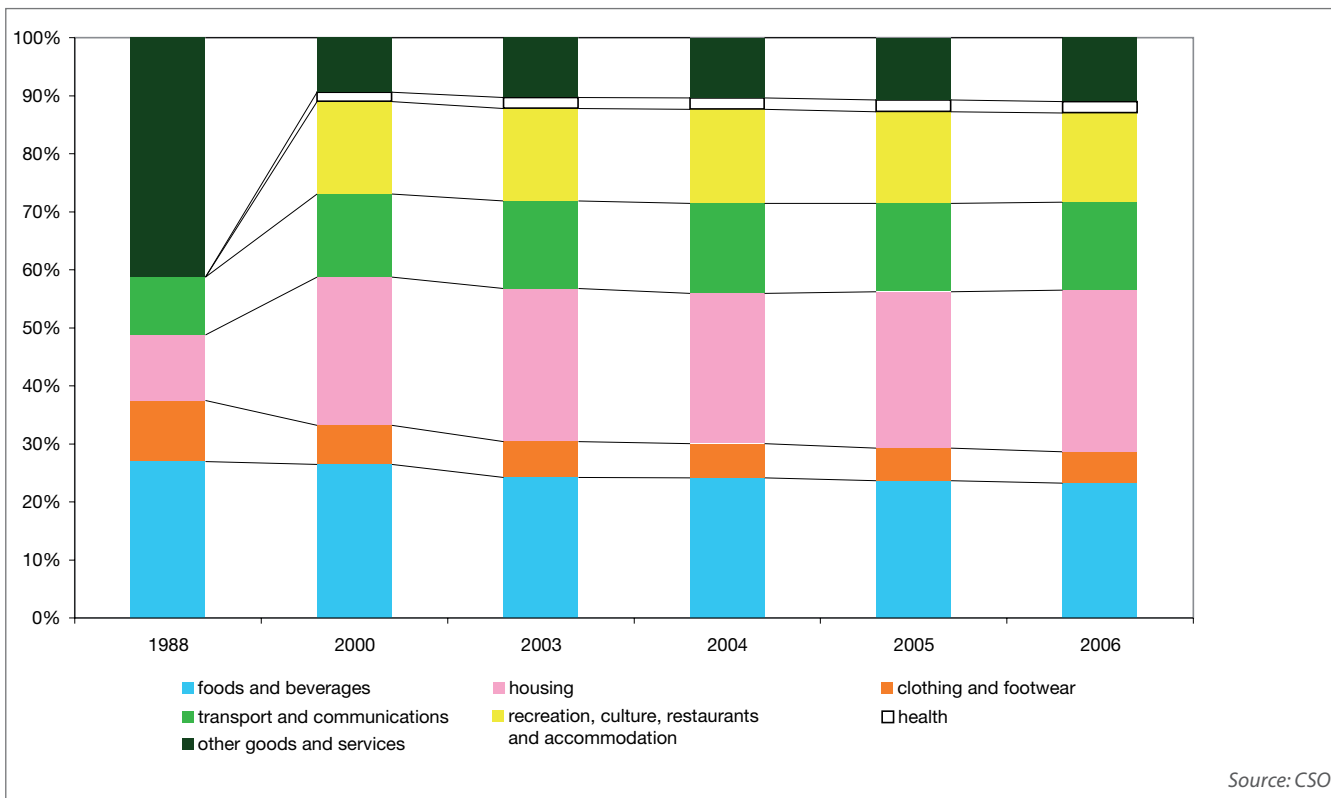
Czech households are spending increasing amounts for consumption. Total expenditures of households' consumption increased between 1995 and 2005 by more than one third (see Graph 4.2).

Graph 4.2: Households expenditures in final consumption according to purpose, 1995–2005



Considering the trends in the expenditures structure in the last few years, they have not changed radically since 2000. There has been a relatively rapid increase in the accommodation and especially energy costs. However, compared to the year prior to the revolution, 1988, the expenditures for accommodation, transport and communications has also increased substantially. There has been a decrease in the expenditures for foods, clothing and footwear in favour of other product categories, especially those that appeared on the market in a massive scale after the revolution (e.g. electronics, travelling).

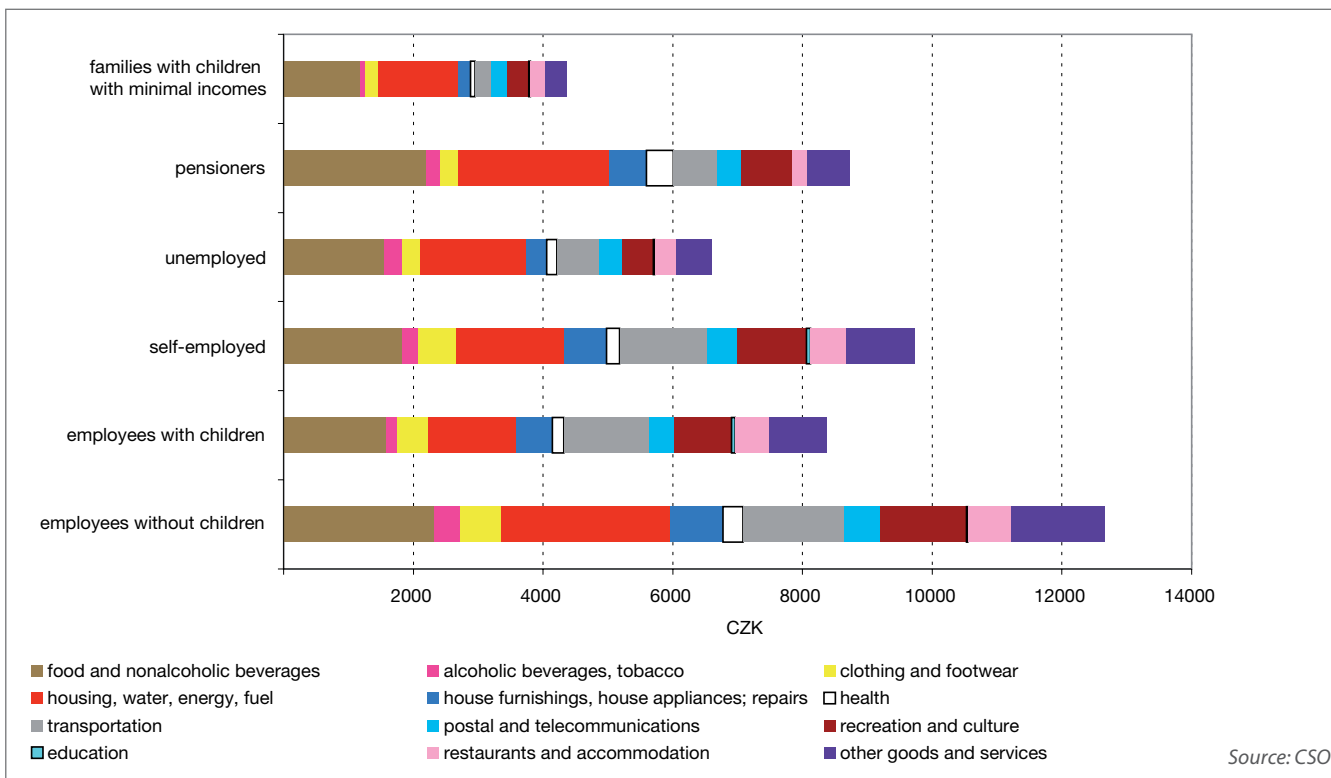
Graph 4.3: Trends in the households expenditures structure, 1988–2006



Source: CSO

According to the Graph 4.4, in absolute values, employees without children and self-employed persons spend the highest amount per month per person. They are followed by pensioners, families with children, unemployed persons and then unemployed persons. Families with children and minimal incomes have the lowest expenditures.

Graph 4.4: Expenditures according to the type of household, 2nd quarter 2008



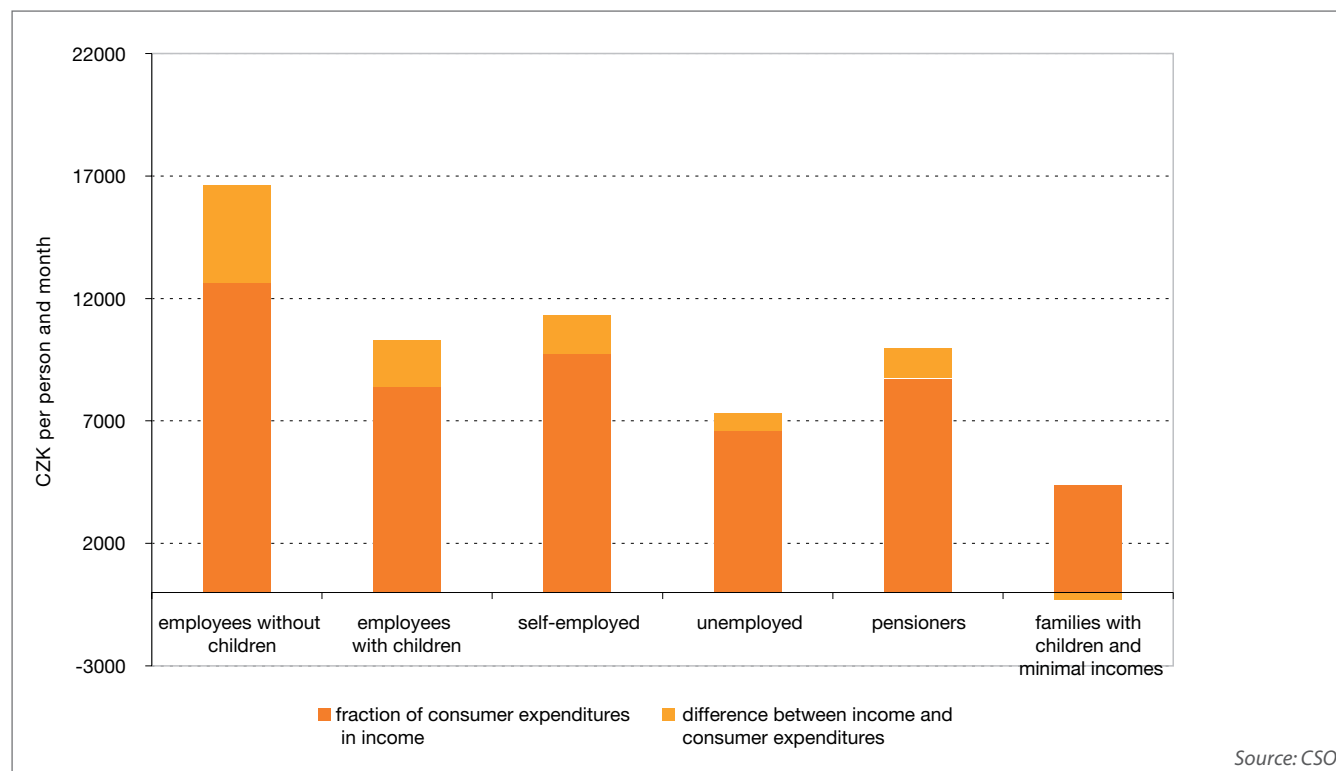
Source: CSO

4.2 Households spend most of their income on consumption and do not save much

Expenditures for consumption are an important item for Czech households in their income, reflected in Graph 4.5.

All types of households spend approximately 70 – 90 % of their income on consumption. Families with children with minimal incomes spend more than their income and thus frequently run into debts.

Graph 4.5: Expenditures according to households' incomes, 2nd quarter 2008

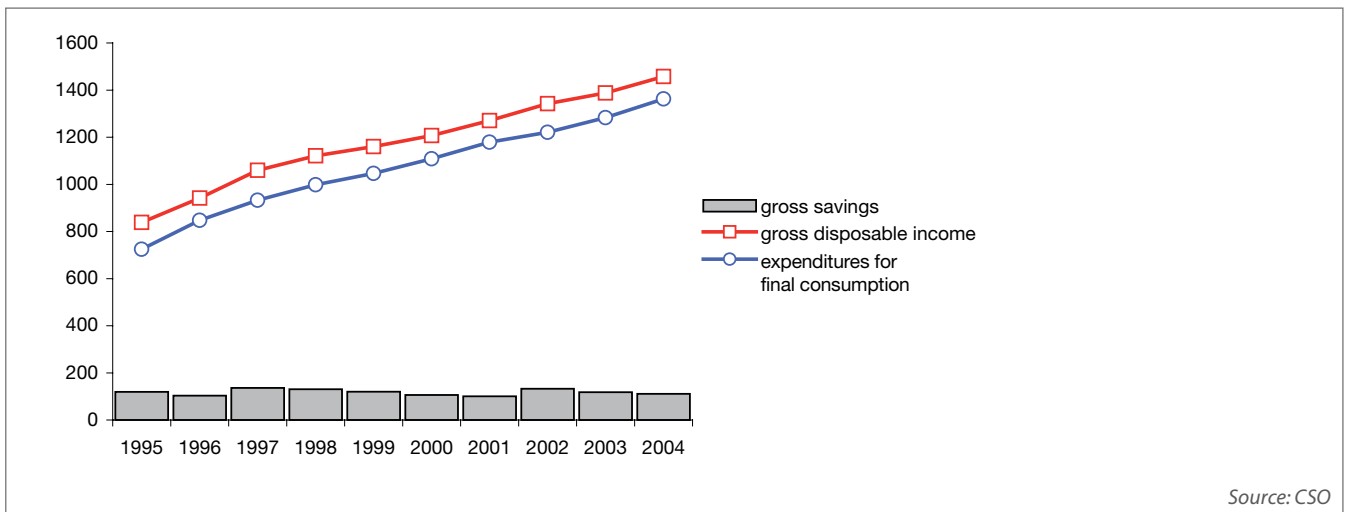


Indebtedness is not only a domain of families with children and minimal incomes (the difference between incomes and expenditures can also be caused by the fact that specific groups of inhabitants do not confess income from the grey economy so they don't lose social benefits). This is a contemporary trend that knows no social barriers.

The willingness to consume is reflected not only in indebtedness, but also in a decreased level of savings. While, in the middle of the 1990's, the Czech Republic was amongst nations with the greatest share of savings (14 % gross level of households savings in 1995), willingness to save has been constantly decreasing since then (8 % in 2004 and 6 % in 2006) and the level of savings is now below the average for EU-15. In the same period, the households' debts increased from 3 % of the GDP in 1997 to 17 % in 2006. Three quarters of bank loans are for housing; nonetheless, the official data on household indebtedness do not include loans provided by non-financial institutions, whose amount is estimated to be approximately the same as bank loans for consumption items (Večerník, 2008).

While salaries and incomes from business increase, savings do not increase (Dubská, 2005). Almost the entire increase in Gross Disposable Income goes for consumption (see Graph 4.6).

Graph 4.6: Trends in households' incomes, consumption and savings in the Czech Republic (in bil. CZK, 1995–2004)



It seems that factors defining a mass consumer society, described by the founder of American economic psychology, George Katona, are gradually becoming valid in the Czech Republic:

- Effect: not a few individuals or a narrow layer of society, but rather most families now have free purchasing power and constantly replace and increase the amount of their consumer goods.
- Purchasing power: cyclic fluctuations, inflation or deflation and the level of economic growth depend to a great degree on the consumer.
- The importance of consumer psychology: in our economy, the demand for consumption is not a function of money alone ... the willingness to buy is a reflection of consumer motivations, attitudes and expectations (Katona, 1964 cited in Večerník, 2008).

5. Food

Prior to the Velvet Revolution, the food and drinks composition was based on classical Czech cuisine - high consumption of meat and cereals (classical Czech meals such as “pork with sauerkraut and dumplings” or goulash – frequently made of beef). In addition, before 1989, there was an increase in consumption of animal products (meat and milk) and little interest in vegetables. A number of qualitative and quantitative changes occurred in food consumption after the revolution, similar to other areas. The trend of increasing demand for meat and low demand for vegetables underwent a complete turn-about after 1989. Fundamental changes occurred in nutrition habits of the Czech population, with positive effects from a medical point of view. Today, people eat more fruit, vegetables and fish, cooking is more varied and many international dishes have become popular. However, there has been an increase in the amount of imported and packaged food products, with a negative impact on the environment. About one third of households’ total environmental impact can be related to food and drink consumption (EEA, 2005). Table 5.1 shows selected environmental impacts from food and drinks production. Due to the absence of such data in the Czech Republic we present results of a European study.

Table 5.1: Direct and indirect (global) environmental pressures attributable to eating & drinking, EU 25

Product	Greenhouse gas emissions		Acidifying emissions		Ground ozone forming precursors		Material use	
	CO ₂ (t) - equivalents per capita	% from total consumption of all products	SO ₂ (kg) - equiv. per capita	% from total consump.	NMVOC (kg) – equiv. per capita	% from total consump.	(t) – equiv. per capita	% from total consump.
Products of agriculture, hunting and forestry	0,4	3,6	4,9	8,1	1,8	2,5	1,1	6,8
Fish, other fish products and incidental services	0,02	0,2	0,2	0,4	0,3	0,4	0,0	0,1
Food products, beverages and tobacco	1,0	8,8	9,7	16,2	5,3	7,6	2,0	12,3
Electrical energy, gas, steam and hot water	0,3	2,7	1,6	2,6	0,6	0,9	0,2	1,1
Wholesale and retail trade services, personal and household goods	0,1	1,2	0,7	1,2	0,9	1,2	0,1	0,9
Hotel and restaurants services	0,2	1,8	1,7	2,8	1,3	1,9	0,3	1,9
Total	2,0	18,0	18,8	31,0	10,1	15,0	3,9	23,0

Source: Moll and Watson, 2009

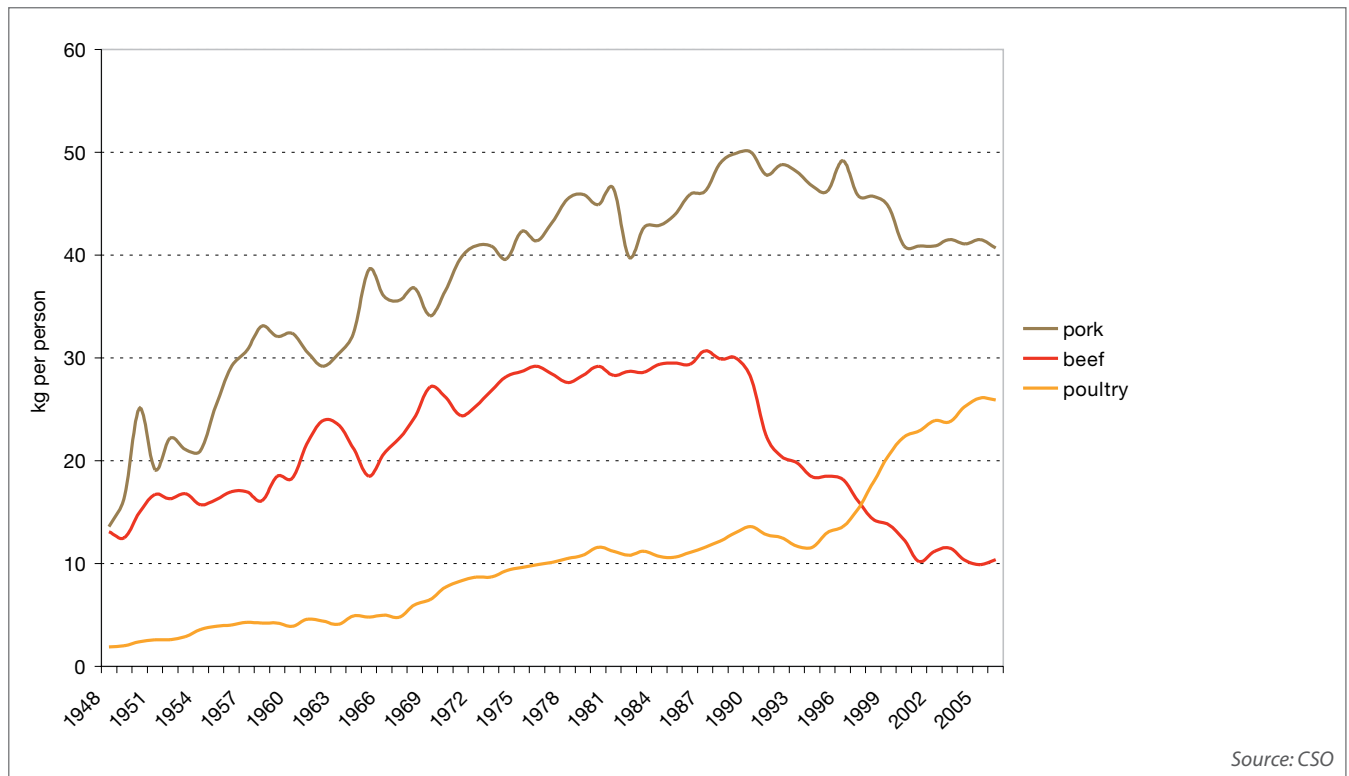
5.1 Structure of meals has improved, but there has been an increase in imported food products

Prior to 1989, the average Czech citizen ate about 90 kg of meat annually; this amount has decreased by approximately ten kilograms (see Graph 5.1). Meat production is very demanding on resources in the form of feedstuffs and energy. High intake of fats in meat also causes some serious diseases, such as cardiovascular diseases (the commonest cause of death amongst the Czech population). Consequently, the reduction in the demand for meat is a clearly positive phenomenon from both the environmental and the medical point of view.

The previously mentioned 10 % reduction in meat consumption after 1989 is related to overall changes of the economic, political and social situation in the country. The overall consumption of food products was most probably affected by economic changes, especially trends in food products and non-food services prices, the supply and availability of products in the market in relation to development of the distribution network, advertising, promotion, as well as health awareness (Štiková, 2004). The decrease in the pork and beef consumption in the 1990's was probably affected by the reduction in incomes and also the increase in prices and people began to prefer cheaper poultry (see Graph 6.1). The increase in the meat price was caused by the lack of supply, which was subsidized and planned in advance, and was thus not able to adapt to changes in consumer behaviour. The consumption of pork (traditionally highest in the Czech Republic) is stable and lies around 40 kg per person per annum, approximately 50 % of all kinds of meat (Abraham, 2004).

The meat prices increased most dramatically by almost 56.6 % in 1991 as a consequence of the removal of fixed process. VAT was introduced in 1993, causing a further increase in prices (by 20.8 %) (Abraham, 2004).

Graph 5.1: Meat consumption per person, 1948–2006

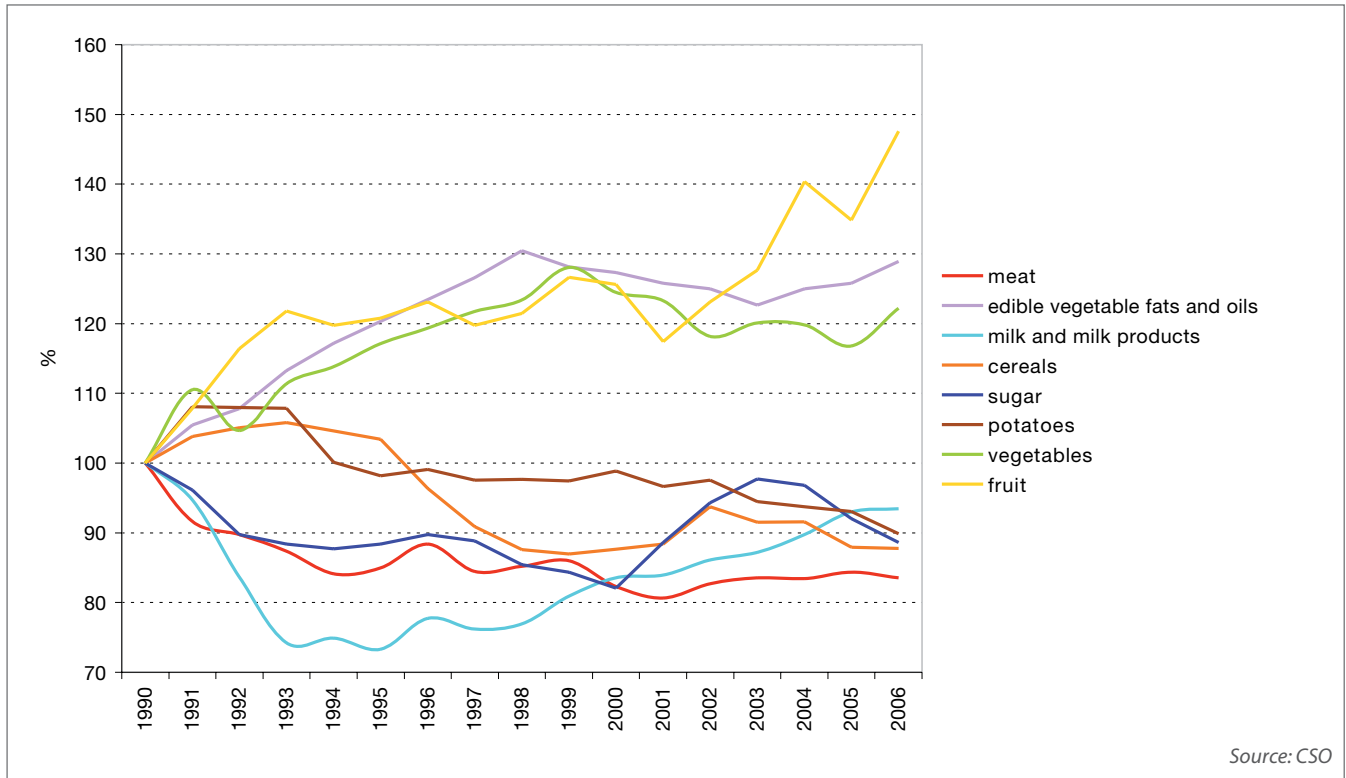


The initially “enforced” changes gradually became habits. As the supply of fruit and vegetables and their availability year-round improved, consumption of these kinds of foods also increased. Graph 5.2 depicts the trends in consumption, from which it is apparent that the increase in consumption of fruit and vegetables was the most important trend between 1990 and 2006. In this period, the consumption of vegetables increased by more than 22 % and fruit by 48 %. Consumption of edible vegetable fats increased by 29 % (see Graph 5.2). In absolute numbers, this means an increase in consumption of fruit from 60 to 88 kg per person per annum, of vegetables from 67 to 81 kg per person per annum and of edible vegetable fats from 13 to 16.5 kg per person per annum (see Graph 5.3).

In the same period, the consumption of cereals decreased by approximately 12 % from 156 to 137 kg per person per annum (see Graphs 5.2 and 5.3).

Table 5.1 presents data on material requirements for selected food products. While such complex data are not available in the Czech Republic, we use results of a Finnish study (Kotakorpi et al., 2008).

Graph 5.2: Trends in foodstuffs consumption, 1990–2006



Graph 5.3: Foodstuffs consumption per person, 1990–2006

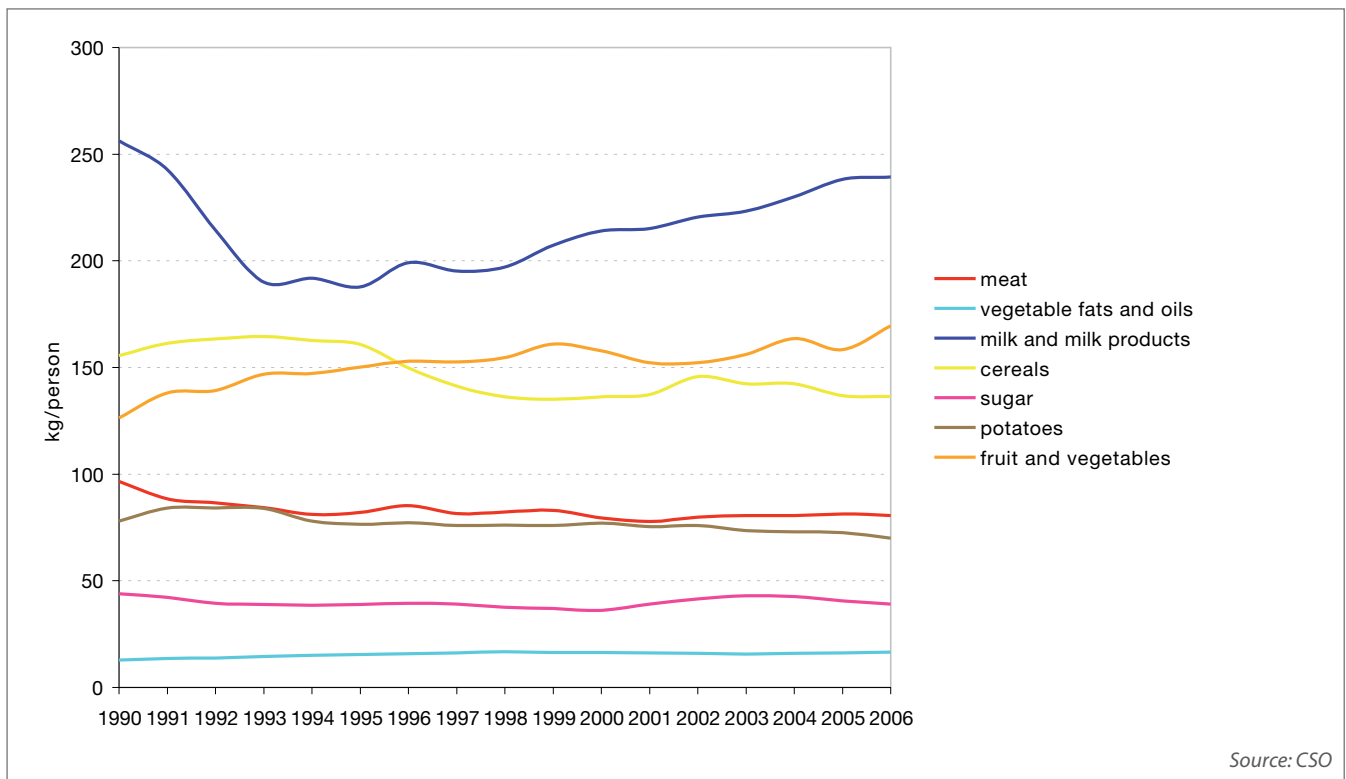


Table 5.2: Material Input of food products (kg/kg)

foodstuff category	abiotic resources	biotic	water	air	erosion	soil	Total Material Input
Milk	1,1	3,0	31,0	0,1	0,3	274,0	4,4
Butter	9,8	25,0	208,0	0,7	2,6	2329,0	37,6
Vegetable oil	8,3	20,0	168,0	0,6	2,2	1927,0	30,2
Cheese	11,0	29,0	260,0	1,1	3,0	2675,0	43,2
Beef	12,0	31,0	439,0	1,0	3,2	2839,0	45,9
Pork	8,3	10,0	240,0	1,9	2,8	2434,0	21,2
Trout	2,8	4,7	271,0	0,9	0,2	148,0	7,6
Poultry	7,0	4,6	228,0	1,5	1,2	1088,0	12,9
Eggs	5,7	4,0	141,0	1,0	1,1	942,0	10,8
Soy	1,3	1,4	157,0	0,9	0,4	310,0	3,0
Beer	1,5	0,3	280,0	0,5	0,1	75,0	1,9
Potatoes	0,3	1,7	52,0	0,0	0,1	71,0	2,0
Sugar	3,1	1,6	24,0	0,8	0,4	336,0	5,1
Wheat Bread	1,1	1,3	20,0	0,1	0,4	308,0	2,7
Mixed Bread	1,3	1,1	99,0	0,2	0,3	304,0	2,7
Barley bread	1,1	1,4	21,0	0,2	0,4	341,0	2,9
Tomatoes	8,0	1,0	793,0	4,0	0,0	36,0	9,4
Rice		1,0			1,9		2,9
Maize		2,0			1,8		3,8
Cocoa		1,0			42,9		43,9
Chocolate		5,0			14,1		19,2
Wine		1,3			3,6		4,9

Source: Kotakorpi et al., 2008

The reduction in the energy value of the menu of the Czech population is also a favourable factor; this is connected with the reduction in consumption of meat (reduction of the intake of proteins and fats primarily contribute to the reduction in energy intake)

A major portion of fruit and vegetables is imported from great distances, with a negative impact on the environment. For example, 62 % of consumption falls in this category.

Although the energy value has been reduced, it is still almost twice as great as required by the principles of healthy nutrition. According to the information from the UN Food and Agriculture Organization (FAO), the daily intake of nutrients in the Czech Republic in 2004 equalled 3400 kcal per person (the recommended daily intake is 2000 kcal per person). All the basic nutritional factors (proteins, fats and carbohydrates) substantially exceed the recommended nutritional intakes (Štiková, 2004).

5.2 Boom in organic food consumption

A turnover occurred in organic food consumption in 2007: in 2007, Czechs spent almost CZK 1.3 billion for organic food, corresponding to CZK 530 million more than in the previous year. Organic food market has remarkably increased by 70 % within one year (by 49 % in 2006).

Although organic product in total food and beverages consumption is still minimal (0.55 %), organic food consumption is rapidly increasing and an annual increase of 70 % is expected.

The increasing popularity of organic food amongst Czech consumers is good news, indicating that consumers are changing their approach towards consumption. People are richer and more discriminating, demand is increasing for new and available luxuries. An integral part of this trend is increased concern for health, a healthy life style and good quality foodstuffs. Organic food is no longer a marginal topic even in the Czech Republic and is becoming part of the main stream. Experts point out that in the future neither retailers nor producers will be capable to develop without organic food in their portfolio. For farmers, ecological agriculture provides an opportunity to gain a position in the domestic market with very favourable prices (Bioinstitut, 2006).

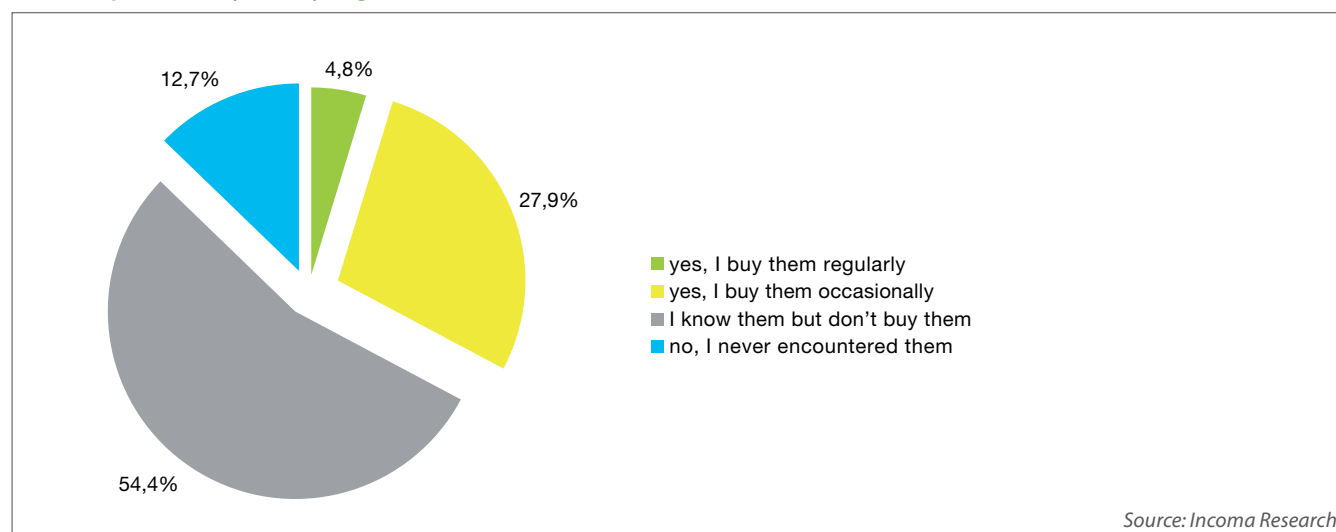
The number of organic products available on the market increases every year; the turnover in 2007 was caused by the fact that some retailers introduced a relatively broad range of organic food. However, the number of new organic food products on the Czech market remains small compared with other countries (Václavík, 2008).

There is still a lack of domestic organic products on the market and the amount of imported organic food is constantly increasing, (from 56 to 62 % between 2006 and 2007). In addition to the countries of the European Union, the Czech market also contains organic food from Japan, China, Canada, India, Turkey, Paraguay, Egypt, U.S.A., South Africa, Mexico and Peru.

Buying organic products is associated with alternative life styles, including vegetarianism. According to the *StemMark Agency*, about 2 % of the population consistently eat vegetarian meals, i.e. about 20 000 persons (Stránský, 2006).

The fraction of organic food in consumption is currently minimal, but almost 90 % of households have encountered organic food at least once. Approximately one third of households purchases organic food occasionally and only 5 % buy them regularly. The main barrier is the higher price (it should be recalled that 45 % of Czech consumers prefer price). Interest in organic food depends substantially on the age and education of the customer. Thus, the main consumers are young people and people with a university education, while a large fraction of pensioners have never heard of organic food. Households with children also declare an above-average consumption of organic food.

Graph 5.4: Do you buy organic food? (2008)



6. Energy and housing

An important characteristic of energy consumption in households lies in its inconspicuousness. Practically everything from light and heat to running water depends on supplies of energy; this is difficult to bear constantly in mind. So, it can easily happen that some energy is wasted in the household because of an unnecessarily turned-on appliance, which no one uses. The energy consumption is mainly affected by the household floorage, the number of members and demographic factors.

The increase in the number of single-member households is one of the most important trends with negative environmental impacts. In a single-member household, only one person uses basic appliances, such as refrigerators, freezers, lighting, heating or objects of long-term use. So, a single-member household has a greater environmental impact compared to household with more members. Similarly, the increase in housing area per person entails greater demands on heating. Table 6.1 shows environmental impacts of housing and infrastructure at the European level.

Table 6.1: Direct and indirect (global) environmental pressures attributable to housing & infrastructures, EU 25

Product	Greenhouse gas emissions		Acidifying emissions		Ground ozone forming precursors		Material use	
	CO ₂ (t) - equivalents per capita	% from total consumption of all products	SO ₂ (kg) - equiv. per capita	% from total consump.	NMVO ¹ (kg) - equiv. per capita	% from total consump.	(t) - per capita	% from total consump.
Electrical energy, gas, steam and hot water	0,4	4,0	2,4	4,0	1,0	1,4	0,3	1,6
Construction work	0,8	7,3	3,9	6,6	5,5	7,9	4,3	26,2
Real estate, renting and business services	0,2	2,1	1,2	2,0	1,3	1,8	0,6	3,6
Private housing heating and others	1,0	9,2	1,8	3,0	7,1	10,2		0,0
Total	2,5	23,0	9,3	16,0	14,7	21,0	5,2	31,0

¹ Non-Methane Volatile Organic Compounds (NMVOC)

Source: Moll and Watson, 2009

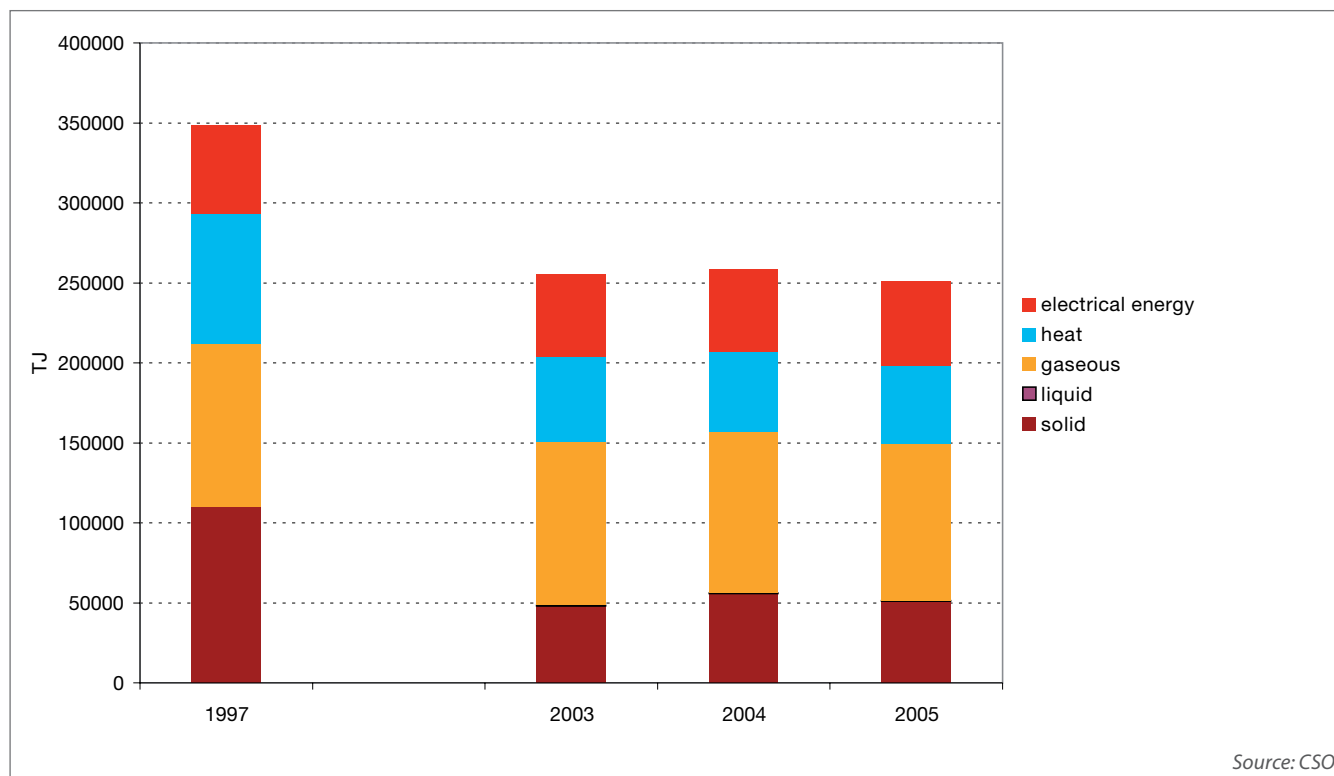
6.1 Households require overall less energy, but the consumption of electrical energy is increasing

Primary households' energy consumption corresponds to roughly one third of total energy consumption. Compared to the 1990's, Czech households consume less energy. In connection with the increase in prices, total energy consumption in households decreased by 28 % in the period from 1997 to 2005 (solid fuels by more than half, heat by 40 %, electrical energy and gas by 4 and 5 %, resp.). Consumption of all kinds of energy except for electrical energy is decreasing. The consumption of solid fuels decreased the most from 1997 - 2005; in particular the coal consumption decreased by more than one half, not only because of the increase in price, but also in connection with extensive changes in heating systems. There was a massive transition from coal to gas in the 1990's, and conversion to gas is still on-going, together with conversion to electrical heating. Nonetheless, about one fifth of Czech households keep coal heating. Especially rural households frequently burn wastes together with coal, in an attempt to save money. This often results in very poor air quality at some rural areas in the winter months.

Households also require a decreasing amount of heat, in connection with extensive insulation of buildings. Recently there have been many insulation projects of larger buildings with a greater number of inhabitants (renovation of older concrete panel apartment blocks). However, it should be pointed out here that consumption of heat could be reduced even further. Czechs are very fond of hot apartments and offices in the winter; the temperature is often well above 20°C and rooms are frequently over-heated.

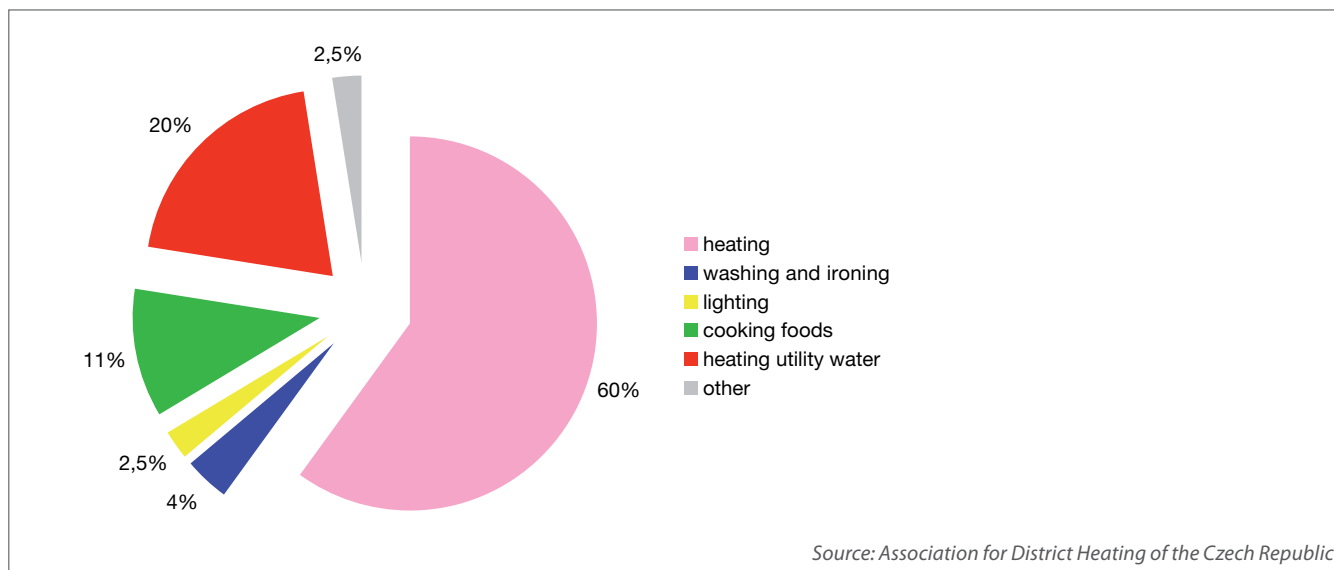
The consumption of electrical energy has been slightly increasing in recent years (by 1.5 % between 2003 - 2005). A further increase in consumption of electrical energy can be expected in connection with the increase in the number of various electrical appliances in households, such as microwave ovens, dishwashers, TV sets and computers per household (see Graph 6.1).

Graph 6.1: Households' energy consumption in the Czech Republic



The structure of energy consumption in the Czech Republic is comparable with other European countries. The greatest amount of energy, approximately 60 %, is consumed by the average Czech household for heating. The second largest item in energy consumption is water heating (20 %), followed by cooking (11 %), washing and ironing (4 %), lighting (2.5 %) and other (2.5 %) (see Graph 6.2).

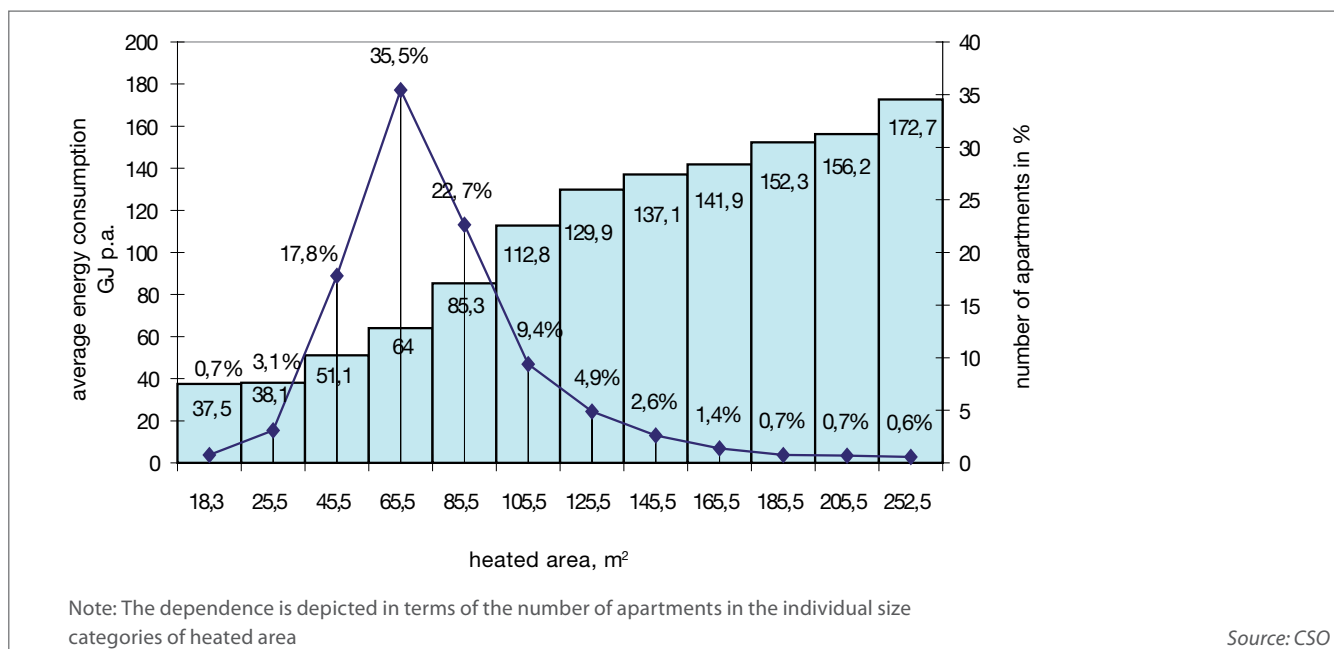
Graph 6.2: Structure of energy consumption in Czech households, 2007



6.2 One third of households depends on remote central heating, one third still uses solid fuels

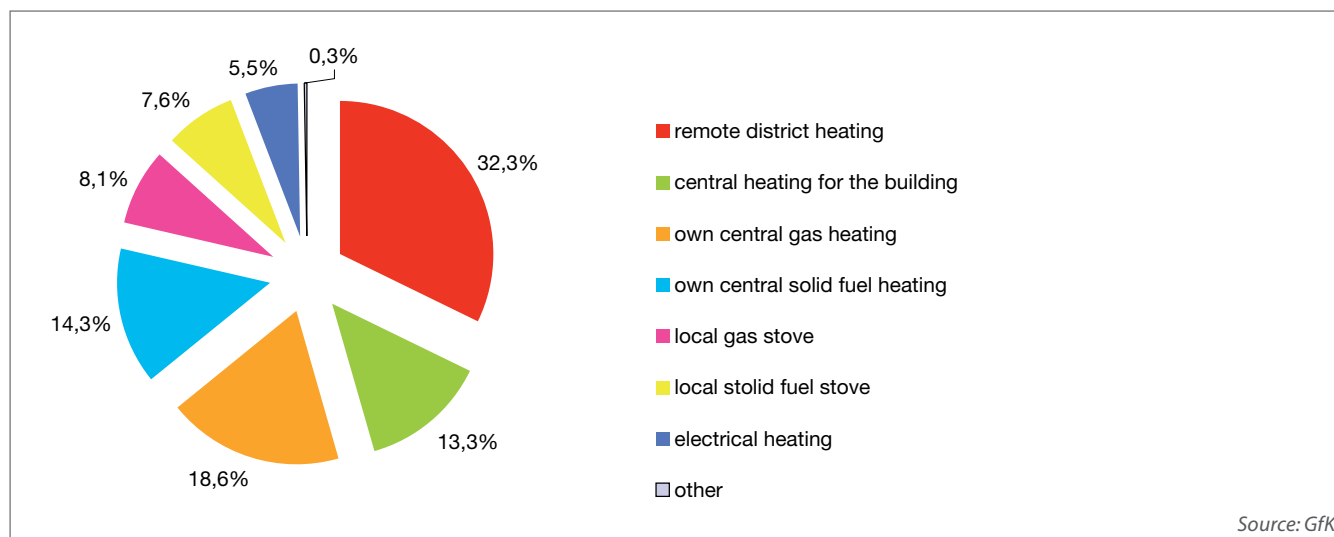
The average Czech household consumes approximately 70 GJ p.a. Graph 6.3 depicts the dependence of the average energy consumption on the size of the heated area.

Graph 6.3: The dependence of the average annual energy consumption on the floorage of the heated area, 2003



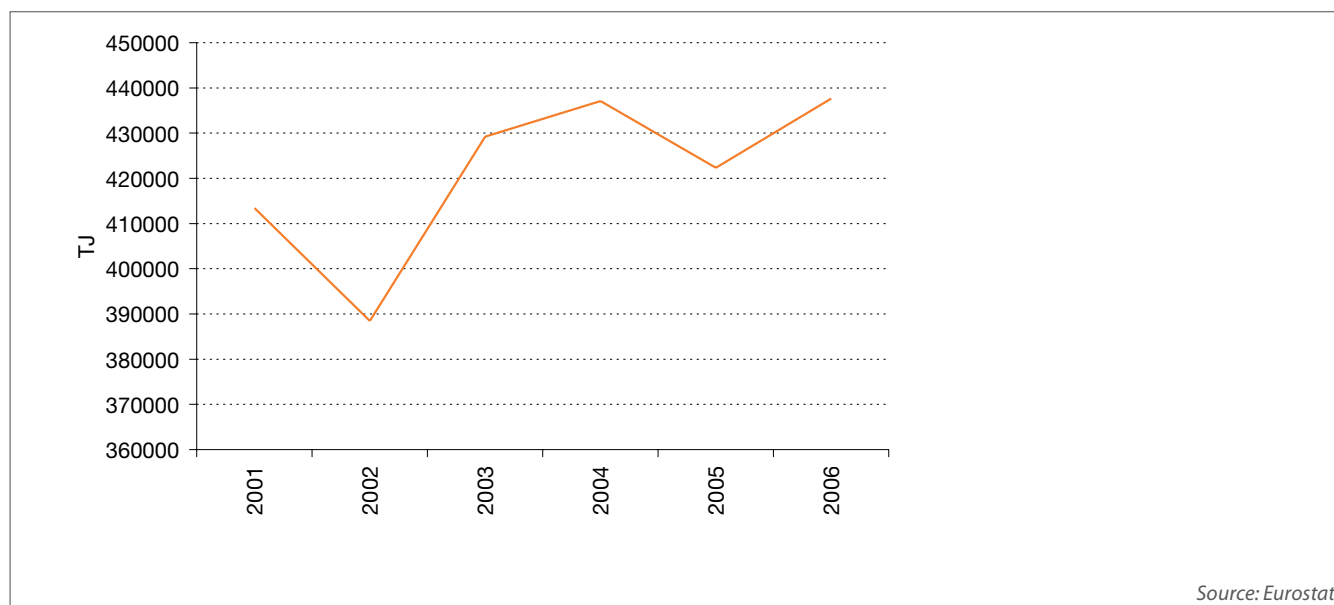
About one third of Czech households is connected to remote district heating, 13 % of households employ central heating for the entire building and about one fifth have gas-fired central heating (family homes), while 8 % have gas stoves. Over 14 % of households have solid fuel central heating, almost 8 % have solid-fuel stoves and 5.5 % of Czech households have electric heating (see Graph 6.4).

Graph 6.4: Heating systems in Czech households, 2008



While households' energy consumption has increased slightly in the past few years, there is a significant increase in consumption when energy consumption of related services is included. Graph 6.5 depicts the households' energy consumption and service sector energy consumption. Indirect households' energy consumption is probably increasing. However, no one has attempted to calculate indirect households' energy consumption in the Czech Republic. According to a Dutch study (Vringer and Blok, 1995) examining direct and indirect energy demands of households in the European Union, more than half of the impacts (54 %) from 240 GJ were indirect in 1990. It is not a simple matter to estimate the indirect energy requirements of Czech households. On one hand, Czech energy consumption is at a level of 62 % of the average for the OECD countries, which might indicate that indirect energy requirements could be lower. On the other hand, the Czech economy is very energy-intensive, which could increase indirect energy demands.

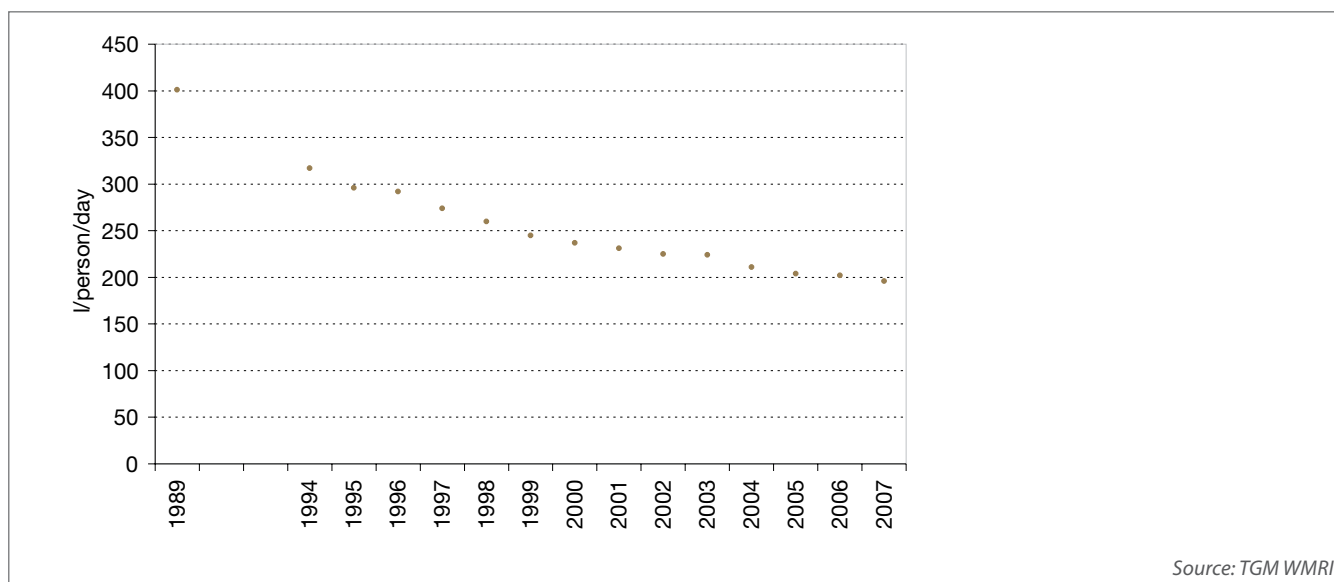
Graph 6.5 Energy consumption in households and service sector



6.3 Water consumption

Water consumption is one of the few areas where consumption by Czech households has decreased. Over the past 20 years, the daily consumption per person decreased from 150 to just less than 100 litres. Less water is used, not only because of water-saving appliances, but also because of the sudden increase in prices in the 1990's. Similar trends have occurred in the neighbouring post-Communist States (Poland and Slovakia), while consumption is higher in the Western Europe. As households consume less water, up to one fifth of drinking water is lost in the distribution mains, because the water mains network is obsolete, especially in large cities (MA, ME, 2008).

Graph 6.6: Total water consumption per person, 1989–2007



7. Items of Long-term Use and Industrial Products

7.1 Increasing number of objects of long-term use in households

Until recently, it was not common for an average Czech household to own a computer or microwave oven. Similarly, there used to be only one television set per household, and not several, as it is common today. There is an ever-increasing number of items of long-term use in Czech households. These are mostly electronic appliances, connected with the increase of electric energy consumption. It must be admitted that Czech households still have fewer items than those in Western Europe. While practically every household in Germany has a dishwasher, only 13 % of Czech households had such an appliance during the last survey in 2003. Similarly, only a third of households own a computer. As the life style in the Czech Republic approaches that in more developed neighbouring countries, it is expected that the number of items of long-term use in households will increase. These facts are apparent from Graph 7.1. Not only has the number of items of long-term use in households increased over a long period, but also new kinds of products have been increasing in number recently, (however, they are not all included in the statistics).

Graph 7.1: Number of appliances of long-term use in Czech households, 1990–2005

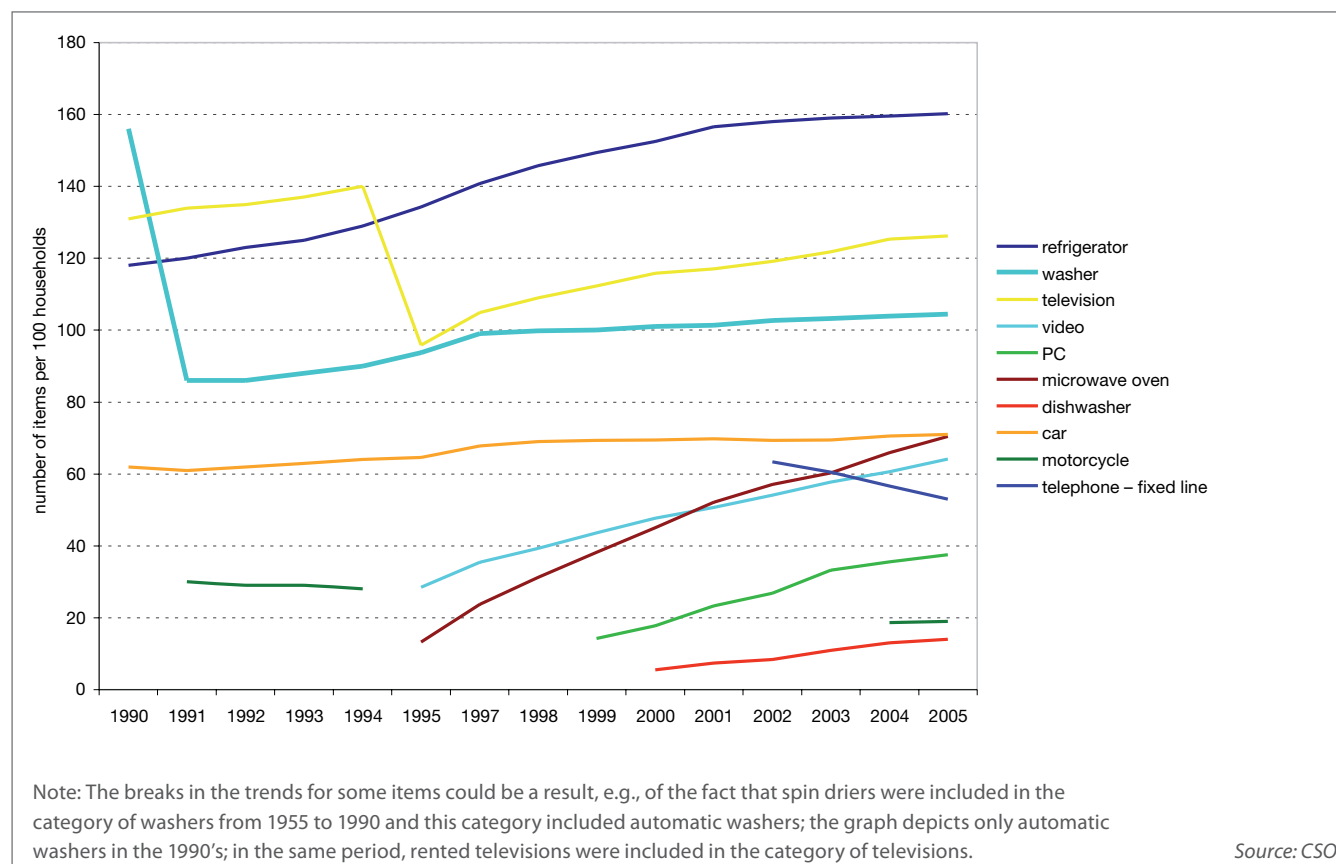


Table 7.1 Material input of household goods and appliances (kg/kg)

Product	abiotic resources	biotic	water	air
Bed sheet cotton	6,0	1,2	2 841,0	2,6
Curtains	15,0	3,2	7 658,0	6,7
Sofa for 3 persons (transport within Europe)	377,0	36,6	54 478,0	151,3
Armchair (transport within Europe)	266,0	155,1	9 355,0	75,2
Kitchen table and four chairs (solid pine wood, transport within Europe)	86,0	203,7	1 128,0	27,0
Combined fridge and freezer	2 159,0		22 255,0	222,2
Dishwasher	768,0		9 845,0	70,9
Clothes washer	1 036,0		19 386,0	179,2
Microwave oven	367,0		4 621,0	42,6
Vacuum cleaner	71,0		1 669,0	13,3
Detergents	3,0		24,0	1,3
Aluminium foil	37,0		1 048,0	10,9
Candle in a aluminium cup	3,0		111,0	2,0

Source: Kotakorpi et al., 2008

The number of refrigerators increased between 1990 and 2005 from 118 to 160 per 100 households, i.e. by 36 %. Similarly, there is more than one automatic washer per household: over the decade from 1995 to 2005, the number of washing machines increased from 94 to 105 per 100 households (increase by 12 %). The number of televisions increased in the same period from 96 to 126 per household (increase by 32 %). After the revolution, videos, computers, dishwashers and mobile telephones appeared extensively. While in 1990, the statistics office did not monitor the number of these appliances in households, in 1995 they recorded 29 videos per 100 households and this number increased to 62 in 2005 (increase by one quarter). Similar figures were obtained for microwave ovens; there were 13 per 100 households in 1995 and 70 in 2005 (increase by 430 %!), and also dishwashers; statistic data in 1995 mentioned only 0.5 dishwashers per 10 households, while this value reached 14 in 2005. Ownership of personal computers increased from 14 computers per 100 household in 1999 to 38 in 2005 (increase by 165 %). A further increase is expected, especially in connection with the ever-growing use of the Internet. At the present time, there are 145 mobile phones per 100 households, while there were only 40 in 2000 (increase by 265 %!). On the other hand, there has been a decrease in the number of telephone fixed lines: in 2005, there were only 53 fixed lines per 100 households (compared to 70 fixed lines per 100 households in 2000). Table 7.1 presents material intensity of selected household goods and appliances from the Finnish study Kotakorpi et al., 2008.

7.2 Czechs do not follow fashion much, but consumption of clothing is increasing

Although Czechs are not foremost in Europe in following the fashion, consumption of clothing has increased substantially in recent years (see Graph 7.2). Brand-name goods are overpriced in the Czech Republic and the choice is smaller compared to the western neighbours. Fashion trends and advertising influence mainly the younger generation. There is an increasing number of fashion boutiques and they are most frequently located in shopping centres (more in Chapter 10.2 Hypermarket boom). In contrast to the past decade, when people tended to prefer cheaper kinds of clothing and footwear, they are increasingly interested in brand-name goods. Table 7.2 shows material intensity of clothing. Again we used results from a Finnish study (Kotakorpi et al., 2008) as there are no data in the Czech Republic.

Graph 7.2: Consumption of clothing and footwear, 1990–2005

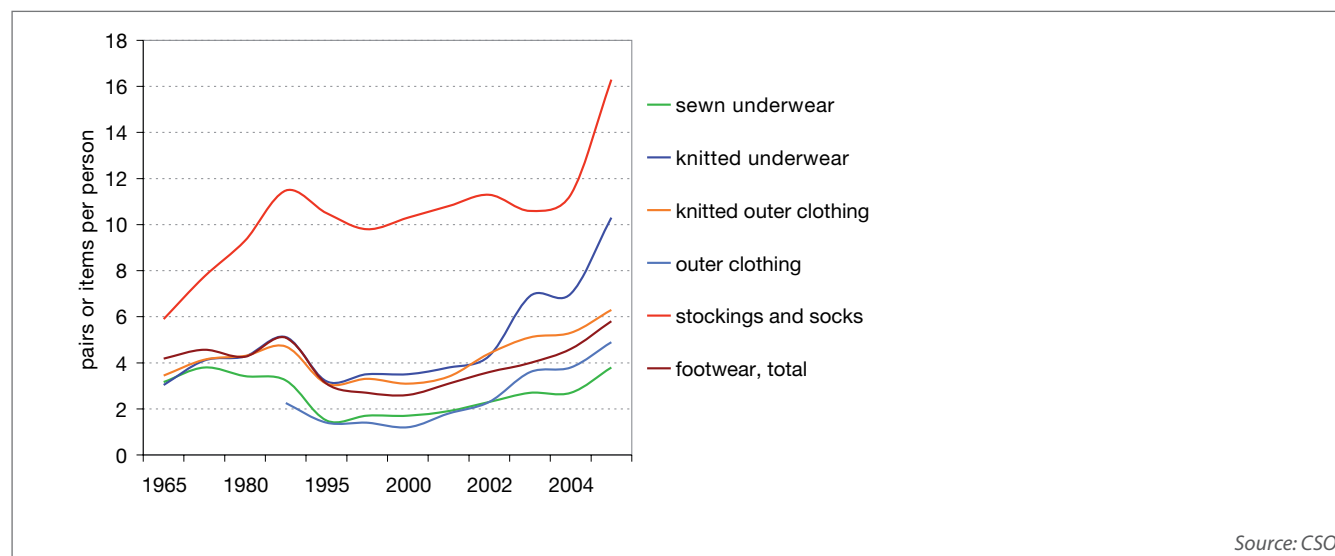


Table 7.2: Material input of clothing (kg/kg)

Product	abiotic resources	biotic	water	air
Jeans	5,0	1,6	1 200,0	0,2
Other trousers	5,0	1,1	2 718,0	2,3
Skirt	5,0	1,1	2 718,0	2,3
T-shirt	2,0	1,2	1 480,0	12,5
Woollen skirt	31,0	95,0	624,0	5,4
Woollen jacket	80,0	242,4	1 809,0	39,3
Outdoor jacket	7,0		240,0	3,8
Winter outdoor jacket	11,0		707,0	6,7
Leather shoes	9,0	22,4	432,0	2,4
Running shoes	6,0	0,1	425,0	3,6
Other shoes	7,0	11,2	428,0	3,0
Woollen accessories (caps, gloves etc.)	8,0	25,7	169,0	1,5
Underwear	0,0	0,1	341,0	0,1
Socks	0,0	0,1	341,0	0,1
Leather belt	5,0	6,3	223,0	1,2
Nightshirt	3,0	0,4	906,0	1,4
Shorts	3,0	0,6	1 359,0	1,1
Tie	1,0	0,1	227,0	0,4
Evening dress	5,0	1,1	2 718,0	2,3
Suit	5,0	1,1	2 718,0	2,3

Source: Kotakorpi et al., 2008

8. Motorism

After the Velvet Revolution cars began increasing rapidly in number and this increase has not stopped to the present days (see Graph 8.1). Number of vehicles has almost doubled since 1990 (88 % increase between 1990 and 2007, from 22 to 41 cars per 100 persons). Taking into account that there are about 8 million people living in the Czech Republic between the age of 18 and 80 years (potential drivers), it means that every second adult in the Czech Republic who is capable of driving owns a car. This number will probably increase. Transport is a sector with significant environmental impacts and Table 8.1 shows its main impacts regarding a study at the European scale.

Table 8.1: Direct and indirect (global) environmental pressures attributable to mobility, EU 25

Product	Greenhouse gas emissions		Acidifying emissions		Ground ozone forming precursors		Material use	
	CO ₂ (t) - equivalents per capita	% from total consumption of all products	SO ₂ (kg) - equiv. per capita	% from total consump.	NMVO ¹ (kg) - equiv. per capita	% from total consump.	(t) - per capita	% from total consump.
Coke, refined petroleum products and nuclear fuel	0,3	2,3	1,4	2,3	1,1	1,6	0,9	5,5
Transport equipment	0,4	4,0	2,0	3,3	5,5	8,0	0,6	3,5
Transport, storage and communication services	0,5	4,4	2,9	4,8	3,5	5,1	0,4	2,2
Private households transport	1,0	8,7	3,9	6,6	12,8	18,5		0,0
Total	1,9	18,0	9,3	15,0	22,1	32,0	1,1	7,0

1 Non-Methane Volatile Organic Compounds (NMVOC)

Source: Moll and Watson, 2009

In 1996, more than half of households owned a car (56 %); seven years later in 2003, this was 59 %. In 2003, more than half of Czech households (53 %) owned one car and 5 % of households owned two cars (Table 8.2). At the present time, the price of cars in the Czech Republic is the lowest in the past ten years and it is expected that households will be able to purchase more vehicles. The number of cars will probably increase also in rural areas, where the number of public transportation lines is decreasing.

Table 8.2: Car ownership in Czech households (%)

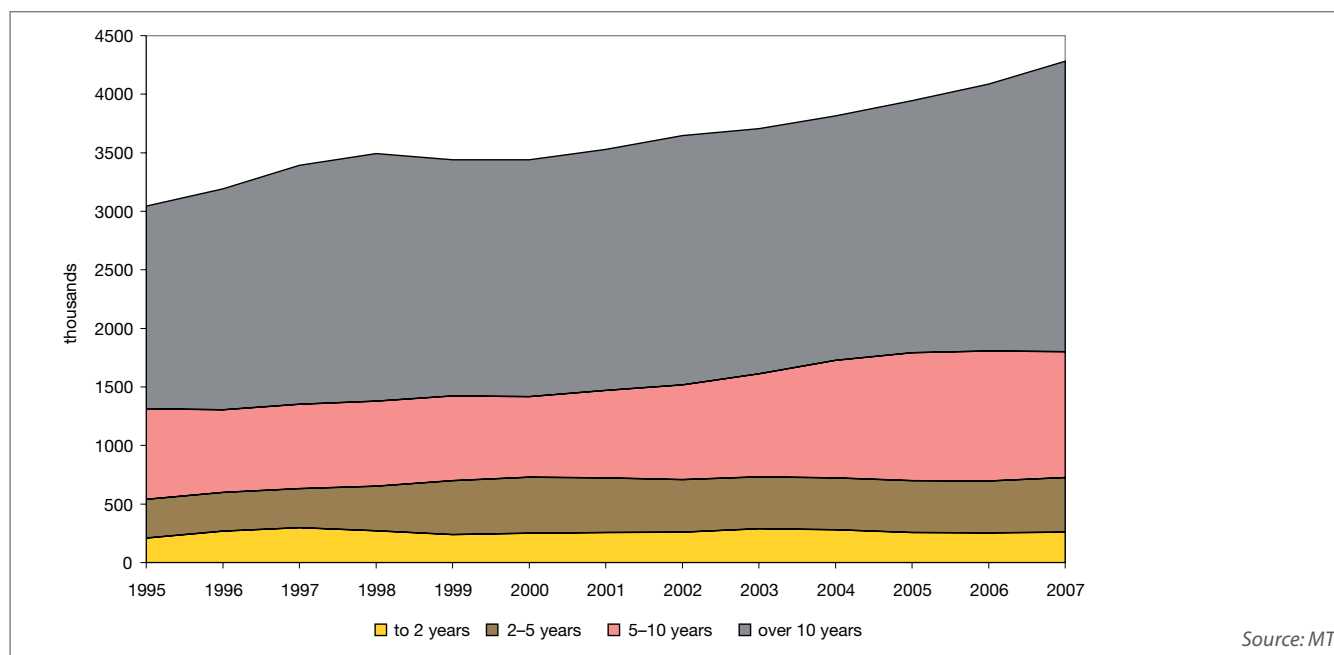
	1996	2003
no car	46	41
one car	50	53
two cars	4	5
3 or more cars	0	1

Source: CSO

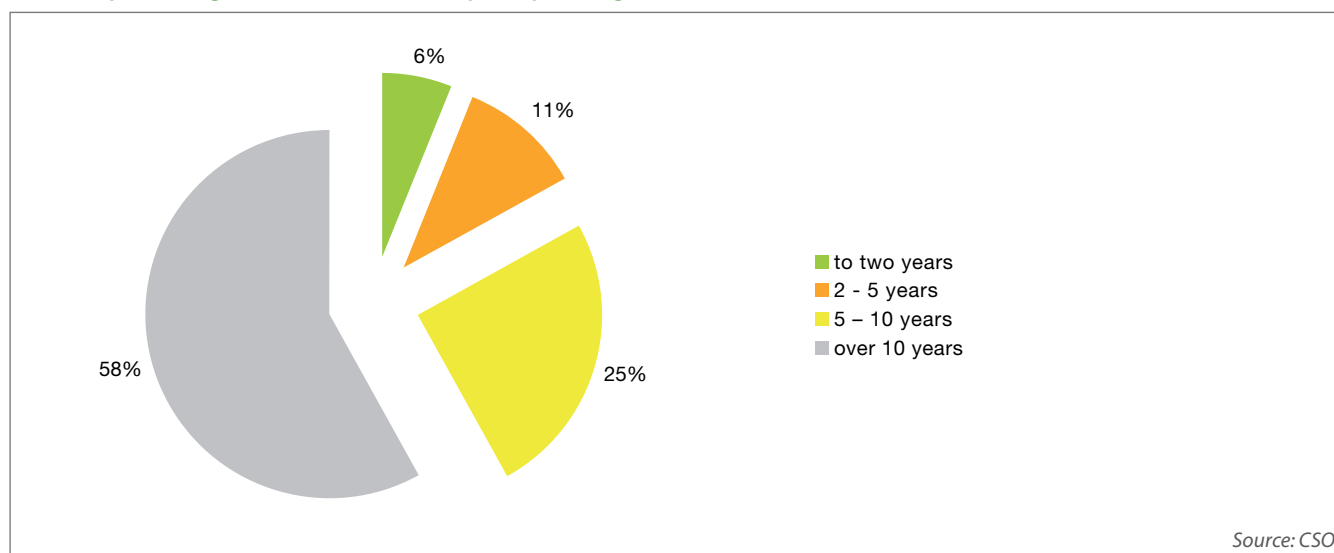
The age structure of car pool has not changed much in the past 10 years. Vehicles over 10 years of age (58 %) still a predominate, one quarter of cars was 5 – 10 years old, 11 % 2 - 5 years and 6 % of cars were less than two years old in 2007 (see Graph 8.2). As the prices of cars decrease, there is an increase in the number of more powerful cars and a decrease in less powerful vehicles, which have lower fuel consumption and are less detrimental for the environment. The number of cars with engines larger than 1400 cm³ increased by 73 % between 2000 and 2007 and the number of cars with engines smaller than 1400 cm³ decreased by 1 % in the same period.

Czech citizens most frequently purchase vehicles with large luggage compartments. At the present time, one third of Czech vehicles are of the station wagon type (GE Money, 2008).

Graph 8.1: Number of passenger vehicles registered in the Czech Republic, 1995–2007



Graph 8.2: Age structure of the car pool, passenger vehicles, 2007



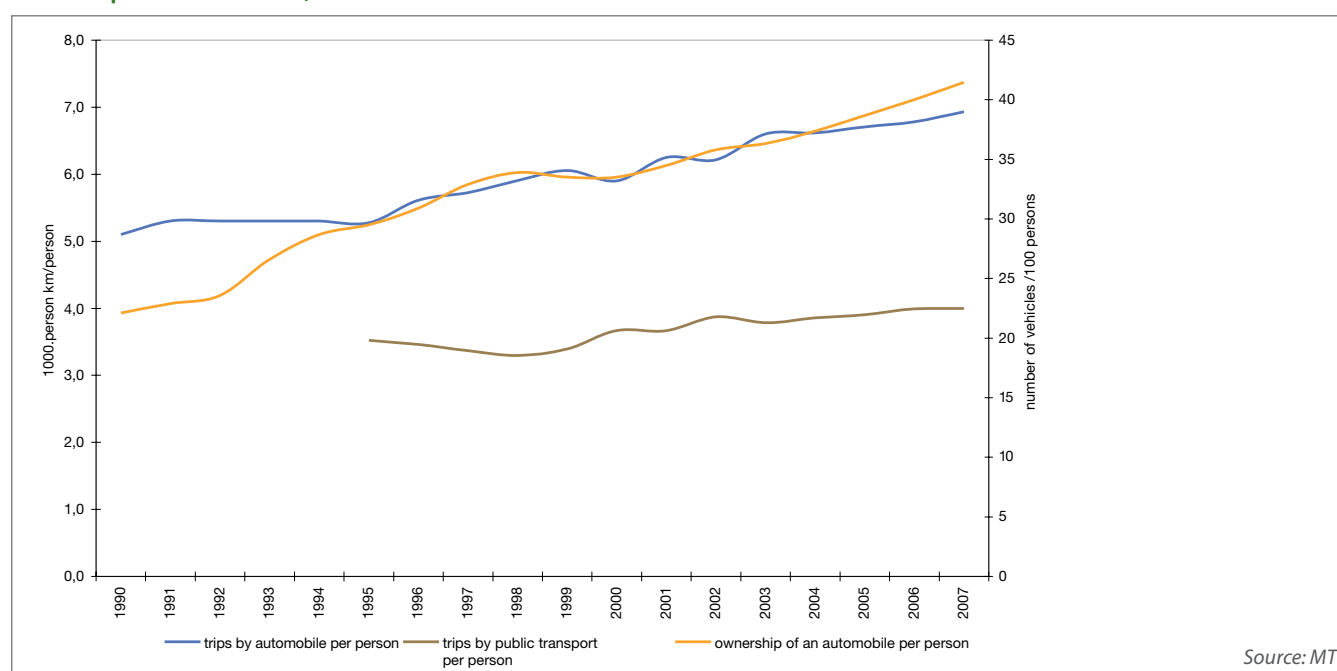
8.1 Number of trips made by cars is increasing more than trips by public transportation

Czechs are increasingly using cars rather than public transport. Since 1990, the number of kilometres travelled per person has increased by more than one third (36 %), while the number of trips by public transport has remained constant (see Graph 8.3). The ever-increasing use of cars is connected with the change in shopping and free time habits, with suburbanization and, last but not least, with the abolishment of some public transport lines in rural areas.

The increase in personal transport is connected, amongst other things, with the increase in the number of shopping centres outside of residential areas, which encourages a further increase in vehicle ownership. As demonstrated by recent surveys, cars are becoming the most frequent means of transport used for shopping: 60 % of Czechs use cars for food shopping (Incoma, 2008a).

Cars are also favoured means of transport for holidays and trips; 80 % of Czechs use vehicles for domestic vacations and 40 % for trips abroad. Air transport is also playing an increasingly important role because of low ticket prices. In addition to cars, buses are the second most popular means of transport for domestic vacations. Environmentally friendly railway transport is used very little in the Czech Republic. Only 12 percent of Czechs use rail transport for their domestic vacations and less than 5 % travel by train on holidays abroad (GE Money, 2008).

Graph 8.3: Motorism, 1990–2006



9. Driving Forces for Consumer Behaviour

9.1 Material and post-material values

The society values provide an overall picture and affect the human behaviour, the magnitude of demands or consumption patterns. The values are determined by the social, cultural and civilization climate. They are directly connected with what people consider being their legitimate needs and what they decide to devote their interest, money and efforts. Values recognized by society are an important factor affecting behaviour patterns. Post-material values are often mentioned in this regard. Post-material values include for example the importance of a healthy environment and nature for its inherent values. Sustainable development cannot be achieved unless people recognize the fundamental importance of maintenance of natural resources, vital planetary systems and protection of biological diversity. Post-material values may, in addition to protection of the environment, also encompass interest and participation in public events or a new feeling for spiritual values. It should be noted that in general, post-materialism does not need to be directly connected with sustainable development. For example, post-materialists in the Czech Republic are more tolerant of genetically modified organisms, which is a subject that is highly problematic and ambiguous (Soukup, 2002).

The theory of post-materialism or postmodernism – talks about changes in society in the sense of abandoning emphasis on material sufficiency and economic prosperity (material values) and putting greater emphasis on values such as human solidarity, individual self-realization and the quality of life (post-material values). Its author, the American sociologist Ronald Inglehart, first formulated this definition based on empirical data in 1977. He designated the change itself as a quiet revolution, because it is occurring without hullabaloo, gradually and primarily across the generations.

The problem arising from Inglehart's theory is the fact that, if a particular country doesn't achieve sufficient level of prosperity, the post-material change in people's values does not occur.

In Western Europe, people have lived in conditions of high material security for quite a long time. Especially the younger generation is experiencing economic security (they have not experienced a war or an economic crisis). It could be assumed that their basic needs are satisfied and that people should turn to higher values. The transition is actually occurring.

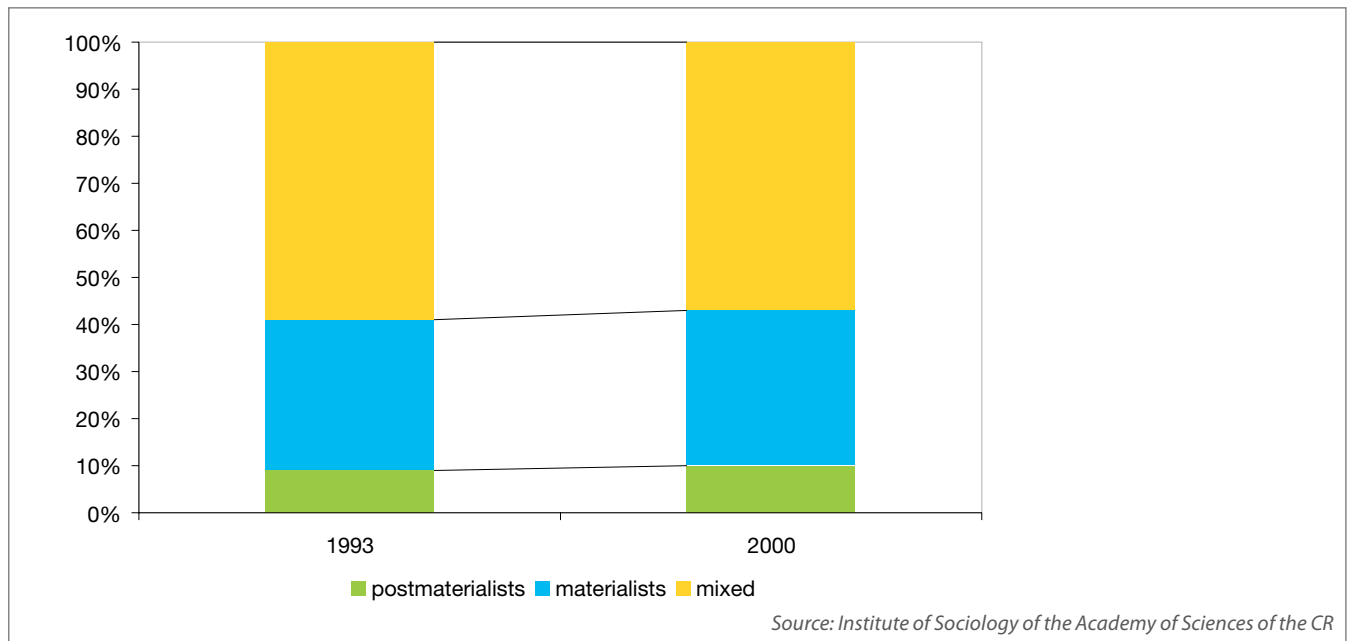
From the standpoint of post-material values, the population can be divided into three groups – materialists, post-materialists and mixed.

Post-materialists are more concerned about the seriousness of the ecological crisis and share less the belief in the panacea of the economic growth. They share the opinion that it is necessary to harmonize the economy and the environment. In the framework of the population, they place greater emphasis on the activities of individual people. They are also more often willing to limit themselves in order to improve the environment (pay higher prices, taxes or reduce their standard of living) (Soukup, 2002).

In 1993 the fraction of post-materialists equalled 9 % in the Czech Republic and in 2000 it was 10 %. In 1993, 32 % of the population could be classified as materialists and this fraction increased by one percent by 2000; the fraction of people with mixed attitudes and characteristic equalled 59 % in 1993 and 57 % in 2000 (Graph 9.1) More recent data is not available. As the population ages in the Czech Republic, there is a decrease in the fraction of post-materialists, although shifts are also apparent in the mixed category. 20 % of people in the youngest generation (18 – 29 years of age) can be classified as post-materialists, while the smallest number of post-materialists (only 5 %) is amongst people more than sixty years. Post-materialism is also more common amongst people with higher education. While there is almost the same number of post-materialists as materialists amongst people with university education (18 % vs. 20 %), there are almost five times as many materialists as post-materialists amongst those with elementary education (43 % vs. 9 %) (Soukup, 2002).

Almost one fifth of post-materialists stated that they always or often reduce travel by car for environmental reasons. Only 11 % of materialists reduce travel by car for this reason. Post-materialists are frequently members of environmental groups (6 %, only 2 % of materialists are members) and post-materialists more frequently sign petitions relating some environmental issue (27 %, only 11 % of materialists). 11 % of post-materialists and 8 % of materialists donated money to promote environmental organizations. No substantial difference was observed between the behaviour of post-materialists and materialists in other monitored environmental activities (waste separation, participation in demonstrations, etc.) (Soukup, 2002).

Graph 9.1: Post-materialists in the Czech Republic, 1993 and 2000



The public considers that genetic modification of crops is not very dangerous for the environment compared to other dangers such as industrial air pollution, pollution of watercourses or global climate change. 43 % of respondents consider genetic modifications to be extraordinarily or very dangerous. For comparison, three quarters of the population considers global warming to be very dangerous. Post-materialists consider genetic manipulation of foodstuffs to be even less dangerous than the rest of the population (Soukup, 2002).

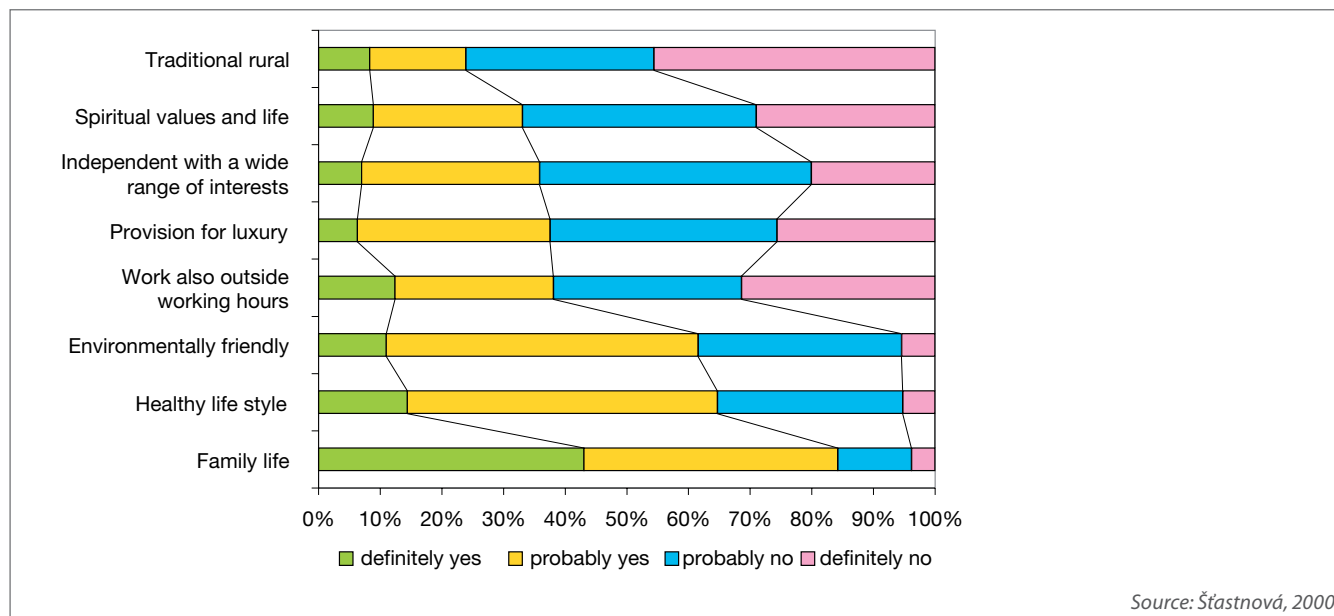
9.2 Life style

Consumption patterns are one of the characteristics of life style like the means of spending free time or the manner of managing income. Life style consists of a number of elements, e.g. work, income, education, standard of living, social-economic position, place of residence, social contacts and especially the values that people consider to be important. The last survey monitoring life style in the CR was performed in 1999 (Šťastnová, 2000).

Life with the family and for the family is one of the commonest life styles in the Czech Republic. In the survey in 1999 (Šťastnová, 2000), a substantial portion of those questioned favoured a healthy life style and environmentally friendly life style. The least common life style was that oriented towards a rural way of life (Graph 9.2) (Šťastnová, 2000).

Substantial share of interviewees identified with an environmentally sound life style. The fact could indicate the potential to support a transition to more sustainable patterns of consumption in the Czech society. It is, however, not clear to what degree respondents, actually act in an environmentally sound manner. In this respect, an important factor is the amount of truthful information individuals receive regarding the sustainable consumption, energy use, transportation, etc. If sufficient information are available along with possibilities for free choice, an environmentally sound life style will be easier and thus more widespread (at the present time, this requires a more active approach to this issue, requiring time and energy for implementation). There is low permeation between individual layers of society and social contacts are greatly affected by social position (Šťastnová, 2000).

Graph: 9.2: Life styles, 1999



9.3 Advertising

Advertising and marketing directly affect our knowledge and perception of a wide range of available goods and services. In the last few decades their role has become incredibly important through various means of communication, including the Internet, commercial breaks in television programs and in films.

It should be realized that regarding the advertisement definition, the knowledge and perceptions gained do not need to be objective. An advertisement is usually paid and sometimes even misleading promotion of a product, service, company or idea from a recognizable sponsor. Very frequently it artificially creates a need. The strategy of advertising entails good knowledge of the target group: its interests, concerns and life style. Advertisements commonly affect behaviour by creating the feeling that purchasing of a certain product or service will make us happier, will improve our position in society, our appearance or enable us to avoid risks we haven't been aware of before. Majority of Czechs buy things impulsively, and thus advertising campaigns are very frequently successful. Especially young people frequently are being addressed by advertisements creating an illusion that purchasing certain products makes young people free, exceptional, unique and "in". Even alternative life styles are subjects of advertisements at the present time.

According to a survey performed by the *Gfk Company* in 2000 in the Czech Republic, 93 % of customers buy impulsively and under the influence of advertisements. Only 7 % of customers plan their shopping ahead of time. On the basis of data from 2005 survey, 75 % of Czech customers read the advertising leaflets of chain stores and buy things according to them (Fuchs et al., 2005).

The amount of money expended on advertising increases every year in the Czech Republic. In 2007, expenditures for advertising equalled CZK 28.7 billion. (EUR 1 billion), compared to CZK 20.5 bill. (EUR 774 million) in 2005. At the present time, advertising on the Internet is developing at an unprecedented rate. Approximately half of all expenditures for advertising goes into television and one third into the press. Table 9.1 gives the expenditures for advertising of the top ten companies in 2007. Traditionally, the mobile telephone companies spend the most money for advertising. In 2007, the telephone companies were followed by the dairy products producer *Danone* (CZK 585 million, EUR 22 million), *Opavia*, the manufacturer of long-life bakery products (CZK 500 million, EUR 18.9 million), *Česká spořitelna* and *Komerční banka*, the banking institutions (CZK 404 million, EUR 15.2 million and CZK 372 million, EUR 14 million), *Škoda*, the domestic car manufacturer (CZK 369 million, EUR 13.9 million), *Mountfield*, the garden technology manufacturer (CZK 362 million, EUR 13.7 million) and *Walmart*, the food supplement manufacturer (CZK 358 million, EUR 13.5 million).

Table 9.1: Expenditures for advertising, 2007 (CZK mil.)

		TV	Radio	Press	Cinemas	Outdoor advertisements	Total
1.	O2	979.7	130.5	375.1	12.5	129.7	1 627
2.	Vodafone	714.8	145.8	355.2	65.5	102.1	1 383
3.	T-Mobile	460.0	50.1	261.4	8.4	70.3	850
4.	Danone	574.8	1.7	8.1	0.6	0.1	585
5.	Opavia	471.3	0.1	3.7	0.1	2.5	478
6.	Česká spořitelna	263.7	4.7	121.1	0.0	14.9	404
7.	Komerční banka	163.5	38.1	141.1	0.0	29.6	372
8.	Škoda	149.4	17.8	187.4	3.5	11.1	369
9.	Mountfield	48.8	39.8	258.9	0.0	14.2	362
10.	Walmart	303.1	2.0	51.3	0.0	1.9	358

Source: News server on marketing, media and advertising

10. Consumption Background

Shopping styles have changed substantially over the past two decades. Shopping places have moved en masse to the outskirts of cities, where new shopping centres have emerged. So, the shops have not come closer to the customer, but the customer must be transported to the place of sales, entailing increased demands on transportation and thus greater environmental impacts. Another problem involved is the loss of agricultural land due to extensive development of shopping centres.

As a result 60 % of Czech households most frequently go shopping by car, especially multi-member households. Only people living in small households prefer smaller and more readily accessible shops within a walking distance (especially pensioners). Mobile customers most frequently shop in large hypermarkets and cash & carry² stores, where they can buy large amounts of goods and thus supply their household for a week or more (Incoma, 2008a).

10.1 Czechs enjoy shopping and require low prices

Czech customers enjoy shopping cheaply, which is understandable in the light of their lower purchasing power compared to their western neighbours. Price is a priority for almost half of households (45 %). This is connected with the advantage of going shopping by car. The mobile customer can choose amongst a greater number of shops and thus can visit several places during one shopping day (Incoma, 2008a). Mobile consumers (using cars for shopping) shop impulsively, prefer modern sales outlets (hypermarkets, discount stores, supermarkets)³, are usually younger and have, on an average, higher incomes, a higher number of children in the household, and higher education. Non-mobile consumers are just the opposite. While selecting a store, mobile consumers put less emphasis on its location and greater emphasis on other factors (price, selection). Non-mobile consumers make decisions mainly on the basis of the location of the store and put less on price and selection (Incoma, 2008a). Shopping is recently becoming a very popular weekend activity and stores are also open on Sundays in the Czech Republic. As previously mentioned, weekend shopping is the seventh most frequent free-time activity of Czech families (StemMark, 2007).

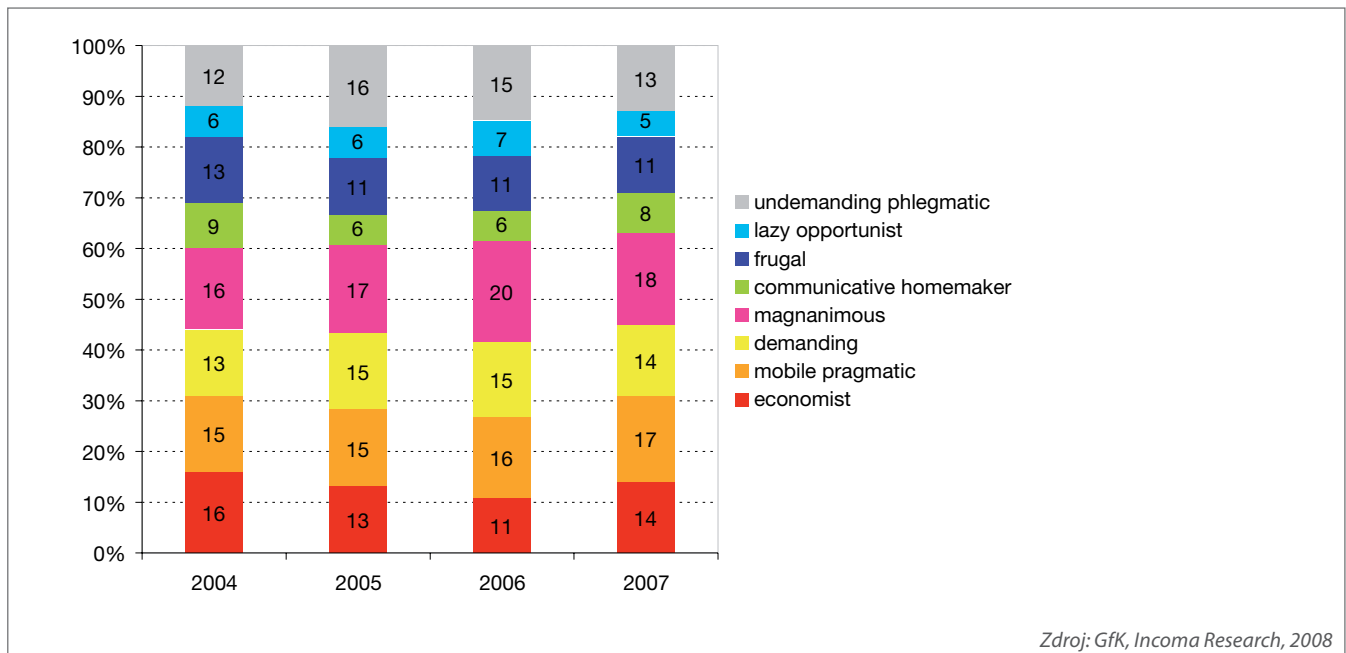
² These are self-service wholesale stores. The cash & carry system literally means “pay for the goods and carry them away”.

³ Hypermarkets are stores with a substantial proportion of nonfood goods; the smaller ones usually have a sales area of 2500 – 5000 m². Some hypermarkets with sales areas of over 5000 m² are frequently part of multi-functional shopping-recreational centers.

Supermarkets are stores with a sales area of 400 – 2500 m², a majority of which is devoted to sale of foodstuffs.

Discount stores are stores with sales areas of usually 400 – 1000 m² with a less varied range of foodstuffs and lower customer comfort (sales from palettes, etc.) (Fuchs a kol, 2005).

Graph 10.1: Shoppers groups in the Czech population, 2008



Czech shoppers can be divided into three groups (mobile, non-mobile and price sensitive) and further divided into eight groups: demanding, magnanimous, mobile pragmatic, economist, communicative homemaker, frugal, lazy opportunist, undemanding phlegmatic (Incoma, 2008a) (see Graph 10.1).

Also price sensitivity and attitude towards advertisements and leaflets substantially affect the behaviour of the eight consumer groups. Price-sensitive consumers monitor prices much more carefully frequently on the basis of leaflets, and look for sales. If we realize that almost half of customers are price-sensitive (45 %), the leaflet form of advertising has a great influence in the Czech Republic.

Demandingness is a factor that affects, e.g., choice of shopping place for individual categories of goods – discriminating mobile customers have a tendency to purchase fresh foodstuffs in hypermarkets and to buy special products (e.g. cosmetics) in special stores. Mobile customers prefer hypermarkets. The preferences of people who do not use a car for shopping are divided up amongst smaller stores and supermarkets. There are 41 % demanding customers in the Czech Republic and 59 % undemanding customers.

10.2 Hypermarket boom

The first hypermarket was opened in the Czech Republic in 1996. Since then, over 250 shopping centres of various types and size have been opened and new ones are still being built. In 2007, another six new shopping centres were opened and twelve more were planned for 2008, while dozens are in the phase of construction or preparation. More than a third of all shoppers (37 %) consider hypermarkets to be their favourite shopping place (Incoma, 2008b).

The Czech Republic has currently 24 hypermarkets per million inhabitants, the highest figure for Central Europe. Their revenues are constantly increasing, while the revenues of small retailers are stagnating or decreasing. On the basis of preliminary results, the revenues of the largest ten chain stores increased in 2007 by CZK 31.3 billion (EUR 1.18 billion) to a record figure of CZK 289.1 billion (EUR 10.9 billion). The ten largest retailers increased their fraction of the domestic market in rapid turnover goods from 63 % to 66 % and collected two thirds of revenues. Therefore, large retailers can dictate purchase prices to suppliers and control the shoppers' consumption style, which doesn't allow many alternatives to contemporary unsustainable consumption.

First place in the hierarchy of the largest retailers belongs to the *Schwarz Retail Group*, which operates the *Lidl* and *Kaufland* stores, with estimated revenues of CZK 51.1 billion (EUR 1.93 billion), *Ahold* (*Hypernova* hypermarkets and *Albert* supermarkets) and *Tesco Stores CR* share second and third places. Both had revenues of about CZK 42 billion (EUR 1.59 billion).

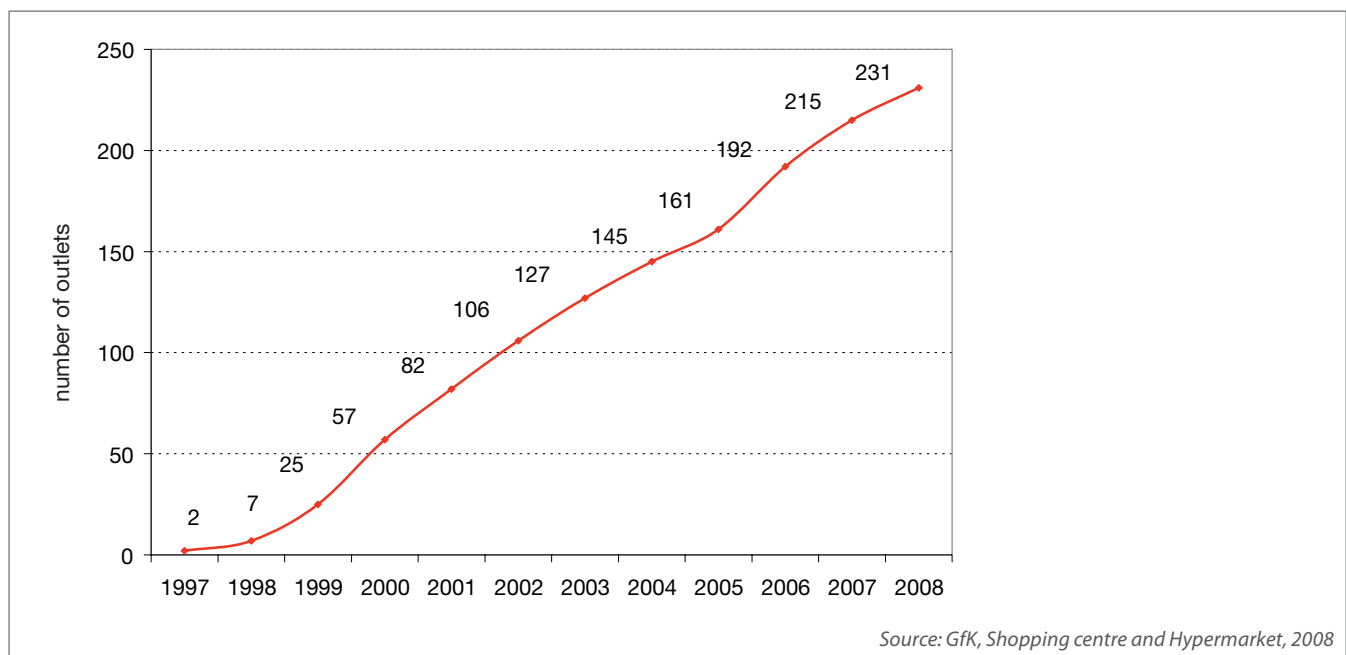
The *Makro Cash&Carry* wholesale chain was on fourth place (CZK 39.3 billion, EUR 1.48 billion) and the *Rewe Group* (CZK 31.6 billion, EUR 1.19 billion), operating the *Billa* supermarkets and *Penny Market* discount stores, was in fifth place.

Clothing stores are the commonest kind of stores in shopping centres (the census recorded 1582 of clothing stores and they also exhibit the greatest dynamics of growth). Fashion is the main driving force for expansion, reflected by the second place of footwear and leather goods (488 stores). Stores selling jewellery and gifts (450 stores) are in third place, followed by stores selling electrical appliances and computer technology (390) and specialized food stores (346). However, hypermarkets continue to dominate in sales area of shopping centres, followed by large-area hobby markets (do-it-yourself range of goods), frequently located in “retail parks”. Gastronomy and other services (e.g. branches of financial institutions) occupy an ever-increasing number of shopping centres (Incoma, 2008b).

The greatest number of shopping centres is located in Prague (38 % of the total shopping centres area) and around other large cities. However, at the present time, hypermarkets are being opened in cities with 50 thousand or less inhabitants.

Czechs spend relatively a great deal of time in shopping centres: 72 % usually more than one hour and 31 % even more than two hours. Many people are willing to travel further to “their favourite” shopping centre (34 minutes on average). Half of shoppers spend more than CZK 1 500 (EUR 57) during a single visit to their favourite centre (Incoma, 2008b).

Graph 10.2: Trends in the number of hypermarkets in the Czech Republic, 1997–2008

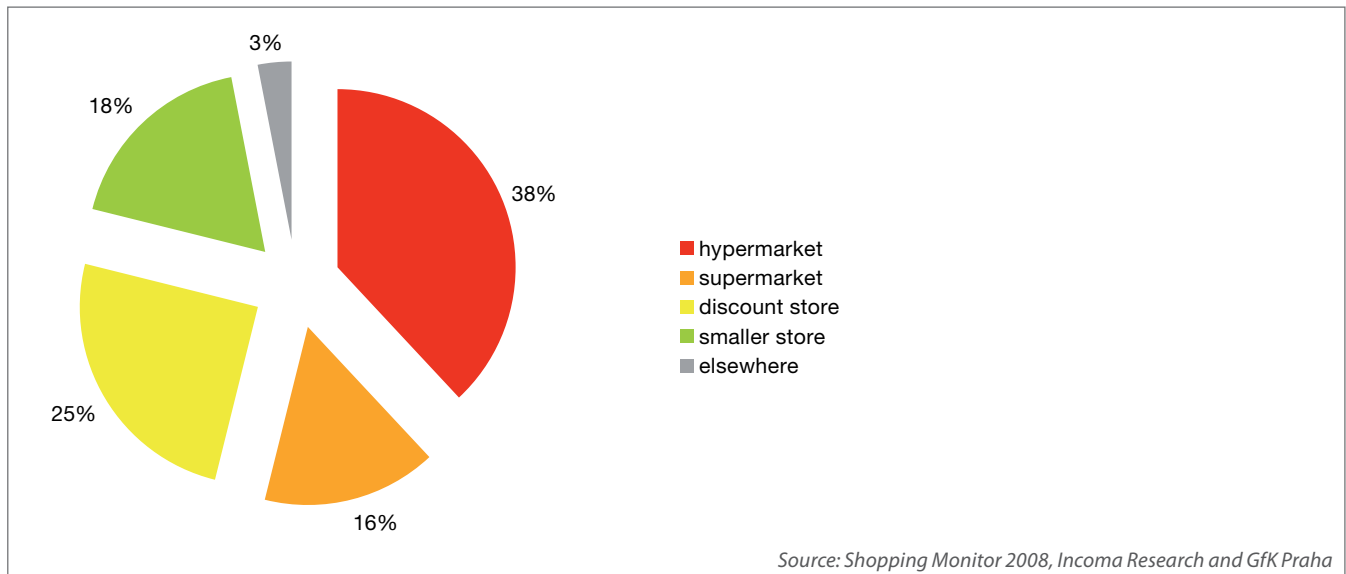


10.3 Czechs have more free time

Between 2002 and 2006, people aged 15 – 44 years gained on average three hours off per week and their free time increased from 28 to 31 hours a week. They usually spend their free time with family members and friends. In addition to traditional visits to cinemas (three quarters of Czechs visit a cinema at least once a month), visits to restaurants are also popular (68 % of Czechs visit a restaurant at least once a month). Shopping-recreational complexes are of increasing importance regarding leisure time. In addition to shopping, visitors can enjoy here gastronomic stores, cinemas, restaurants or other entertainment (Incoma, 2006).

Bicycle riding and swimming are the most popular sports amongst all age groups, followed by walking tours and collective ball games. The popularity of swimming, bathing and water recreation in general is documented by the fact that aqua parks or swimming pools with water attractions are irreplaceable facilities for free-time in the Czech Republic (Incoma, 2006).

Graph 10.3: Favourite places for food shopping, 2008



About half (52 %) of families go at least once a month for an outing in nature at the weekend, while 9 % go to cinema (39 % at least once in six months) and 21 % visit aqua parks. On the other hand, 48 % of families watch home videos or DVD at least every second weekend.

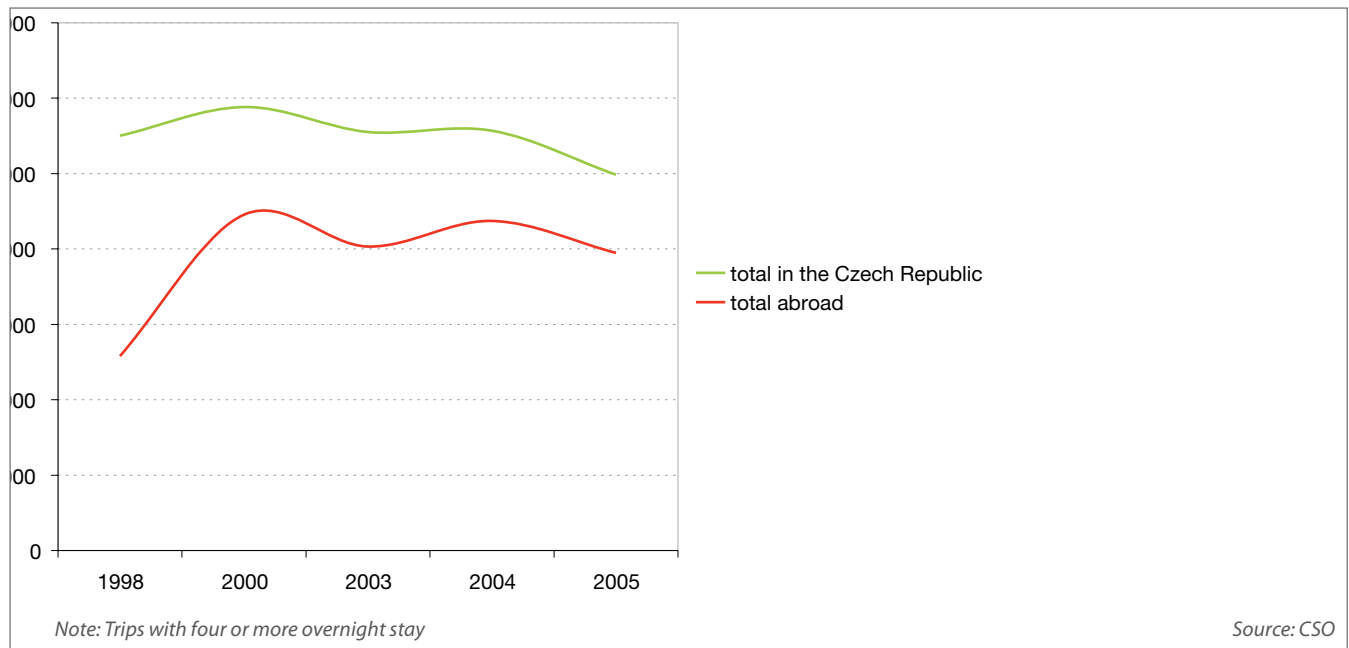
10.4 Czechs more often travel abroad and they travel more frequently by airplane

Czechs are increasingly unwilling to spend their vacations in the Czech Republic and travel abroad more frequently and prefer air transportation (see Graphs 10.4 and 10.5).

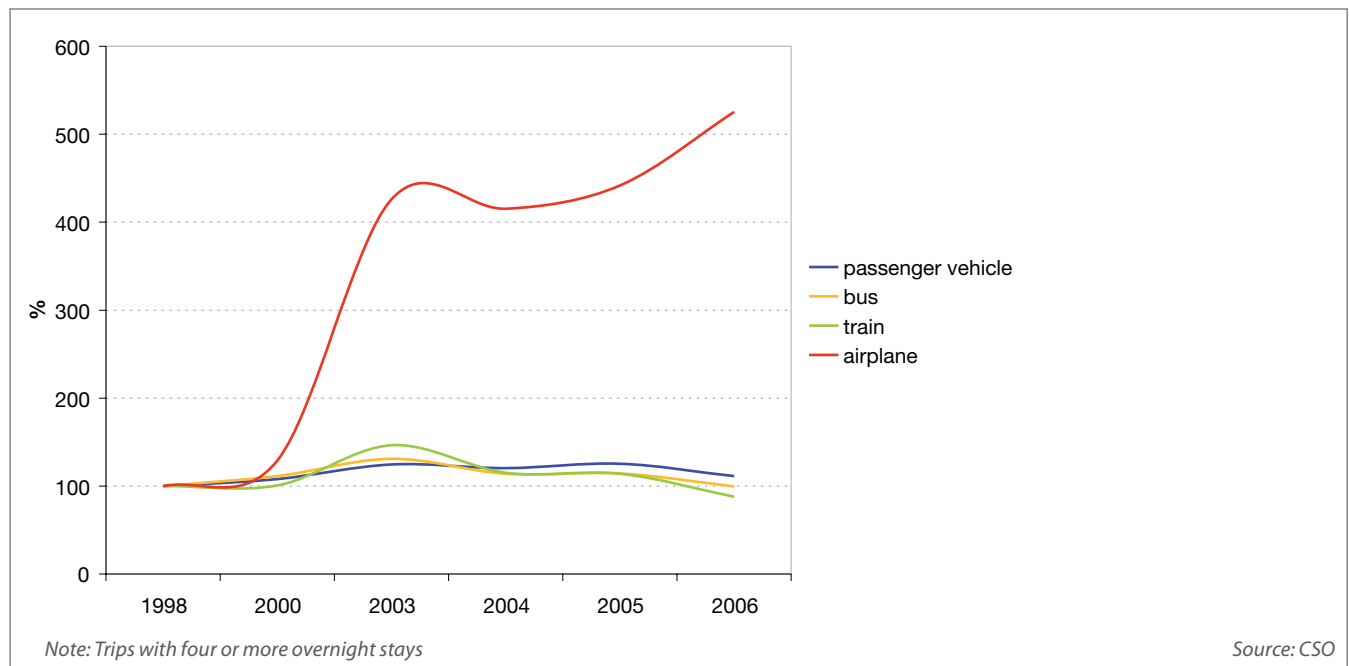
New trends in Czech holidays involves a shift from cheaper accommodation facilities to better ones, an increase in interest in "all inclusive" holidays, more air tours, less bus tours or trips in their own vehicles, fewer stays in apartments without meals, increased interest in purchasing "first minute" tours, increased sales of tours on hire-purchase (in 2007 3 % of all tours were paid in this way) (Škraňková, 2008).

In 2008, Czechs spent over CZK 60 billion (EUR 2.64 million) on holidays. They most frequently buy air tours to Egypt, Turkey and Greece and have prolonged their stays compared to the past. Now, they most frequently travel for two weeks (Škraňková, 2008).

Graph 10.4: Longer trips as a way of spending free time, 1998–2006



Graph 10.5: Longer trips as a way of spending free time – means of transportation, 1998–2006



11. Environmental Impacts of Czech Households' Consumption

As consumption increases, so do its environmental impacts. According to a foreign study (Hirschl et al, 2003), 30 to 40 % of environmental problems in the developed world can be attributed to households. The most important areas causing the most serious impacts on the environment cover food, accommodation and transportation. Greater impacts are connected with a change in demand and means of production in almost all categories over the past thirty years.

Households cause both direct and indirect impacts. Direct environmental impacts comprise of households activities, impacts from travelling home and abroad. Indirect environmental impacts include extraction of natural resources, and energy consumption in processing stage, distribution and disposal of wastes. As the number of cars increases, so do, e.g., emissions of greenhouse gases, and increasing amounts of agricultural land are used for new highways and parking lots.

Although there is a contemporary trend in the use of more energy-saving equipment, such as washing machines, refrigerators, TV sets, computers and also cars, the potential savings effect is often outweighed by increasing number of appliances in the household or more frequent use. It results in the increased consumption of electrical energy and greenhouse gas emissions.

Households cause further indirect impacts related to remaining supply chain. A considerable amount of goods is transported over great distances. The manner of processing is changing; the product place of origin (and also foodstuffs) is frequently far away, leading to further increased demands for transportation. Growing proportion of processed and packaged food products are being produced with high-energy intensity during their life cycles. No one has so far attempted to quantify the total environmental impacts of Czech households.

11.1 Only part of czech households is motivated towards environmentally friendly behaviour

Table 11.1: Households behaviour towards the environment

	always	frequently	exceptionally	never	don't know
Submits, separates hazardous waste	37	35	17	7	4
Separates normal waste	32	41	16	9	2
Saves energy and water to protect the environment	13	33	32	18	4
Employs environmental considerations when shopping	8	23	34	22	13
Reduces travel by car to protect the environment	6	12	36	37	9

Source: PORC IS AS CR

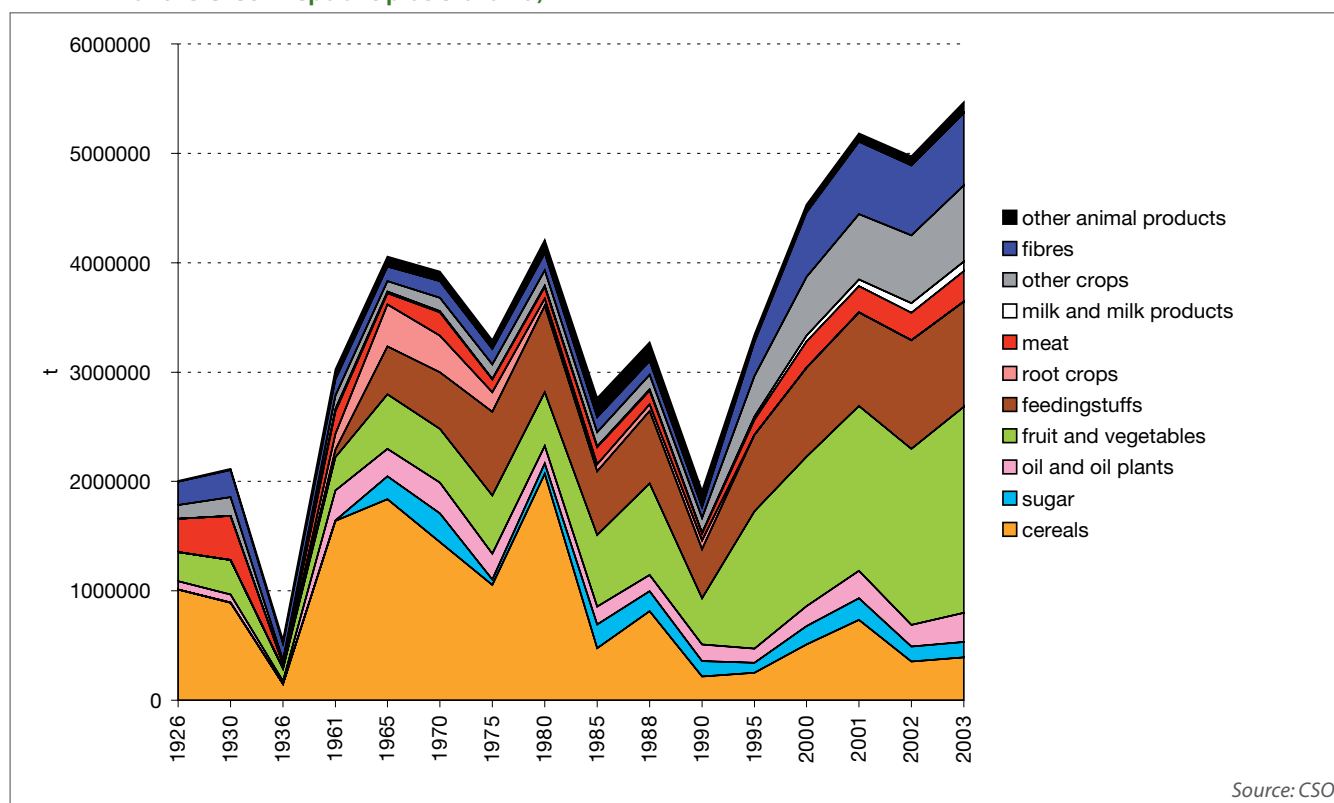
Table 11.1 indicates that only a part of Czech households is motivated to change their consumer behaviour to more environmentally sound. In the area of waste separation, the fraction of households that separate and/or submit hazardous waste corresponds to about one half (however, many households do not behave this way all the time). 13 % of households always save energy and 33 % frequently do so. About one third of households is concerned about the environmental characteristics of products they purchase, but only a minimum of households reduce trips by car to save the environment.

11.2 Consumption is based on imports

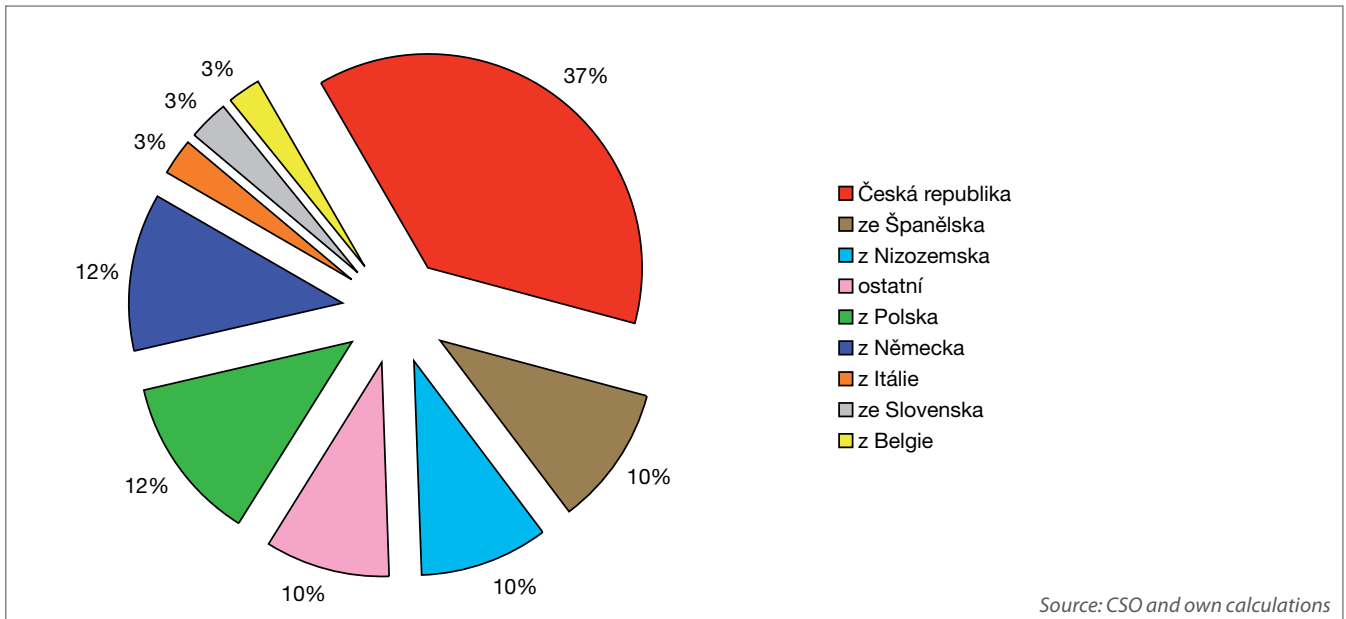
Czech consumption has environmental consequence far exceeding the borders of the country. It is logical that such a small country is not capable to cover its whole consumption from its own resources, especially for goods of long-term use and other special industrial products and fuels. However, the volume of imports is also rapidly increasing also for products that are manufactured or grown in this country. So, it happens that some goods (e.g. apples) are both exported and imported, leading to unnecessary environmental impacts from transportation. Volumes of imported foodstuffs agricultural commodities have doubled since 1989. Especially fruit and vegetables are imported, as well as feedstuffs for farm animals (Graph 11.1). There is also an increasing volume of imports for other items. This undoubtedly has its environmental consequences - not only consumption of energy and resources for processing and transportation, but also agricultural land occupied far beyond borders of this country.

Comparison of the consumption of vegetables with the volume of imports indicates that about 62 % of total consumption is imported (see Graph 11.2).

Graph 11.1: Imports of food and agricultural products (for the Czechoslovakia and after 1993 for the Czech Republic plus Slovakia)



Graph 11.2: Consumption of vegetables according to the country of origin, 2005

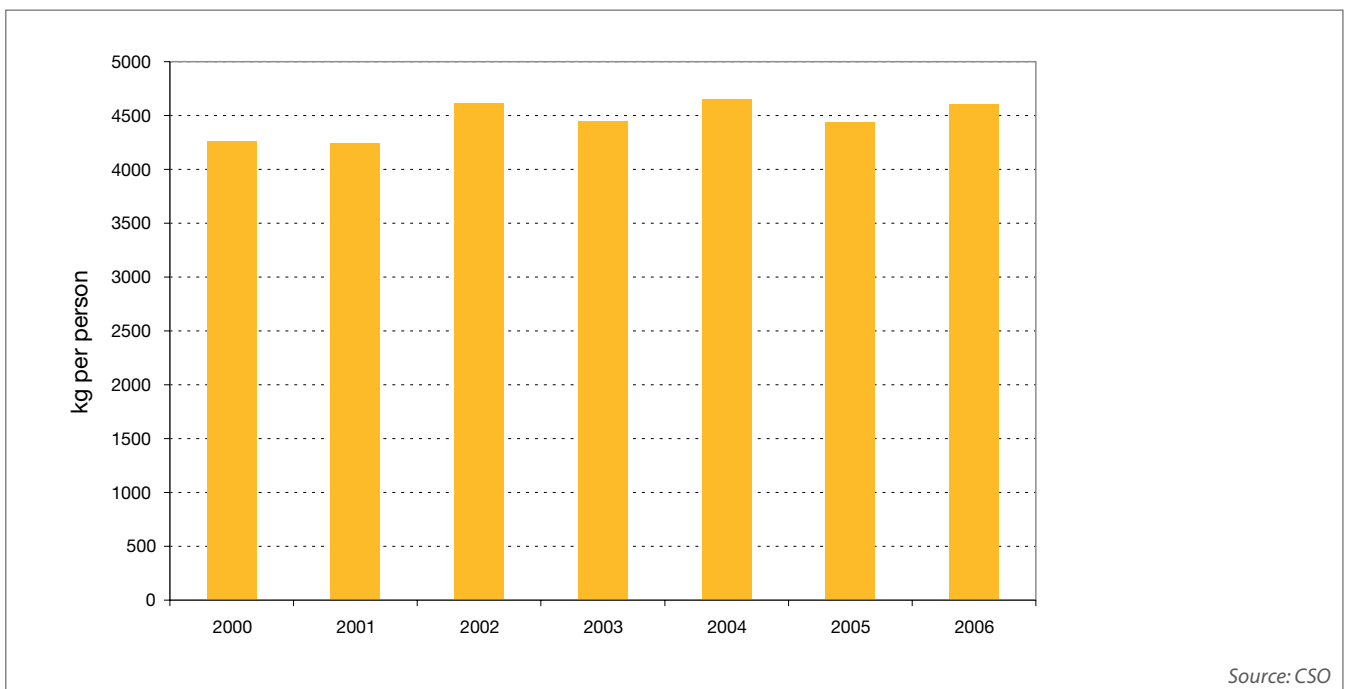


11.3 Wastes

An average Czech household produces approximately one ton of municipal waste per annum. It should be added that, approximately 10 kg is hazardous waste.

The production of municipal waste is slightly increasing (see Graph 11.3).

Graph 11.3: Municipal waste production per person, 2000–2006

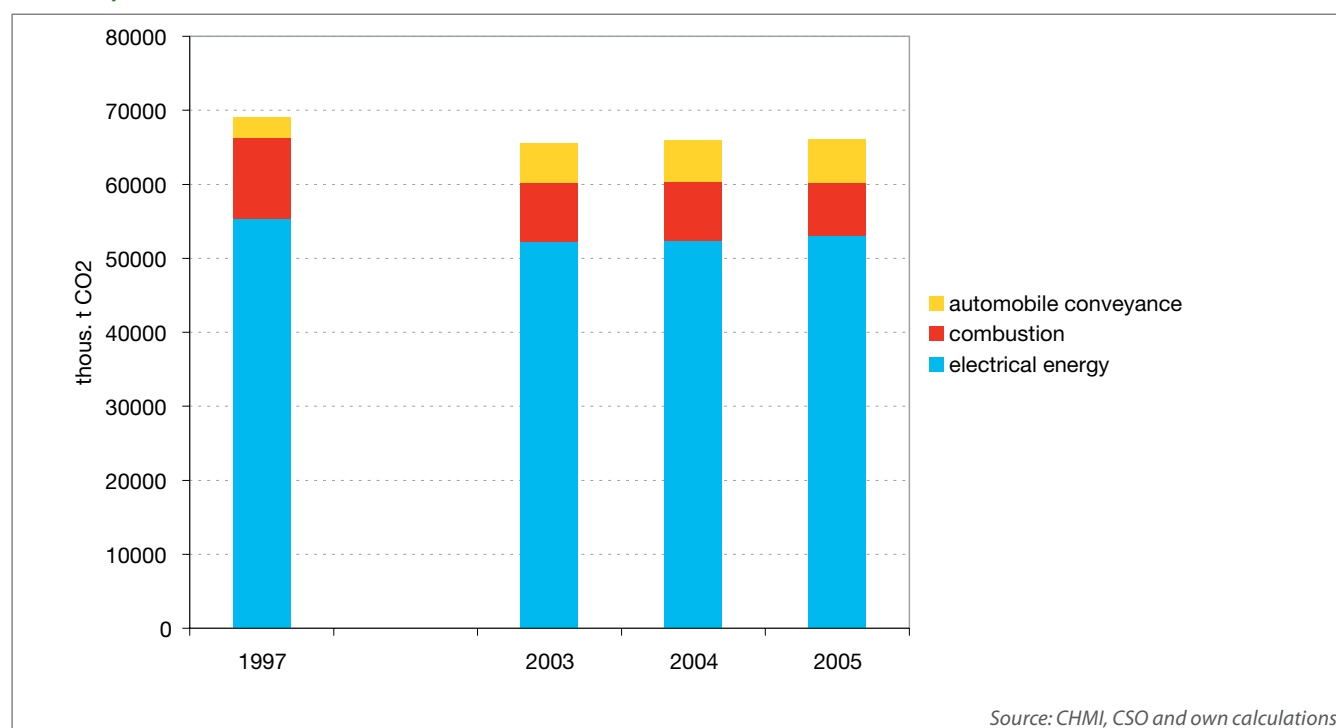


11.4 Impacts of households on climate change

Graph 11.4 illustrates greenhouse gas emissions by households from three main areas: consumption of electrical energy, direct combustion in households and estimated emissions from transportation. However, actual emissions would be even higher after inclusion of indirect impacts (consumption of imported goods and goods with energy-intensive production, such as packaged foods, imported clothing, etc.).

Indirect greenhouse gas emissions are connected, e.g., with diet. The proportion of animal and plant products is very important. A Swedish study investigated greenhouse gas emissions released from the production, processing and transportation of four various food products with the same calorie and protein contents. The emissions ranged from 190 g CO₂ equivalents for a vegetarian meal from local production to 1 800 g for a meal containing meat and other additives imported from abroad (Carlsson – Kanyama, 1998 cited in Michaelis and Lorek, 2004).

Graph 11.4: Emissions of carbon dioxide from households, 1997–2005

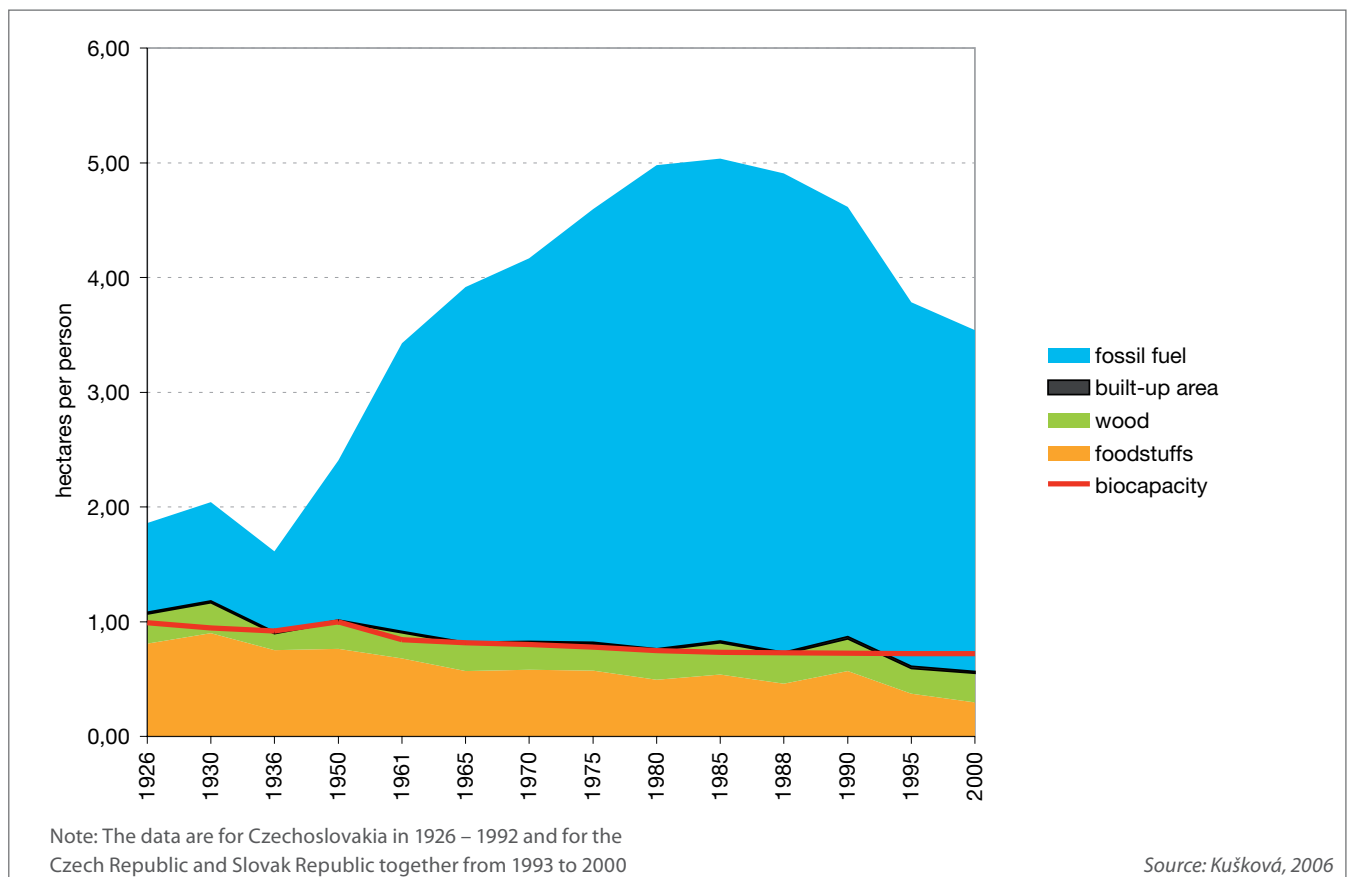


11.5 Ecological footprint

According to the latest report of the World Wildlife Fund (WWF), the Living Planet Report, Czechs occupy fourteenth place in impacts on the environment in the world. This is reflected in the indicator of the ecological footprint. Ecological footprint represents the amount of biologically productive land and sea area needed to regenerate the resources required by particular country or inhabitant to ensure its/his functioning. The ecological footprint estimates the overall size of these productive areas located around the entire planet. Subsequently, it is possible to compare the size of the ecological footprint (usually expressed in hectares per person) with the available biological capacity in the country (i.e. area of productive land). The ecological footprint of an average citizen of the Czech (and Slovak) Republic (Czechoslovakia prior to 1993) increased during the twentieth century mainly as a consequence of the increased fossil fuels consumption.

Graph 11.5 shows, how the Czech ecological footprint exceeds several-fold the available biological capacity of the country. Graph 11.5 ends in 2000 i.e. ten years after the revolution. During this ten-year period, transformation occurred in the economy, connected with a temporary reduction in the growth and also consumption. However, WWF calculations indicate that the ecological footprint of an average Czech citizen is currently increasing (WWF, 2004, 2006, 2008).

Graph 11.5: Ecological footprint per person, 1926–2000



12. Data Sources

At the beginning of this chapter, it should be pointed out that, in addition to basic data on consumption monitored by the *Czech Statistical Office*, there is only limited data available in the Czech Republic. There are no studies and the topic is covered only marginally. In other countries considerable attention is paid to this consumption issue by all, environmentalists, sociologists and economists. No studies are available in the Czech Republic based on interdisciplinary and cross-sectional data, combining available statistical data on various issues (e.g. statistics on standard of living and impacts on the environment, etc.).

12.1 The czech statistical office

The data employed in this study were taken primarily from data published by the Czech Statistical Office (www.czso.cz) in the Standard of Living section, where information on family budgets statistics of can be found (e.g., incomes and consumer expenditures, data on consumption of food and drinks, various household equipment and consumer electronics). Due to the accession of the Czech Republic to the European Union, the Czech Statistical Office has also been performing an annual survey since 2005 called Living Conditions. This is a national modification of the pan-European EU – SILC (European Union - Statistics on Income and Living Conditions) survey. It should be noted that these statistical data do not contain information on quality parameters of the particular consumer category (e.g. energy efficiency, environmentally friendly performance, organic food or Fair Trade labelling).

Information on households' consumption was also taken from other CSO materials, particularly from a survey entitled *Energo 2004*. The main purpose of this survey was to obtain maximum data on furnishings, energy intensity and household's operating costs. The survey included following indicators: household's characteristics and parameters, number of energy-consuming appliances, household's monetary expenditures of fuel and energy, energy consumption, number of cars.

Association for District Heating of the Czech Republic (www.tscr.cz) served as another source of data on energy consumption.

12.2 Sociological studies and public opinion surveys

Basic information on Czech citizens' attitudes towards environmental issues were monitored in the *Our Society 2005 Surveys* performed by *Centre for Public Opinion Surveys* of the *Institute of Sociology of the Academy of Sciences of the Czech Republic* and also the *Eurobarometer Survey*. The surveys of the *Centre for Public Opinion Surveys* are usually held every month in the form of a standard questionnaire using the quota selection method. The environmental issues and related aspects are included in some of them. The *International Social Survey Programme* (ISSP), performed by the *Institute of Sociology of the Academy of Sciences of the Czech Republic*, is probably the most important survey concerning the consumption topic in this country. Surveys on the Environment in 1993 and 2000 focused on investigating attitudes towards nature and environmental protection, economic growth and related environmental impacts, knowledge in environmental issues and "green" behaviour of the population. In October 2000 there were 1244 interviewees and in 1993, 1005 interviewees) in the survey, which was performed by the SC&C Agency. Results of this survey were employed by Řeháková (2001) in a study on factors affecting attitudes to the environment.

Works on post-materialism in Czech society (e.g. Rabušic, 2000, Soukup 2002) have also made an undoubted contribution to research on the relationship of individuals to the environment.

There is no very strong and targeted sociological criticism of massive consumption in the Czech Republic. J. Keller (1993, 1997) brilliantly summarizes and analyzes the arguments and facts on this subject published by the western authors, but without many local correlations. The work of H. Librová (1994, 2003), who collected examples of "green" life style, is important in relation to specific local aspects. She observed a great many small islands of alternative life styles in the sea of consumerism (Večerník, 2008).

12.3 Other Czech Studies

In the past, a research team at the *Institute for Environmental Policy* studied sustainable consumption in a project called *Study of Support for Sustainable Production and Consumption*. At the *Environmental Centre* a project team studied *Determinants and Barriers to Environmentally Sound Consumption* (Urban a Ščasný, 2007).

12.4 Marketing study

Surveys performed by the *Gfk Praha Company* (www.gfk.cz) on the market and consumer behaviour are also very valuable sources of data. However, most data and studies must be purchased. Similarly, other companies, carrying surveys of consumer's behaviour and marketing, charge fees for their services and data. A list of some marketing companies follows:

StemMark (www.stemmark.cz)

Ave marketing (www.ave.cz)

Network Media Service (www.nms.cz)

Confess Research (www.confess.cz)

Opinion Windows Research International (www.opw.cz)

SIMAR – Non-profit association of foremost market and public opinion survey agencies (www.simar.cz)

13. Conclusion

The Czech Republic has undergone fundamental changes in the past two decades. The greatest change occurred in 1989, when the Velvet Revolution took place and the country began to “return” to Europe after forty years of Communism. At the present time, the Czech Republic is experiencing a boom in consumerism and society has a tendency to become increasingly uniform as a consequence of commercial pressures. The main goal of marketing campaigns based on the sophisticated surveys is to increase consumption. These agencies work very professionally with teams of experts in the field of sociology, economy and psychology. The sale strategies and advertising are very sophisticated and consumption trends are strongly influenced by big players on the market (e.g. large chain stores, global brands). Therefore, Czech consumption continues its unsustainable trend.

In contrast to highly effective advertisements for various products, promotion of environmentally friendly products is frequently inadequate. However, it seems that things are changing slowly. People buy more organic food and it seems that their environmental sensitivity is strengthening, especially in relation to their own health. However, most organic products are imported from abroad. It is assumed that more environmentally friendly consumption will take place in households with higher incomes rather than becoming accessible for everyone in the future.

A number of international organizations are concerned with the consumption issue and are attempting to understand contemporary trends and develop possible governmental strategies to instigate changes towards more sustainable consumption patterns. These include the *UN Environmental Programme* (UNEP), the *Organization for Economic Cooperation and Development* (OECD), the *European Environmental Agency* (EEA) and the *UN Department of Economics and Social Affairs* (UN-DESA).

The consumption was also emphasized as a key area in the *Implementation Plan of the Conference on Sustainable Development* in Johannesburg in South Africa in 2002.

Consumers are the most difficult economic factor for governments. Consumers present a large, scattered and heterogeneous group whose behaviour can create negative environmental externalities. Governments also want to avoid excessive intervention into consumers’ decision-making. Consequently, governments should pay more attention to various social instruments to promote sustainable consumption, including coordination of consumer initiatives, participation in and decision-making processes and using more information instruments in general (OECD, 2002, 2008). Unsustainable consumption patterns can be seen as a vicious circle that can be stopped only if it is solved at all possible levels; raising consumer’s awareness, targeted decision-making processes on the national and local, promotion of local and environmentally friendly products.

Czech Government Council for Sustainable Development was established in 2003 as a consulting and coordination body of the Government of the Czech Republic in the area of sustainable development and strategic management. Sustainable consumption is considered as one of the main requirements of sustainable development. The Working Group for Sustainable Consumption and Production was established in October of 2003 in order to prepare a framework of programmes supporting sustainable consumption and production in the Czech.

The *Framework of the Programmes of Sustainable Consumption and Production* (SCP), approved by the Government in 2005, is based on the *Strategy of Sustainable Development of the Czech Republic* and other strategies and policies (the *State Environmental Policy*, *Raw Material Policy*, *State Energy Policy*, *Transport Policy*, etc.).

One of the proposals for specific activities mentioned in the Framework of programmes is: “*Actively involve retail chains through more intensive intervention of the state with a view to setting better rules, more active communication of the state and consumer, environmental and producers’ organisations with retail chains, voluntary agreements between these entities with a view to improving present conditions, increasing the availability of environmentally sound goods and improving their promotion, and increasing demand on the part of consumers*”.

In this regard, it is absolutely necessary to gain more valuable information and data on households’ consumption, which play a key role in the consumption issue.

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List of abbreviations

PORC:	Public Opinion Research Centre
CSO:	Czech Statistical Office
EEA:	European Environmental Agency
EU:	European Union
Eurostat:	Statistical Office of the European Union
FAO:	Food and Agricultural Organization
GJ:	Gigajoule
GDP:	Gross Domestic Product
kcal:	kilocalorie
MT:	Ministry of Transport
MF:	Ministry of Finance
MA:	Ministry of Agriculture
ME:	Ministry of the Environment
OECD:	Organisation for Economic Cooperation and Development
SCP:	Sustainable Consumption and Production
UN:	United Nations Organization
CPAB:	census of people, apartments and buildings
IS AS CR:	Institute of Sociology of the Academy of Sciences of the Czech Republic
UN-DESA:	United Nations Department for Economic and Social Affairs
UNEP:	United Nations Environmental Programme
WWF:	World Wildlife Fund

List of tables and graphs:

Table 3.1: Expenditures for GDP, for final consumption by households and the fraction of final consumption by households in the GDP (bil. CZK, constant 2000 prices), 1996 – 2007

Table 5.1: Direct and indirect (global) environmental pressures attributable to Eating & Drinking, EU 25

Table 5.2: Material Input of food products (kg/kg)

Table 6.1: Direct and indirect (global) environmental pressures attributable to Housing & Infrastructures, EU 25

Table 7.1: Material input of household goods and appliances (kg/kg)

Table 7.2: Material input of clothing (kg/kg)

Table 8.1: Direct and indirect (global) environmental pressures attributable to Mobility, EU 25

Table 8.2: Car ownership in Czech households (%)

Table 9.1: Expenditures for advertising, 2007 (mil. CZK)

Table 11.1: Households behaviour towards the environment

Graph 1.1: Economic output growth and direct environmental pressures, EU-25 (all economic sectors)

Graph 1.2: Historical trends in GDP for Czechoslovakia (after 1993 for the Czech Republic plus Slovakia)

Graph 2.1: Trends in the inhabitants' age structure of the Czech Republic, 1991 – 2007

Graph 2.2: Trends in households, 2000 - 2006

Graph 2.3: Structure of Czech households

Graph 4.1: Households' expenditure structure, 1960, 1988, 2005

Graph 4.2: Households expenditures in final consumption according to purpose, 1995 - 2005

Graph 4.3: Trends in the households expenditures structure, 1988 - 2006

Graph 4.4: Expenditures according to the type of household, 2nd quarter 2008

Graph 4.5: Expenditures according to households' incomes, 2nd quarter 2008

Graph 4.6: Trends in households incomes, consumption and savings in households in the Czech Republic (in bil. CZK), 1995 – 2004

Graph 5.1: Meat consumption per person, 1948 - 2006

Graph 5.2: Trends in foodstuffs consumption, 1990 - 2006

Graph 5.3: Foodstuffs consumption per person, 1990 - 2006

Graph 5.4: Do you buy organic food? (2008)

Graph 6.1: Households' energy consumption in the Czech Republic

Graph 6.2: Structure of energy consumption in Czech households, 2007

Graph 6.3: The dependence of the average annual energy consumption on the floorage of the heated area, 2003

Graph 6.4: Heating systems in Czech households, 2008

Graph 6.5: Energy consumption in households and service sector

Graph 6.6: Total water consumption per person, 1989 - 2007

Graph 7.1: Number of items of long-term use in Czech households, 1990 - 2005

Graph 7.2: Consumption of clothing and footwear, 1990 - 2005

Graph 8.1: Number of passenger vehicles registered in the Czech Republic, 1995 - 2007

Graph 8.2: Age structure of the car pool, passenger vehicles, 2007

Graph 8.3: Motorism, 1990 - 2006

Graph 9.1: Post-materialists in the Czech Republic, 1993 and 2000

Graph 9.2: Life styles, 1999

Graph 10.1: Shoppers groups in the Czech population, 2008

Graph 10.2: Trends in the number of hypermarkets in the Czech Republic, 1997 - 2008

Graph 10.3: Favourite places for food shopping, 2008

Graph 10.4: Longer trips as a way of spending free time, 1998 - 2006

Graph 10.5: Longer trips as a way of spending free time - means of transportation, 1998 - 2006

Graph 11.1: Imports of food and agricultural products (for the Czechoslovakia and after 1993 for the Czech Republic plus Slovakia)

Graph 11.2: Consumption of vegetables according to the country of origin, 2005

Graph 11.3: Municipal waste production per person, 2000 - 2006

Graph 11.4: Emissions of carbon dioxide from households, 1997 - 2005

Graph 11.5: Ecological footprint per person, 1926 - 2000

