

# Ranking objective and perceived inequality

A comparison of the Czech Republic  
in the European context

Jiří Večerník and Martina Mysíková



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Institute of Sociology of the Czech Academy of Sciences  
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## Introduction

In research on opinions about social inequality, Czech respondents usually agree that incomes disparities are big in the Czech Republic. The main portion of respondents also embraces the opinion that the government should try to reduce disparities. One might say: well of course, the Czechs are well known as egalitarians. Ever since the time of the Hussites, and from them right up to the Communist era? And since the Communist era right up to ... to when? Are we still the exceptionally egalitarian society that we are often claimed to be? What has changed in terms of economic inequality since 1990 and where in this respect does Czech society figure in a cross-national comparison?

In the socialist Czechoslovakia, differences in earnings were very low, if not the lowest in the world. The equalization started during German occupation (1939–1945), when the wages of labourers were raised in order to strengthen the performance of war industry. At the same time, the Nazi regime suppressed the patriotic intelligentsia. Also the post-war shortages were supportive for increasing low wages. The ensuing rise of Communist ideology in service of the 'Iron concept' of the economy prioritised the working class and pushed the 'unproductive' intelligentsia into the background. The levelling of wages was not impacted by the attempts at economic reform that began in the 1950s declaring the need for 'material motivation'. After 1990, people called for greater differentiation of income, but in time the differences began to strike them as too big.

Egalitarian leanings and envy of the rich are not, however, problems specific to the Czech people. František Palacký's (great Czech historian and politician of the 19th century) illusion of the equality and freedom that reigned among the early Slavs 'as sons of the same family' is evidently just as alien to us as an image of great folk in sullen envy of each other. In fact the problem is not so much how large income inequalities are in reality but the justification for the existing differences, their economic and social legitimacy. When the era of communist wage levelling ended, bigger differences were expected and welcomed. While this expectation did indeed weaken gradually after 1990, agreement with the proposition that capable and hard-working people should be highly accordingly remunerated continued to be strong.

Communist or even the more remote – and moreover mythologised – past cannot however be taken as an argument infinitely. Over the past quarter century the way in which the economy and society function has dramatically transformed and there has also been a generational turnover.

Everyday life under the Communist regime is as strange and remote to young people today as the Middle Ages would be. Communist ideology or 'real socialism' are not the main issue. In any case, questions about equality and inequality have been arising in human civilisations for centuries and are the subject of interest all over the world, and are considered in every part of society, from everyday life through to the top political agenda. As economic, sociological, and psychological studies have shown, 'equality is beneficial' in every respect.

As regards the economic perspective on this issue, since 2005 the OECD has annually published a study called *Economic Policy Reforms, Going for Growth*, in which, among other things, it shows that economic growth and reducing inequality are not mutually exclusive endeavours. Education, anti-discrimination policy, well-built labour market institutions, and the right form of redistribution have been found capable of reducing inequality and at the same time supporting economic growth. By using well-considered reforms it is possible to balance these two objectives (OECD 2016). And various sources indicate that the countries with the highest inequality have weaker and shorter economic growth and its fruits are enjoyed by only a very small part of society.

A fuller picture of the social impact of inequality is provided by Richard Wilkinson and Kate Pickett in *The Spirit Level: Why Greater Equality Makes Societies Stronger* (2009), where they look at the adverse effects income inequality has on physical and mental health, social relations, violence, and crime. In an afterword to the newest edition of this successful book, they reject the claim that inequality itself is not the issue, but the above mentioned negative effects are caused by those national cultures that are marked by income inequalities. Presenting several examples they show that even an increase in inequality within one culture can have serious negative consequences.

The effects of inequality are also felt in psychological areas, as Nicholas R. Buttrick and Shigehiro Oishi have recently described (2017). In societies with higher inequality, they found lower levels of trust and less willingness to cooperate and, conversely, a stronger inclination to engage in immoral or even criminal behaviour. The greater competitiveness in these societies leads to status anxiety, psychological disorders, and overall lower satisfaction in life.

Inequality does indeed persist in the world and, even, in recent decades it has been growing. This is supported by data on the incomes and property of the wealthiest based on tax data as well as the findings of surveys of households. French economist Thomas Piketty presented historical data in

his book *Capital in the 21st Century* (2013) showing that returns to capital have long been increasing more rapidly than national income. As a result, an extreme concentration of wealth is occurring, which can have an impact on social and economic stability in the world. According to Piketty, a political solution would be to create a global system of the progressive taxation of property. In a similar spirit and in cooperation with Piketty, the policies necessary to reduce inequality were also formulated by Anthony B. Atkinson in his last book *Inequality: What Can Be Done?* (2015).

The growing interest in the subject of inequality has been accompanied by the emergence of research centres and databases that offer comparative findings and information. However, indexes and tables are not sufficient for studying inequality; what are also required are data files for the further elaboration of data and deeper analysis. The first person who came out with the aim of providing data files on individuals and households for the purpose of research was Harvard economist and sociologist Lee Rainwater, who together with Timothy M. Smeeding founded the *Luxembourg Income Study (LIS)* back in 1981. Other databases of interest are *OECD Income Distribution Database (IDD)* or World Bank *All The Ginis 1950-2012* database created by Branko Milanović. Of particular importance for us is the availability of the survey *European Union Statistics on Income and Living Conditions (EU-SILC)* conducted across member states of the EU and EFTA.

Income inequality is a global issue of growing importance, particularly since the latest economic recession, which brought about a surge in both income and wealth inequality. The attention economic research pays to this issue is also intensifying (see, in particular, Milanović 2005 and 2016). Europe is the least unequal region in the world, having experienced relatively mild increases in inequality, excepting in the successional countries of the former Soviet Union. The Czech Republic is among the European countries with the lowest and most stable levels of inequality. Nevertheless, the inequality profile of Czech society is not as distinct as it is often presented.

This study focuses on the Czech Republic (CR hereafter) in a comparative European frame. In order to answer questions on economic inequality in the CR and other countries around us, we want to explore the various aspects of inequality and sources of information and to the extent that is possible present them in context. While there is now a good deal of information available on this subject area, the individual dimensions of inequality, such as earnings, household incomes, taxes, transfers, and other areas connected to household finance tend to be studied more in isolation. What we are principally interested in here is a European comparison, which should reveal how egalitarian Czech society is in both objective and subjective terms.

In this study the main sources we draw on are the yearbooks and other publications of the Czech Statistical Office (CSO hereafter), as well as its journal *Statistika & My* (Statistics and Us). For the purpose of comparison, we draw on databases and publications of the European Commission, Eurostat, the OECD, and other institutions. In addition to these sources we also use our own calculations based on data from the EU-SILC survey and some comparative sociological surveys. We present the data in tables and primarily in simple figures, which are arranged in such a way that it is always clear what position the CR occupies in a European ranking.

An important feature of this study is that it also looks at attitudes and subjective indicators. We set out from the conviction that the reflection of reality is just as significant as reality itself – in so far as it is possible to ‘objectively’ identify this reflection in social area. Most studies that we have at our disposal are unfortunately from an earlier date – the most recent *European Values Study* was completed in 2008 (data from the last one were gathered in 2017), and the last *ISSP Social Inequality* module dates from 2009 (the next one will be in 2019). At the last moment we were able to include in Chapter 9 the results of responses to some questions that were asked in the last (2016) wave of the *European Social Survey*.

The study is structured as follows. First we briefly describe the effects of the systemic change on economic inequality and set the subject in a macro-economic context. Then we present the data sources used. In the third chapter, we examine earnings differentiation and the main factors behind it. In the fourth chapter, we look at inequalities in household incomes, in relation to which we examine, in the fifth chapter, the redistribution of incomes in the tax and benefit system. In the sixth chapter, we focus on household finance from the perspective of expenditures and other factors. In the seventh chapter, we present a short description of the characteristics of poverty. In the eighth chapter, we present and comment some data about the distribution of wealth. In the ninth chapter, we collect some information regarding subjective perception of inequality. Finally, we also touch on the middle class as a topic of research and politics.



## 1. System transformation and macroeconomic context

The work-related differences that the Communist regime so sought to extinguish play a key role in three areas. From an individual and narrowly economic perspective, they have a significant motivational function, first regarding the choice of education and job and later in their work performance. From a social and societal perspective, they have a differentiating and integrative function, that is, they are a tool for distinguishing between social strata and the frame of the social fabric that connects them. From a psychological and a political perspective, they influence the degree of perceived legitimacy of disparities in political preferences and, in consequence, stability of the political regime.

These perspectives are interconnected and are linked to the system of economic inequalities overall. We should imagine economic differences as a functionally intertwined system in which earnings differentiated on the basis of performance are what make up household incomes, and these then provide the basis for consumption and family wealth. However, the connection between different types and levels of economic differences is in reality not as simple as it is assumed in theory. In every modern society redistribution occurs to benefit needy segments of the population and there is also an intergenerational transfer of incomes and wealth. The problem arises when there comes to be an economically dysfunctional polarisation of incomes and a concentration of wealth.

During the period of 'real socialism' the flow of redistribution was taken to the extreme in the interest of rendering the people subordinate to totalitarian power. The link between job performance and household income and then also between family income and consumption was deliberately severed. Resulting incomes were determined mainly by the number of earners, not by how big their individual contributions were. Beyond the frame of wage levelling, some segments of workers who were of special importance to the ruling regime were favoured by it. With the help of extremely differentiated turnover tax household expenditures were regulated in circumstances of limited supply so that the most basic needs (mainly food) were satisfied, while 'higher-level' needs (the purchase of durables) were limited.

The introduction of the market mechanism into the area means that there is a connection between individual components of distribution in the sense that differentiated earnings determine household incomes, the level of which is then reflected in the volume and structure of expenditures,

which then in turn determine total family wealth. In other words, while the household standard of living in the communist ‘reproduction model’ depended mainly on the size and composition of the household in terms of the ratio of economically active to dependent household members, in the capitalist ‘market model’ it depends much more on the differentiated contributions of individual members.

The transition away from a command system of distribution to a market system has many significant effects: 1. on generating human needs, where instead of administratively decided ‘objective’ or rational needs, the primary role is played by consumer preferences as shaped by individual subjective hierarchies; 2. on the formation of the social structure in society, where instead of the hegemony of the working class in the area of values and material, the key criterion is rather the changing size and position of the middle classes; 3. on the functioning of economic inequality, where instead of bureaucratic external control over individual areas of redistribution, the stress is placed on their internal interdependence.

Such a purely theoretical model adapts itself to the social reality of modern society in multiple ways and does so in interaction with the market and the state. While the economy has to create enough work incentives by offering higher pay to individuals who perform better and more innovative, the state must not allow the social fabric that connects the actions of individual people to be destroyed. To this end it uses redistribution, which encompasses on the one hand taxation of income and contributions to health and social insurance and on the other hand family and social benefits. It’s not easy to find the right balance of economically effective inequality so that social disintegration does not also occur at the same time. Dysfunctional deviations can occur in one direction or the other.

The other side of this adaptation (though in this case it is more of a deformation) of economic inequality is what goes on ‘behind the back’ of the system (or at least the theoretical form the system should take) in the broad sphere of the semi-legal and the illegal economy – tax evasion, corruption, and the unauthorised receipt of social benefits. The scale of hidden distribution and redistribution that proceeds through multiple channels is difficult to estimate. An even bigger problem arises when the spheres of the market and the state, which should be separated by a ‘Chinese wall’, interact or even start to overlap. This kind of development destroys the business environment and erodes citizens’ trust in the state and the government.

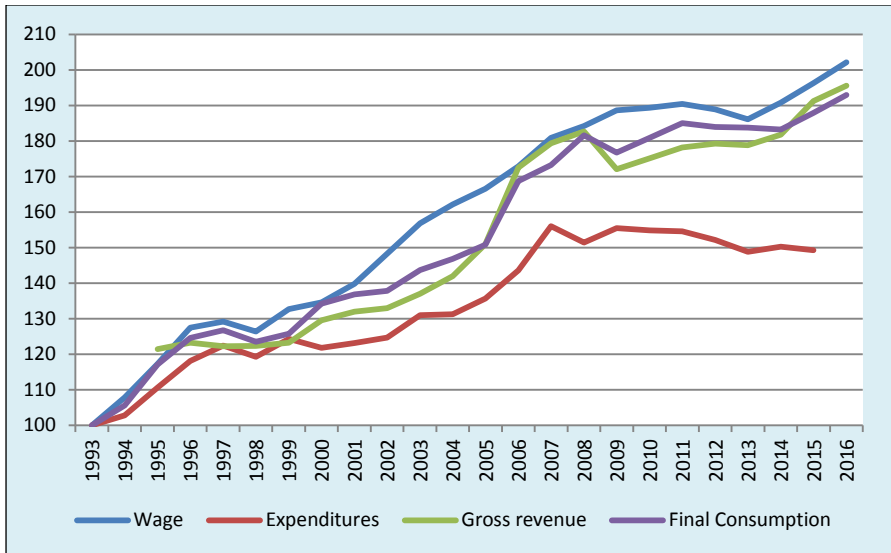
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## 1. System transformation and macroeconomic context

In the study we will focus primarily on the area of relative differences relating to workers and households. We should therefore at least briefly present these differences in both a more general developmental context and in an 'absolute' context in the sense of the level of redistributed product and final consumption. In both cases we must turn to available macroeconomic data.

Figure 1.1 compares several basic indicators relating to the incomes and expenditures of the population in the CR – wages, expenditures, disposable income, and final consumption expenditures of households, all of which are calculated as constant prices and real trends since 1993. Three of the four indicators are well balanced with each other and indicate an approximately twofold increase in the purchasing power of the population since the initial year of our time frame. The indicator of real expenditures based on family budget statistical surveys looks to be undervalued. According to this – rather misleading – indicator, the purchasing power of households has been stagnating since 2007 or may even have been decreasing.

**Figure 1.1** Development of income and expenditures per capita in the Czech Republic, 1993–2016 (constant prices of 1993, 1993=100)



**Source:** Statistical Yearbooks of the Czech Republic.

Time series constructed by Kamila Fialová.

**Note:** 1. Average gross monthly wage; 2. Index of net money expenditure per household member according to Household Budget surveys; 3. Gross disposable income per capita; 4. Final consumption expenditure of households per capita.

## 1. System transformation and macroeconomic context

The figure does not, however, capture the sudden ‘transitional’ drop in real incomes caused by the sharp rise in inflation at the very start of the 1990s as a result of price adjustment. Its extent has been the subject of numerous discussions among economists. Against the pessimistic statistics one could put consumption expansion indicated by purchases of automobiles and durable goods, and spending on travel activities. With the opening of the state borders and the emergence of business activities connected with regime change, additional financial resources emerged that increased the purchasing-power of households, although by no means of all households. Because statistics in this period were still adapting to the new conditions, the extent of new resources is in all likelihood undervalued.

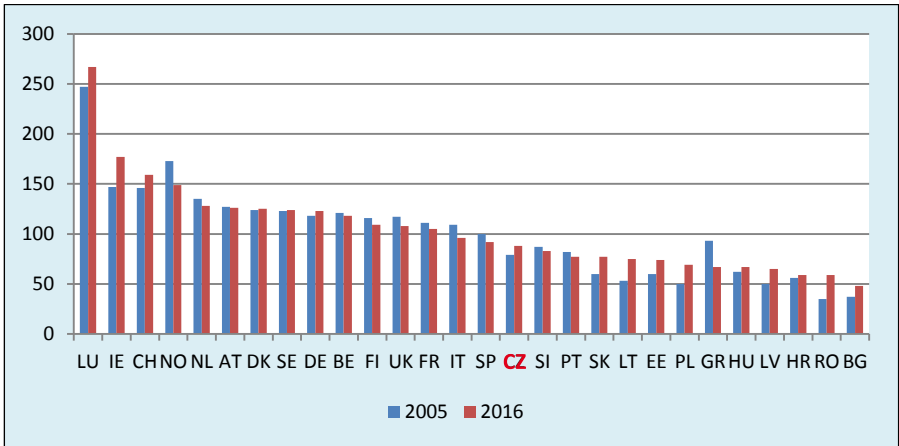
Despite the growth of wages, at that time the dream of catching up with Europe in terms of household incomes was still a long way off. That would only have been possible through massive economic growth – on a scale perhaps twice as great as the amount of growth in Western countries.

One should stress that population’s incomes are not determined just by a country’s economic performance, but also by the share of households in the national product. According to the analysis combining the pre-1989 method of calculating population’s incomes and expenditures with the currently applied standard European method of national accounts, the share of final household consumption in per cent GDP paradoxically decreased after 1990 compared to the period of the command economy, which of course was due to the overall transformation of the economy (Sixta et al. 2014).

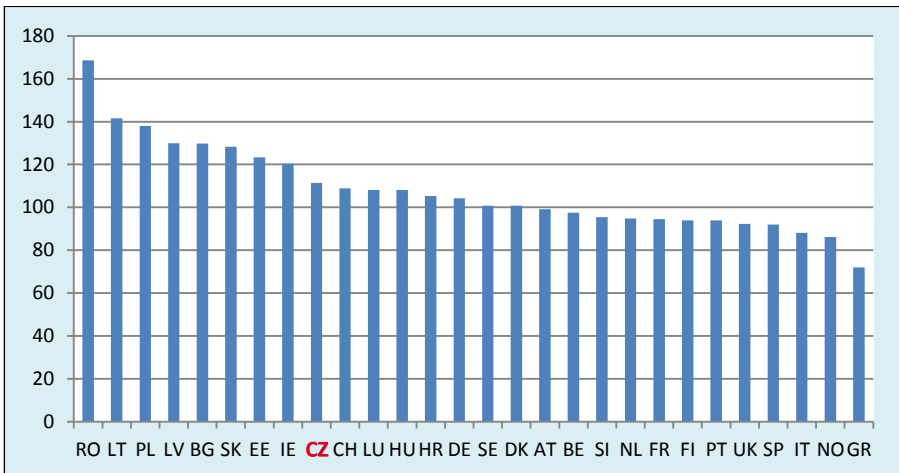
From a macro-economic perspective the situation of households is thus based on the level of GDP (or GDI) and on the so-called labour share. It is clear that the smaller the amount of GDP and, moreover, the smaller the share that flows to households, the weaker the purchasing power of the population. In this respect, both indicators continue to be quite poor in the CR compared to the advanced economies.

As Figure 1.2A shows, Czech per capita GDP converted to purchasing power parity in 2016 was equal to 88% of the EU-28 average. This put the CR ahead of all the other transition countries, including Slovenia, but it remained behind neighbouring Austria and Germany, in relation to which it was still at a 70% level. Figure 1.2B shows that between 2005 and 2016 GDP in the CR rose by 11%, while in Slovakia it increased by 28% and in Poland by 38% – in the latter cases, however, the increase was from a lower starting point. The fact that the CR moved ahead of Slovenia during the interim period under observation put it in first place among the transition countries. At the same time it also moved ahead of Portugal and Greece.

**Figure 1.2A** GDP per capita in PPP in European countries, 2005 and 2016 (% of the EU-28 average). Countries are ranked in descending order according to their 2016 level



**Figure 1.2B** Index of change in GDP per capita in European countries, 2005–2016 (%)



**Source:** Eurostat database, table tec00114.

## 1. System transformation and macroeconomic context

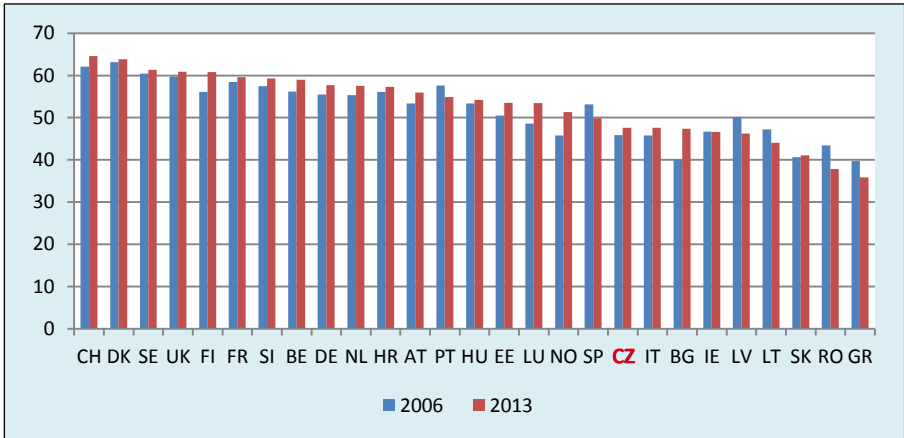
With respect to *the labour share on the national product*, we should recall here the debate that surrounded Piketty's book *Capital in the 21st Century*, which drew attention to the so-called functional distribution of incomes, i.e. the distribution of incomes among the main factors of production, which according to David Ricardo are represented by land, labour, and capital, and according to Karl Marx and John M. Keynes by capital (profit-generating) and labour (wage-generating). Measuring the share of 'capital' and 'labour' in the distribution of wealth is not easy, and in the view of some researchers may not even be at all possible – when it comes to accuracy. There are problems that arise regarding, for instance, the so-called mixed incomes of persons who are self-employed or people with owner-occupied housing.

Out of the many criticisms of Piketty's work, here we shall just cite the one that is maybe the most penetrating formulated by Peter Mihalyi and Iván Szelényi (2017). Their dispute is not so much with the main results of his analysis – inequality in the distribution of wealth is certainly increasing and its concentration in the hands of a narrow group of elites poses a threat to the liberal order on the national and international levels. Piketty's interpretation is based on evidence of capital returns exceeding economic growth  $r > g$  ( $r$ = the rate of return to capital,  $g$ = growth rate), what is in their view erroneous, as it is based on an incorrect conceptualisation of key categories. They argue that profit and rent, capital and wealth, are just heuristic concepts for which it is impossible to find exact statistical measures.

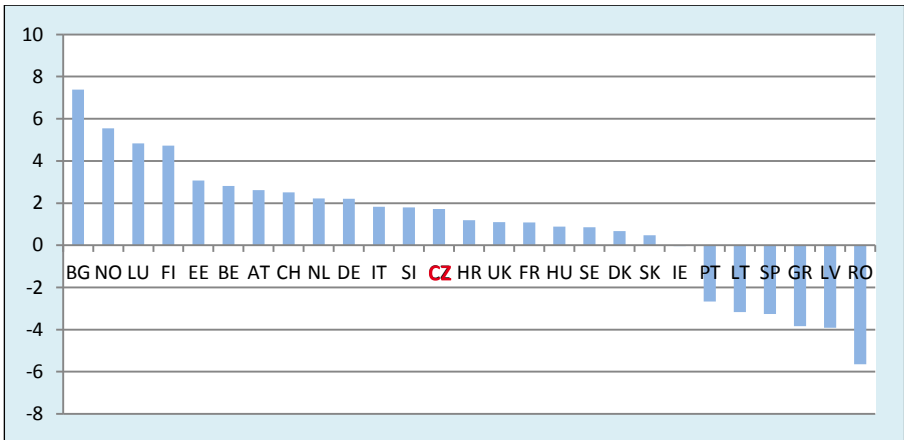
The prevailing opinion that the labour share has been declining over the long term (see, e.g., Karabarbounis, Neiman 2014) is not, however, univocal. According to a critical OECD study (2017), this indicator can be calculated either from the perspective of production, where the reference category is gross income, or from the perspective of the final consumer, where the reference category is net income, while also taking into account decreases in prices, taxation, and benefits. While from the production perspective there was a slow decline in the advanced countries, from the perspective of disposable income there was almost no decrease.

Data suggest that the labour share (the resources that go to employees) out of national income in the CR is low. In Figure 1.3A, the labour share as employee compensation in per cent GDP to national income is calculated. In the ranking of European countries the CR figures among the countries that rank lowest, but it is not in last place. Surprisingly, Italy ranks very closely behind the CR, although we would have expected it to be in a slightly different position given the strength of the unions in that country. Only a small change occurred over the course of the observed seven-year period which led only to the CR moving up in rank to a position ahead of Romania.

**Figure 1.3A Labour share of GDP in European countries in 2006 and 2013 (%)**. Countries are ranked in descending order according to their 2013 level



**Figure 1.3B Change in the labour share of GDP in European countries between 2006 and 2013 (%)**



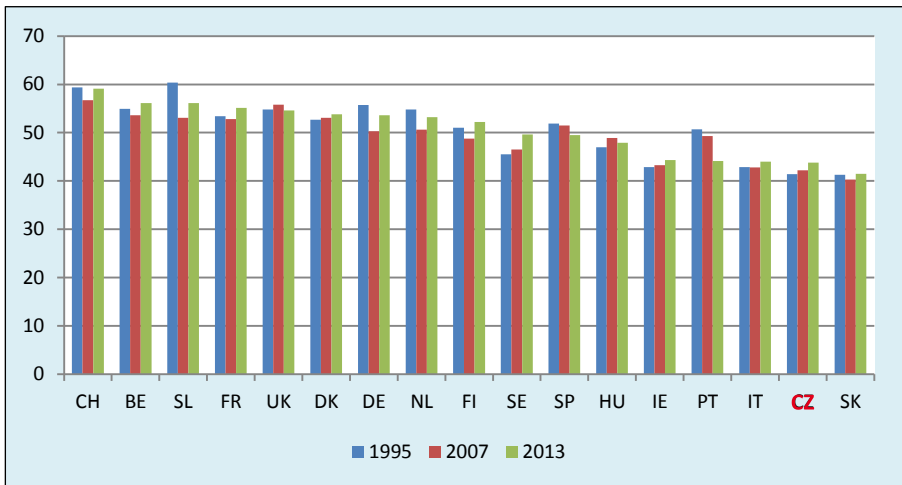
**Source:** Eurostat database, table nama\_nace10\_c (author's calculation).

**Note:** Labour share calculated as Compensation of employees in % GDP.

## 1. System transformation and macroeconomic context

A slightly more long-term perspective that traces development since 1995 is obtained using OECD data, which are presented in Figure 1.4. The methodology used here, however, gives a lower labour share: according to the OECD data the share in the CR was 44% in 2013, in contrast to the method we used above to analyse Eurostat data, according to which it was 48%. Even in this perspective, however, the CR along with Slovakia rank lowest in terms of labour share among the countries studied. On the other hand, however, it figures among the small handful of countries in which the labour share has been slowly but steadily growing since 1995 (along with Sweden, Denmark, and Ireland).

**Figure 1.4 Labour share of GDP in European countries in 1995, 2007 and 2013 (%). Countries are ranked in descending order according to the labour share in 2013**

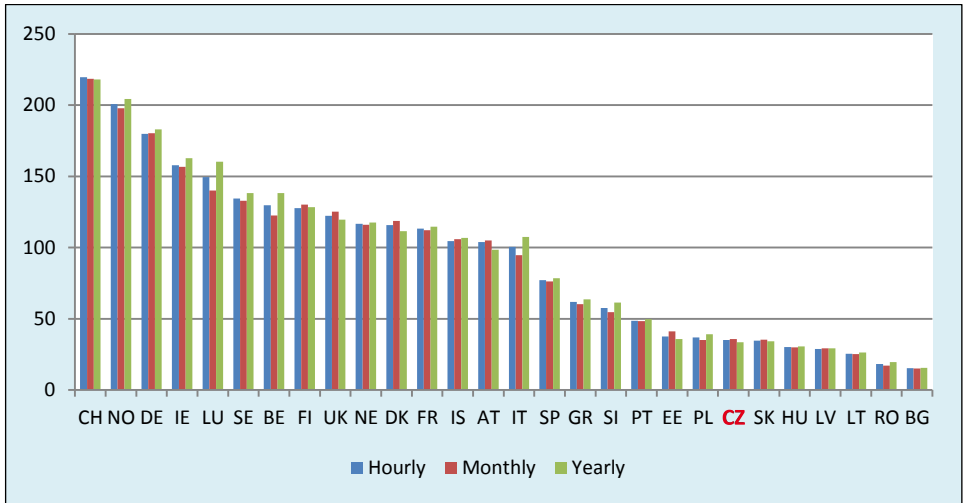


**Source:** OECD [http://www.oecd-ilibrary.org/economics/economic-policy-reforms-2016/the-labour-share-of-gdp\\_growth-2016-graph33-en](http://www.oecd-ilibrary.org/economics/economic-policy-reforms-2016/the-labour-share-of-gdp_growth-2016-graph33-en).

The relative differences that we will focus on below also should be put into an ‘absolute’ context. We can obtain such a picture from data on average earnings converted to purchasing power parity, presented in Figure 1.5, and from data on gross disposable income of households per capita converted to purchasing power parity based on national accounts calculations, presented in Figure 1.6.



**Figure 1.5** Average earnings in purchasing power parity in European countries in 2014 (% of EU-28 average). Countries are ranked in descending order according to their hourly earnings

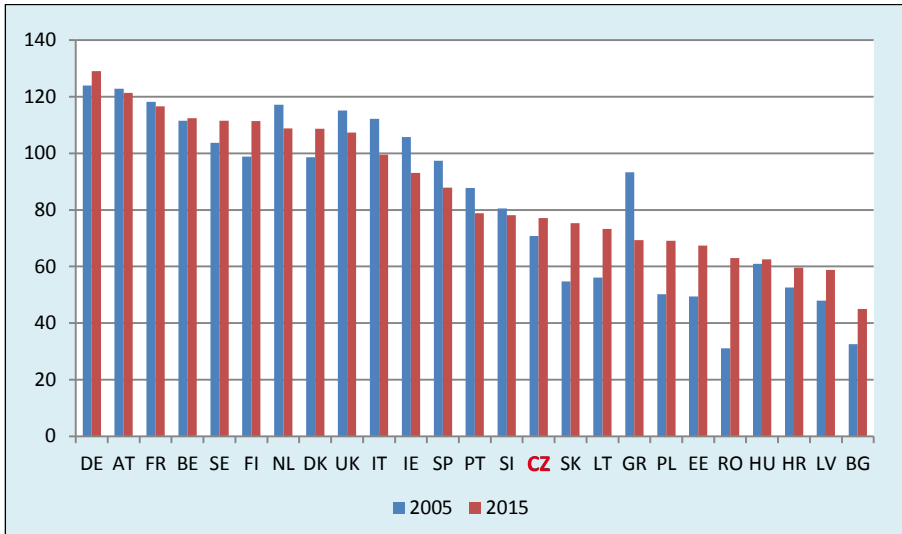


**Source:** Eurostat database, SES survey.

In 2014 *real earnings* in the CR were slightly under 35% of the average for the EU 28. Of the 29 European countries included, the CR ranked seventh from the bottom in terms of hourly and yearly earnings and eighth from the bottom in terms of monthly earnings. A comparison of individual countries shows that hourly earnings in the CR are equal to 60% of hourly earnings in Slovenia and to 33% of earnings in Austria. Men’s earnings rank slightly better than women’s (35.8% vs. 33.5% of the European average of hourly wages).

Earnings from dependent employment are not, however, the population’s only source of income; other sources include incomes from business activities, property, and, especially, social benefits. Differences between countries are thus often much smaller when indicated as total incomes than as wages. To illustrate, the standard deviation among the countries studied for real hourly wages (converted to purchasing power parity) was 64 and for real gross wages it was 24, and it decreased by 6 percentage points between 2005 and 2015. Per capita income in the CR is 77% of the average for the EU-28, and thus after Slovenia the CR ranks top amongst transition countries on this indicator.

**Figure 1.6** Gross disposable income of households per capita in PPS in European countries in 2005 and 2015 (% of EU-28 average). Countries are ranked in descending order according to income level in 2015



**Source:** Eurostat database, table tec00113.

**Note:** The latest figures refer to the year 2014 in the CR and the year 2012 in Croatia.

While relative income disparities in the CR are small and GDP is also low compared to Western Europe, the two indicators together amount to a small difference in household purchasing power. By this logic, however, the Bulgarians would be the biggest egalitarians, and so too would the inhabitants of all those countries where the relative disparities might be large, but given the low level of GDP they are reflected only as small real absolute differences.

At the same time we could say that while, in the past, social structure used to be a world of for the most part relative differences existing within the framework of a country (or even more narrowly defined regions, towns, etc.), global interconnectedness and the ease with which people can move between countries and continents has had the effect of strengthening the significance of absolute differences which are derived from a much broader context than that of an individual country or region. We will deal with this subject in more detail in Chapter 7, where we focus on poverty.

## 2. Data sources, selection of countries, and the time period

To paint as full a picture as possible of the situation in the CR and its position in the European context, in this study we use multiple sources of data and various indicators. To answer the central question of the study – are Czechs exceptional in some way? – the essential starting point is to make a cross-national comparison of the situation in the present day and retrospective look back at development after 1990, when fundamental changes occurred. The data used in the analysis comprise earnings, household incomes, and other indicators of living conditions, including subjective reflections.

There is a long history in Czech statistics of regularly surveying household wages and incomes, a tradition that goes as far back as the 1950s, if not to the pre-war era, when family budgets of several hundreds of households were surveyed in the modest circumstances of the time. In the communist era, wage surveys were based on the obligatory reports issued by companies, and data on household incomes were surveyed in Microcensuses, the first of which was conducted in 1956. In the Microcensus surveys conducted in 1958–1988, data on wages and incomes were obtained from the entities that were paying the wages (firms and organisations). In the post-1989 era, data are still collected from firms, but in the case of household surveys we have to rely on what respondents report.

When the CR joined the European Union (EU), Czech statistics was linked to EU statistics, whose methodology is regulated by Eurostat. This made cross-national comparisons easier to perform and more reliable. To measure earnings, Eurostat conducts the periodic *Structure of Earnings Survey (SES)*, which is usually based on national labour force surveys (in the CR however the data are from the ISPV). The integrated database contains data on wages in manufacturing industry, construction, and services.

For income and other indicators of household finance, the biggest source of data since 2005 has been the annual survey *EU Statistics on Income and Living Conditions (EU-SILC)*, which in the CR is fielded by the CSO under the name 'Living Conditions'. National data for this survey are collected in the spring months of the given year. Questions on the topic of income ask about data of the preceding year. Economic activity is reported for individual months over the preceding year and also for the current data collection period. For example, in the case of a survey conducted in 2006, indicators survey income and the employment of household members in 2005.

## 2. Data sources, selection of countries and the time period

Eurostat uses the year in which the survey was conducted as the year it assigns to the data, and the reason it gives for this is that estimating income based on the income reference period can be considered as the best possible indicator of current income (Eurostat 2010). However, in this study, wherever we compare data from the cited survey with other sources of information, we favour citing the year to which the income data refer in terms of their information content. However, when multiple different indicators are combined this is not always possible.

There are many important institutions that produce cross-national comparisons in this area and they have data summaries and related analyses that we can draw on. Besides the European Commission (and Eurostat as part of it), these institutions include the OECD, the ILO and the UN's European Economic Commission. Among some of the major institutions working on this issue we can also cite the *European Foundation for the Improvement of Living and Working Conditions* (Eurofound) based in Dublin, the *Wiener Institut für Internationale Wirtschaftsvergleiche* (WIIW), the *Luxembourg Income Study* (LIS), the *European Trade Union Institute* (ETUI) based in Brussels, and *EUROMOD at the Institute for Social and Economic Research*, University of Essex. In transition countries, the most important research institute is *TÁRKI* residing in Budapest.

Among more recent sources, there are the databases of inequality indicators such as *The World Wealth and Income Database* (WID) and the *World Income Inequality Database* (WIID). The first of these two databases was created in 2015 in connection with the increased attention being given to the concentration of wealth and it came about at the initiative of aforementioned economists Piketty and Atkinson. The second of these databases has been administered for some time by UN research agency UNU-WIDER in Helsinki. The newest of the institutions collecting and analysing such data is the *International Inequalities Institute* (III), which was founded in 2015 at the London School of Economics.

Along with comparative tables published by Eurostat, of major importance for us are two sources that work with SES data, which are otherwise difficult to access. The first of these is a study commissioned by the European Parliament's Committee for Employment and Social Affairs which contains a valuable comparison was conducted of EU-SILC and SES data for 2004–2012 (European Commission 2015). The second is a study by a team of researchers at WIIW, which contains an analysis of SES survey data for the years 2002, 2006 and 2010 (WIIW 2014).

For information on public opinion, there are the surveys that are conducted as part of the *International Social Survey Programme* (ISSP), the

## 2. Data sources, selection of countries and the time period

*European Values Study (EVS)*, *European Social Survey (ESS)*, and the *European Working Conditions Survey (EWCS)*. We should also mention the survey on *Economic Expectations and Attitudes*, which was launched in May 1990 in former Czechoslovakia and was initially conducted semi-annually and then once a year until 1998. Data collection was conducted by the STEM, the first research agency in the CR focusing on socio-economic issues.

We do not always include the same circles of countries in comparisons, which depend on the availability of data. However, differences are small – in most cases we include EU member countries (though to slightly improve the arrangement of the figures we leave out Cyprus and Malta), and in many cases we also include other states that joined in the large comparative surveys within the framework of EFTA (Island, Norway, and Switzerland). When using ISSP surveys we select only European countries.

The time frame varies considerably. When observing main changes, we go back to the start of the transformation period or even slightly earlier (this relates to the unique data from the Microcensus 1988). Cross-national comparisons in most cases cover the period since the CR joined the EU. For research on attitudes, the comparative data are somewhat older – the ISSP Social Inequality module was last conducted in 2009, the EVS in 2008. The regular ESS would have been useful to draw on for the most up-to-date data on attitudes, but it does not much focus on the subject we are interested in.

The main source of data in this study is the EU-SILC survey. Because data on incomes in this survey are based on the reports of households, they can be undervalued. Information on the extent of this undervaluation can be provided by comparing these data to National Accounts data and specifically to the indicator on total disposable household income.

**Table 2.1 Total disposable income per capita in the Czech Republic according to the National Accounts and the EU-SILC (Living Conditions), 2005–2015 (yearly thousands CZK and %)**

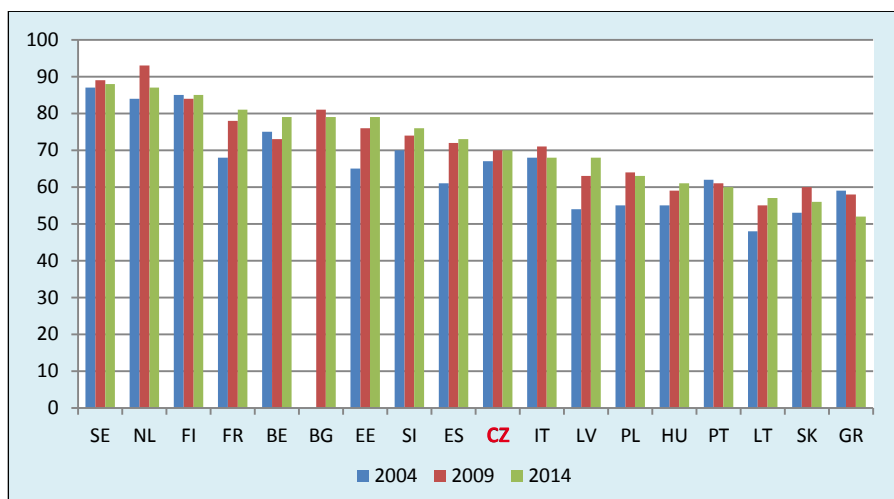
	2005	2007	2009	2011	2013	2015
<b>National Accounts (NA)</b>	163.0	184.8	201.6	204.2	214.0	163.0
<b>Living Conditions (LC)</b>	107.9	126.3	140.9	145.5	150.9	107.9
<b>Ratio LC/NA in %</b>	66.2	68.3	69.9	71.3	70.5	70.8

*Source: National Accounts database and the EU-SILC (Living Conditions) survey, calculation made by Michaela Jirková (CSO).*

## 2. Data sources, selection of countries and the time period

In Table 2.1 we compare National Accounts data with disposable household income per capita according to the Living Conditions survey. While this survey covers only individual and families living in flats, National Accounts data are calculated as averages per capita for the population as a whole. The correspondence between the indicators has significantly improved since 2005. Per capita incomes recorded in the Living Conditions survey since 2009 are around 70% amount of the amount calculated in the National Accounts. The difference is due in a small part due to the slightly different population surveyed, but in a large part to the undervaluation of earnings and especially to the inclusion of various other sources of household income in the National Accounts.

**Figure 2.1 Total disposable income per capita according to the National Accounts database and the EU-SILC survey in European countries in 2004, 2009 and 2014. Countries are ranked in descending order according to the share of disposable income EU-SILC/NA**



**Source:** Eurostat database, calculation made by Michaela Jirková (CSO).

**Note:** Disposable income is calculated per person or inhabitant.

A cross-national comparison of countries using available data listed in Figure 2.1 indicates that Czech statistics are in good shape in terms of the completeness of reported income. The CR ranks around the average for the countries studied but is ahead of the other transition countries – except Slovenia and Bulgaria. At the top of the ladder are countries that use official

## 2. Data sources, selection of countries and the time period

registers to measure income instead of asking households – the coverage is as high as 90%. What is surprising, is the high score Bulgaria attains, which contrasts with Romania (which is not included in the figure owing to missing data in two of the selected years). In 2009 the ‘coverage’ of household data on incomes in Bulgaria was 81%, while in Romania it was 47%.

The insufficient coverage of income data remains a problem that needs to be solved. Therefore, an important initiative was established by the OECD for developing methodology enabling to apply quintiles distribution on incomes, consumption, and savings data in the National Accounts. For this purpose, *Expert Group on Disparities within National Accounts* (EG DNA) was established. A similar methodology called *Distributional National Accounts* (DINA), aimed at interconnecting data of household surveys with fiscal and wealth data, is developed within the project WID.

Lastly, the issue was discussed on the workshop on ‘Harmonization of Household Surveys, Fiscal Data and National Accounts: Comparing Approaches and Establishing Standards’ held at the Paris School of Economics in May 2018. Thomas Piketty summarized three steps to a ‘sophisticated DINA’ starting from large micro-files of income tax declarations, using household surveys for imputing income flows which do not appear in those declarations and finally using national accounts to impute other missing incomes (<https://www.dropbox.com/s/jc3e9e7ande7s7n/Piketty.pdf?dl=0>)

Within the WID project, an important analysis of top income shares in the Czech Lands from the end of the 19th century to today was conducted by Filip Novokmet (2018). Using historical tax registers, wage data and household income surveys, he uncovered a U-shaped evolution of the percentage of top income receivers in the course of 20th century in what is today the Czech Republic. Higher shares in the first half of the 20th century were due to a high concentration of capital income at the top of the income distribution. Communism led to the virtual annihilation of private capital income and falling top income shares. The transition to a market economy saw a rise in both top labour and top capital incomes. As Novokmet stressed, the CR is a suggestive example of the critical role played by the interaction between private, public, and foreign capital in shaping high-end income patterns.

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## 2. Data sources, selection of countries and the time period

For the purpose of this overview study, we do not apply any sophisticated analyses – these belong in expert papers and studies. Similarly as many inequality studies we use the following indicators:

*Quantiles* divide the population up into equally large groups – for example deciles. Within each group it is possible to calculate the average income or the sum of incomes and compare the resulting values between groups or with the total population. The ratio 10:1 indicates the share of the sums of incomes above the top and below the bottom deciles of the population and it shows how much larger the incomes in the top decile are compared to those in the bottom decile. A more frequently used ratio is the D9/D1 which indicates the ratio of the upper limit of the bottom decile (D1) and the lower limit of the top decile (D9). The ratio between the two, D9/D1, is informative but it omits the one-tenths of income recipients below the first and above the ninth deciles, which, roughly put, are the richest and the poorest parts of the population.

Quantiles can divide a population into various groups – it is equally possible to use quartiles (division into four groups) and quintiles (five groups). However, these are all very rough measures of income distribution. Since 2001 a substantial part of economic research on inequality has focused on the wealthiest one-per cent group (or less – even 0.01%) of the population. Sample surveys are of no use for such a research, so financial statistics based on tax declarations is used instead.

*Gini coefficient* expresses the deviation of the observed distribution from perfect equality, and theoretically ranges between 0 (perfect equality: everyone has the same income) and 1 (perfect inequality: one takes all). The Gini coefficient is derived from the Lorenz curve, which ranks income from the lowest to the highest, relates the area between the line of perfect equality and the observed Lorenz curve to the area between the line of perfect equality and the line of perfect inequality

When comparing households of different sizes and compositions an important factor is what kind of equivalence scale is used to convert them into 'equivalent units' or 'equivalent adult'. These scales take into account savings that are accumulated through economies of scale, when sharing household expenditures, in particular costs of housing. Instead of simple recalculations per person, two scales of consumer units are now used: the OECD scale (or so-called Oxford scale) assigns the first adult person in the household a weight of 1.0, other members of the household over the age of 13 a weight of 0.7, and children up to the age of 13 inclusive a weight of 0.5; the EU scale (or the so-called modified OECD scale) assigns these same persons, respectively, weights of 1.0, 0.5, and 0.3.



## 2. Data sources, selection of countries and the time period

We should note that the use of universal scales for countries with diverse prices and consumption structures can be somewhat tricky. In the extensive literature of Eurostat and the European Commission we were nevertheless unable to find any study in which the construction of the modified OECD scale (the one almost exclusively used) is thoroughly explained. The ground-breaking analysis prepared at the very outset of the Luxembourg Income Study (Buhman et al. 1988) which presented a variety of options in constructing equivalence scales unfortunately never saw any successors. This analysis compared four implicit scales: 1) constructed in statistical surveys; 2) constructed in social programmes; 3) derived from the structure of household expenditures; and 4) derived from the subjective perception of consumption. The scales differed quite significantly.

By contrast, the above-mentioned equivalisation method used in EU programmes and in the outcomes and analyses of Eurostat has almost been rendered taboo. Top experts in the field have commented cautiously on it that 'it is misleading to rely on a single equivalence scale'. They suggest supplementing basic observations with information about differences by age and type of household and especially to encourage those member countries that are affected most by the modified OECD scale to produce an alternative scale specific to the given country. In this connection, the early study of Večerník from 1991 is referred to (Marlier et al. 2007, pp. 159–161). Despite the enormous analytical interest in this field in the wider sense (and despite large projects funded by the EU dealing with it) it is regrettable that truly little progress has been made in this specific area of the last quarter century.

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In the next chapters we will proceed – to the extent that the available data sources allow – by first showing the development of the CR with respect to a particular issue and then the position of the CR in a European comparison. In many cases we also provide a European comparison in a time series, although in most cases this applies to the period after the year 2000. Because we also discuss a number of smaller issues in some chapters, we also proceed in the same way there, that is, we first describe the situation in the CR and then present it in a European comparison.

### 3. Disparities in earnings

Consistent with the aim of this study, we will first focus on the differentiation of employees' earnings. Information about the scale and development of wage differentiation in the CR can be drawn from two sources – from a database of companies and organisations and from surveys conducted among households. As Table 3.1 shows, these two sources do not produce the same results. While company data indicate almost a steady growth of disparities, data from households show inequalities peaking in the mid-1990s, with a slight decline since then. The results do, however, agree on the overall rise of wage disparities. More concretely, the relation between the averages of the top and bottom wage deciles has increased 1.6-fold since 1990.

**Table 3.1** Differentiation of employees' earnings in the Czech Republic according to company surveys and household surveys in 1989–2015 (deciles and coefficients)

#### A. Company surveys

Decile	1989	1993	1997	2002	2006	2010	2015
1	4.7	4.4	4.6	4.3	4.2	4.0	3.8
2	6.5	5.6	5.9	5.6	5.4	5.3	5.0
3	7.3	6.6	6.9	6.6	6.4	6.3	6.1
4	8.2	7.4	7.7	7.4	7.3	7.2	7.1
5	9.1	8.4	8.5	8.2	8.1	8.0	8.1
6	10.1	9.4	9.3	9.0	9.0	8.8	9.0
7	11.0	10.7	10.2	10.0	10.0	9.7	10.1
8	12.2	12.2	11.0	11.4	11.3	11.3	11.6
9	13.7	14.6	13.1	13.7	13.6	13.6	14.1
10	17.2	20.7	22.8	23.8	24.7	25.7	25.1
<b>Total</b>	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Decile ratio D9/D1</b>	2.5	2.7	2.8	3.0	3.1	3.3	3.6
<b>Ratio 10:1</b>	3.7	4.7	5.0	5.5	5.9	6.4	6.0

### 3. Disparities in earnings

**Table 3.1 (continued) Differentiation of employees' earnings in the Czech Republic according to company surveys and household surveys in 1988–2015 (deciles and coefficients)**

#### B. Household surveys

Decile	1988	1992	1997	2002	2006	2010	2015
1	5.3	5.0	3.9	4.4	4.1	4.3	4.2
2	6.6	6.1	5.5	5.6	5.4	5.7	5.5
3	7.4	6.9	6.6	6.5	6.6	6.7	6.5
4	8.3	7.7	7.5	7.3	7.5	7.5	7.4
5	9.2	8.5	8.4	8.1	8.7	8.3	8.3
6	10.0	9.4	9.4	9.1	9.1	9.2	9.3
7	10.9	10.4	10.4	10.1	10.4	10.4	10.3
8	12.0	11.7	11.8	11.5	11.7	11.6	11.6
9	13.3	13.8	14.1	13.8	13.9	13.8	13.7
10	17.0	20.5	22.4	23.4	22.5	22.6	22.1
<b>Total</b>	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Decile ratio D9/D1</b>	2.4	3.1	3.2	3.0	3.2	3.0	3.1
<b>Ratio 10:1</b>	3.2	4.1	5.7	5.3	5.5	5.3	5.3

**Source:** Wage Surveys, Microcensuses and the EU-SILC (Living Conditions) surveys (authors' calculations from data files).

**Note:** Wage differentiation according to company surveys was calculated on the basis of tables from the CSO containing only bands, so these data are approximate. In the case of the household surveys, the calculations are based on individual data using a survey from the following year (see the explanation in Chapter 2).

We can use similar sources for the cross-national comparisons as for the CR, but only for years after 2000. Unfortunately, there is no way to capture the very interesting trend in the development of wage differentiation directly after the year 1990 on a similar comparative source. Instead, however, we can use the TransMONEE database founded in 1992 in the *UNICEF Regional Office for CEE/CIS* in Florence. In its frame data on earnings and household income inequalities were collected on the basis of information provided by national statistics offices. The time series started in 1989 and ended with the year 2002.

### 3. Disparities in earnings

**Table 3.2 Wage differentiation in transition countries 1989–2002 (Gini coefficients)**

	CZ	HU	PL	SK	SI	EE	LV	LT	BG	RO
1989	0.20	0.27	0.21	0.20	0.22	0.25	0.24	0.26	-	0.15
1990	-	0.29	-	-	0.23	-	-	-	0.21	-
1991	0.21	-	0.24	-	0.27	-	0.25	-	0.26	0.20
1992	0.21	0.30	0.25	-	0.26	-	0.33	0.37	-	-
1993	0.26	0.32	0.26	-	0.28	-	0.28	-	0.25	0.23
1994	0.26	0.32	0.28	-	0.28	-	0.33	0.39	-	0.28
1995	0.28	-	0.29	-	0.36	-	0.35	0.37	-	0.29
1996	0.25	-	0.30	-	0.30	-	0.35	0.35	0.29	0.31
1997	0.26	0.35	0.30	-	0.31	0.34	0.34	0.35	-	0.35
1998	0.26	-	0.29	-	0.31	0.38	0.33	0.36	-	0.36
1999	0.26	-	0.31	-	0.31	0.40	0.33	0.37	-	0.37
2000	0.27	-	-	-	0.31	0.38	0.34	-	-	0.41
2001	0.27	0.39	0.38	-	0.31	-	0.32	0.39	-	0.39
2002	0.27	-	-	-	0.31	-	0.33	0.39	-	0.39
2002	0.29	0.35	0.35	0.35	-	0.40	0.46	0.42	0.38	0.39

**Source:** UNICEF 2004 (Table 10.11).

**Note:** 2002 data on the last row is from Eurostat database, survey SES (European Commission 2015, table A3.4). Monthly wages are based on company surveys.

Table 3.2 draws on data from the above-mentioned database to present the trend in *wage differences after 1989 in transition countries*. At the start, wage disparities were not even across the transition countries, but they differed most by five percentage points. After 1989, differences increased significantly in all of the countries observed. If we leave aside the extreme case of Romania, then the increase was biggest in Poland, Hungary, and Lithuania. By contrast, the increase in earnings inequality was smallest in the CR, Slovenia, and Latvia. Slovakia, on which the database is lacking a complete time series, could probably also be included in this group of countries. The CR retained its position as the country with the smallest wage differentiation.

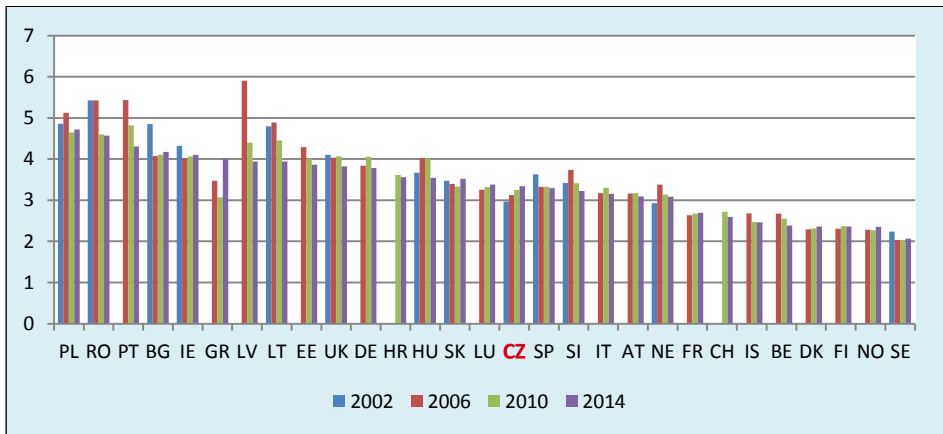
### 3. Disparities in earnings

As Table 3.2 shows, the only pronounced increase in wage differentiation was in the 1990s and for the most part only in the first half of that decade. The distance between individual transition countries increased slightly, but the order of countries according to the scale of differences for the most part remained the same.

From 2002 it is possible to observe earnings of employees in dependent employment in the regular SES surveys, but not every country has a complete time series. Unfortunately, from these surveys Eurostat only publishes basic quantile values, specifically between the upper limit of the bottom decile (D1) and the lower limit of the top decile (D9). The ratio between the two,  $D9/D1$ , is informative but it omits the top and bottom deciles of the working population.

Figure 3.1 shows the development of the earnings inequality after 2000. It varies considerably between countries. The CR occupies a central position in between Germany and Austria and from the perspective of development the CR is one of the few countries where the range of earnings disparities regularly increased, even the most in a European comparison. In the majority of countries, however, the range of earnings disparities fluctuated and in the long term there was a decreasing trend. In a short-term perspective, while a decreasing trend dominated in the crisis period, an increasing trend prevailed in the post-crisis period.

**Figure 3.1** Differentiation of hourly earnings in European countries according to company surveys in 2002–2014 (decile ratio). Countries are ranked in descending order according to their level of inequality in 2014

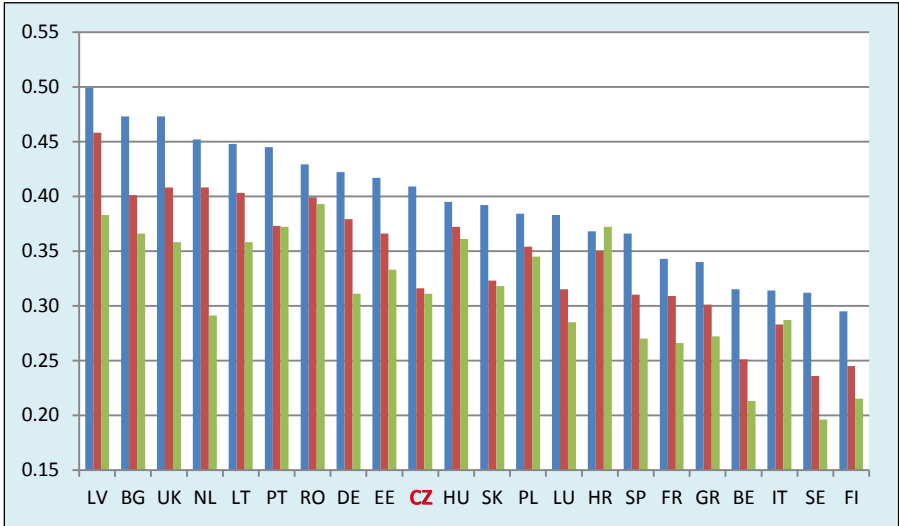


Source: Eurostat, SES survey, table *earn\_ses\_hourly*.

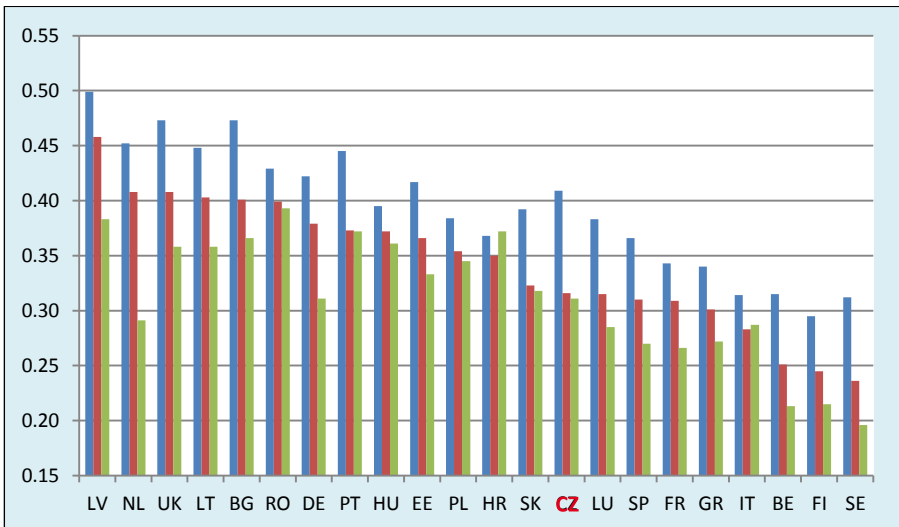
### 3. Disparities in earnings

**Figure 3.2A** Differentiation of earnings in European countries according to company surveys in 2010 (Gini coefficients)

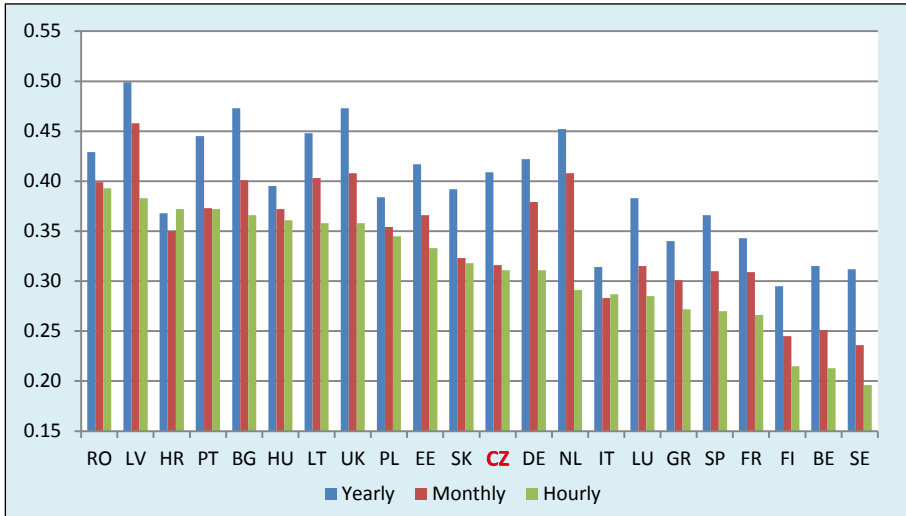
**1. Countries are ranked in descending order according to disparities in yearly earnings**



**2. Countries are ranked in descending order according to disparities in monthly earnings**



**3. Countries are ranked in descending order according to disparities in hourly earnings**



**Source:** Eurostat, SES survey (European Commission 2015).

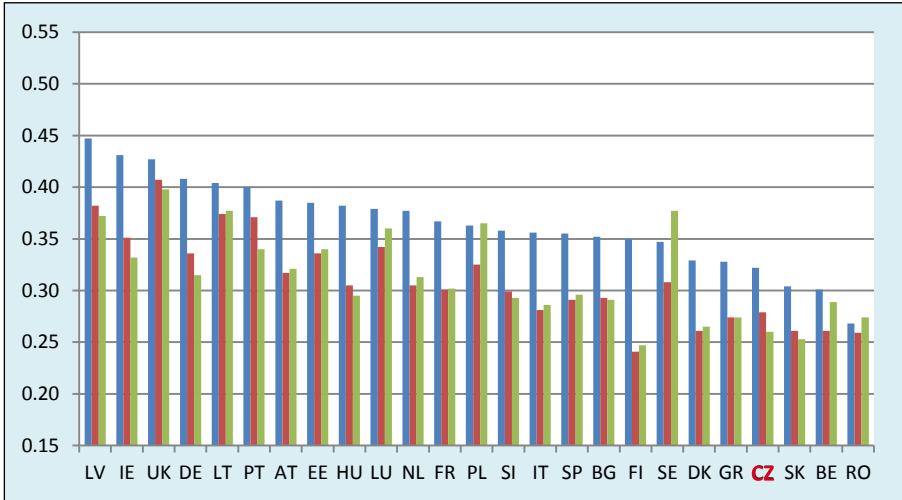
A better indicator of earnings differentiation is the Gini coefficient, which encompasses all distribution. In this case, given the difficulty accessing sets of individual data from the SES, we use results contracted by the European Commission, comparatively from both surveys, but the last available only for the year 2010. As regards the differences of the time references, the greatest differentiation according to both surveys is in yearly earnings (the average Gini coefficient for the EU-28 is 0.39 according to the SES and 0.36 according to the EU-SILC), while the least differentiation is in hourly earnings and this is the same according to both surveys (0.31).

As Figures 3.2A-B show, the ranking of countries differs depending on the source of data and depending on whether we are looking at hourly, monthly, or yearly wages. In most cases, however, the ranking of countries changes only little when we compare different timeframes in the same survey. The figures do not reveal any ‘systemic’ differences between Western and Eastern countries (or between transition and non-transition countries) in the case of yearly and monthly earnings, but they do appear in the case of hourly earnings according to the SES survey. In this case, most of transition countries – though not the CR – rank at the top of the ladder of earnings inequality. Conversion to hourly earnings thus changes the order of countries more than between yearly and monthly earnings.

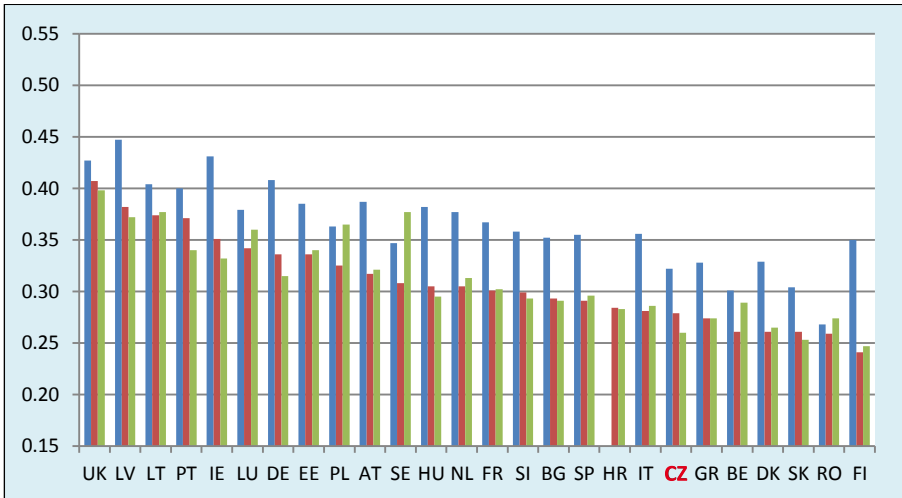
### 3. Disparities in earnings

**Figure 3.2B** Differentiation of earnings in European countries according to household surveys in 2010 (Gini coefficients)

**1. Countries are ranked in descending order according to disparities in yearly earnings**

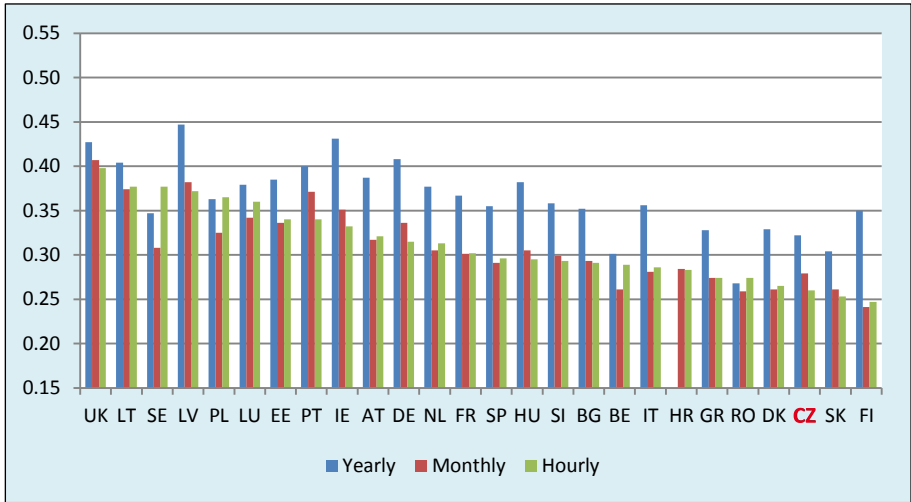


**2. Countries are ranked in descending order according to disparities in monthly earnings**





**3. Countries are ranked in descending order according to disparities in hourly earnings**



**Source:** Eurostat, EU-SILC survey (European Commission 2015).

Where the CR ranks comparative in terms of earnings differentiation differs significantly depending on whether we look at earnings differentiation using SES or EU-SILC data. While according to company surveys (which include wages in industry, construction, and services), the CR figures roughly around the middle in a European ranking and is close to Germany, according to household surveys (which include all employees) it is located towards the bottom of the ranking, close to Denmark and Finland. The more reliable data are the SES data, because, even though they do not take in the entire working population, the data are not affected by a subjective undervaluation of earnings. When we examine earnings differentiation based on EU-SILC data the CR is by no means at the bottom of the ladder, but from the perspective of monthly wages it places as far down as ninth from the bottom.

When examining earnings inequality it is about more than just changes in overall differentiation, which represents rather a general frame in which specific changes occur, one that can encompass various differences depending on various categories of workers. What's more important is who is profiting from the shifts in differentiation and who is losing out, regarding various characteristics of workers and jobs. The top factors in order of significance in the CR are gender and education differences. Wage trends in relation to these characteristics since 1988 are presented in Table 3.3.

### 3. Disparities in earnings

**Table 3.3 Wages of employees by gender and education in the Czech Republic, 1988–2015 (%)**

	1988	1996	2002	2006	2010	2012	2014	2015
<b>Men:</b>								
Elementary	91.3	74.0	73.5	64.1	68.4	65.8	78.5	65.9
Vocational	94.7	86.7	82.5	79.2	81.6	80.1	77.7	79.5
Secondary	102.3	109.8	106.6	111.4	103.8	101.0	100.1	100.6
Tertiary	125.9	162.7	157.9	156.8	152.7	152.6	152.3	145.0
<b>Average</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Women:</b>								
Elementary	91.3	74.5	68.9	66.8	69.1	67.5	64.5	65.8
Vocational	92.6	82.4	77.2	75.6	73.4	72.8	71.3	71.8
Secondary	106.4	112.7	110.5	108.0	104.5	104.3	102.2	101.1
Tertiary	138.2	159.7	149.0	150.1	144.4	145.4	144.2	138.9
<b>Average</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Total:</b>								
Elementary	85.5	70.1	67.9	62.1	67.2	65.1	69.2	64.0
Vocational	97.6	88.5	83.1	81.1	81.7	79.7	78.0	79.3
Secondary	101.3	106.8	105.7	106.0	101.6	100.4	99.0	99.1
Tertiary	134.8	164.6	156.8	155.9	149.3	150.2	148.8	141.4
<b>Average</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Women's wages in % men's wages:</b>								
Elementary	68.2	71.5	68.6	73.4	76.8	76.2	76.8	74.1
Vocational	66.7	67.3	68.5	67.3	68.3	67.7	68.3	67.0
Secondary	71.0	72.8	75.8	68.3	76.5	76.8	76.5	74.6
Tertiary	74.9	69.6	69.1	67.5	71.8	70.9	71.8	71.0
<b>Average</b>	<b>68.2</b>	<b>70.9</b>	<b>73.2</b>	<b>70.5</b>	<b>76.0</b>	<b>74.4</b>	<b>76.0</b>	<b>74.2</b>
<b>GWG</b>	<b>31.8</b>	<b>29.1</b>	<b>26.8</b>	<b>29.5</b>	<b>24.0</b>	<b>25.6</b>	<b>25.9</b>	<b>25.8</b>

**Source:** Microcensuses 1988, 1996 and 2002, the EU-SILC (Living Conditions) survey (authors' calculations).

**Note:** In the case of the Living Conditions survey we used data from the subsequent year. GWG = Gender Wage Gap is calculated as the difference in the average wages of men and women divided by the average wage of men.

### 3. Disparities in earnings

The biggest changes in the structure of earnings occurred in the early 1990s, when, along with the change in political system, the value of education and qualification in wages substantially increased. The reasoning in the communist era was so the education of people is an investment of the state and, therefore, the return to education also belonged to ‘all the people’ and not to individuals. With the onset of the transformation process the status of education turned into a private investment with the consequence that the individual should enjoy a return on. The most pronounced change in the structure of earnings was the increased effect of education levels.

To document this change, let say that the wages of tertiary-educated workers rose in relative level from 134% of the average wage in 1988 to 144% in 1992 and to 165% in 1996, with some decrease after. Among tertiary-educated professionals, however, a widening gap grew between those working in management, finance, and the justice system and those working in the sectors of education, health, and research. An especially blatant example of inequality is represented by the state of teachers’ wages, which remain low despite urgent appeals to address the problem (IDEA 2015).

As regards wage differences between men and women, significant changes occurred here too. In the communist era disparities by gender were the main source of wage differentiation – according to Microcensus data differences between men’s and women’s wages accounted for 28% of earnings variance in 1988, while differences between the four education levels accounted for only 12%. During the 1990s the situation reversed as education became the most important factor in wage differentiation. In 2002, gender accounted for 11% of the explained variance but education accounted for 19%. This trend continued and reached a proportion of 9%:20% in 2014. In 2015 there was a slight shift back in the other direction to 10%:18%.

Contrasting with these changes, however, is the fact that the CR unhappily ranks top in the EU in terms of differences between men’s and women’s wages, although it do so in the company of other Central European countries – Slovakia, Austria, and Germany. Based on the *Unadjusted Gender Pay Gap* indicator from the SES data, the difference between the hourly wages of men and women in dependent employment measured as a percentage of men’s wages is as much as 22%, and since 2002, despite some fluctuations, there is no evidence of a decreasing trend.

The situation looks markedly different when we examine specific differences, net of other factors. This is apparent from the results of analyses made by the WIIW team on data from the SES survey for 2002–2010. They conducted a regression analysis that included personal characteristics (sex,

### 3. Disparities in earnings

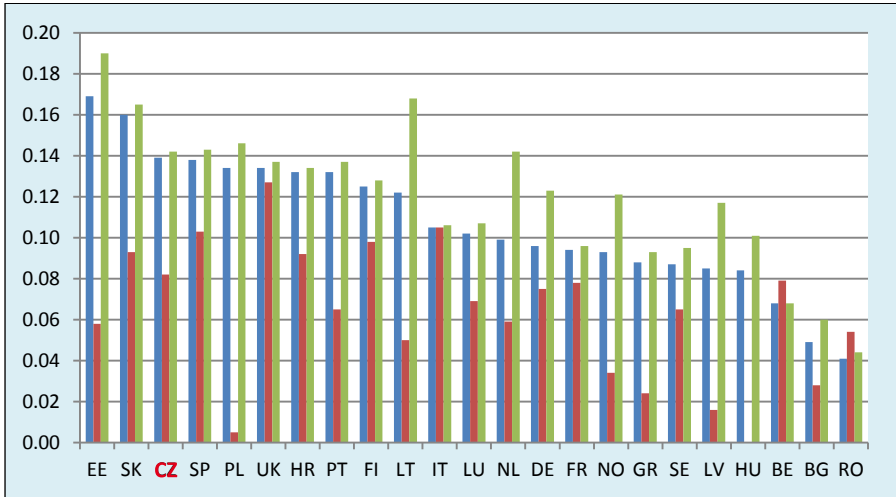
age, education), employment characteristics (length of employment, type of work contract, profession), and company characteristics (sector, size, private vs. public company or organizations, the existence or not of a collective agreement).

Looking at all the countries together, personal characteristics explain 20% of wage variance, employment characteristics explain 35%, and company characteristics 15%. The share of explained variance in earnings is evidently high, as only 30% of the differences remain unexplained by controlled characteristics. As regards individual explanatory factors, the occupation itself explains 25% and education 15% of earnings variance, while the variable of gender accounts for the least amount of the variance (3.5%). Looking at Czech data only, the role of gender in 2002 was above the average measured for all the countries together (8%), but by 2010 it had fallen to half that and it was closer to the average for all the countries (WIIW 2014, p. 29).

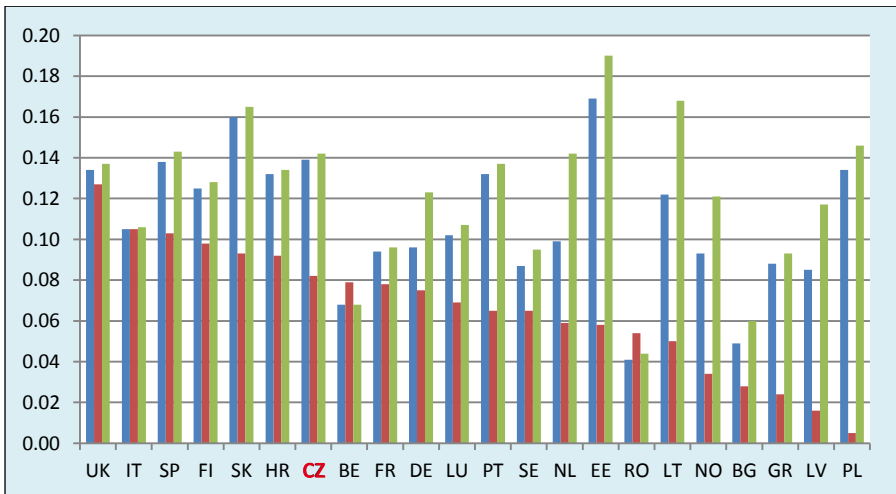
### 3. Disparities in earnings

**Figure 3.3** The deficit in earnings of women compared to men in European countries, 2010 (unstandardised regression coefficients reflecting characteristics of persons, jobs and companies)

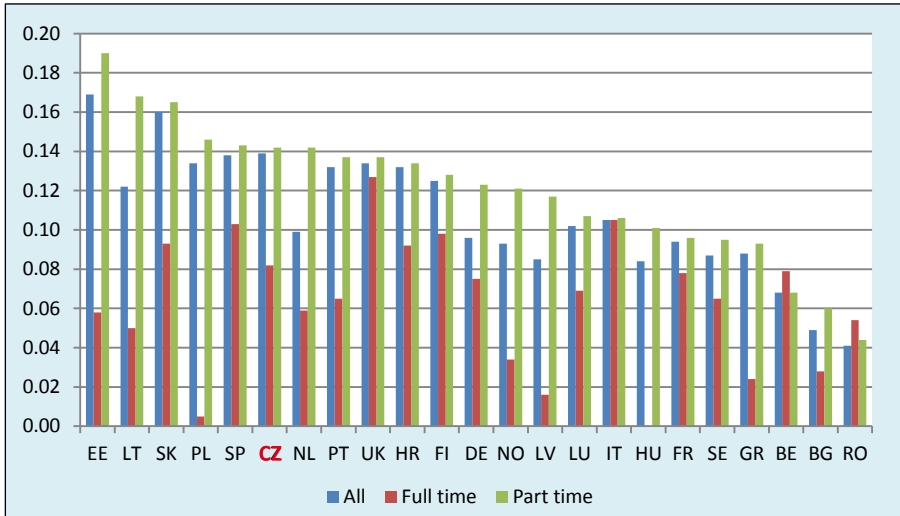
**A.** Countries are ranked in descending order according to the deficit in earnings of all employees



**B.** Countries are ranked in descending order according to the deficit in earnings of full-time employees



**C. Countries are ranked in descending order according to the deficit in earnings of part-time employees**



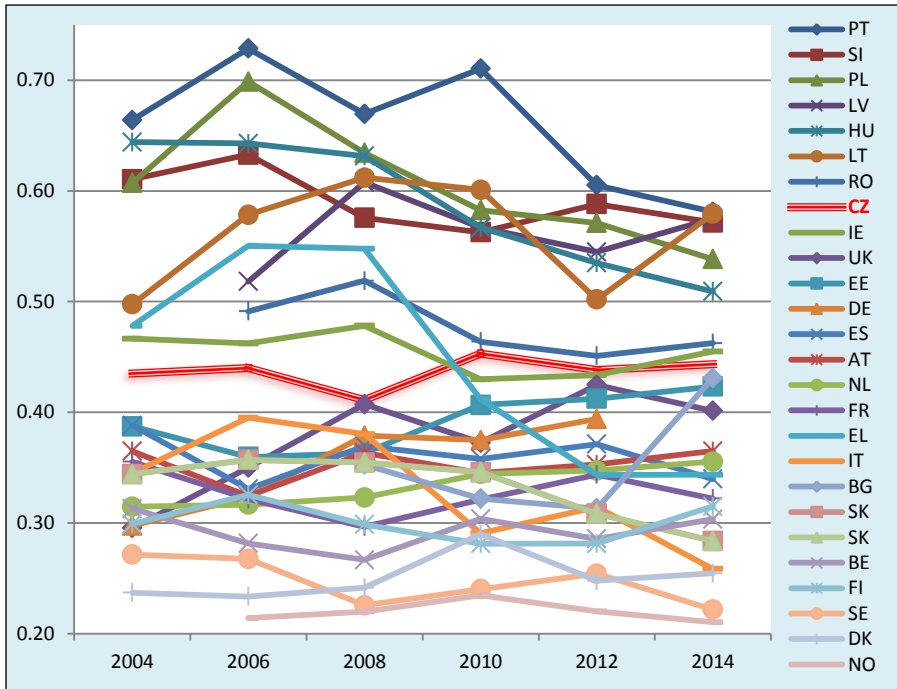
**Source:** WIIW 2014 (SES).

What is also significant is the divide of the women’s wage deficit according to type of employment contract (in terms of hours worked, i.e. part time vs. full time), as Figures 3.3A-C illustrate. While in relation to total earnings the CR ranks third among countries with the highest deficit in gender earnings, when it comes to full-time earnings the CR descends to seventh place, while such countries like the ‘liberal’ United Kingdom and ‘socialist’ Finland place above it with bigger deficits. When it comes to part-time earnings the CR is in sixth place, and mostly transition countries rank higher with bigger deficits. The findings suggest the need to revise the overly (self-)critical indication of gender discrimination in the CR regarding gender pay gap.

Regarding cross-national comparison of earnings differentiation by education, it is not easy to obtain, especially if trying to construct trends. For Western countries, comparative studies reveal a very variegated picture of differences, with no way of making a clear statement about the trend in educational inequalities occurring in connection with the growing number of people with higher education and changes in the sector structure of the economy. With respect to the transition countries, in most cases these countries are absent from comparative studies, and the analyses tend to focus only on single countries. The possibility of comparing European countries has however been offered since 2005 by the EU-SILC survey.

### 3. Disparities in earnings

**Figure 3.4** Regression coefficients of tertiary education vs. secondary education in European countries, 2005–2014 (unstandardised regression coefficients)



**Source:** EU-SILC (authors' calculations from data files).

**Note:** Only persons in dependent employment are included. The Figure presents the unstandardised regression coefficients after controlling for gender and age.

Figure 3.3 shows the relative returns in earnings to tertiary education compared to secondary education. Here we present Mincerian regression coefficients, which take into account age (proxy of work experience) and gender. The fluctuations over time are not great and the results do not point to any general trend. Very roughly it is possible to see a turning point in the year 2009, when returns to education, which to that time had been rising, began to decrease slightly. But this applies more to just Western countries, where the labour market was already beginning to show signs of saturation with tertiary-educated workers. In transition countries, returns to education have remained at a higher level. Overall, the differences between the two groups of countries have stayed the same and remain much bigger than the changes over time (Mysíková, Večerník 2018b).

### 3. Disparities in earnings

**Table 3.4 Wages of employees by economic sector in the Czech Republic, 1990–2015 (%)**

	1990	1995	2000	2005 (CZ-NACE)	2005 (NACE)	2010	2015
<b>Agriculture</b>	109.7	82.8	75.9	73.3	76.5	76.5	82.7
<b>Manufacturing</b>	103.8	98.1	99.8	97.0	99.3	100.9	103.4
<b>Construction</b>	109.9	106.4	99.4	99.6	93.1	95.4	91.9
<b>Trade</b>	85.8	86.7	103.1	98.6	92.5	91.8	93.3
<b>Accommodation and food service</b>	81.3	88.5	77.6	69.9	57.3	54.8	55.2
<b>Transport and communications</b>	104.6	99.2	108.9	108.5	121.1	121.7	122.2
<b>Finance and insurance</b>	102.0	168.7	188.5	197.1	201.0	192.7	181.5
<b>Real estate activities</b>	96.7	107.1	109.3	109.3	90.6	86.4	83.4
<b>Public administrations, defence</b>	100.4	127.4	110.8	115.5	122.9	115.2	111.6
<b>Education</b>	88.1	89.4	83.0	90.6	96.2	91.3	89.3
<b>Human health and social work</b>	92.6	90.6	86.5	92.5	93.7	96.2	98.9
<b>Average</b>	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Standard deviation</b>	9.7	24.9	30.9	33.7	36.9	34.9	31.7

*Source: CSO. Table prepared by Kamila Fialová.*

*Note: The data are based on the primary occupation of the reporting unit. CZ-NACE, the Czech national classification of economic activities, was used up to the year 2005, after which the international NACE system was used. For comparison, data based on both classification systems are presented for the year 2005.*

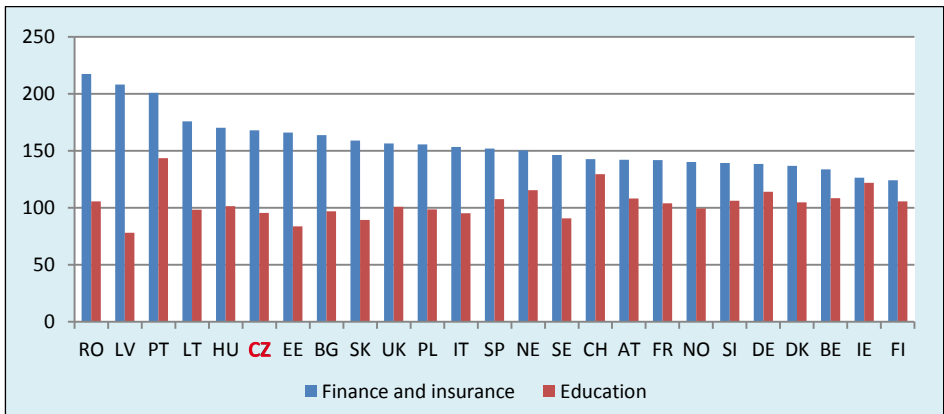
There are also significant differences by sector/branch of economic activity. After 1990 this dimension of wage differentiation underwent a substantial transformation, as under the communist regime the sector structure had been primarily determined by political priorities. As Table 3.4 shows, earnings in agriculture went into a downswing and there were also substantial decreases in manufacturing industry and transport. Wages in finance and insurance, however, soared, and public administration also saw a significant increase in wages, followed however by a decrease again. The ascent of the ‘middle-class sectors’ of education and health that was expected to occur did not happen while they reached only the wage average.



### 3. Disparities in earnings

Figures in Table 3.4 are somewhat misleading because they are based on numbers of persons, without recalculation on full-time jobs – because of missing less recent data in this format. When such a standard recalculation is applied (beginning by 2005) the sector of education reaches in 2016 97% of the average and the sector health and social work 102%. The long-term increases in standard deviation suggest that this dimension has considerable weight in the differentiation of earnings and generates differences above two times of earnings when comparing wages in agriculture and banking sector. A basic source of this aspect of differentiation are wages in the banking and insurance sector, which are comparatively high in the CR.

**Figure 3.5 Monthly earnings in the finance and insurance sector and the education sector in European countries in 2014 (% of the total average)**



**Source:** Eurostat, SES survey, table *earn\_ses14\_20*.

As Figure 3.5 shows, relative earnings in the banking sector are high in the transition countries and they are the main source of the strong differentiation of wages by sector. The CR ranks sixth among countries on the European ladder of earnings in the banking sector and in terms of the overall explanatory weight of this sector in earnings differentiation (according to standard deviation) it ranks fifth. By contrast, earnings in the education sector are comparatively low in the transition countries, and the CR ranks sixth from the bottom in this respect. It can be said that the more advanced a country is, the lower the earnings in the banking comparatively are and the smaller the gap between earnings in the banking and education sectors. The CR has the fifth-largest gap between these sectors, behind the Baltic countries and Romania.

### 3. Disparities in earnings

Changes in the above-discussed dimensions of the earnings structure are interlinked and complete themselves into positions of more specified categories of occupation. Using the ISPV database it is possible to look at average wages and dispersion by occupation (ISCO 08) and socio-economic category (ESeG). From a long-term perspective, there has been a clear rise in wages in the higher professional occupations and a widening of the difference in earnings between intellectual and manual occupations. In recent years, however, the growth in managerial wages has slackened, while there has been more wage growth in lower occupational categories and especially among qualified manual workers (CSO 2016b). It is not yet clear how the recent rapid rise of wages will affect their differentiation because earnings are increasing on all levels, due to extremely low unemployment and unsaturated demand for labour, including manual and service jobs.

All the information we have gathered thus far concerns only earnings from the formal economy. Thus, ultimately, we must also at least mention the informal economy. We know virtually nothing about household income coming from the informal economy. Estimates by Martin Fassmann (2007), drawing on a 2006 survey conducted by Jan Hanousek and Filip Palda and on Ministry of Finance data, suggest that as much as 38 % of employees (63 % of the self-employed, and 56 % of the unemployed) obtained some pay in 2000 through informal economy channels. However, in 2013's Eurobarometer survey, only 4 % of Czech respondents answered positively when asked 'Apart from regular employment, have you yourself carried out any undeclared paid activities in the last 12 months?' which is on the EU-27 average (European Commission 2014).

According to a study by the *Center for Economic and Market Analyses* (CETA), most informal jobs in Central and Southern European countries are conducted through employment of self-employed workers, thus avoiding tax and social contribution payments by employers. This practice, called the 'švarc-system' in the CR (named after the first Czech employer who applied it), is common in the sectors of construction, retail trade, catering and real estate. According to the *State Labour Inspection Office*, the percentage of švarc-system cases in the overall number of illegal workers was 10 % in 2012, but just 5 % in 2014 (CETA 2015). Another practice, particularly common in the catering sector, is to officially pay employees very little (often minimum wage) and to reward them additionally in cash, with the amount being left to the discretion of the employer.

## 4. Inequality of household income

In the early 1990s, a systemic change in the distribution area occurred, which was described as a transition from the ‘reproduction’ to the ‘market’ model (Večerník 2009). This change was particularly reflected in income inequality, which grew significantly in the first half of the 1990s. This growth is evident in the comparison of the ‘communist’ Microcensus of 1988 with the first ‘post-communist’ Microcensuses collected in 1992 and 1996. The transition also involved changes in data collection – while in the communist era, wages were reported directly by companies, and data on pension benefits by postal offices (which distributed them), beginning in the 1992 Microcensus, all data are reported by households only.

**Table 4.1** Distribution of household income per person in the Czech Republic, 1988–2015

Decile	1988	1992	1996	2002	2005	2010	2015
1	5.3	4.9	4.3	4.2	3.8	3.8	3.9
2	6.6	6.4	5.9	5.9	5.5	5.7	5.8
3	7.4	7.3	6.8	7.0	6.7	6.8	6.9
4	8.1	7.9	7.6	7.6	7.7	7.7	7.8
5	8.8	8.6	8.3	8.2	8.5	8.4	8.5
6	9.6	9.2	9.1	8.8	9.2	9.3	9.3
7	10.6	10.1	10.1	9.7	10.2	10.3	10.3
8	11.8	11.3	11.5	11.1	11.5	11.7	11.6
9	13.6	13.2	13.7	13.7	13.8	14.0	13.8
10	18.2	21.1	22.6	23.9	23.0	22.4	22.1
<b>Total</b>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
<b>Decile ratio D9/D1</b>	2.4	2.5	2.9	3.1	3.2	3.2	3.0
<b>Ratio 10:1</b>	3.4	4.3	5.2	5.7	6.1	5.9	5.7
<b>Gini coefficient</b>	0.20	0.23	0.26	0.26	0.25	0.25	0.25

*Source:* Microcensuses 1988, 1992, 1996 and 2002, the EU-SILC (Living Conditions) surveys since (authors’ calculations from data files).

*Note:* In the case of the Living Conditions surveys, the calculations are based on data from the following year (see the explanation in Chapter 2).

#### 4. Inequality of household income

In the first period, 1988–1992, the relative position of the lowest income category on the distribution scale was nearly unchanged; only the highest income group improved its position. This was the pre-privatization period of a social-liberal government that retained universal social benefits and kept wages under control. In the second period, 1992–1996, the income range expanded both upwards and downwards. This was the privatization period of a declaratory liberal government that replaced universal social benefits with targeted ones, removed wage regulation, froze the minimum wage, and finally allowed wage growth advanced labour productivity. In both periods, the middle of the income distribution was compressed.

System change has also been reflected in the factors of income disparities: while the correlation between household income and household size has weakened, the correlation between total household incomes and equalized indicators has strengthened. This reflects the fact that the differentiation in earnings has increased as a result of implementation of the market model. Therefore, unequal individual earnings could have outweighed the influence of the household economic participation rate. According to Microcensus data, household size explained variance of household income by 40% in 1988, but already in 1992, this percentage dropped to 20%, and in 1996 to 4% (Večerník 2009).

Regarding the demographic composition of income categories, the lower part of the income distribution has changed. Whereas, in 1988, the lowest decile group of the total household income was almost exclusively made up of pensioners, and they were two thirds of the decile group above, by 1996, families with children shifted into both low income groups. The lowest categories thus ceased to be made up of social transfer incomes (pensioners = inactive poor, so-called ‘old poverty’) and instead included more low labour incomes (families with children = working poor, so-called ‘new poverty’). In other words, the prevailing life-cycle income inequality profile has significantly weakened in favour of an economic-occupational profile.

Prior to moving to EU-SILC surveys, available since 2005, we should describe prior developments regarding the impact of early transition on income inequality. As in Table 3.2 above, we use the TransMONEE database in Table 4.2. The pace of the increase in household income inequality was faster during the 1990s than in the early 2000s, and it was slower in Central European countries (including the CR) than in the two Balkan countries. The resulting income inequality is much higher in the Baltic countries and Poland than in other countries in the region. But a correction of this database is needed against the EU-SILC data, as the last row shows. In fact, income inequality is low in the CR and Slovenia but higher in all other countries.

#### 4. Inequality of household income

**Table 4.2** Inequality of household income per person in transitory countries, 1989–2005 (Gini coefficients)

	CZ	HU	PL	SK	SI	EE	LV	LT	BG	RO
1989	0.20	0.22	0.28	-	-	0.28	0.26	0.26	0.23	0.24
1990	0.19	-	0.27	-	-	-	-	-	-	0.23
1991	-	0.21	0.27	-	0.27	-	-	-	-	0.26
1992	0.22	-	0.27	-	0.26	-	-	-	0.33	0.26
1993	0.21	0.23	0.32	-	-	-	-	-	0.34	0.27
1994	0.23	0.23	0.32	-	0.25	-	-	-	0.37	0.26
1995	0.22	0.24	0.32	-	0.26	0.40	-	-	0.38	0.31
1996	0.23	0.25	0.33	0.24	0.25	0.37	-	0.35	0.36	0.30
1997	0.24	0.25	0.33	0.25	0.24	0.36	0.33	0.31	0.37	0.31
1998	0.21	0.25	0.33	0.26	0.24	0.35	0.33	0.33	0.35	0.30
1999	0.23	0.25	0.33	0.25	0.25	0.36	0.33	0.34	0.33	0.30
2000	0.23	0.26	0.35	0.26	0.25	0.39	0.33	0.36	0.33	0.31
2001	0.24	0.27	0.34	0.26	0.24	0.38	-	0.35	0.33	0.35
2002	0.23	0.27	0.35	0.27	0.24	0.39	0.36	0.36	0.37	0.35
2003	0.25	0.27	0.36	0.30	0.24	0.40	0.38	0.32	0.35	0.35
2004	0.24	0.27	0.37	0.25	-	0.38	0.39	0.31	0.36	0.36
2005	0.26	0.28	0.37	0.26	0.24	0.36	-	-	0.34	0.36
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2005	0.25	0.33	0.33	0.28	0.24	0.33	0.39	0.34	0.31	0.38

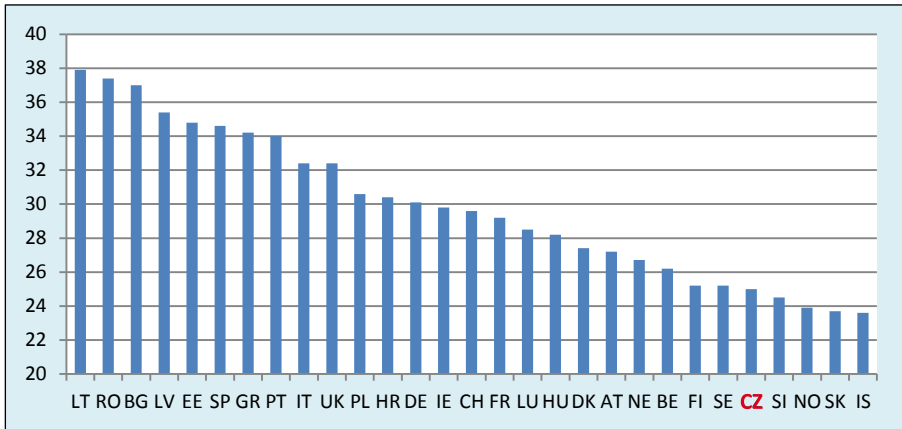
*Source:* UNICEF 2004 (Table 10.12).

*Note:* 2005 data on the bottom row are of Eurostat database EU-SILC 2006, table tessi 190. Unlike income per capita as in UNICEF's database, equalized income is presented.

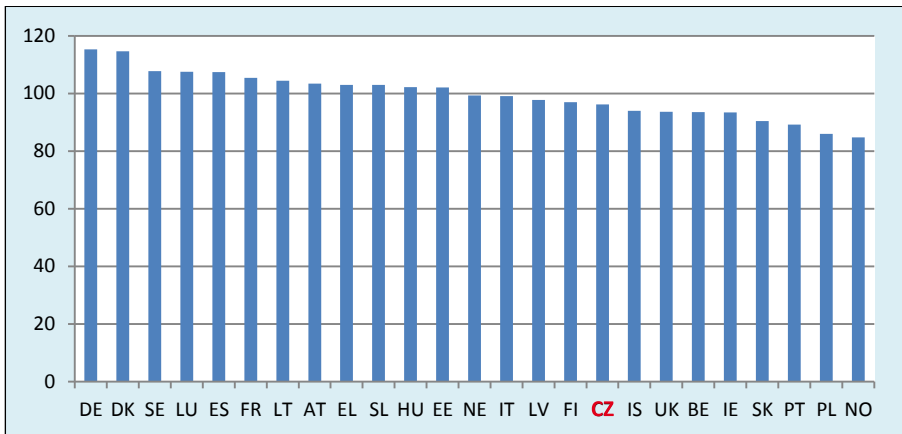
Fully comparable data for European countries is available from 2005 onwards, based on the EU-SILC survey. The latest data shows that incomes are not very unequal in the CR. But this country is not the most equal either – Slovenia, Norway, Slovakia and Iceland are still ahead of the CR. The CR shares fifth place with Finland and Sweden (Figure 4.1A). Regarding the development of inequality during the 10-year period monitored by the EU-SILC survey, the CR is among the countries in which some reduction of inequality has been registered, albeit not large (Figure 4.1B).

#### 4. Inequality of household income

**Figure 4.1A** Inequality in disposable household income per equivalent unit in European countries in 2015 (Gini coefficients)



**Figure 4.1B** Change of inequality in disposable household income per equivalent unit in European countries between 2005 and 2015 (change of Gini coefficients in percentage points)



**Source:** Eurostat database, table tessi 190.

**Note:** The year corresponds to the year when the survey was conducted, following the Eurostat's method. Also disposable household incomes are equalised according to the Eurostat's method.

## 5. Redistribution of income by taxes and social benefits

Equalization of disparities in earned household income occurs mainly through redistribution of taxes and social benefits by the state system. In general, the state has four ‘leverages’ of redistribution: the rate and progressiveness of taxation, and the amount of social benefits and how they are targeted. Each of these instruments consists of a number of smaller components of individual taxes and benefits, which are often set separately. It is only in a summarizing retrospective picture that we learn how the entire redistribution system actually works.

However, the process is not that the state only ‘takes from the rich’ and only ‘gives to the poor’, but it more or less collects from a large part of the population, and provides benefits also to many households, depending on the family and economic situation. According to the EU-SILC (Living Conditions) survey, in the CR, currently 36% of households (45% of the population) pay taxes to the state and receive benefits from it at the same time. 31% of households (21% of the population) do not pay anything to the state; these are mostly households of pensioners and the unemployed. 33% households (34% of the population) receive nothing from the state; these are mostly young childless couples and individuals, or ‘empty nesters’.

Regarding *the development in the CR*, Table 5.1 shows the distribution of taxes and benefits in employee headed households, processed on the basis of large statistical surveys among households. The procedure was the following: first we calculated the decile distribution of household disposable income equalized according to the Eurostat modified OECD scale. Then, we calculated the shares of taxes paid (together with social and health insurance contributions) and the share of family social benefits (excluding pensions) from the gross incomes of the households in individual deciles. Note that this is only one of several possible calculations of the effect of the tax and benefit redistribution system on household incomes.

From this calculation, we find a small decrease in the tax burden and a relatively larger decrease in benefits since 1996, mainly from 2010. It is not surprising that employee headed households give more to the state than they receive from it. However, the fluctuation of the negative balance is surprising – an increase in 2005 followed by a decline and another rise in 2015. On average, it was 11% of the gross income paid to the state in taxes and contributions in 2015. Larger changes, however, occurred in individual deciles – while progressivity of taxation gradually increased, the targeting of

## 5. Redistribution of income by taxes and social benefits

benefits has significantly weakened. This is particularly true for the lowest income decile, where although they retained a positive tax-benefits balance, decreased from 10% of gross income in 1996 to 3% in 2015. In the other deciles, we find solid continuity, or rather, stability with small fluctuations.

**Table 5.1 Income tax with contributions and family social benefits by deciles of equivalised disposable household income in the Czech Republic, 1996–2015 (% of gross income)**

Decile of net income	1996	2002	2005	2010	2015
<i>Income tax and contributions</i>					
1	12.0	11.5	14.3	7.1	7.4
2	14.4	14.2	16.4	10.6	11.6
3	15.9	15.8	17.8	11.9	13.4
4	16.8	16.7	18.0	13.3	14.8
5	17.6	17.4	18.9	15.0	16.1
6	18.7	18.7	19.6	16.0	17.3
7	19.7	19.1	20.4	17.2	18.4
8	20.5	20.1	21.6	18.5	19.4
9	21.6	21.9	23.0	19.9	20.8
10	24.2	25.2	26.0	22.0	23.4
<i>Average</i>	<b>18.2</b>	<b>18.1</b>	<b>19.6</b>	<b>15.2</b>	<b>16.3</b>
<i>Difference in pp. 10:1</i>	<b>12.2</b>	<b>13.6</b>	<b>11.7</b>	<b>14.9</b>	<b>15.9</b>
<i>Family social benefits</i>					
1	22.4	22.6	19.6	12.1	10.8
2	15.1	14.7	12.6	8.9	7.4
3	11.1	9.4	9.4	8.2	7.4
4	7.9	7.2	8.3	7.8	5.4
5	6.4	5.9	5.8	5.6	4.4
6	4.7	4.2	4.1	5.3	3.7
7	3.5	3.1	3.2	4.5	3.3
8	2.5	2.4	3.6	2.9	2.2
9	1.8	2.2	2.1	3.0	2.6
10	1.1	1.1	1.3	2.6	1.3
<i>Average</i>	<b>7.6</b>	<b>7.3</b>	<b>7.0</b>	<b>6.1</b>	<b>4.9</b>
<i>Difference in pp. 10:1</i>	<b>-21.3</b>	<b>-21.6</b>	<b>-18.3</b>	<b>-9.5</b>	<b>-9.4</b>



## 5. Redistribution of income by taxes and social benefits

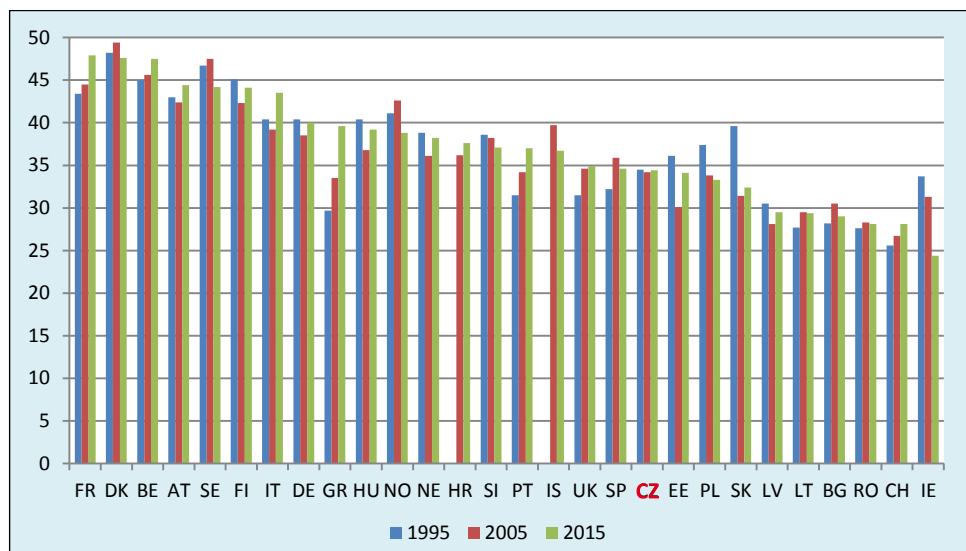
Decile of net income	1996	2002	2005	2010	2015
<b>Difference: family social benefits minus income tax and contributions</b>					
1	10.4	11.1	5.3	5.0	3.4
2	0.7	0.5	-3.8	-1.7	-4.2
3	-4.8	-6.4	-8.4	-3.7	-6.0
4	-8.9	-9.5	-9.7	-5.5	-9.4
5	-11.2	-11.5	-13.1	-9.4	-11.7
6	-14.0	-14.5	-15.5	-10.7	-13.6
7	-16.2	-16.0	-17.2	-12.7	-15.1
8	-18.0	-17.7	-18.0	-15.6	-17.2
9	-19.9	-19.7	-20.9	-16.9	-18.2
10	-23.1	-24.1	-24.7	-19.4	-22.1
<b>Average</b>	<b>-10.6</b>	<b>-10.8</b>	<b>-12.6</b>	<b>-9.1</b>	<b>-11.4</b>
<b>Difference in pp. 10:1</b>	<b>-33.5</b>	<b>-35.2</b>	<b>-30.0</b>	<b>-24.4</b>	<b>-25.3</b>

**Source:** Microcensuses 1996 and 2002, the EU-SILC (Living Conditions) surveys 2006, 2011 and 2016 (authors' calculations from data files).

**Note:** Deciles are calculated from disposable household income equivalised according to the Eurostat's method. In the table, percentages of taxes and benefits from gross household income are displayed. Pp. = percentage point.

The data in Table 5.1 shows that the weaker targeting of family social benefits has reduced the progressivity of the whole system. However, the resulting picture is significantly affected by the relative amount of earned income and household composition regarding numbers of economically active members vs. the number of dependent children. In 1996, the average employee headed household had 3.1 members, of which was a 1.0 dependent child, while in 2015 it had 2.8 members and 0.8 dependent children. Current employee headed households are thus smaller than they used to be, and even within this smaller size, the number of children is fewer.

**Figure 5.1** Total receipts from taxes and social contributions in European countries, 1995–2015 (% GDP). Countries are ranked in descending order according to the situation in 2015

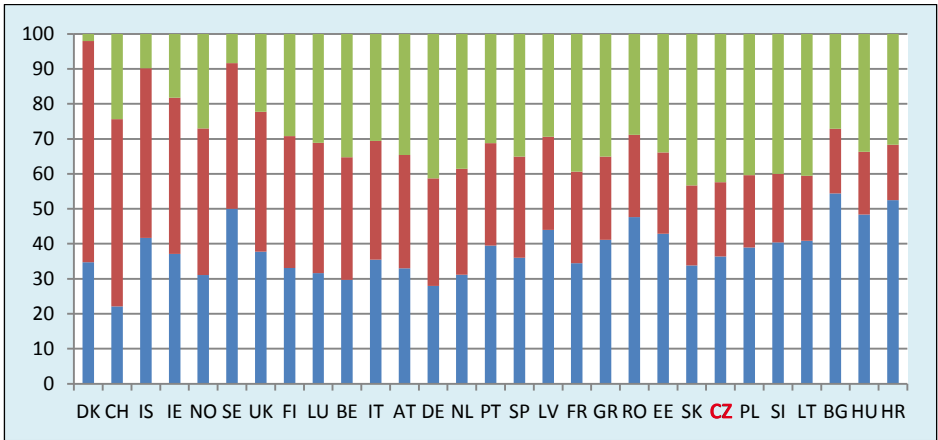


**Source:** Eurostat database, table gov\_10a\_taxag.

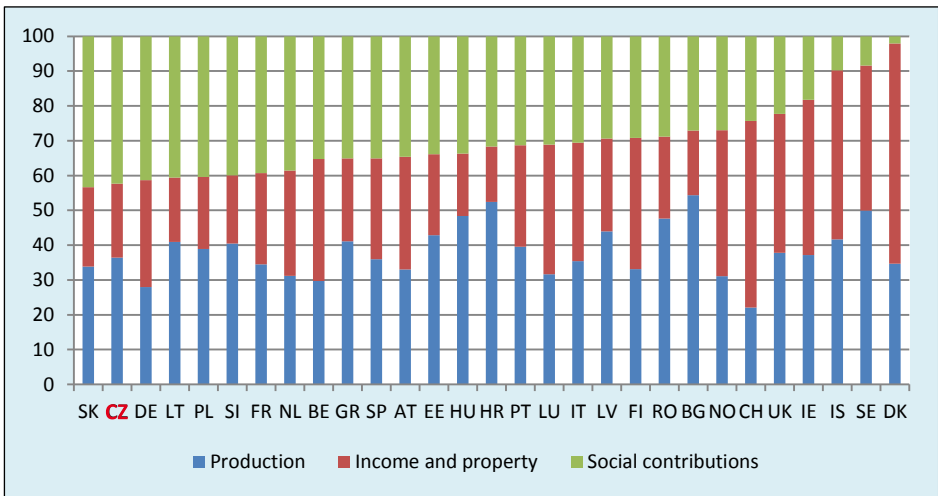
As shown in Figure 5.1, in European countries, the average burden by tax and social contributions is about 38%, which is the result of upward and downward movements. Disparities between countries are considerable and have increased since 1995. For instance, there have been significant increases in France and decreases in Ireland – the current disparity between the two countries is considerable (48% vs. 24%). The indicator for the CR remains four percentage points lower than the European average. The CR is currently at the same level as the UK, after some increases in the UK. Compared with the CR, the household tax burden is lower in several transition countries, but the lowest are in Switzerland and Ireland.

As regards the structure of the flows of payments from households and firms to the state, we find a significant difference between the transition and non-transition countries. As Figure 5.2A shows, transition countries fall at the bottom of the list of countries ranked according to the proportion of taxes on income and wealth (except for Latvia). The ranking of countries according to the share of social contributions shown in Figure 5.2B is not completely overturned, because in many transition countries there are high rates of tax on production.

**Figure 5.2A** Breakdown of tax revenue in European countries in 2015. Countries are ranked in descending order according to the proportion of taxes on income and property

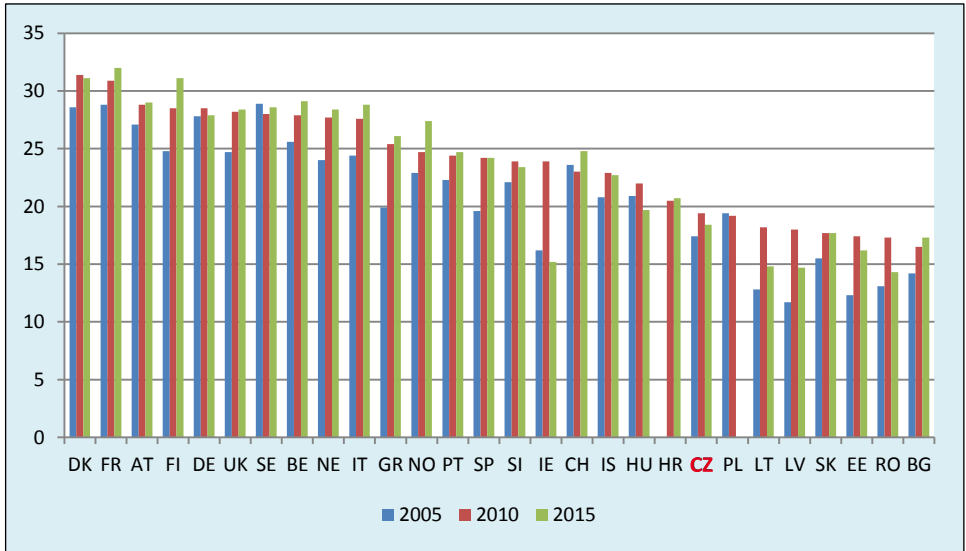


**Figure 5.2B** Breakdown of tax revenue in European countries in 2015 (% GDP). Countries are ranked in descending order according to the proportion of social contributions



**Source:** Eurostat database.  
*Breakdown\_of\_tax\_revenue\_by\_country\_and\_by\_main\_tax\_categories (percentage\_of\_GDP) 2015.PNG*

**Figure 5.3 Social benefits in % GDP in 2005–2015. Countries are ranked in descending order according to the relative social benefits in 2010**

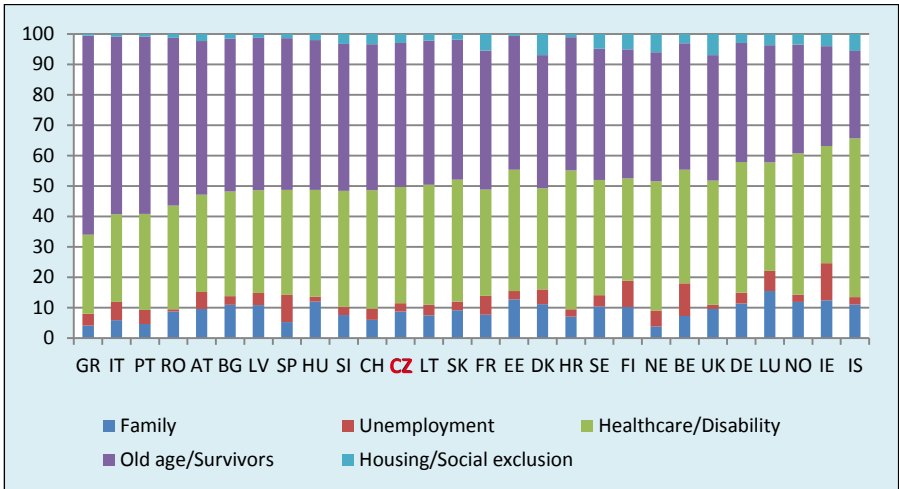


*Source: Eurostat database, table spr\_exp\_sum.*

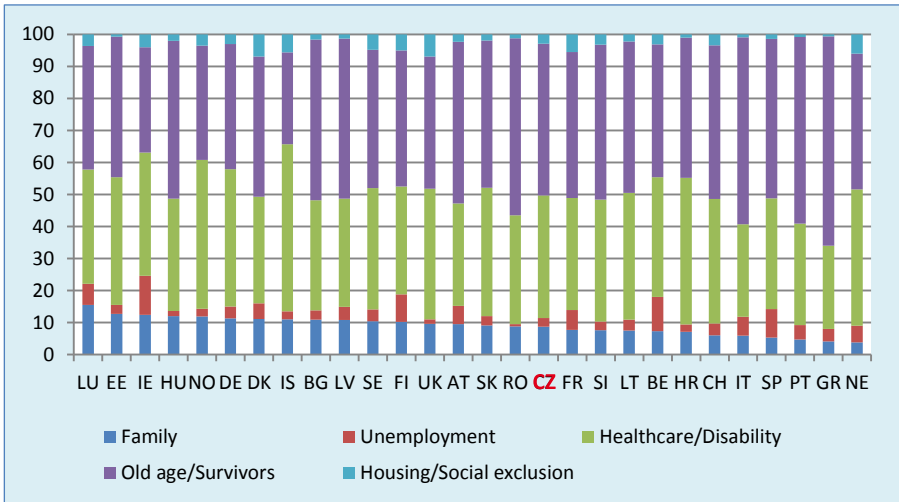
The other side of the redistribution process is represented by social benefits provided to households. Cross-national comparison is enabled by the *European System of Integrated Social Protection Statistics* (ESSPROS) which collects unified information from EU countries about eight ‘functions’ of income maintenance and support in cash: 1. Sickness/health care, 2. Disability, 3. Old age, 4. Survivors, 5. Family/children, 6. Unemployment, 7. Housing, 8. Social exclusion (Eurostat 2016).

The percentage of the GDP paid out in social benefits overall varies substantially across European countries, ranging between 17% and 31% (Figure 5.3). The divide between ‘old’ and ‘new’ capitalist countries is apparent here as in no other area – all post-communist states are located towards the bottom of the ranking, with Balkan and Baltic countries among the lowest. The situation was slowly improving with a jump in 2010, caused by higher unemployment benefits during the economic recession. The main portion (46% of the totals spent) is for income maintenance for pensioners (Figure 5.4A) which is the highest in the countries of Southern Europe and the Balkan region. A somewhat opposite ranking appears in family benefits, where North European countries (among others) rank at the top (Figure 5.4B).

**Figure 5.4A** Structure of social benefits by their function in 2015 (%). Countries are ranked in descending order according to the percentage of old age benefits

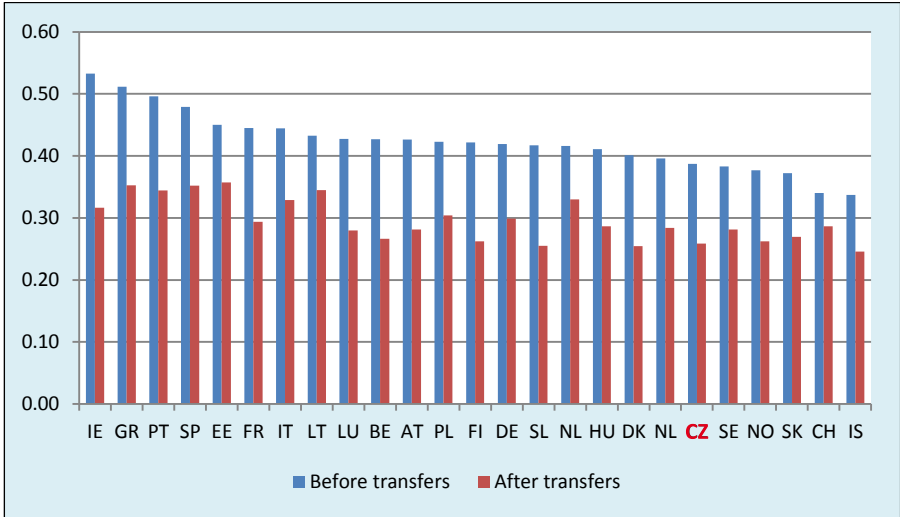


**Figure 5.4B** Structure of social benefits by their function in 2015 (%). Countries are ranked in descending order according to the percentage of family benefits

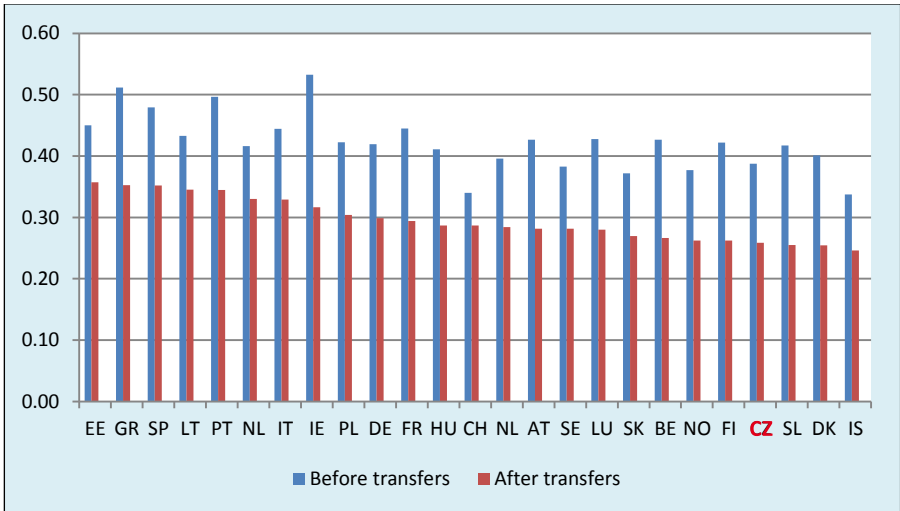


Source: Eurostat database, table spr\_exp\_sum (classification ESSPROS).

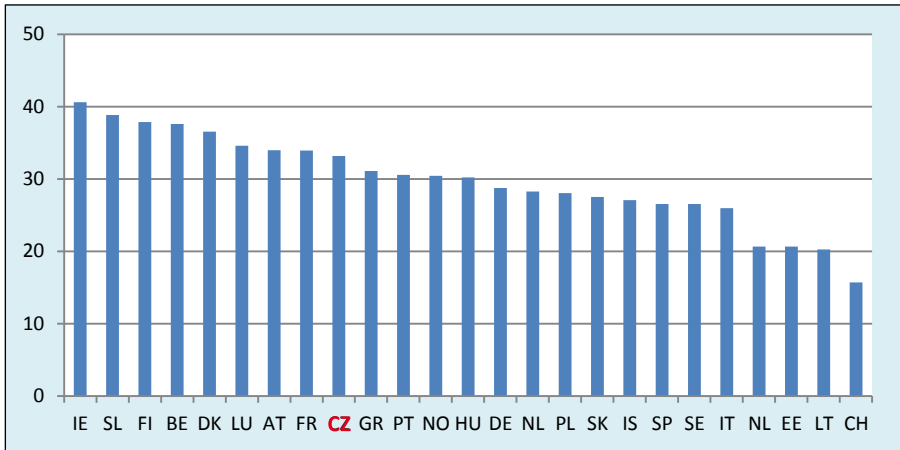
**Figure 5.5A** Income inequality before and after transfers, population in active age (18-65) in 2013 (Gini coefficients). Countries are ranked in descending order according to income inequality before transfers



**Figure 5.5B** Income inequality before and after transfers, population in active age (18-65) in 2013 (Gini coefficients). Countries are ranked in descending order according to Income inequality after transfers



**Figure 5.5C Reduction of Income inequality (measured by Gini coefficients) by transfers, population in active age (18-65) in 2013 (%)**



**Source:** OECD Income Distribution Database.

**Note:** Income is equalised according the OECD scale described in Chapter 2.

Taking taxes and benefits together, the redistribution system shifts the position of the CR regarding income inequality of the population in active age (18-65) from sixth to fourth position on the European ladder (Figures 5.5A and 5.5B). In the CR, a significant amount of household income is redistributed, but far the most in cross-national comparison. Measured by the Gini coefficient, the average reduction of gross income inequality is 33% in the CR, while in the average of countries surveyed is 28%. The state transfers money much more from a large pile to a small pile in Ireland, Slovenia, Finland, Belgium and Denmark. Nearer to the CR are, for example, Austria, France and Norway. The variance of redistribution is considerable – even Nordic countries do not represent a compact group but they differ from each other in this respect.

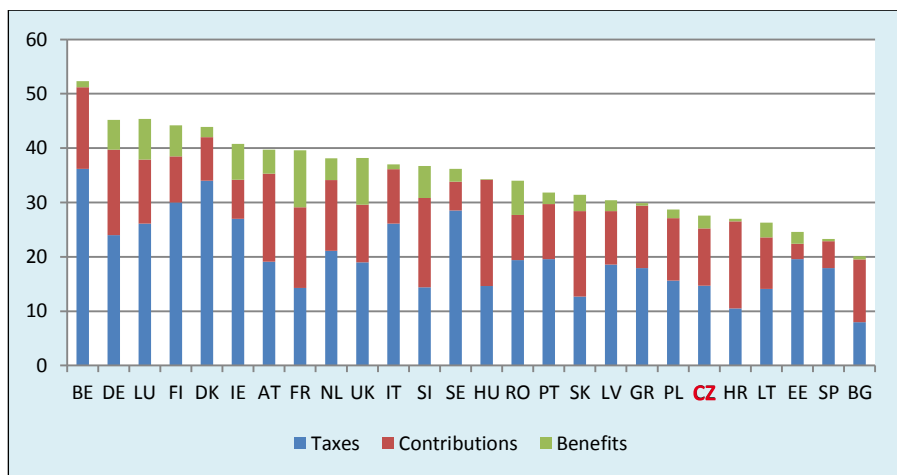
However, the question is not only the average redistribution rate, but also the effect of the system when household income increases. This effect measures the *Marginal Effective Tax Rate* (METR), which tracks the overall ‘dynamic’ impact of the tax and benefit system. This indicator measures how household disposable income changes when gross earnings increase per one monetary unit. It is expressed in the percentage of the additional income that the recipient receives net after deducting taxes and contributions, and possibly also reduced social benefits. The calculation assumes that the in-

## 5. Redistribution of income by taxes and social benefits

come comes from the formal economy, taxes are paid correctly and mandatory social benefits are provided accordingly.

Figure 5.6 shows METR indicators as calculated by EUROMOD (2016), applied to the active age population (18–64) having earned income of at least one unit of the national currency, assuming a 3% increase in gross income. The top percentile of the distribution is excluded from the calculation if its value exceeds 150% and the lower percentile if its value is negative – due to the lower sensitivity of the calculated indicator to extreme cases. As only payments of households (not employers) are included in the calculation, the indicator does not include the total contribution burden.

**Figure 5.6 Marginal effective tax rate, active population age in European countries in 2016 (%). Countries are ranked in descending order according to overall burden**



**Source:** EUROMOD 2016.

**Note:** Simulation is based on EU-SILC 2012 data, taking into account policies applied in the given area up to 2016.

As seen in Figure 5.6, the highest METR rates are reported by Belgium, followed by Germany, Luxembourg, Finland and Denmark with differently structured impact on income: Denmark and Finland with high taxes, Germany with high contributions, Luxembourg with a strong impact on social benefits. The transition countries (and also Spain) are located at the low end of the ladder, with the CR falling sixth from the bottom. The indicator in this case is well below the average of European countries, mainly due to the



## 5. Redistribution of income by taxes and social benefits

weak impact of income changes on tax liability. For the 2011–2016 period, which is covered by the study, there has been no change in the CR indicator, as opposed to, for example, Germany (5 percentage point decrease) or France (7 percentage point rise).

Regarding the overall characteristics of the Czech tax system in comparison with the EU average, it deviates considerably, with relatively higher health and social contributions paid by employers, lower contributions paid by employees and lower tax burdens on capital. As regards the tax burden on labour and consumption (measured by implicit tax rates), the CR is at the forefront of the EU. In concrete terms, the tax burden on consumption was 24.9% of GDP in 2015 (compared with 20.5% in the EU-28) and the burden on labour 39.3% (versus 35.9%). The lower share of direct taxes in the CR is offset by higher rates of health and social insurance contributions, as is also the case in Slovakia and Lithuania (European Commission 2017).

## 6. Household expenditures and management

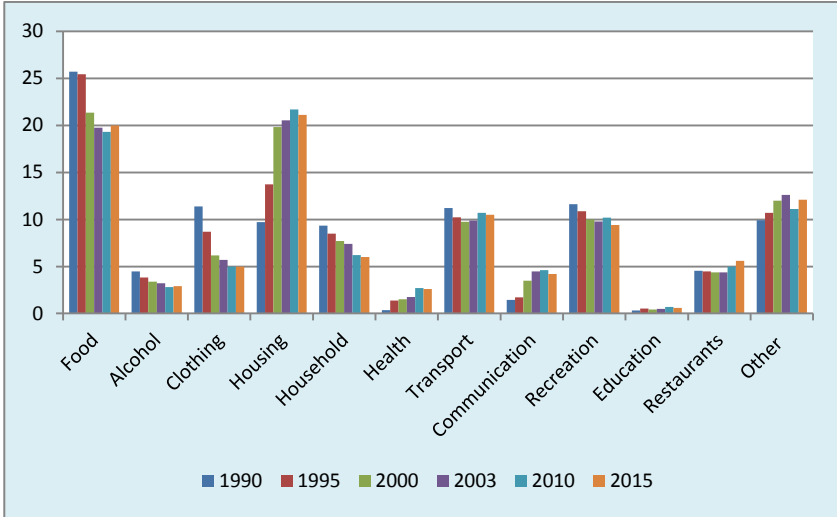
Information from various sources is not entirely consistent regarding assessment of the purchasing power dynamics in the CR after 1990. Modest growth evidenced by family budgets statistical surveys does not coincide with the booming consumer spending. According to national accounts statistics, final consumption expenditures of households grew by almost 60% in the 1995 to 2015 period (CSO 2016a). Even, against this more realistic assessment of the real expenses stands the picture of expanding store sales areas and huge spending reaching new highs every summer vacancy season and Christmas holidays.

Consumption growth in the CR was wide-ranging across all income levels (although unequal), and allows us to talk about the growth of a mass consumer society. Czech society apparently experienced something similar to what George Katona (1964) described in the late 1950s in the United States. This founder of economic psychology estimated that, in 1961, 40% of American families belonged to a middle class with a so-called discretionary income, allowing their spending to rise above the level of satisfaction of basic needs. In this regard, one can say that the Communist regime shifted establishment of a mass consumer society for half a century.

The profound changes in the consumer market in the CR have transformed the face and functioning of the economy, society and people's lifestyles. For example, DIY 'hobby shops' selling non-necessities have appeared, while, formerly, citizens of communist countries were restrained by the economy of shortage and inaccessible services. Now, shops focused on youth and branded outlets feed on the desire for generational and status differentiation. Countless changes have occurred. Consumerism has significantly changed the physical and social landscape of all post-communist countries. Large shopping malls (there are already hundreds in the CR) surround the cities and are encroaching into city centres as well. In daily life, as per George Orwell, mass consumption has become 'the air we breathe'.

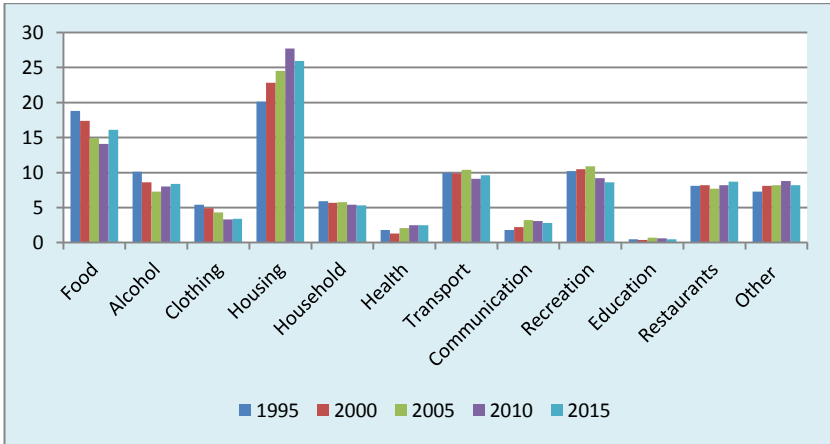
The development of consumption is monitored in detail in family budgets statistical surveys and in aggregates in the national accounting. In this system, final household consumption expenditures are estimated using various data sources. In both cases, 'COICOP – Classification of Individual Consumption by Purpose' is applied, enabling cross-national comparability. The problem, however, is the quota sampling of households in the family budgets statistical surveys. A new model of this survey, based on random sampling, has been implemented since 2017.

**Figure 6.1A Household expenditures in the Czech Republic in 1990–2015 according to Household Budget Surveys (% of net budget)**



Source: CSO – Household Budget Survey.

**Figure 6.1B Household expenditures in the Czech Republic in 1995–2015 according to National Accounts (% of net budget)**



Source: Eurostat database, table nama\_10\_co3\_p.

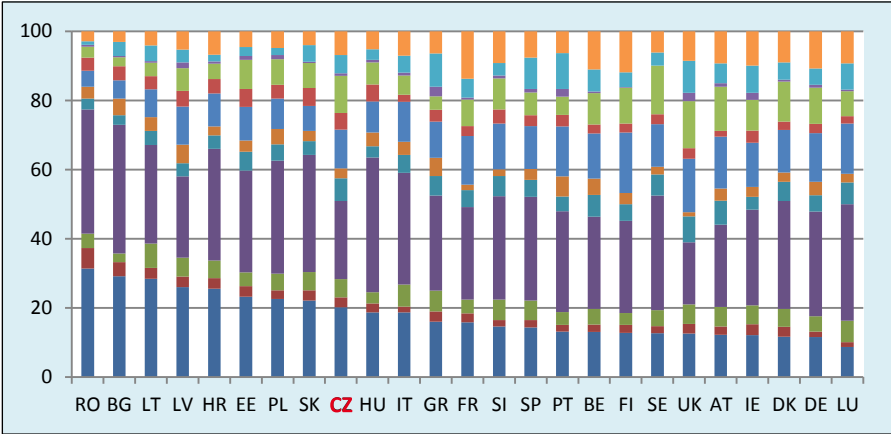
## 6. Household expenditures and management

Here we deal only with averaged data. Regarding inequality, it should be noted that quota sampling and the difficulties of a very demanding methods applied on collecting expenditure data in family budget statistical surveys applied in the CR until 2016 are the causes of a biased income differentiation in this survey, compared to the EU-SILC survey. As shown by the Eurostat analysis, income inequality recorded in family budgets is lower by 4 percentage points of the Gini coefficient (0.21 vs. 0.25) compared to the EU-SILC survey. A similar difference is found only in Spain, and larger discrepancies appear only in Bulgaria and Lithuania. The biased coverage regarding income inequality is even more apparent in the ratio of the upper and lower fifths of households, which is 2.8 according to family accounts, as opposed to 3.5 according to the EU-SILC survey (Eurostat 2015, Table 15).

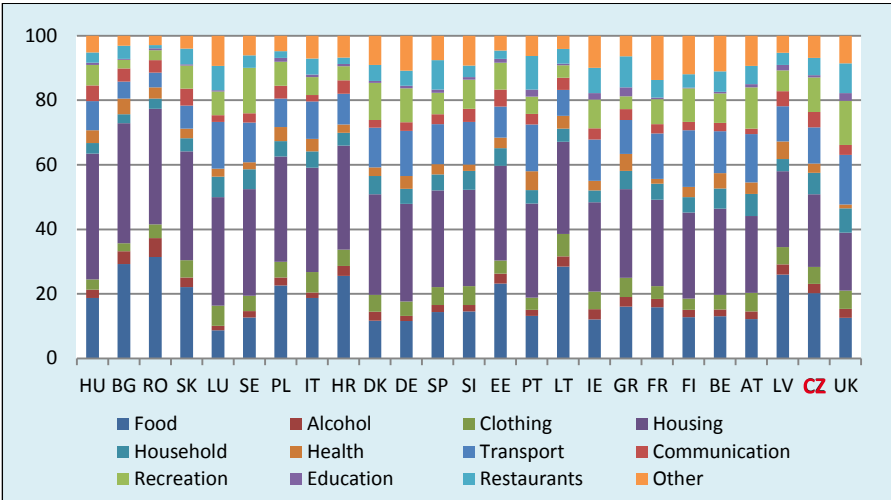
Figures 6.1A and 6.1B show the development of consumption patterns in the CR over the past 25 years, based on family budget statistical surveys and national accounts. As can be seen, the major change since 1990 was a decline in relative expenditures on food and an increase in housing expenditures. According to the annual household budget data, the two trends crossed each other roughly in 2007–2008 – but this could also have happened much earlier. At the same time, spending on clothing has decreased, probably due to lower prices. Spending on culture has also fallen, while spending on education remains at a negligible level. Expenditures on health and communications have increased.

Unlike family budget statistical surveys, in the concept of ‘actual final household consumption’ in the national accounting system, expenditures on health and education services financed by governmental and non-profit institutions are also included. Following this data, spending on food is relatively lower (17% vs. 20% of family budgets) and spending on alcoholic beverages and tobacco (9% vs. 3%) and housing (27% versus 21%) are relatively higher. According to the CSO, expenditures on rents increased by 35% between 1995 and 2015, while current expenditures on household maintenance decreased by almost 6%. Rental expenses account for 17% of total household expenditures, so they have approximately the same weight as expenses for food and non-alcoholic beverages (CSO 2016a).

**Figure 6.2A Household expenditures in European countries in 2010 (%).**  
Countries are ranked in descending order according to spending on food



**Figure 6.2B Household expenditures in European countries in 2010 (%).**  
Countries are ranked in descending order according to spending on housing



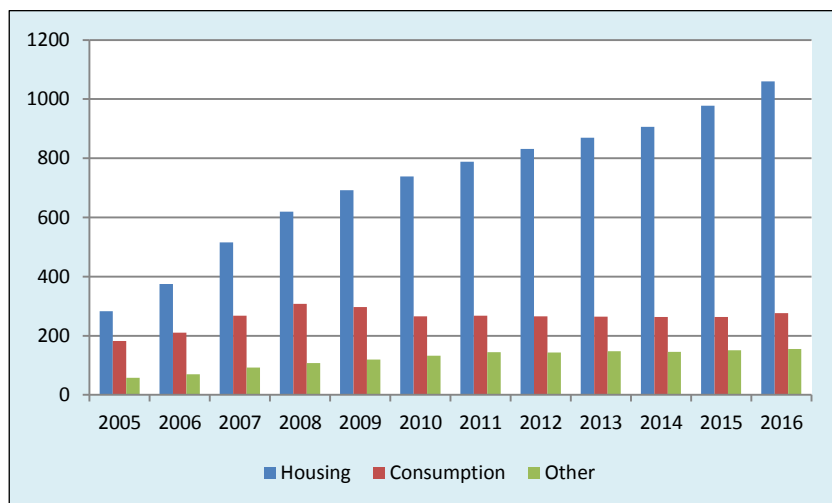
**Source:** Eurostat 2015, Table 5.  
[http://ec.europa.eu/eurostat/statistics-explained/index.php/Household\\_consumption\\_by\\_purpose](http://ec.europa.eu/eurostat/statistics-explained/index.php/Household_consumption_by_purpose).

## 6. Household expenditures and management

According to the 2010 Eurostat comparison of European countries, the CR (and Hungary) is closest to Western Europe of all transition countries in terms of the low relative burden of family budgets on food (Figure 6.2A). On the other hand, in terms of the relative costs of housing, the CR remained near the lowest place in the European ranking (Figure 6.2B). In terms of two persisting specificities in comparison with EU-28 average values – higher food expenditure and lower spending on housing – the CR continues to approach ‘Europe’.

An increasing portion of household spending comes, however, from debts and loans. The long-term development of the average debt per inhabitant is calculated by the national accounting system. Between 1995 and 2015, debt increased from 15 thousand CZK to 132 thousand CZK per inhabitant. According to the CSO report households indebted themselves faster after 2002, but the debt-to-GDP ratio slowed again after 2009. Long-term loans were mainly on the rise in overall indebtedness, reflecting the rise in real estate prices during this period (CSO 2016c). As Figure 6.3 shows, the main part of the household debt burden, which is also constantly growing, is comprised of mortgages and other loans for the purchase of housing.

**Figure 6.3 Household indebtedness in the Czech Republic in 2005–2016 (billions CZK, data refer to the end of the year)**



**Source:** CNB, monetary and finance statistics.

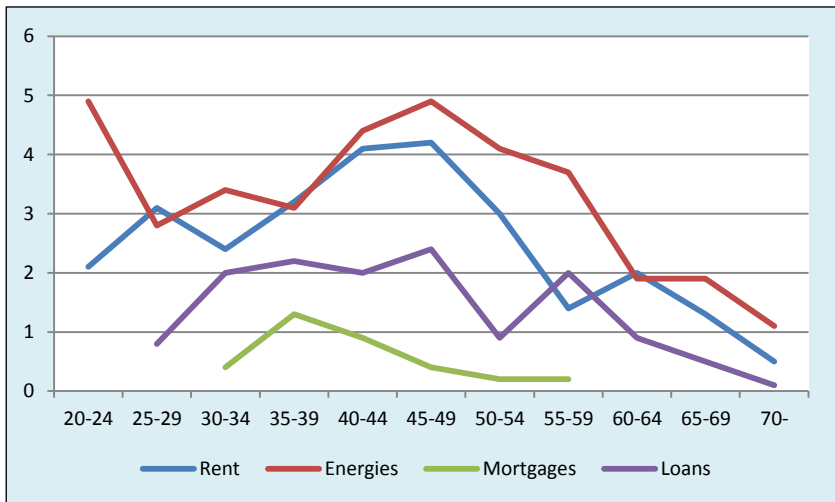
Figure was elaborated by Kamila Fialová.

## 6. Household expenditures and management

Unlike macroeconomic information, the EU-SILC (Living Conditions) survey allows data – at least some of them – relating to households. In the survey, three questions refer to household debt:

- ‘Are you paying loans for instalments or leasing or consumer credit?’
- ‘To what extent is the repayment of these debts and interest payments a financial burden on your household?’
- ‘In the last twelve months, has the household been in arrears, i.e. has been unable to pay any of the following payments on the date?’ with the following categories: 1. rent for the flat, 2. payment for heat, electricity, gas, water, 3. repayment of the mortgage, 4. repayment of loans and credits.’

**Figure 6.4** Arrears on payments by age of household head in the Czech Republic in 2015 (% of households)



**Source:** EU-SILC (Living Conditions) survey 2015, data on households (authors' calculations from data files).

As Figure 6.4 shows, payment problems are linked to the family life cycle. Younger households may have difficulty with energy payments, but other problems more often come later and culminate when the household head is between 40 and 50 year of their age. This applies in particular to energy and consumer credit, with up to 5% of households reporting problems making payments.

## 6. Household expenditures and management

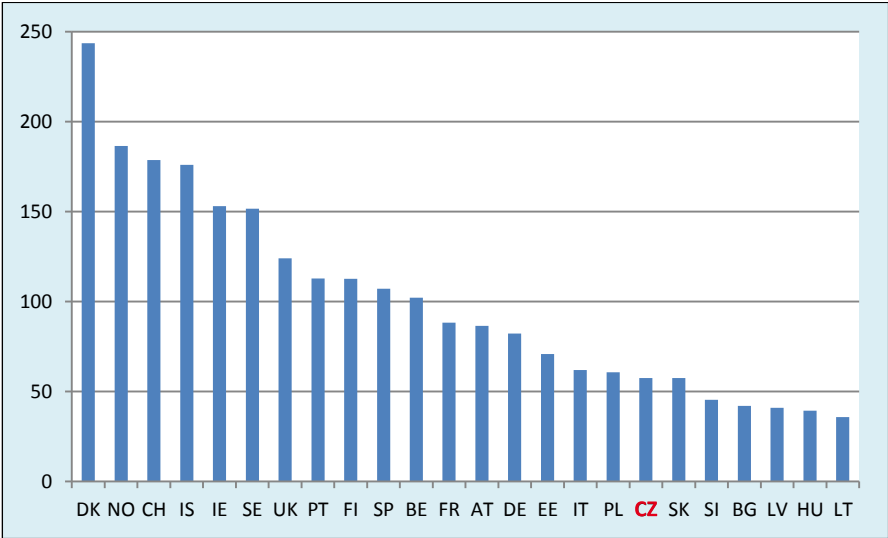
The last of the above-mentioned questions regarding four kinds of arrears was elaborated into a composite index showing whether the household has problems with payment in one or more of these areas. The 2015 EU-SILC (Living Conditions) survey reports 190,000 households with problems in which 470,000 people live (4.5% of the population). Of these, 100,000 have one of these problems, 70,000 two and 20,000 three. The most common concerns are payments (120 thousand households), rents (100 thousand), loans (50 thousand) and last mortgages (15 thousand).

However, these figures may be undervalued with respect to the population surveyed. In 2016, according to the Executors Chamber and the Ministry of Justice, 718,000 seizures were ordered, and more than 300,000 judgments were handed down. At the end of 2016, the Czech Social Security Administration (CSSA) recorded 85,000 cases with ordered seizures (including insolvency) on pension benefits. For the whole year of 2016, the CSSA made more than 172,000 withholdings from sickness insurance benefits (sickness and maternity benefits), which is 30% more than for 2015 (CSSA, report of August, 10, 2017).

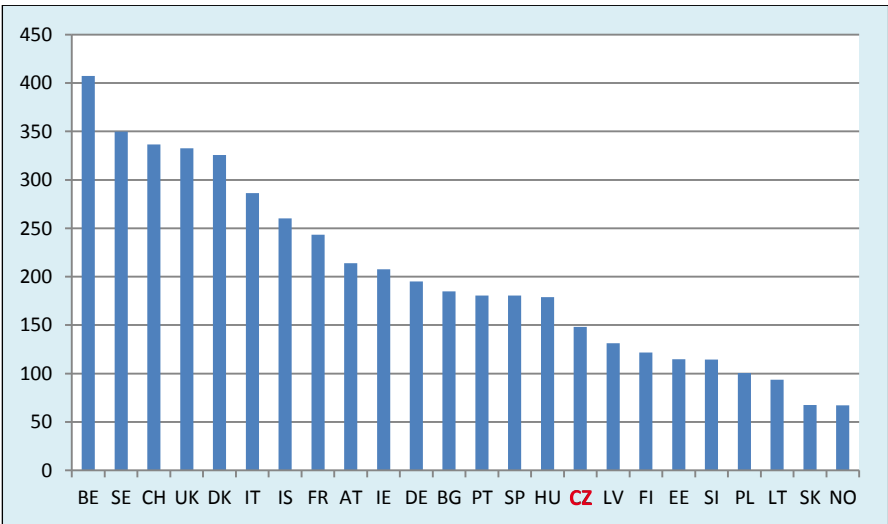
In a cross-national comparison, the position of the CR is, however, quite favourable. In terms of the debt-to-income ratio (Figure 6.5A), Czech households are the least indebted of EU countries. In the wealthiest European countries, debt levels are as much as double of income and even higher in Denmark. In terms of the ratio of financial assets to income (Figure 6.5B), the Czech population is among the less financially secure. The Baltic states, Poland and Slovenia, Finland and Norway, fall behind the CR in financial security. Surprisingly, two countries which are very close to each other in many other aspects – Sweden and Norway – are located at the opposite ends of this ladder.



**Figure 6.5A Debt-to-income ratio in European countries in 2015 (%)**



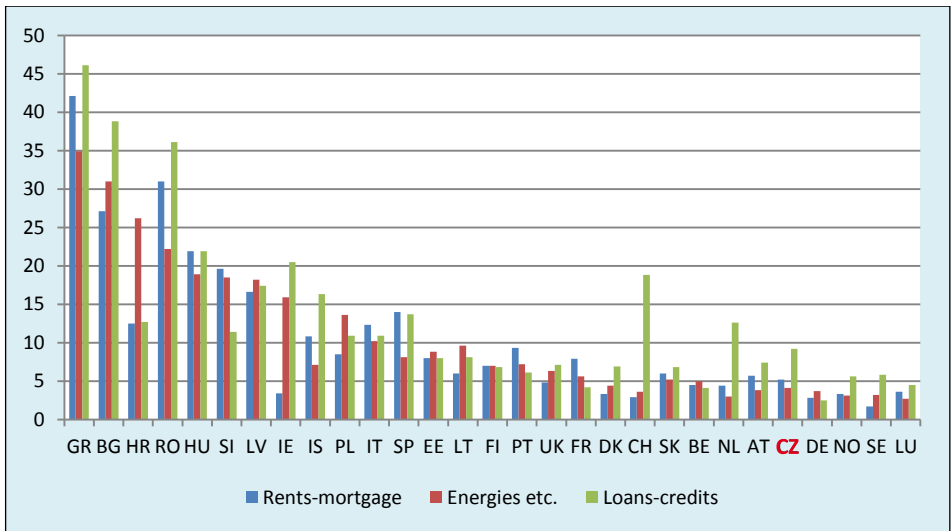
**Figure 6.5B Financial assets-to-income ratio in European countries in 2015 (%)**



**Source:** Eurostat database, table nasa\_10\_ki.

For a cross-national comparison, we can also use the EU-SILC surveys enabling a closer look at household management. Of the above-mentioned questions concerning arrears on payment, EU-SILC data files provided by Eurostat include merge items of arrears on housing rents and mortgage payments, while other payment types remain separate – 1. payments for heat, electricity, gas, water, and 2. payments on loans and credit accounts.

**Figure 6.6** Arrears on payments during the last 12 months in European countries in 2014 (%). Countries are ranked in descending order according to summarized arrears



**Source:** EU-SILC 2014, data on households (authors' calculations from data files).

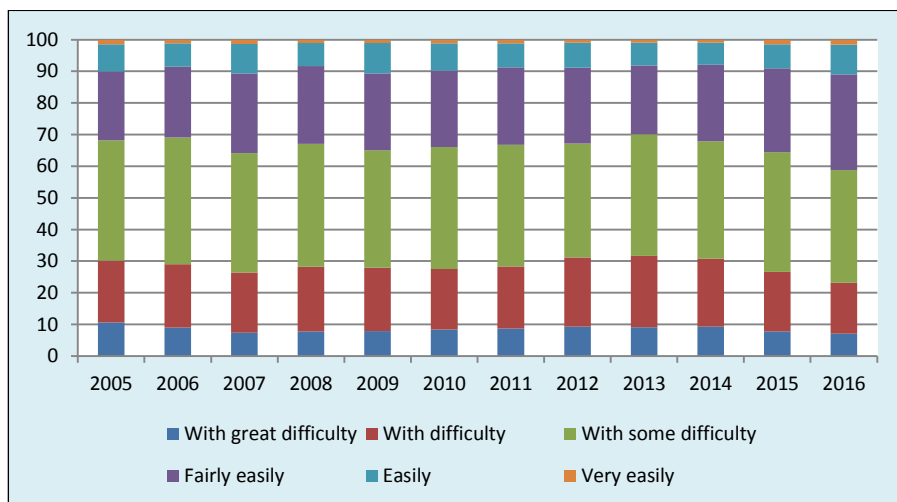
In Figure 6.6, countries are ranked according to the cumulative incidence of difficulties in making payments. The picture corresponds to expectations. Balkan countries are at the forefront regarding payment problems, in particularly Greece whose share of population living in households having payment problems is as much as 50%. The position of the CR is very good in this respect, ranking outside the cluster of transition countries, somewhere between Austria and Germany. Only the wealthy Nordic countries and the 'over-wealthy' Luxembourg are better in this sense.

## 6. Household expenditures and management

The overall picture of household finances provides answers to the question of *how difficult or easy it is to make ends meet given actual income*. In the Eurostat and in our own calculations, the respondent's information is attributed to all persons living in the household.

Figure 6.7 shows the development in the CR since the beginning of the EU-SILC surveys. The largest share of answers is 'with some difficulty', which is given by about 38% of households. The impact of the economic crisis, along with other circumstances, are reflected in the 'with great difficulty' responses after 2008 which rose slowly initially, and later more substantially. A significant decline occurred in 2015 and again in 2016. The percentage of households making ends meet more or less easily (i.e. the merged variants of answers 'fairly easily', 'easily', 'very easily') makes up about one-third of the population – but with an exceptional downward trend in 2013 and a significant increase in 2016.

**Figure 6.7** Persons in household according to their ability to make ends meet in the Czech Republic, 2005–2016 (%)



**Source:** EU-SILC (Living Conditions) surveys, data on households (authors' calculations from data files).

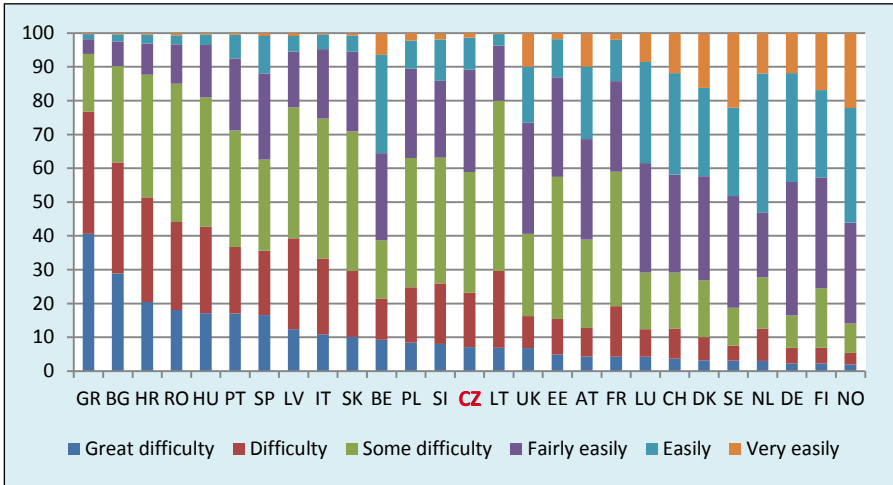
**Note:** The data correspond to individuals, i.e. members of households with given ability to make ends meet.

**Table 6.1** Persons in households with great difficulty to make ends meet in European countries in 2005–2015 (%)

	2005	2007	2009	2011	2013	2015	Change 2015/05
BE	6.0	5.6	8.3	8.8	8.8	8.6	143.3
BG	35.7	33.3	27.8	27.8	32.9	30.6	85.7
CZ	10.6	7.4	7.9	8.7	9.1	7.8	73.6
DK	2.6	2.9	3.5	4.0	4.6	3.5	134.6
DE	3.3	2.0	3.3	3.1	3.0	2.6	78.8
EE	1.0	3.4	7.9	8.5	7.5	4.9	490.0
IR	9.9	8.4	11.2	14.7	17.4	14.9	150.5
GR	17.1	18.8	22.3	25.6	39.6	38.2	223.4
SP	11.1	11.1	16.2	11.1	18.6	14.8	133.3
FR	3.1	3.3	4.2	4.5	4.6	4.6	148.4
HR	-	-	-	19.7	26.3	22.7	-
IT	15.2	16.6	17.0	17.1	18.8	15.4	101.3
LV	24.3	12.9	17.7	24.0	25.4	15.4	63.4
LT	9.2	4.6	11.0	11.5	9.6	6.8	73.9
LU	1.9	1.8	2.0	2.7	4.4	4.2	221.1
HU	13.8	13.8	23.8	26.5	27.4	19.1	138.4
NE	4.3	2.7	2.9	3.3	3.8	3.3	76.7
AT	3.0	3.3	5.4	5.5	5.4	5.3	176.7
PL	25.0	17.0	14.4	12.4	12.7	10.2	40.8
PT	16.2	15.6	23.5	19.2	24.8	20.6	127.2
RO	-	24.2	19.2	21.2	23.8	20.2	-
SI	6.6	5.1	7.1	9.3	11.2	9.1	137.9
SK	12.5	10.7	11.1	10.7	13.3	11.7	93.6
FI	3.1	2.6	2.3	2.6	2.2	2.5	80.6
SE	3.6	3.6	3.3	3.3	2.9	2.3	63.9
UK	5.0	4.7	6.8	7.3	9.6	6.4	128.0
IS	5.8	5.2	7.8	12.3	11.7	8.6	148.3
NO	3.4	2.0	3.0	2.5	2.2	2.1	61.8
CH	-	2.2	3.6	3.5	3.3	2.8	-

Source: Eurostat database, EU-SILC, table ilc\_mdes09.

**Figure 6.9** Persons in household according to their ability to make ends meet in European countries in 2015 (%). Countries are ranked in descending order according to great difficulty to make ends meet



**Source:** Eurostat database, EU-SILC, table ilc\_mdes09.

The comparative data presented in Table 6.1 and in Figure 6.9 show the overall good position of the CR in the ranking of European countries. From the point of view of great payment difficulties, the CR is located roughly in the middle of the European ranking, along with Slovenia. Of the transition countries, two Balkan countries are ahead in this respect. If we rank countries by ease of making ends meet, the resulting ladder shows the CR closer towards the countries reporting more difficulties. In both cases, of the transition countries, Estonia is best placed, being distant from the CR regarding serious household financial difficulties, but closer regarding making ends meet easily.

## 7. The extent and characteristics of poverty

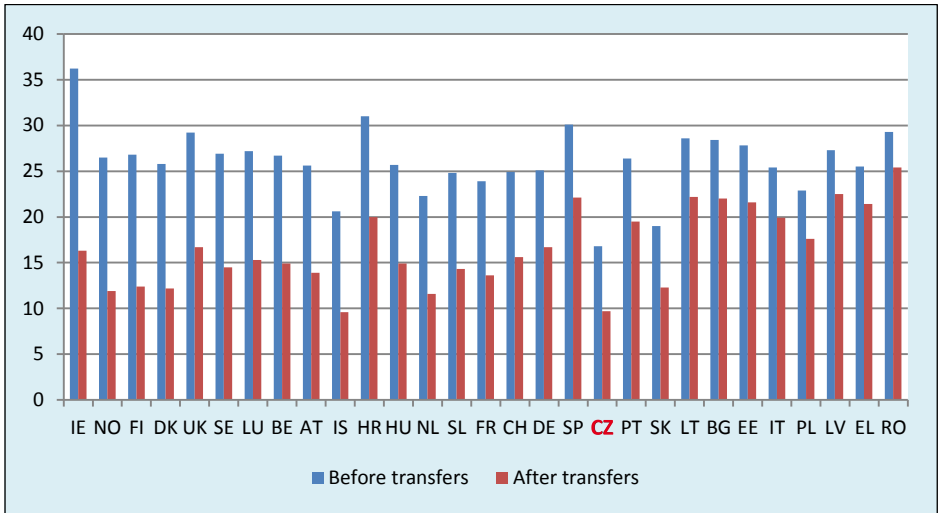
On the poverty issue, a previous study is partly referred to here (Večerník, Mysíková 2016). In it, we analysed the statistical survey data in narrower (Central European) and wider (pan-European) cross-national comparisons in detail. In it, we also expressed the view that in the monitoring of poverty, some taboos appear. They concern official EU indicators of poverty, both the original indicator of ‘at-risk-of-poverty rate’ and the new aggregate indicator of the ‘risk of poverty or social exclusion’. The latter was formulated in the framework of the Europe 2020 strategy, linking three very diverse indicators together: at-risk-of-poverty after social transfers (income poverty), severe material deprivation and living in households with very low work intensity.

We tried to estimate the real situation on the basis of different comparisons. We compared the indicators of poverty amongst themselves – so-called objective and so-called subjective – and we displayed differences in the populations identified by each them. Then, we compared the income data resulting from the EU-SILC survey with administrative data sources to verify their validity, and ultimately the overall level of reported income with national accounts. Lastly, we also compared short-term and long-term poverty.

As it turned out, from the purely relative income point of view, poverty in the CR is the lowest within the EU. The CR is also ranked very well regarding the indicator of labour intensity, while in terms of levels of material deprivation it is close to the EU average. It is also close to average as regards the proportion of people living in households having great difficulty making ends meet. We consider these two indicators more suitable for cross-national comparison, as they take into account the specific conditions of households in individual countries.

Here, we add some new aspects to the data presented in the above mentioned study. The first aspect is the effect of redistribution. In Figure 7.1, countries are ranked according to percentage points of reduction of income poverty risk by tax and benefits transfers. The data are linked to the previous findings in Figure 5.3C, which shows the reduction of the Gini coefficient over the entire income distribution. Regarding the income-measured poverty, the location of the CR is similar as in this figure, only slightly shifted. The country is under the EU-28 average in terms of the impact of transfers to poverty reduction and is far behind Scandinavian and Western European countries.

**Figure 7.1 At-risk-of-poverty rate before and after taxes and benefits transfers in European countries in 2015 (%). Countries are ranked in descending order according to reduction percentage**



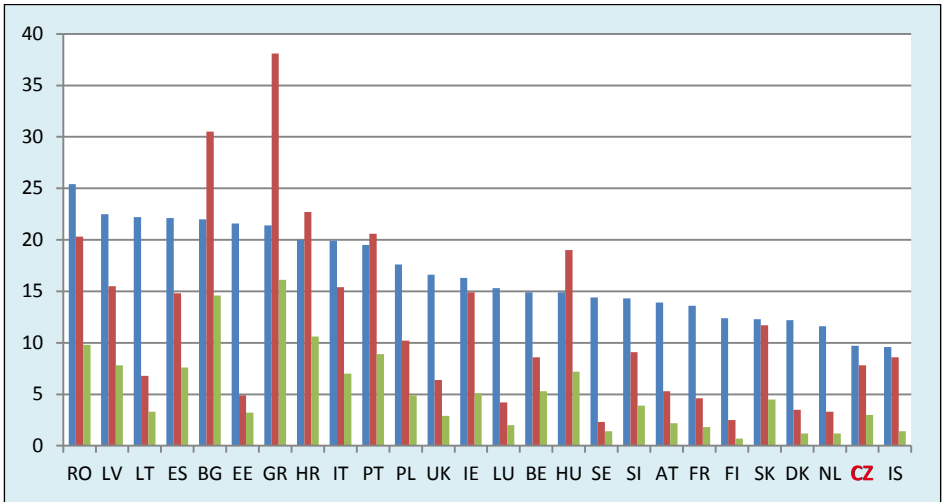
**Source:** Eurostat database, tables *ilc\_li10*, *ilc\_li02*.

**Note:** The at-risk-of-poverty rate is the share of people with an equivalised disposable income below the at-risk-of-poverty threshold, which is set at 60% of the national median equivalised disposable income after social transfers.

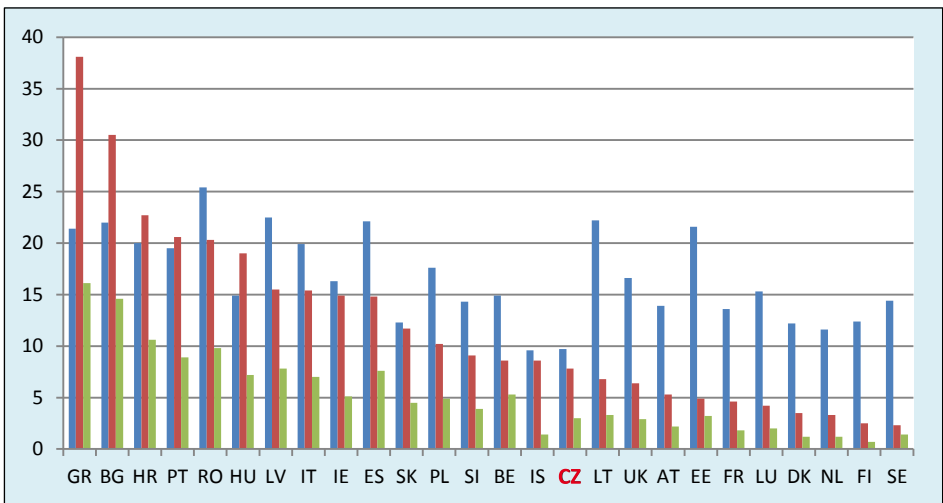
In our 2016 study, we found that EU poverty indicators, indicating the risk of poverty or social exclusion, overlap only little. Concretely, only 2% of the Czech population fell into such a critical situation, in which all three sub-indicators of the ‘risk of poverty or social exclusion’ overlap. However, almost 15% of Czech households experience at least one of the three kinds of risk of poverty or social exclusion. This confirms that the indicators collected in this summary indicator capture different aspects of the threat of poverty.

In particular, we highlighted the large discrepancy between the most frequently mentioned objective indicators – at-risk-of-poverty rate (income poverty) – and the subjective declaration on ‘great difficulty’ in making ends meet. The respective shares are in both cases less than 10% of the population, but they are almost in two-thirds different households. We should prefer the subjective indicator because household assessments take into account not only income but also expenditures and financial burden.

**Figure 7.2A** Income poverty, subjective poverty and their overlap in European countries in 2015 (%). Countries are ranked in descending order according to income poverty

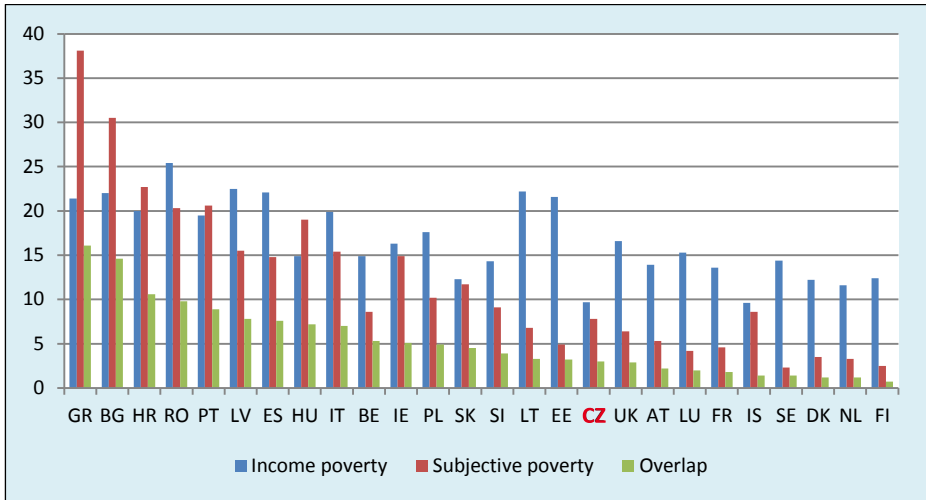


**Figure 7.2B** Income poverty, subjective poverty and their overlap in European countries in 2015 (%). Countries are ranked in descending order according to subjective poverty





**Figure 7.2C Income poverty, subjective poverty and their overlap in European countries in 2015 (%). Countries are ranked in descending order according to overlap percentage**



**Source:** EU-SILC 2015 (authors' calculations from data file).

**Note:** Figures on households are transferred on all persons living in them.

Germany was not included. Subjective poverty indicated by 'great difficulty' to make ends meet.

In Figures 7.2A and 7.2B we show cross-international rankings of both indicators, while in Figure 7.2C the CR is ranked according to the degree of overlap of the indicators. This overlap decreases to the same extent as the reporting capacity of relative 'national' income poverty, as we move from 'rich' countries to 'poor' ones. From this point of view, the CR is at the forefront of developed countries, where the disparity of both indicators is large.

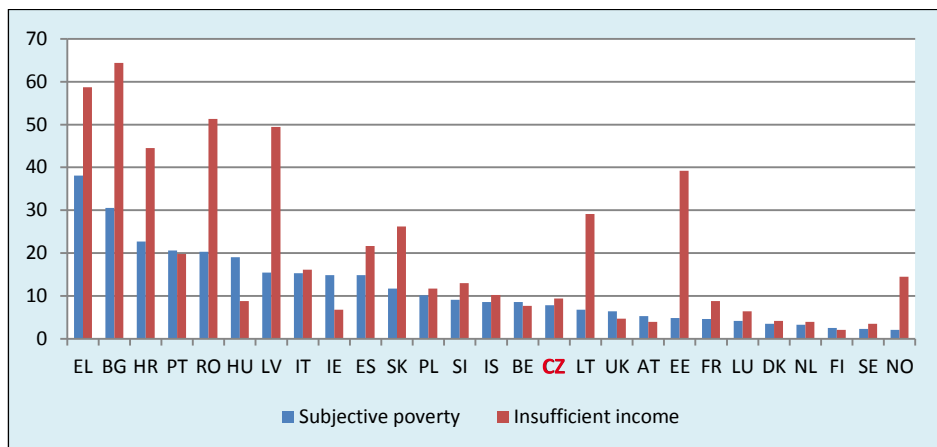
The EU-SILC survey, however, provides yet another – rarely if ever used – possibility to indicate subjective poverty on the basis of a regularly posed question: 1. 'In your opinion, what is the very lowest net monthly income that your household would have to have in order to make ends meet, that is to pay its usual necessary expenses? Please answer in relation to the present circumstances of your household, and what you consider as usual necessary expenses (to make ends meet).'

Economic literature states that *estimates of the minimum required income* is related to the actual income of the household, i.e. that it increases concavely with income size. This seems to be valid for the CR as well

## 7. The extent and characteristics of poverty

(Večerník, Mysíková 2016, Figure 2.1). On average in the CR, the actual declared income exceeds the estimated minimum required income by 38% and the distance between both is increasing with actual income. While in the lowest income decile, people get by 27% lesser income than they would need, in the highest decile the actual income is by 136% higher than the estimated required minimum income.

**Figure 7.3 Subjective poverty and insufficient income in European countries in 2015 (%). Countries are ranked in descending order according to subjective poverty**



**Source:** EU-SILC 2015 (authors' calculations from data file).

**Note:** Figures on households are transferred on all persons living in them.

Germany was not included. Subjective poverty indicated by 'great difficulty' to make ends meet.

From the distance between the actual income and the estimated minimum required income, an alternative indicator of poverty can be derived. For instance, 'poor' can be defined as those persons living in households in which actual income is less than 75% of the minimum necessary income. Figure 7.3 compares the indicator of subjective poverty based on making ends meet, with the indicator based on that relationship. Apart from exceptions (especially Hungary), the poverty rate based on the ratio of minimum necessary income to actual income is much higher than the rate based on making ends meet in all countries while in some cases (Balkan and Baltic states) this distance is extreme.

## 7. The extent and characteristics of poverty

According to Amartya Sen (1981, p. 17), ‘the approach of relative deprivation supplements rather than supplants the analysis of poverty in terms of absolute dispossession’. In advanced societies, poverty is an absolute matter in extreme situations of misery and even homelessness. Such situations, however, are not included in household surveys. Otherwise, poverty is primarily a relational issue, so it is the context of the observation which matters. The question ‘relative to what?’ was first raised a long time ago; recall the finding of Adam Smith that ‘custom ... has rendered leather shoes a necessity of life in England. The poorest creditable person of either sex would be ashamed to appear in public without them’ (*An Enquiry into the Nature and Causes of the Wealth of Nations*, part 2, article 4).

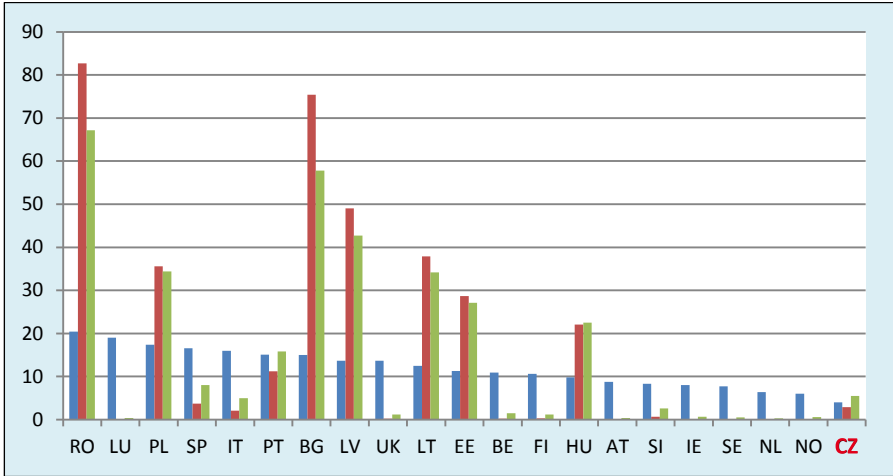
Olli Kangas and Veli-Matti Ritakallio (2004) examined the relativity of poverty in relation to the region, country and the EU–15 average. They noted that if income inequality is deep in the country, national averages often hide more than they reveal. This is most obvious in the case of the difference between Southern European countries with large differences in income and the socially highly homogeneous Scandinavian states. On the other hand, unifying of policies and balancing of regional differences justifies the application of a ‘pan-European’ threshold of poverty.

Although the notion of a ‘*European poverty line*’ has been a frequent issue in economic literature for some time, we do not see it in EU statistics. Recall that the range of income levels and the corresponding purchasing power of ‘poor households’ changed fundamentally for transition countries with the enlargement of the EU in 2004 and 2007: while median income within the EU–15 was in the range of 3:1 (Luxembourg vs. Portugal), after enlargement, the range amounted to 10:1 (Luxembourg vs. Romania). The impact of EU enlargement on a hypothetical European poverty rate was analysed by Michael F. Förster (2003, 2005) by linking monetary and non-monetary indicators to the measure of so-called ‘consistent poverty’.

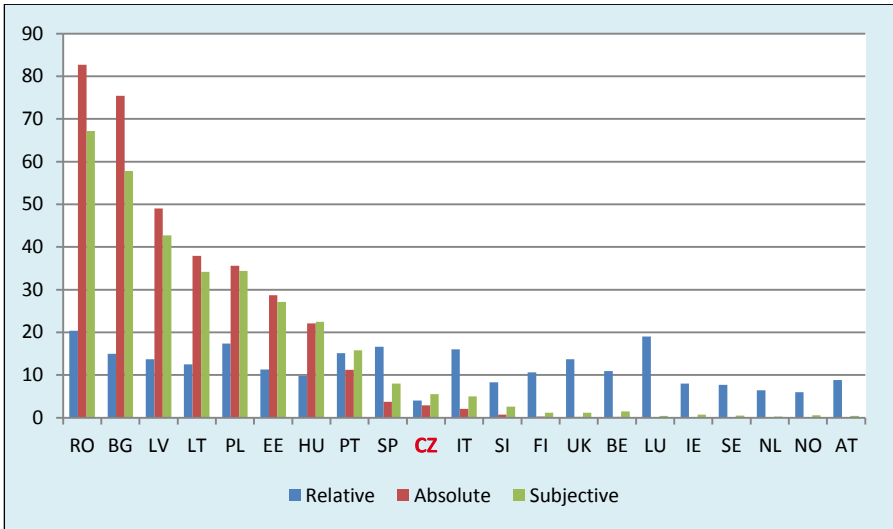
Appropriateness of the poverty indicator can be verified by an analysis of which context of income is related to subjectively perceived poverty, i.e. whether it relates to a national or European level. This was surveyed by Richard Berthoud (2012) who measured subjective poverty by combining questions on making ends meet and whether the household has sufficient reserves to handle unexpected expenses. The European-level income (equivalent EUR converted to the purchasing power of the national currency) served Berthoud as the national-level income for the indication of relative poverty. The analysis showed that, for subjectively perceived poverty, the relation to the European average is more important than the relation to national income (by a ratio of 68:32).

## 7. The extent and characteristics of poverty

**Figure 7.4A** Relative, absolute and subjective poverty rates in selected European countries in 2008 (%). Countries are ranked in descending order according to relative poverty



**Figure 7.4B** Relative, absolute and subjective poverty rates in selected European countries in 2008 (%). Countries are ranked in descending order according to absolute poverty



**Source:** Berthoud 2012 (adapted by authors).

Berthoud's results in Figures 7.4A and 7.4B show extreme differences between countries in 'absolute' (European-level income) poverty, slightly smaller differences in subjective poverty, and smaller yet differences in 'relative' (national-level income) poverty. In the poorest countries (the Balkan transition countries, the Baltic states and Poland) subjective poverty is roughly in line with the European poverty rate. In the more advanced countries, both indicators are approaching zero, despite the fact that the population tends to exaggerate their financial difficulties compared to values based on actual income. In contrast, the differences between countries in terms of income related to national averages are much lower.

We are by no means alone in drawing attention to 'subjective' poverty indicators as opposed to 'objective' indicators. Their importance was pointed out in the 'Sarkozy Report' (CMEPSP 2009) almost ten years ago. However for instance, indicator based on survey responses that a household 'makes ends meet with great difficulty' has not yet been considered in EU key documents or – according to our knowledge – in European comparative research projects. In our previous study (Večerník, Mysíková 2016), we have dealt with this indicator in detail and argued for its use, inter alia, for the following reasons:

- It takes into account both income and expenditures, the costs of living and financial burdens, while staying within the frame of reference of the living standard of the society.
- It provides more uniform results in stratification, demographic and spatial levels. Unlike the income-poverty risk situation, the population declaring 'great difficulty' in making ends meet involves fewer self-employed, singles and one-parent households. Similarly, the inhabitants of rural municipalities and regions are less represented.
- While according to the indicator of income poverty risk, poverty of children is high and poverty of pensioners is low, the subjective indicator brings about opposite results what is much more realistic.
- Compared to other indicators of poverty, the subjective indicator is more strongly related to life satisfaction and satisfaction with the financial situation of the household, which highlights its reliability.

Similarly, we should also test the ability of other synthetic indicators of poverty, such as relationships of the minimum necessary income and material deprivation indexes in their various scopes and scales.

## 8. Inequality in wealth

Developments after 1945 and, in particular, after the communist coup in 1948, led to destruction of the established wealth structures. This occurred in the areas of production capital and real estate by extensive nationalization and in the area of financial assets of households by monetary reforms in 1945 and 1953. According to retrospective data collected in the *Economic Expectations and Attitudes* (EEA) surveys, post-war confiscation of property impacted up to half of the population, peasants in particular. In the further development of Czech society under the communist regime, the gap between low wages and high commodity prices (due to both low purchasing power and deliberate price deformation) caused factual separation of household wealth from their current income.

In contrast to the vast majority of households with modest housing, basic household equipment and some small savings, property elite was gradually formed from some top bureaucrats and the shadow economy's barons. Although the purchases made by members of this elite group showed some features of conspicuous consumption, the Communist ideology of equality commanded them to not irritate the working class. At the outset of transition, Ivo Možný (1991) formulated the hypothesis that, in the end, the Communist ruling elite itself significantly contributed to the fall of the regime. The reason was its desire to secure their privileges, to publicly enjoy their wealth, and to transfer their disposition rights into real private property which could be explicitly used and passed to their descendants.

After November 1989, the restoration of private ownership and the opening of markets offered many opportunities to transform 'old' wealth and to create 'new' riches. The ways to new fortunes were several: 1. Transformation of 'socialist' (hidden) ownership or disposition rights, capitalized in the context of privatization; 2. Restitution and re-acquisition of former family property by the original owners or their heirs; 3. The transformation of 'political capital' into economic capital by use of insider information to transfer state-owned companies into private hands, whether directly (managers become legal owners) or indirectly (by gaining control over joint-stock companies); 4. Benefitting from the gaps in the legal system and state control via tax evasion, odd transactions and fraud (Večerník 1996).

The most significant changes during transition concerned the productive and financial capital. In the so-called 'small privatization', 40,000 small firms were put into private hands. About 18% of the population benefitted from restitutions, with 12% receiving estates, fields or forests, 3% a house or other property, 2% funds and 1% a factory or workshop (EEA, January 1996).

## 8. Inequality in wealth

The number of self-employed and private firms, starting at barely a few hundred, exceeded one million in 1994 and continued to grow. So-called voucher privatization and consequent activities of investment funds and banks have led to involvement of households in the capital market, though at rates which remain lower than promised and expected.

As regards information on wealth, the declarations of the persons interviewed in small sociological surveys are very approximate. Above all, the proportion of rejected answers is far higher than in income issues and provided answers are undoubtedly heavily undervalued. Statistical surveys of wealth are among the most difficult to achieve. The problems are also due to considerable variance and volatility regarding household's price evaluation of their various estates and assets and, in particular, by the natural reluctance of people to allow insights into their private economic circumstances.

In the 1990–1998 EEA surveys the following question was asked: 'Imagine that you were insured and, as a result of some natural disaster, you lost all your property, that is, a house, a car, secondary residence, a garden, all household facilities, all savings and other assets. How much should the amount to replace this damage be?' The results certainly undervalue the actual situation, but the growth in estimated assets was noticeable. The share of households declaring property over one million CZK rose from 5% at the end of 1990 to 36% at the beginning of 1998. This increase can be attributed, in addition to price rises, to a real increase of family wealth due to restitutions, new businesses, and probably also to a somewhat greater willingness of households to declare assets, at least approximately.

Similar questions were included in the 2009 ISSP module 'Social inequality', in which several questions in (only) the Czech questionnaire were added: 1. 'How much money would you get if you sold your apartment or house (where your family lives) and then repaid all debts (mortgage, loans) related to it? 2. Approximately how much money do you (your proximate family) have in savings (bank accounts, supplementary pension insurance, securities, bonds, etc.) less your financial debts (excluding mortgages and loans)'.

The percentage of rejected answers – either due to the complexity of the calculation or the respondent's unwillingness to communicate such information – was 16% for real estate and 17% for financial assets (similarly as in the case of questions relating to the respondent and household income). Regarding provided answers, there was a significant correlation between the two aggregates – real estate and the financial assets minus debt burden (Pearson's correlation coefficient of 0.5). The 'debt-only' response category ranged between 3% in the case of real estate and 6% in the case of financial

## 8. Inequality in wealth

assets. Together, the category of the indigents (indebted and responded 'no finance') comprised a quarter of the respondents.

Information by respondents of ISSP 2009 Czech module about their household wealth is obviously deeply undervalued, apparently more than in EEA surveys. Regarding real estate, only a third of respondents said their value was at least one million CZK. Regarding financial assets, only six per cent of respondents reported assets of one million CZK. If we combine respondents' estimates, the average value of household real estate and financial assets together was 1.5 million CZK in this survey, with the top fifth of respondents holding less than two-thirds of the overall wealth. This is quite far off the reality, which may be closer to a division near Pareto's 80:20 rule, according to which the top fifth owns four fifths of the entire wealth.

There are not many countries which conduct a special household wealth survey. The *Luxembourg Wealth Study (LWS)* database, founded within the Luxembourg Income Study in 2004, initially included only seven European countries, later added to the *Household Finance and Consumption Survey (HFCS)*. This is a survey conducted at the initiative of the European Central Bank in all Eurozone countries, the first wave of which took place in 2010–2011 and the second in 2013–2015. As the CR does not belong to the Eurozone countries, it is not included in this survey. Within the framework of the HFCS Network consortium administered by the survey, the Czech National Bank is, however, represented.

The first part of the HFCS questionnaire covers households as a whole, collecting information about real estate and its financing, loans and other financial liabilities, private businesses, financial assets, and intergenerational transfers and gifts. The second part of the questionnaire concerns individual members of the household, collecting, among other things, information about pension entitlements and associated expected earnings. Additional questions about the apartment or house are filled up by interviewers.

The results on the distribution of net wealth of households in the countries surveyed in HFCS show a considerable variation across countries within a range of 1.6 times the Gini coefficient (Table 8.1). The ranking of countries is difficult to comment upon, as any typological approach (according to GDP, regions or welfare regimes) fails. However, transition countries, with the exception of the Baltic States, are found at lower levels of wealth inequality, down to Slovakia. The situation in southern European countries is very similar, with wealth inequality generally lower, with the exception of Portugal. The highest inequality is found in West European countries, specifically Germany, Austria and the Netherlands.



## 8. Inequality in wealth

**Table 8.1** Distribution of net household wealth in European countries in 2014 (%). Countries are ranked in descending order according to the Gini coefficient

	Shares of entire wealth				Top 5%	Coefficient Gini
	Lower half	50–90%	Top 10%	Total		
LV	2.9	33.8	63.3	100.0	49.1	0.79
DE	2.5	37.7	59.8	100.0	46.3	0.76
IE	1.4	44.8	53.8	100.0	37.7	0.75
AT	3.2	41.3	55.5	100.0	43.4	0.73
NL	2.3	54.1	43.6	100.0	28.7	0.70
EE	7.4	36.9	55.7	100.0	43.2	0.69
PT	7.1	40.8	52.1	100.0	36.5	0.68
FR	6.3	43.0	50.7	100.0	37.4	0.68
FI	6.7	48.1	45.2	100.0	31.4	0.65
LU	8.6	42.7	48.7	100.0	36.3	0.65
HU	9.5	42.0	48.5	100.0	35.7	0.64
SI	10.7	40.8	48.5	100.0	37.7	0.63
IT	9.9	47.3	42.8	100.0	29.7	0.60
GR	10.7	46.9	42.4	100.0	28.8	0.60
ES	12.0	42.4	45.6	100.0	33.3	0.60
BE	11.5	46.0	42.5	100.0	29.7	0.59
PL	11.4	46.8	41.8	100.0	29.0	0.59
SK	17.5	48.2	34.3	100.0	23.0	0.49

**Source:** ECB 2017, table J4 (adapted by authors). Only countries of the Eurozone were included in the HFCS.

**Note:** Net wealth is the difference between total household (real and financial) assets and total household liabilities. Total liabilities include mortgages, non-mortgage loans, credit lines/bank overdrafts debt and credit card debt.

For information about the CR, the National Accounts data, used in reports of the Czech Banking Association (CBA), is available – but only in aggregates. The wealth of Czech households reached nominal values of CZK 11.4 trillion in 2015, which is more than two and a half times the GDP. In the past two decades, its value per inhabitant has almost tripled to CZK 1,083,000. The average value of financial liabilities per inhabitant increased from CZK 23,000 in 1995 to CZK 145,000 in 2015. The new wealth was therefore provided by debt only to a small degree (CBA 2016, CBA 2017). However, the excess of deposits on loans has radically decreased.

Czech households currently hold their wealth primarily in residential real estate (which increased between 1995 and 2015 to 2.7 times the value of CZK 4.2 trillion), bank deposits (up 7 times to CZK 2.6 trillion) and in land (worth CZK 1.3 trillion). Cash and deposits account for one fifth of total

## 8. Inequality in wealth

household assets. Other financial products include stocks (10%), unit certificates (3%) and claims on pension insurance (3.1%) and life insurance (2.4%). Regarding financial assets, households apparently prefer low risk and easily accessible money. However, also the amounts of funds collected under pension and life insurance has also increased.

CBA reports and other CSO sources do not indicate inequality in wealth distribution. Therefore, we turn to estimates made by economists in studies covering the world and published in the reports of the UNU-WIDER Research Center, and regularly, since 2010, in *Global Wealth Databook* reports elaborated by the *Credit Suisse Research Center*. Anthony B. Atkinson (2008) was also an important actor of this initiative, which was further developed by Anthony F. Shorrocks and James B. Davies.

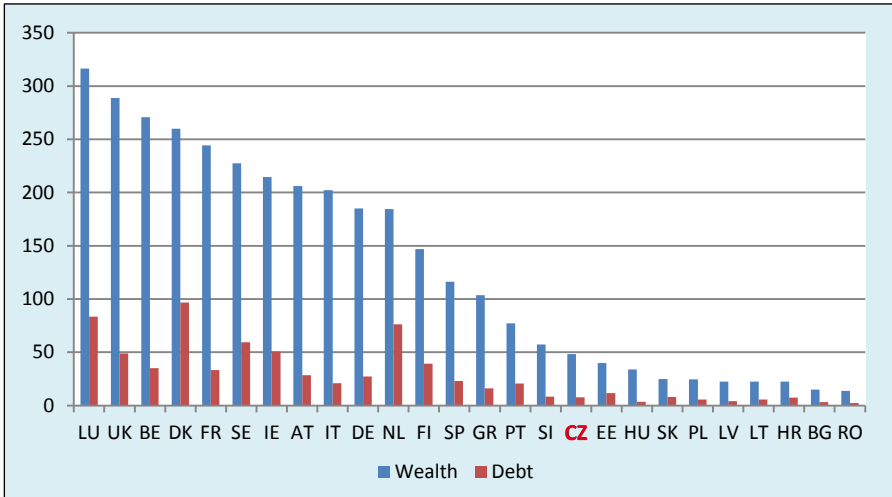
The focus of these reports is wealth held by households and defined as the market value of financial and non-financial assets (housing and land) net of debts. The procedure used is described only generally in the relevant studies, with reference to three steps. In the first step, the average level of wealth is determined in each country and then converted to the head of the adult population. In the second step, asset distribution is designed. Since it is rightly assumed that wealth surveys do not faithfully reflect the upper ranges, in the third step, the data is refined based on the list of the richest people published by *Forbes Magazine*, and lastly also using *The Sunday Times Rich List* (Credit Suisse 2016, UNU-WIDER 2016).

The sources used are National Accounts data for 48 countries which include 65% of the world's population controlling 95% of the global wealth. However, this concerns only estimates of total assets. Data from household surveys on wealth distribution is available for only 33 countries. For countries providing data on income distribution only, estimates based on the relationship between income differentiation and wealth inequality found in countries with complete data were used. Overall, wealth distribution is considered to be more uneven than distribution of income. For the remaining 164 countries, the data was estimated by region and country income group.

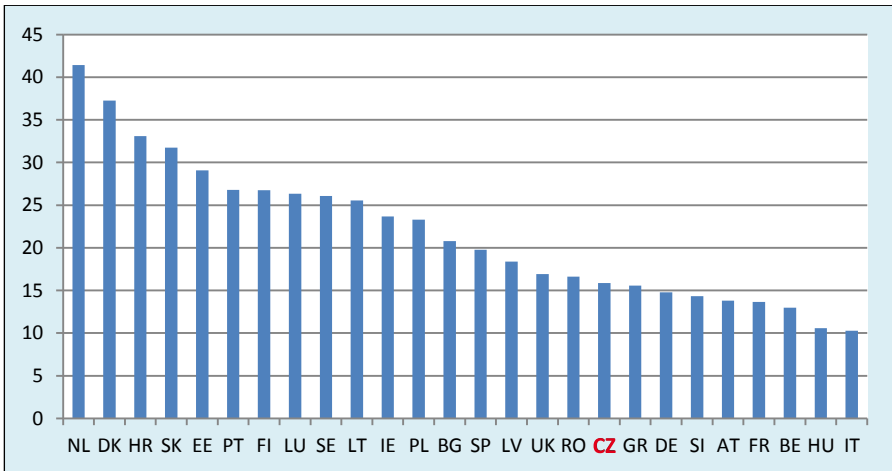
It should be noted that these reports omit issues related to socio-economic and political transitions, i.e. the double regime change in Eastern Europe after WWII. The first included confiscation of property and hence interruption of its intergenerational transmission, while the second involved both partial restoration of wealth or compensation for it, and an open door to property acquisition and a subsequent concentration of wealth. In the *Credit Suisse Report* (2016, p. 130), we find only one mention of transformation, namely that, in transition countries, people tend to hold more liquid assets because their financial systems have had less time to develop.

## 8. Inequality in wealth

**Figure 8.1A** Wealth and debts in European countries in 2016 (in 1,000 USD per adult). Countries are ranked in descending order according to wealth



**Figure 8.1B** Debt to wealth ratio in European countries in 2016 (%)



**Source:** Global Wealth Databook 2016 (Table 2-4).

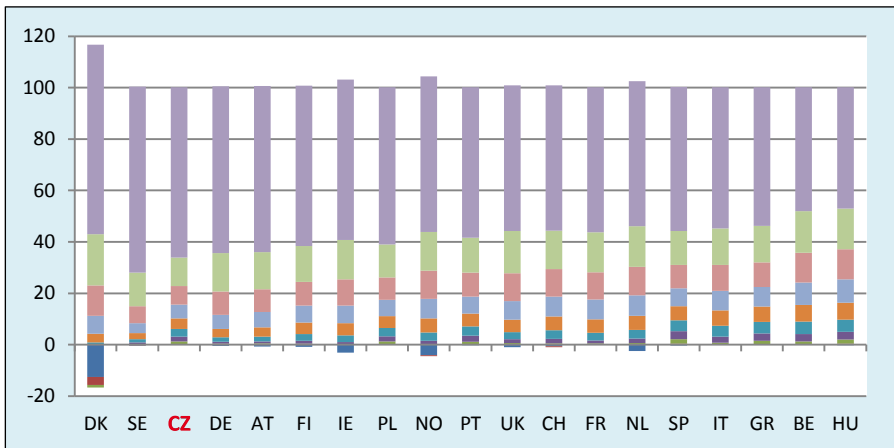
## 8. Inequality in wealth

As shown in Figure 8.1A, regarding the amount of assets, the CR is among the leaders of the transition countries, ranked immediately behind Slovenia. Nevertheless, there is a significant gap between the CR and even the least developed Western (and Southern) European countries. The total amount of wealth per adult was estimated in 2016 at \$ 48,400, with debt amounting to \$ 7,700. The same Figure also shows the household debt, which is considerable in some countries.

This information is illustrated in Figure 8.1B, showing the ratio of debt to assets. It is the highest in the rich Western European countries (the Netherlands and Denmark), but is also high in some transition countries (Croatia, Slovakia, Estonia). The CR is located near the beginning of the last third of the countries, between Romania and Greece, and ahead of advanced Western European countries such as Germany, Austria, France and Belgium.

Particularly interesting are estimates of inequality in wealth. In the typology of countries according to four degrees of wealth inequality (from very high to low), the CR is located among countries with high (although not the highest) inequality along with Germany, Austria and the Nordic countries, and also with China, Mexico, Colombia and others (UNU-WIDER 2016, p. 20). A more detailed look at the Credit Suisse report (2016) makes this finding more precise, but at the same time it raises certain doubts regarding reliability of some country data.

**Figure 8.2 Wealth distribution in European countries in 2016 by deciles (%). Countries are ranked in descending order according to the share of the top decile**



**Source:** Global Wealth Databook 2016 (Table 6-5).

## 8. Inequality in wealth

In Figure 8.2, the decile distribution of wealth in European countries included in Credit Suisse analysis is presented. The CR, along with Denmark and Sweden, display the largest proportion of the highest decile on wealth per adult person. The same order applies to the highest quintile. The analysis also estimates the share of wealth owned by the top one per cent, which is 39% in the CR, which is the highest from the list of surveyed countries.

According to the authors, one of support for the estimates on wealth inequality is the association between income and wealth allocation which was tested in countries for which both distributions are available. Such an assumption is used to estimate wealth distribution in countries for which only income distribution is available (Credit Suisse 2016, p. 5). However, just in the countries with the lowest income inequality – Sweden and the CR – we find the largest share of the highest decile of wealth distribution.

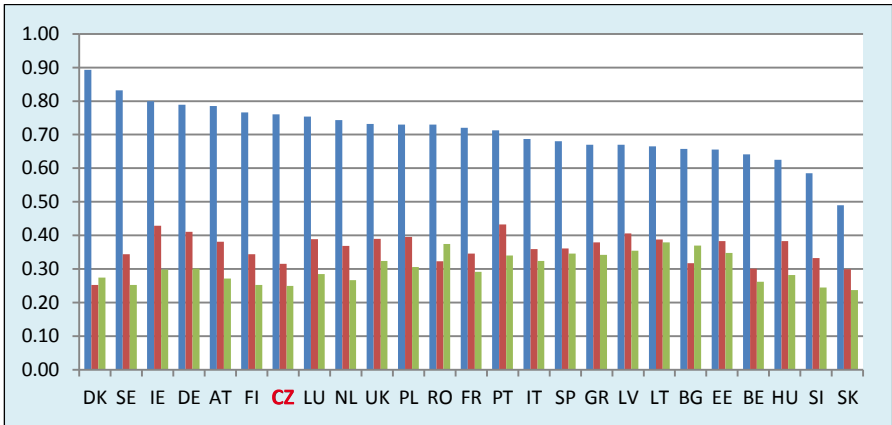
These reports are conceived globally and do not deal in detail with individual countries, although they provide detailed data on wealth inequality for them. The calculations are backed by the names of great economists, prestigious institutions, and, ultimately, by long-term research dating back to 2000. Any discussion or criticism is beyond the scope of this study, especially as regards wealth inequality, where we have no alternative sources of data. Thus we limit ourselves to a brief comment regarding the CR.

The Czech data which entered into the database are rated as ‘good’ by the authors, i.e. the best on the applied scale ‘very poor–fair–good’. The inequality measured by the share of the highest five per cent of the adult population (57%) is at the European average - the same as in Denmark and Sweden, and only slightly higher than in Austria and Germany (52%). Nevertheless, the share of the wealth attributed to the top per cent of the adult population is estimated as the largest in the European countries involved in the analysis (not all are included), and in the global context it corresponds to the value attributed to Mexico. Therefore, we must express some doubt about reliability of the data.

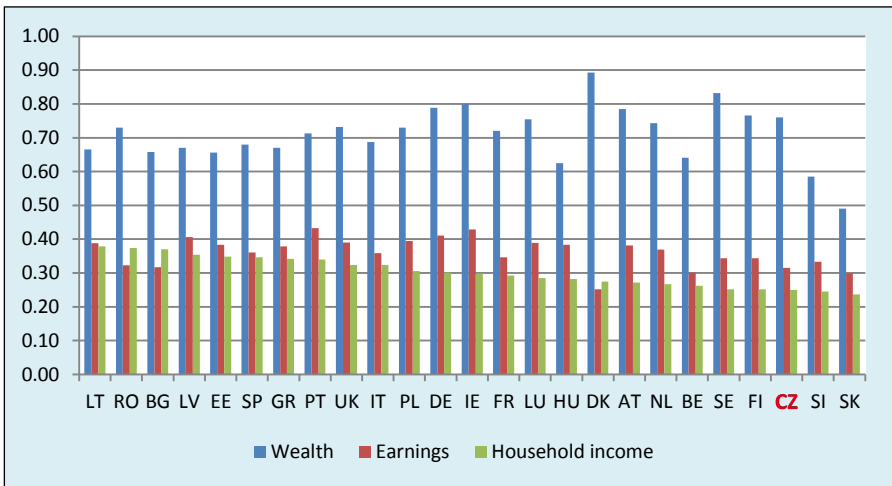
In Figures 8.3A–B, we compare the distribution of wealth from the Credit Suisse database with income and household income inequality indicators as described in chapters 3 and 4 of this study. Although the authors of the database emphasize a supposed link between wealth inequality and income inequality and they report about the direct use of data on income differences for construction of the database, even a simple comparison of the two distributions does not show a link. Figure 8.3B is especially instructive, where countries with an estimated large wealth inequality such as Finland, Sweden and the CR display the smallest income inequality.

## 8. Inequality in wealth

**Figure 8.3A** Distribution of wealth, earnings and household income in European countries in 2016 (Gini coefficients). Countries are ranked in descending order according to wealth inequality



**Figure 8.3B** Distribution of wealth, earnings and household income in European countries in 2016 (Gini coefficients). Countries are ranked in descending order according to inequality in household income



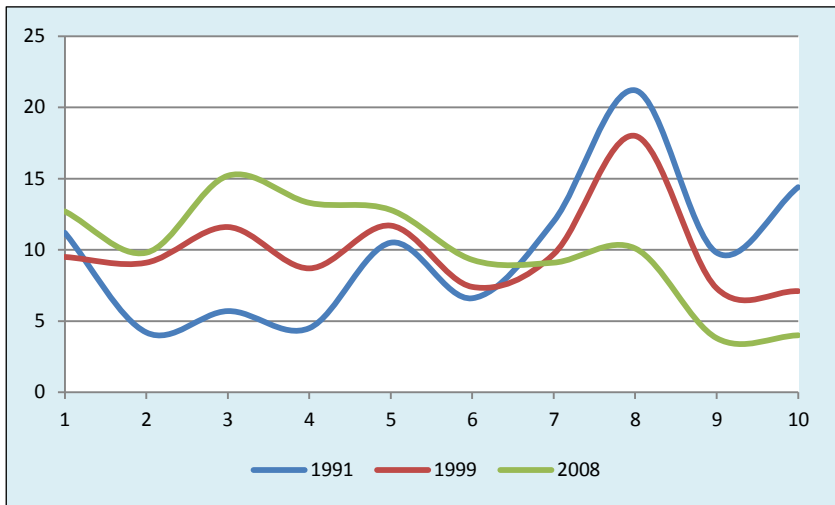
**Source:** Global Wealth Databook 2016 (Table 6-6).

**Note:** The referred table includes only data on household wealth, Gini coefficients on earnings and household incomes were added from data in Figures 3.2 and 4.1 of this study.

## 9. Perceived inequality

The rising inequalities in earnings and household incomes after 1989 were reflected in people's attitudes in various ways. After criticism of wage equalization during the Communist regime since the late 1950s, criticism of excessive inequality has appeared in the new regime. When comparing real wage differentiation and the subjective perception of income differences, tolerance of greater inequality actually declined more rapidly than real differences grew. The gap between the lowest and highest earnings (measured by decile distribution) almost doubled in the first decade of the transformation. At the same time, while 90% of people were willing to accept more earnings inequality in 1990, in 1998 it was barely 50%.

**Figure 9.1** 'Should incomes be made more equal, or should there be greater incentives for individual effort?' Answers on a 10-point scale for the Czech Republic in 1991, 1999 and 2008 (%)



**Source:** EVS 1991, 1999, 2008 (authors' calculations from data files).

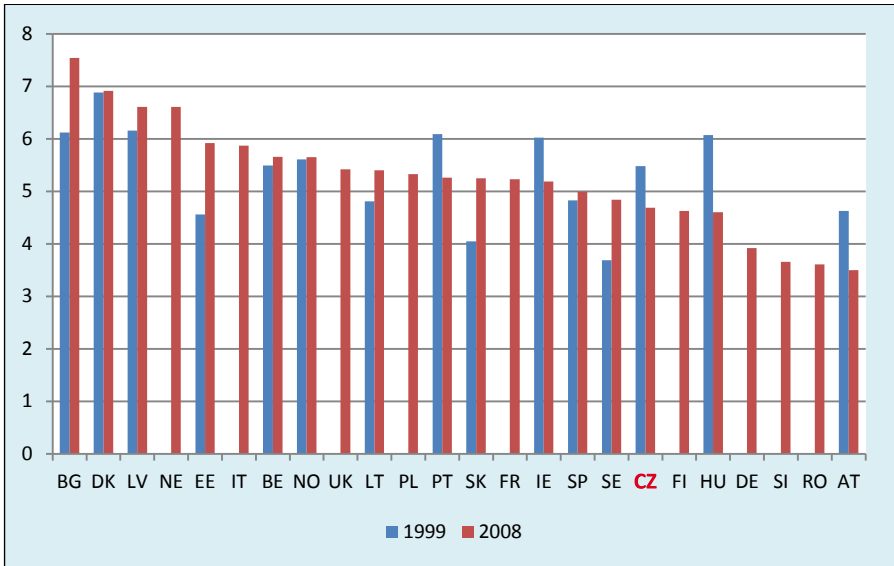
**Note:** Applied scale directs from the support of more equal incomes to the support of greater incentives for individual effort (1= a lot of equality, 10= a lot of incentives).

In order to capture the trend in perceived inequality, we can use EVS data, but the latest ones are from 2008. The distribution of responses in Figure 9.1 shows an upsurge of anti-egalitarianism in 1991 and a slight decrease to 1999. However, over the next decade, there was a large decline in this re-

## 9. Perceived inequality

spect – instead of their earlier culmination in Grade 8 on the ladder, the responses culminate in Grade 3, while the support for greater differences fell considerably.

**Figure 9.2** 'Should incomes should be made more equal, or should there be greater incentives for individual effort?' Answers on a 10-point scale, for European countries in 1999 and 2008. Countries are ranked in descending order according to the average score in 2008



**Source:** EVS 1999 and 2008 (authors' calculations from data files).

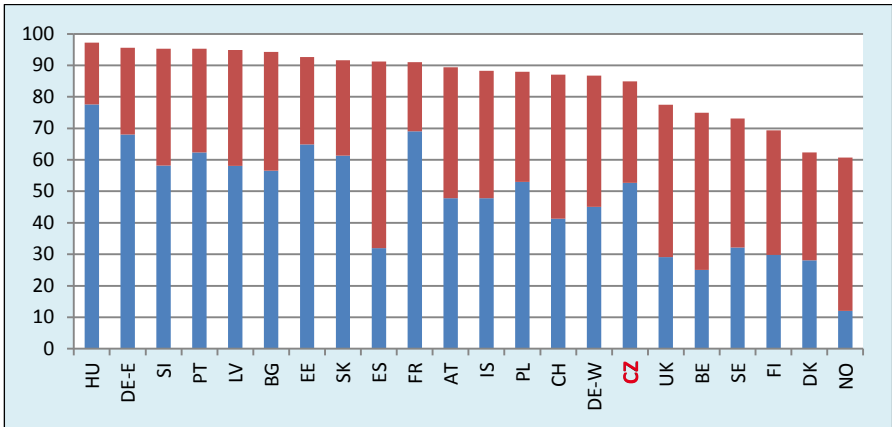
**Note:** The higher score, the stronger support of incentives instead of equality (see note to Figure 9.1).

In a cross-national comparison presented in Figure 9.2, the CR falls into the societies that do not support incentives for greater individual effort much. However, a number of countries, including Germany and Austria, are still behind the CR. On the other hand, greater inequality would be tolerated in Bulgaria and some Baltic countries. Some Western European countries (Denmark, the Netherlands, Norway) are located similarly. Regarding change over time, while Sweden, in neighbourhood of the CR on the ladder, shows the trend towards greater support for incentives, the Czech population was heading for greater equality. However, the new EVS wave collected in 2017 (not yet available as dataset), signals a slight shift towards more incentives.

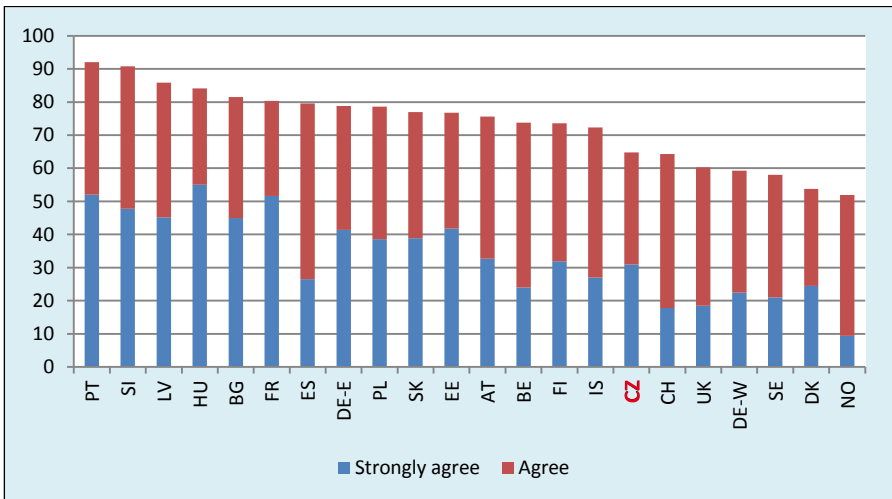


## 9. Perceived inequality

**Figure 9.3A** Opinion ‘Differences in income are too large’ in European countries in 2009 (%). Countries are ranked in descending order according to summarized agreement



**Figure 9.3B** Opinion ‘It is the responsibility of the government to reduce the differences in income between people with high incomes and those with low incomes’ in European countries in 2009 (%). Countries are ranked in descending order according to summarized agreement



*Source: ISSP module ‘Social inequality’2009 (authors’ calculations from data file).*

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In the ISSP module 'Social inequality', other questions related to inequality were posed, with different results. Figure 9.3A shows answers to the question of whether income differences are too large. Agreement with this statement is prevalent everywhere, although in some countries it is rather in the soft variant 'agree'. The range of responses is considerable, between 12% and 78% regarding 'strongly agree' and between 61% and 97% of the total agreement. The CR is located in the bottom third of the countries with the least critical attitudes towards social inequality, with all Scandinavian countries, the United Kingdom and Belgium.

Figure 9.3B shows responses to the question of whether it is 'the responsibility of the government to reduce the differences in income between people with high incomes and those with low incomes'. The overall agreement is 12 percentage points lower, with a smaller share of 'strongly agree'. The range of responses varies between 9% and 52% for strong agreement and between 52% and 92% of total agreement. The CR is again located in the last third of countries with the least pro-interventionist attitudes. In total agreement, the CR is at the same level as Switzerland, while regarding 'strong agreement' it is at the level of Austria and Finland.

These attitudes blend realistic perceptions of actual income inequality with views on its functionality and legitimacy, and ultimately with 'ideological' attitudes. The location of the Scandinavian countries at the bottom of the scale reflects the fact that the real income gap is there small and that the Nordic type of 'welfare state' is already sufficiently interventionist-redistributive. At a slightly lower level, this also applies to Germany, which falls into the same area of countries. But in the case of the United Kingdom, where income margins are large, they are considered to be quite legitimate. The rooted attitudes of the liberal 'welfare state' do not involve strong interventions.

At the end of October 2017, the 8th round of the ESS was released for a part of countries involved in this project. Unlike its previous waves it contains several questions about income inequality. The results presented in Table 9.1 and Figure 9.4 are quite surprising, as the CR shows the weakest egalitarian attitudes. Only 44% of Czech respondents (compared with the average of 68% across the countries surveyed) agree that the government should take measures to 'reduce differences in income levels' and just 38% (compared to 60%) agree with the view that 'For a society to be fair differences in people's standard of living should be small'. On the other hand, 60% of Czech respondents (compared to 48% of the average) consider large differences in people's income to be acceptable if they adequately reward differences in abilities and efforts.

**Table 9.1 Opinions on differences in income and living conditions. Positive answers in selected European countries in 2016**

	1. Reduce differences in income levels		2. Large differences are acceptable		3. Differences should be small	
	Strongly agree	Agree	Strongly agree	Agree	Strongly agree	Agree
AT	26.7	50.4	7.8	29.5	19.4	52.6
BE	27.4	44.9	7.5	38.1	14.0	52.2
CZ	11.2	33.3	19.7	40.0	9.5	29.2
DE	24.9	46.6	5.6	45.9	9.2	50.8
EE	20.8	48.3	8.3	45.4	9.7	45.8
FI	28.3	43.3	2.7	22.7	12.2	56.4
FR	35.5	39.2	10.1	35.3	16.1	45.2
UK	19.3	45.3	7.7	46.5	5.8	49.4
CH	18.1	46.9	4.9	43.1	9.7	52.8
IE	18.4	53.2	11.4	47.1	8.8	56.6
NE	15.4	44.8	8.0	43.5	4.8	48.9
NO	18.8	42.1	5.7	38.1	9.2	52.5
PL	26.8	45.8	13.8	48.0	10.2	50.5
SE	16.8	47.3	5.6	36.5	10.0	49.3
SI	41.2	44.7	3.9	21.7	15.2	51.3
<b>Average</b>	<b>23.3</b>	<b>45.1</b>	<b>8.4</b>	<b>39.3</b>	<b>10.9</b>	<b>49.6</b>
<b>SD</b>	<b>9.4</b>		<b>11.0</b>		<b>7.9</b>	

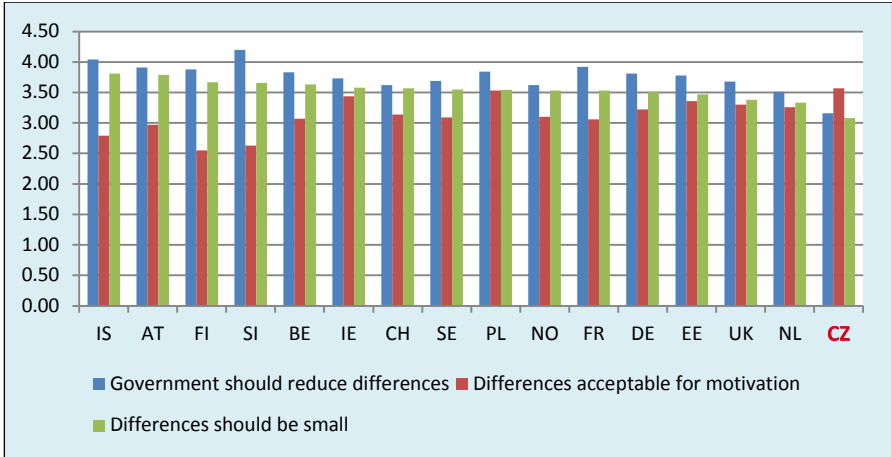
**Source:** ESS, Round 8 – 2016.

**Questions:** 1. The government should take measures to reduce differences in income levels, 2. Large differences in people's incomes are acceptable to properly reward differences in talents and efforts, 3. For a society to be fair, differences in people's standard of living should be small.

**Note:** Answers on a 5–point scale. Standard deviation (SD) is calculated from summarized answers 'strongly agree' and 'agree'. Other options of answers were 'neither agree, nor disagree', 'disagree', 'disagree strongly'.

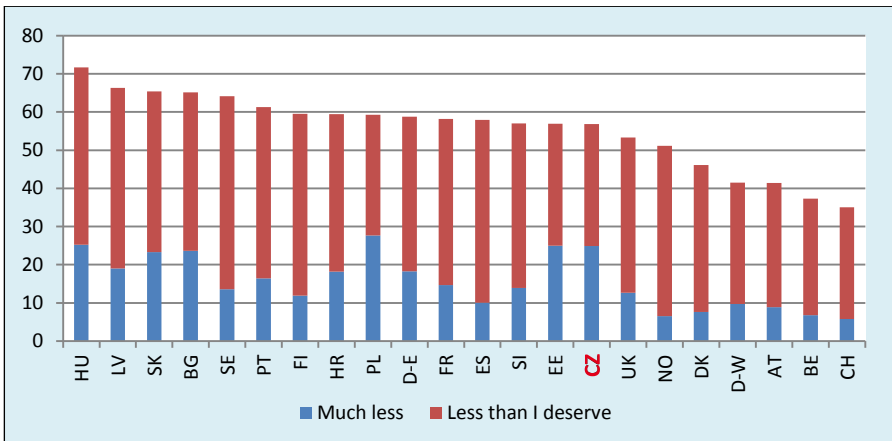
From the above-mentioned ISSP 2009 survey, answers to the question of the feeling of fairness in the reward are shown in Figure 9.5. In the European comparison, the CR is still relatively good at summarizing the negative answers to the feeling of injustice, but much worse in the expressed strong feeling of injustice. In this case, the ranking of European countries is at the forefront of dissatisfaction with Poland, Hungary and Estonia and only just before Bulgaria and Slovakia.

**Figure 9.4** Opinions on differences in income and living conditions in selected European countries in 2016 (average of answers on a 5-point scale). Countries are ranked in descending order according to requirement of small differences



Source: Source: ESS, Round 8 – 2016, ESS, 8. For questions see note below Table 9.1.

**Figure 9.5** 'Is your pay just?' in European countries in 2009 (%). Countries ranked in descending order according to summarized feeling of injustice

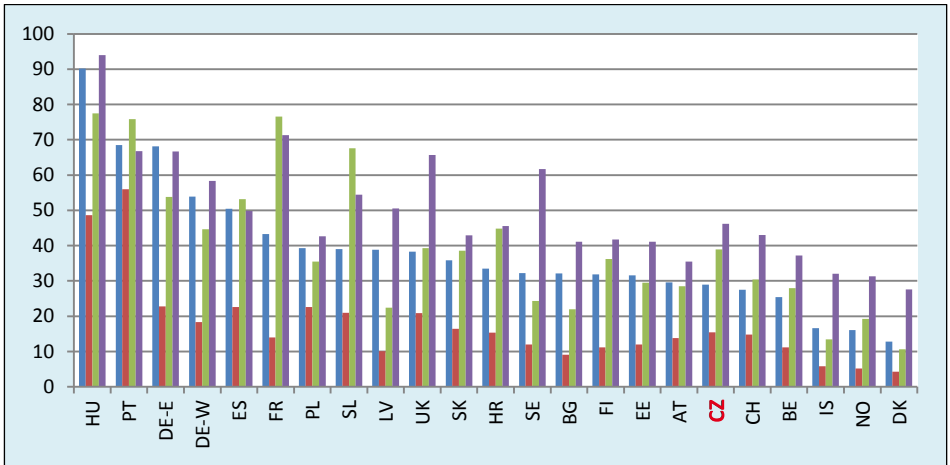


Source: ISSP module 'Social inequality'2009 (authors' calculations from data file).

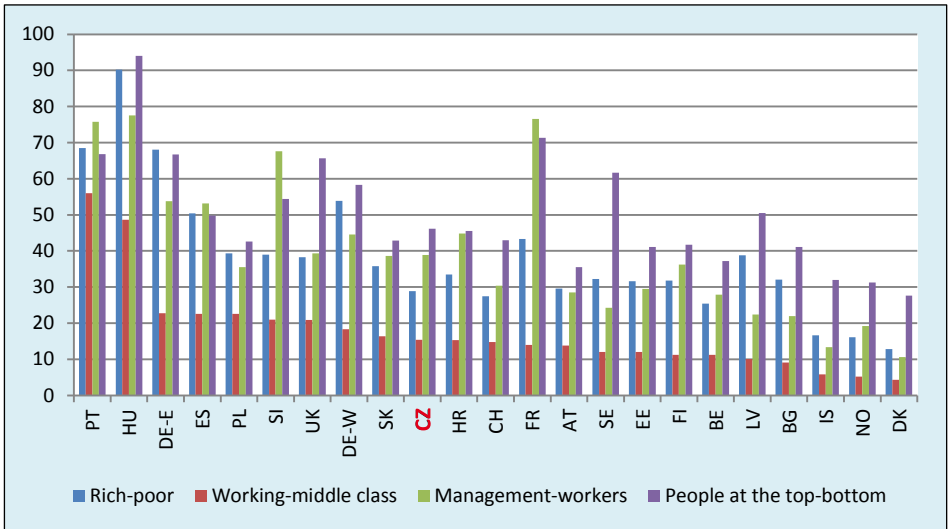
Question: Would you say that you earn: 'much less than I deserve', 'less than I deserve', 'what I deserve', 'more than I deserve', 'much more than I deserve'.

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**Figure 9.6A** Opinion ‘Conflicts are very strong’ in four dimensions in European countries in 2009 (%). Countries are ranked in descending order according to dimension ‘rich people–poor people’



**Figure 9.6B** ‘Conflicts are very strong’ in four dimensions in European countries in 2009 (%). Countries are ranked in descending order according to dimension ‘working class–middle class’



**Source:** ISSP module ‘Social inequality’2009 (authors’ calculations from data file).

## 9. Perceived inequality

Although economic and social inequality does not necessarily lead to a class struggle with the goal of overturning the social regime (as Karl Marx and his followers wished), it is closely related to perceptions of conflicts in society. This was also the subject of ISSP research, in the module 'Social inequality'. The question was as follows: *'In all countries, there are differences or even conflicts between different social groups. In your opinion, in your country how much conflict is there between: a) rich people and poor people, b) the working class and the middle class, c) management and workers, d) people at the top and people at the bottom. There are four answers: 1. very strong conflicts, 2. strong conflicts, 3. not very strong conflicts, 4. no conflicts.'*

As for the type of conflicts, the strongest are perceived 'between people at the top and people at the bottom' and the least 'between the working class and the middle class'. This applies to most countries including the CR. The rank order of countries regarding various types of conflicts is similar, but not the same.

Figures 9.6A–B show the cumulated answers 'very strong' and 'strong'. Critical voices are of considerable strength particularly in Hungary and Portugal. On the other hand, the weakest conflicts are perceived in some Nordic countries. The position of the CR varies considerably. While the perception of conflicts 'between rich people and poor people' is very low, as in the most successful 'welfare countries' and far of France and Germany, conflicts 'between the working class and the middle class' are seen stronger, close to countries of traditional Western capitalism.

Regarding the legitimacy of wealth, doubts about the ways in which it is acquired show considerable stability. The opinion that new wealth is acquired illegitimately was strong from the outset of the transformation. In 1992, 80% of the Czech population tended to agree that people were getting rich through dishonest means, and this remained true throughout the 1990s (EEA). After 2000, however, this opinion reduced to 60% (STEM Trends 12/2008). On the other hand, however, the opinion that 'the best off are people who are competent and hardworking' is unconvincing and vague. According to the same survey of 2015, only 7% of the respondents expressed 'strong agreement', with another 42% solely 'agreeing'.

However, we can rightly assume that, in terms of attitudes to wealth, the distance between the CR and advanced Western countries is not large. Here we have to add that transition countries are disadvantaged by the fact that legitimacy of collected wealth usually grows with the time that has elapsed since its original acquisition – quite short in transition countries. As for agreement that there is a link between skill, diligence and income, this is not universally shared even in established Western societies.

## 10. The middle class

Issues of income inequality are closely related to the frequently discussed middle-class or middle-strata issues. In spite of the seeming clarity, this concept is rather opaque. Above all, it is not clear how the 'middle' should be defined; where this class or strata should be actually located. According to the classic concept, it is the middle between work and capital – in Marxist terminology, between wage labour, which is rewarded only at the level that enables its simple reproduction, and exploitative capital that appropriates the surplus value. Somewhere in 'between' are thus self-employed and small entrepreneurs who invest both capital and their own labour.

In pure economic terms, the middle class is located in the middle of the income distribution. Paradoxically, more effort by economists has been invested in finding the 'right' equalization of income than to finding out where the real social middle really may be – given the usual undervaluation of the highest incomes and the uneven purchasing power of a middle income. Broader approaches are also formulated in economics, which include in particular occupation. However, comparative studies are rather missing regarding this, unlike frequent studies based on the income distribution. Recently, attention has also been drawn to wealth, where data availability is even more problematic than in the case of occupational structure.

Sociologists prefer to use the concept of capitals whose new species are being over again discovered and formulated. According to the original concept of Pierre Bourdieu (1979), there are educational, cultural, social and symbolic capitals, which altogether guarantee the reproduction of class inequality in a multidimensional social space. Iván Szelényi, Gil Eyal and Eleanor Townsley (1998) wrote from this point of view about another possible middle class localization – it includes those who hold either only cultural capital (routine experts and 'white collars'), or those with mainly economic capital and only a little cultural capital (self-employed small entrepreneurs).

In sociological terms the right income and occupation are not sufficient to achieve inclusion in the middle strata, but lifestyle and, in particular, life chances or prospects must also be in line. This corresponds to the original concept of Max Weber (1956), which was later developed for the middle class, by James Coleman and Lee Rainwater (1978). Among relevant criteria, they included higher education, typical occupations and social prestige, along with certain values and attitudes. However, by using such a certainly desirable enrichment of the concept, we are gradually moving away from the possibilities of empirical description and towards the area of 'middle-class values' or 'bourgeois culture'.

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An objective position is also linked to the subjective perception of one's own localization in the imaginary social hierarchy. This optics was emphasized by Ákos Róna-Tas (1996, p. 31), according to whom 'the middle class is a state of mind, an identity and a set of aspirations, shared by a segment of society much larger than those in the middle'. While according to the income definition, the size of the middle class is derived of the degree of inequality (decreasing if inequality rises), in terms of psychological identification and subjective perception of social chances, the possibility of expansion of the middle strata is theoretically unlimited. Regarding the integrative function of the middle class in society, it is eventually best when the majority of citizens feel that they are members of the middle-class, or when it is the objective of most to be included in it.

The empirical description of the middle class is therefore easiest if the simple economic definition is applied, as provided originally by Lester Thurow in 1985 in an article in the *New York Times*. According to him, the middle class includes middle-income households, which are in between 75% and 125% of median equalized income. Similarly, a division of the population by income quintiles is used, with the lowest fifth being the lower class and the other fifths being classified as lower middle, middle, upper middle and upper classes. Despite the banality of such an approach, it has been applied in numerous topical and popular articles due to its ease of use.

In somewhat modified form, the OECD also uses this approach routinely, where the middle class is located within a range of 75% and 200% of the median equalized income. Two-thirds of the population is usually located among medium-income households, while in 'emerging economies', it is only between one third and one half of the population (OECD 2015). The proportion of households located in middle class categories declined during the 1980s and 1990s. Since the beginning of the new millennium, the decline has been small and affects only a few countries, specifically Germany.

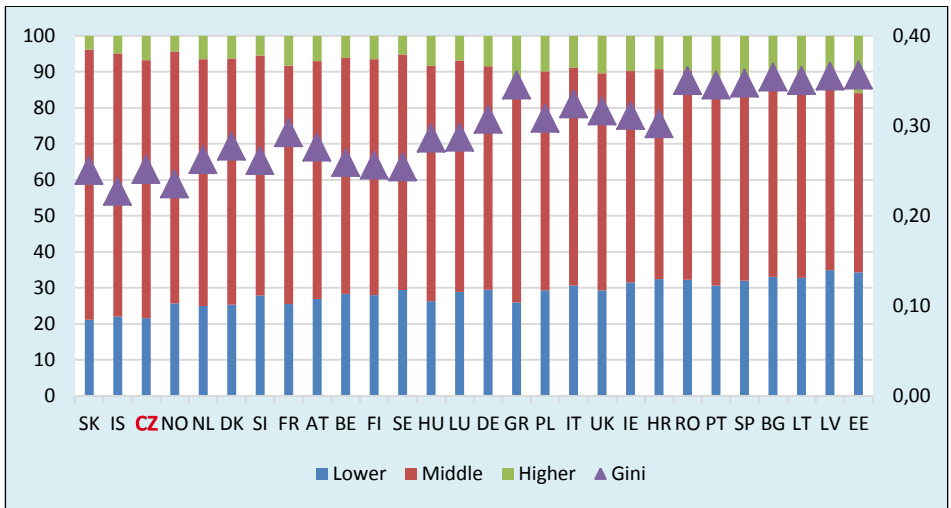
The same delimitation of the middle class was used in the *Pew Research Center* (2017) study based on LIS data and tracking developments from 1991 to 2010 in selected West European countries. While the proportion of adults living in medium-income households increased in France, the Netherlands and the United Kingdom, it declined in Germany, Italy and Spain. Atkinson and Brandolini (2013) applied a 20:60:20 quintile breakdown when the middle class is measured by the majority share of the total revenue. However, the authors also emphasize the importance of other aspects, namely wealth and occupation. A larger middle class is found in the Nordic countries and Western European corporatist countries, while the middle classes are smaller in Italy, the United Kingdom and the United States.



## 10. The middle class

Another quantile, concretely speaking decile divisions of household income were applied in table 4.1 above, containing data for the CR. From the point of view of the last mentioned breakdown of 20:60:20, the income of the middle category decreased by three percentage points from 1988 to 1996, but later grew slightly, albeit not at the previous faster rate. The main change, however, was the growth of the top 20%, whose share of total household income increased from 32% to 38% between 1988 and 2002, but has declined since then. For the entire 1988–2015 period, the lowest and middle categories declined by two percentage points each, so the category of wealthier decile grew by four percentage points.

**Figure 10.1** Distribution of the population by income in European countries and Gini coefficients of income distribution in 2014. Countries are ranked in descending order according to the share of the middle class (% on the left axis and Gini coefficient on the right axis)



**Source:** EU-SILC 2015 (authors' calculations from data files).

**Note:** Lower class includes persons living in households declaring incomes up to 75% of median equalized income, middle class 75–200%, upper class over 200%. Because of missing data on Germany in the EU-SILC 2015 data file in the time of elaboration, EU-SILC 2014 was used.

Figure 10.1 compares European countries in terms of income distribution according to the OECD approach, with the range of 75% and 200% of the median delimitating the middle class. The Gini coefficient is added to make it clear that the share of the middle class copies roughly – albeit not precisely – its level. The position of the CR is excellent in this respect, in line with low income inequality. The hypothetical middle class by this economic definition would include 70% of the population. Countries with equal or lesser income inequality include Slovakia, Iceland and Norway. Of the other post-communist countries, Slovenia is nearest to the CR.

With increasing income inequality, the proportion of the middle class is decreasing, mainly in favour of the ‘upper class’ share in countries located at the other end of the ladder in Figure 10.1. It is, however, impossible to take it as a fact that it is indeed ‘the upper class of the rich’ which is expanding, because these are mostly countries with very weak purchasing power of the average income. Since the income differentiation in these countries is larger, at the same time, the proportion of the ‘lower class’ is growing, to as much as one-third of the population in the Baltic countries (and also in Spain).

A similar approach to defining the middle class was also applied in the ILO study (Vaughan-Whitehead 2017), where it was divided into three components: lower middle (60–80% of the median), core middle (80–120%) and upper middle (120–200%). Of course, the authors found a direct link between rising income inequality and ‘erosion of the middle class’.

A more complex methodology can be applied if longitudinal data is available. Such data is provided by the EU-SILC survey, where some households with data for four consecutive years are available each year. Using such panel data, a methodology for monitoring income polarization by ‘hollowing out the middle’ was developed (OECD 2011 and 2015). Martina Mysíková and Jiří Večerník (2018a) analysed earnings data for the CR, Poland and Austria in the pre-crisis (2004–2007) and post-crisis (2007–2010) periods. Developments in these countries varied when, in the pre-crisis period, the ‘hollowing out the middle’ was found only in Austria, while in Poland and to a lesser extent in the CR, an opposite trend of strengthening of the middle income category occurred. In the post-crisis period, both effects weakened, with only some ‘hollowing out the middle’ seen in Austria.

When speaking about the middle class, the issue is much larger than the relative income position of individuals and households. In contrast to the ‘objective’ ranking on the income ladder, there is the ‘subjective’ self-ranking in predefined social categories offered in sociological surveys. Among other studies, this has been done in the ‘Social Justice’ survey of the International Social Justice Project (ISJP), in which the CR participated in

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1991 and 1995, as well as in the ISSP ‘Social Inequality’ module with Czech data for 1999 and 2009. In order to obtain more up-to-date information, the relevant question was also included in the ISSP ‘Work Orientations’ module collected in 2015.

**Table 10.1 Self-ranking in social classes in the Czech Republic, 1991–2015 (%)**

Social class	All respondents					Economically active				
	1991	1995	1999	2009	2015	1991	1995	1999	2009	2015
Upper middle	3.0	5.3	6.8	8.7	11.3	3.1	6.4	7.2	11.6	12.5
Middle	61.1	60.2	38.8	46.0	55.4	61.0	64.9	42.1	48.3	59.6
Lower middle	27.2	24.6	35.2	31.2	26.3	30.3	22.6	39.4	32.0	24.2
Lower	8.7	9.9	19.9	14.1	7.0	5.7	6.1	11.3	8.1	3.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

**Source:** Surveys collected within International Social Justice and ISSP programmes (authors’ calculations from data files).

**Note:** Upper middle class involves also a negligible self-ranking into the upper class.

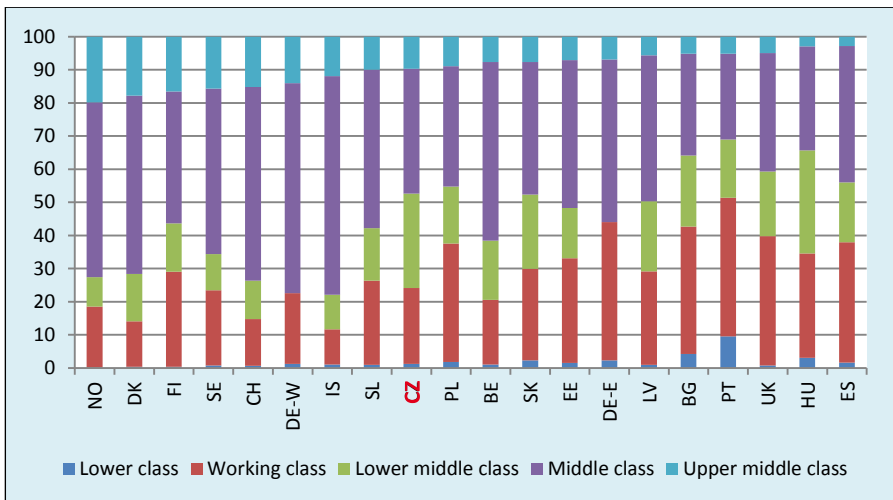
Table 10.1 summarizes the results of the various surveys into the time series. In the first phase of the transformation, the numbers of households identifying as middle-class ‘jumped’ to a quite high level, based on business activity, high education and/or high income. A turnaround occurred in the second half of the 1990s, when the share of people ranking themselves in the upper middle class increased slightly, but at the same time the proportion of those who identified themselves as members of the lower classes also grew. This could have been a symptom of disappointment from the unfulfilled expectations of the transformative steps of the early 1990s, or the symptom of scissors opening between ‘winners’ and ‘losers’ of the transition. On the social ladder, many tertiary educated and self-employed respondents fell to the lower-middle or even lower class. As Petr Matějů (1998) stated, relevant factors ceased to act alone – to identify as middle class, it was necessary to combine education with high income and/or to have a prosperous business.

## 10. The middle class

The decline of middle class identity halted in the CR in the first decade of the new century, which can be done by both improving conditions and moderating expectations. The proportion of respondents self-ranking into the upper-middle class and (even more) into the middle class is increasing. Taking upper-middle and middle class together, the subjective social composition of the population in 2015 is very similar to the situation at the start in 1991, with the upper-middle class share being higher. In comparison with 1991, according to the latest data, the share of persons in the upper-middle class increased significantly, while the share of lower-middle and lower categories decreased. The subjective social composition of the economically active population is thus noticeably better now – in contrast to the position of retired people, who rank themselves in lower and lower-middle class.

Regarding cross-national comparison, there are many databases and analyses based on income distribution like it was presented above in Figure 10.1. For an overview of them, together with more general considerations, see <http://www.thebrokeronline.eu/Articles/Resources-on-the-middle-class> (The Broker ‘Middle Class Dossier’). However, there is only few data on subjective self-ranking. The last available is 2009 ISSP ‘Social Inequality’ module.

**Figure 10.2 Self-ranking in social classes with inclusion of the working class in European countries in 2009 (%). Countries are ranked in descending order according to the share of the upper-middle class**



**Source:** ISSP module ‘Social inequality’ 2009 (authors’ calculations from data file).

**Note:** Upper middle class involves also a negligible self-ranking into the upper class.

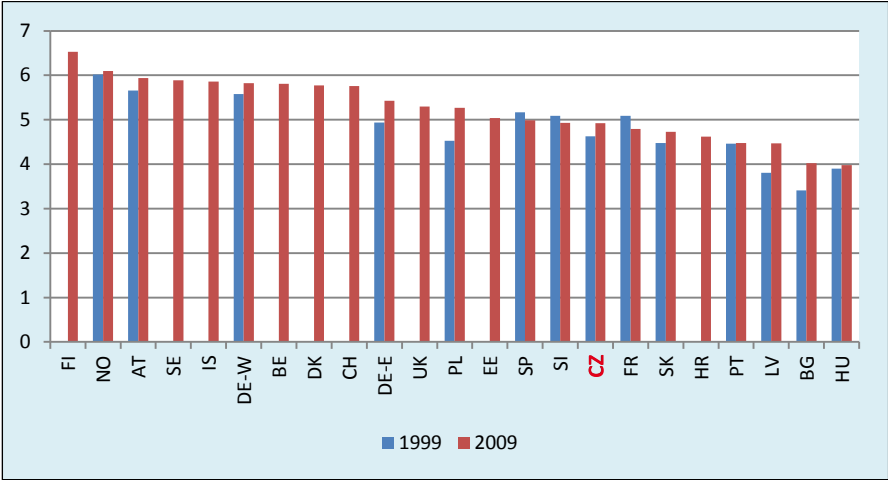
## 10. The middle class

The relevant question on social self-ranking in this module included also the obligatory option 'working class' (see Figure 10.2). In this picture, the position of the CR in terms of the share of the upper middle class is significantly worse than without it, while Norway, Switzerland and West Germany are located highest. Positions of all transition countries are in the second half of the ladder, but along with the United Kingdom, Portugal and Spain. British people often perceive themselves as members of the 'working class' (40%), as do Bulgarians, Spaniards and East Germans. However, if we look at all the 'middle classes' together (from the lower to the upper), the CR is seventh in rank, close to Belgium and Finland.

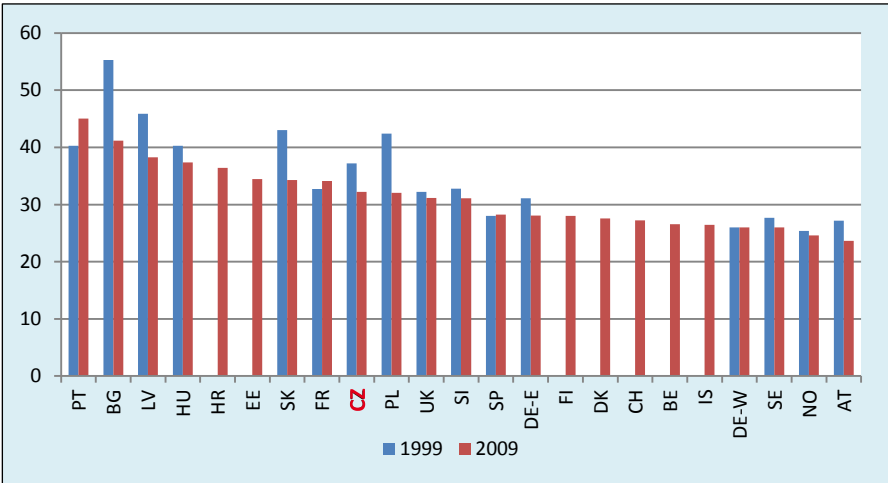
To compare both categorizations – with and without the option 'working class' – the two versions were used in the 2009 ISSP 'Social Inequality', but only in Czech version of the module. Thus, it is possible to answer the question where the 'working-class members' rank themselves in the categorization that does not include a working class. This answer, according to the Czech survey, is relatively simple – half of 'labourers' identify themselves as in the lower class and the other half as lower-middle class. The predominant criterion is education, and the next is self-employment.

The same ISSP survey also asked the following question: 'In our society there are groups which tend to be towards the top and groups which tend to be towards the bottom. Below is a scale that runs from top to bottom. Where would you put yourself now on this scale?' The results are displayed in the following Figures 10.3A and 10.3B.

**Figure 10.3A** Subjective social ranking on a 1–10 scale in European countries in 1999 and 2009. Countries are ranked in descending order according to average ranking in 2009



**Figure 10.3B** Variance of subjective social ranking on a 1–10 scale in European countries in 1999 and 2009. Countries are ranked in descending order according to coefficients of variation in 2009



**Source:** ISSP module 'Social inequality' 1999 and 2009 (authors' calculations from data file).

## 10. The middle class




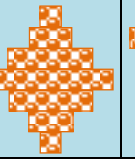
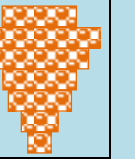
The Figure 10.3A shows the social ranking averages surveyed on the ladder 1–10, which can be interpreted as a self-reflection of the status of the society, as an approximate ‘status pride’. The figure shows the values for 2009 and, for comparison, also for 1999, although data are missing for roughly half of the countries included in the 2009 survey. In the following Figure 10.3B, the coefficients of variation that can be interpreted as a measure of the subjective social homogeneity/heterogeneity of the society are plotted.

From the point of view of subjective status, the CR (together with Slovenia) is below the average of the countries surveyed, between Spain and France, which we can undoubtedly consider as ‘status-proud’. Of the transition countries, the Czech population is surpassed by respondents from the former East Germany, Poland, Estonia and Slovenia, while the others are below, with the lowest rank of respondents from Bulgaria and Hungary. On the other hand, respondents from the Scandinavian countries, Austria and the former West Germany are highest. When comparing the results from 1999 to 2009, a very small increase in the average subjective status occurred over time.

Regarding the dispersion of social status quo in respondents’ reflection, the CR does not appear to be a particularly homogeneous society, as are those countries where the average status is high. Where the average status is low, its dispersion is high. In subjective reflection, therefore, the most socially homogeneous seem to be Scandinavian populations, Austrians and Germans. In the period monitored, most countries described here experienced a decline in variability, i.e. a certain strengthening of social homogeneity – this is also the case of the CR.

A clear picture of the reflection of the social order provides answers to *the five types of social stratification* offered: Type A: A small elite at the top, very few people in the middle and the great mass of people at the bottom; Type B: A society like a pyramid with a small elite at the top, more people in the middle and most people at the bottom; Type C: A pyramid except that just a few people are at the very bottom; Type D: A society with most people in the middle; Type E: Many people near the top, and only a few near the bottom. The question with the pictures was put twice – 1. ‘Which type corresponds most to our current society – which figure is closest to you?’ 2. ‘What do you think our society should look like – which type would you prefer?’

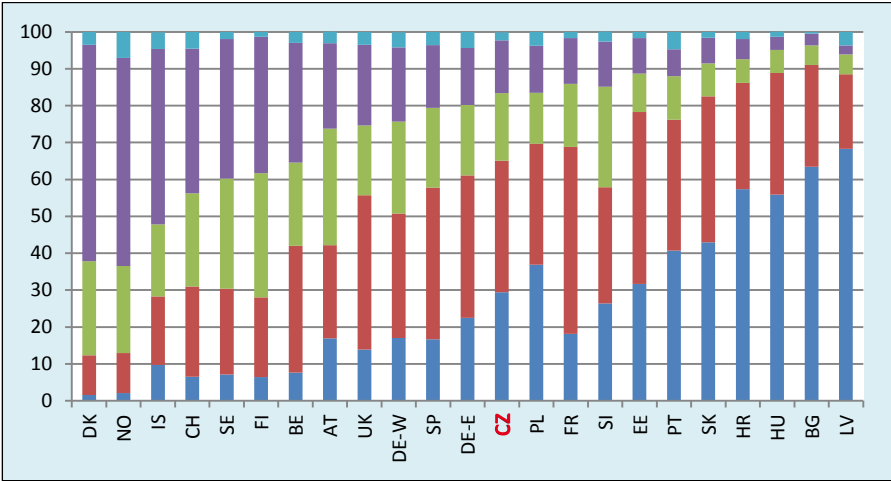
**Table 10.2** Perceptions of the social stratification arrangement in European countries in 2009 (%)

						
	Type A	Type B	Type C	Type D	Type E	
	A small elite at the top, few people in the middle and many at the bottom	A pyramid with a small elite at the top, more people in the middle, most at the bottom	A pyramid except that just a few people are at the very bottom	A society with most people in the middle	Many people near the top, and only a few near the bottom	Total
AT	16.9	25.3	31.6	23.1	3.1	100.0
BE	7.6	34.4	22.6	32.4	3.0	100.0
BG	63.4	27.6	5.3	3.2	0.5	100.0
CZ	29.4	35.7	18.3	14.3	2.3	100.0
DE-W	17.0	33.8	24.9	20.1	4.2	100.0
DE-E	22.5	38.6	19.1	15.4	4.4	100.0
DK	1.6	10.7	25.5	58.7	3.5	100.0
ES	16.7	41.1	21.6	17.0	3.6	100.0
EE	31.7	46.6	10.4	9.6	1.7	100.0
FI	6.4	21.6	33.7	37.0	1.3	100.0
FR	18.1	50.7	17.1	12.4	1.7	100.0
HR	57.4	28.8	6.4	5.5	1.9	100.0
HU	55.9	33.0	6.2	3.6	1.3	100.0
LV	68.3	20.2	5.4	2.4	3.7	100.0
NO	2.1	10.8	23.6	56.4	7.1	100.0
PL	36.9	32.8	13.8	12.7	3.8	100.0
PT	40.7	35.5	11.8	7.3	4.7	100.0
SK	43.0	39.5	9.0	6.9	1.6	100.0
SI	26.4	31.5	27.2	12.3	2.6	100.0
SE	7.1	23.3	29.8	37.9	1.9	100.0
UK	13.9	41.8	18.9	21.9	3.5	100.0
CH	6.5	24.5	25.2	39.3	4.5	100.0

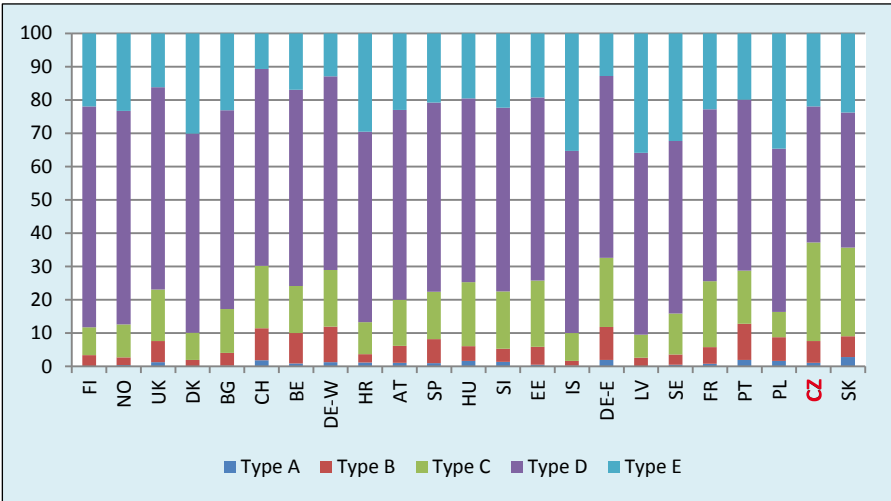
Source: ISSP module 'Social inequality' 2009 (authors' calculations from data file).



**Figure 10.4A** Reflexion of the current social stratification in European countries in 2009 (%). Countries ranked in descending order according to the type with the highest share of the middle class (D)



**Figure 10.4B** Desirable social stratification arrangement in European countries (%). Countries ranked in descending order according to the type with the highest share of the middle class (D)



**Source:** ISSP module 'Social inequality'2009 (authors' calculations from data file).

## 10. The middle class

In Table 10.2, we provide answers on the perception of current social stratification in the countries under observation. In this respect, the answers given in the transition countries differ greatly from the answers given in Western European countries. In transition countries, two types absolutely prevail: type A (about half) and type B (about one third). The CR and Slovakia are exceptions - the polarized perception of society (type A) is much smaller than in other transition countries. In Western countries, opinions are distributed among types B, C and D, with a much smaller representation of type A, with the exception of Portugal.

In Figure 10.4A, countries are ranked according to the representation of the 'middle-class' type D regarding the reflection of social stratification, Scandinavian countries, followed by Switzerland, Belgium and Austria are highest. The CR is located in the middle while other transition countries are behind, including the otherwise near or often 'better' Slovenia. Note that this survey was carried out during the rise of middle-class identity since the beginning of the new century. Therefore, the position of the CR could improve since this time.

For comparison, we also present an image of desirable social stratification in Figure 10.4B. In it, preference for the D type absolutely prevails in all states, no matter whether the country belongs to the area of 'traditional' or 'new' capitalism. Behind it is a rather unrealistic type E in the shape of an inverse pyramid. The CR and Slovakia are ranked at the bottom of the ladder according to type D, since in both countries there is an exceptionally strong preference for the C type, i.e. a pyramid without a high share of poor people. However, we do not have an explanation for this exception. In the previous ISSP Social Inequality module of 1999, the preference for the type C was also higher in the CR (and France) than in other countries, but by much smaller margins.

## In conclusion: Are Czechs exceptionally egalitarian?

In this ‘facts’ or – better – predominantly ‘figures’ study, we have tried to study a wide range of the important aspects of socio-economic inequality as the data sources describe it – of course, without the ambition to capture inequality in its entirety. We focused on employee earnings and household incomes, and – as the available data allow – also on household expenditures and assets. This is just a section of an extensive ‘portfolio’ of inequalities, which is, however, of paramount importance. When talking about egalitarianism, it is usually primarily about these key areas of the standard of living and, of course, the attitudes of people towards them.

The challenge of writing this study was a frequent and rather stubborn rhetoric about a rooted Czech egalitarianism, which is meant in both objective and subjective terms. Objectively, in the sense that the CR is a country with the smallest earnings and income differences worldwide and, also, a country with the lowest poverty rate. Subjectively, in the sense that the Czech population decries income inequality and expects governments to cut disparities, it does not favour the rich, and considers most ways to get rich to be illegitimate – again perhaps at the highest rates in the world.

Without going so far as to deny a priori the conditions of weak inequality and strong egalitarian attitudes in the CR, we wanted to examine these premises. We therefore gathered a large amount of data so that we could look at various aspects of socio-economic inequality from development and comparative perspectives. Unlike most studies, which are based on only one data source, we dared to make a comparison of a range of indicators, which is an endeavour full of pitfalls. Consequently, many questions have emerged, some of which are difficult to answer.

Firstly, we do not want to question the existence of the phenomenon of Czech egalitarianism. It has its roots in the 19th century, when the nation resurged from plebeian environment. It was formed as primarily middle-class, with a massive representation of the peasants and small entrepreneurs, with a growing national intelligentsia originated from lower classes and thus not marked by strong elitism. The Communist regime suppressed all of these groups, without, however, fulfilling its intention to create a so-called socially homogeneous society. Encouraging or even boosting ‘class envy’ was an important instrument of this regime. Similarly, it is possible to trace the egalitarian or middle-class roots also in other post-communist countries, even if they are historically less articulated.

For description of the current state of affairs we exploit different sources of data. For an objective picture, rich Czech and European statistics serve. For a subjective view, we have been able to research the international ISSP and EVS programmes, the latest waves of which, unfortunately, are rather outdated. We can be consoled only by the fact that, in cross-national comparisons, the positions of individual countries do not change fundamentally. Soon, we will be able to extend the development line and update our findings. For this study, it was only at the last minute that we could use at least the recently released ESS survey data for 2016, at least for some countries.

The objective and subjective aspects are described both in their development in the CR (since the beginning of the transition where possible) and in a cross-national comparison of European countries, including EU and EFTA Member States. A reader may feel overwhelmed with the number of tables and especially figures used to mark the CR's position on the European ranking. It is obvious that this position differs more or less depending on the data resource and the selected indicator.

Regarding the *differences in earnings* in the CR, their reduction from the situation of the interwar Czechoslovakia was strongly strengthened by foreign influences, firstly during German occupation (in the interest of supporting manual workers for war production and suppressing the national intelligentsia) and later by the Soviets (in the interest of full employment and support for the 'iron concept' of the economy, but also following the communist social homogenization ideology). After the 1989 regime change towards liberalization, the differences quickly increased and gradually reached (in the relative terms) the level of neighbouring Western European countries. Previously prevailing demographic factors of earnings differentiation have been curbed in favour of education and expertise, managerial and business skills.

The most striking change that occurred in earnings structure after the end of the communist regime is related to education. Above all, the holders of diplomas of tertiary education have excelled. Similar developments have occurred in all transition countries, so that the relative return to education is now higher there than in Western states. This means that the demand for better educated people in the 'East' is not yet saturated, while in the 'West' the huge supply of educated workers has already led to a slight decline in earnings. However, with the growing supply of educated workers, questions about the quality of their diplomas are becoming more important – internal differentiation, especially among college graduates, is growing rapidly.

As far as *household incomes* are concerned, the earlier 'reproduction model' of their formation, i.e. the primary dependence of income on the

numbers of economically active members and dependent children, was suppressed in the early years of the post-communist transformation. Instead, a 'market model' was introduced, in which higher disparities in earnings are more reflected in household income differentials – state redistribution of earned income via taxes and social benefits reduces differences only to a small extent.

Here we cannot ignore the dissimilarity in the development of earnings disparities and inequality in household incomes. We look only at wages and salaries of employees (not the earnings of self-employed workers), which is still the most important source of household incomes, at close to 60% of their total amount. While, especially according to surveys among companies, differentiation of earnings has grown considerably, inequality in household income, available only from incomes reported by households, has supposedly stagnated and even decreased over the last decade, in contrast with their rapid increase in the 1990s.

An explanation for this discrepancy could be sought in the redistribution of labour income through the system of taxes and benefits, which should therefore rise over time. But this is apparently not the case. On the ladder of countries from 'liberal' to 'socialist' regarding income redistribution, the CR is located somewhere in the middle. Since there is little change in overall redistribution, the discrepancy between the development of earnings disparities and household income inequality cannot be explained by changes in transfers. The more likely explanation is that with rising earnings also increases their undervaluation in respondents' answers in household surveys. The real inequality in household income might, thus, be larger. Such an interpretation corresponds to comparison of earnings data according to surveys of companies and households.

When presenting and analysing data, we should also always assume that neither statistics nor sociological surveys capture the economic resources of households in their full range and total amount – ignoring both the bottom of the poorest (including homeless people) and the top of the richest. In addition, respondents in the very broad middle section often undervalue their income, especially from secondary sources. This may in particular concern better-rewarded categories of economically active persons. On the contrary, assuming that retired people accurately report their modest income, which is often only from the single source of state pension benefits, the income gap between the active population and the retired could be distorted and, as a result, the structure of poverty according to the economic status of a person could be biased.

In this study, we mainly deal with employee earnings and employee headed household incomes. Important sources of income, which are omitted here, include income from business and capital and other sources. A wider range of sources was used in the OECD (2012) analysis based on 12 indicators. Member countries of this organization were classified into five groups from the lowest to the highest inequality. Of the European countries, the most egalitarian group includes Denmark, Norway, Sweden, Iceland and Switzerland, but not the CR, which is located in the second group together with Belgium, Estonia, Finland, France, Italy, Slovakia and Slovenia. The third group includes Austria, Germany, Greece, Hungary and Poland, the fourth group the United Kingdom, Ireland and the Netherlands, while the least egalitarian group includes only Portugal from European countries.

Consumption, or more accurately, *family consumer expenditure*, is no lesser an important aspect of 'output inequality'. In view of their manifest boom in recent years, statistics of real income growth could seem undervalued. Czech society apparently entered, although with huge delay, the stage of 'mass consumption society' a long time ago – the stage once described by Walt Whitman Rostow in his 'Non-Communist Manifesto' (1960) and noted by George Katona (1964). This is evidenced, for example, by the boom of automobile sales and the construction of huge 'temples of consumption'.

According to Cushman & Wakefield, there are about 120 shopping centres and 180 shopping malls in the CR today, with others are being built and existing ones expanding. Their number, relative to population, is the most dense among transition countries. Although consumption has a mass character and is booming in a wide spectrum of goods and services, it remains of course differentiated both from the point of view of supply (categories of shops and shopping malls in terms of quality and price levels) and from the point of view of demand (from demanding consumers of branded products to discount seekers).

Despite the lack of data and the problematic character of courageously constructed estimates, we did not overlook *wealth distribution*. Its importance is reinforced by the fact that, instead of the prevailing income perspective in monitoring socio-economic inequality, the perspective of wealth in social stratification research is increasingly being promoted. French sociologist Louis Chauvel (2007) speaks of the advent of a 'wealth-based society', instead of a society so far differentiated mainly by income and job position. In other words, it is a 'Paretian' society, in which 20% of the population holds 80% of the country's total wealth.

Since the CR is not a member of the Eurozone, the survey on wealth that started in 2010 was not conducted here. The information we have from

small sociological surveys are undervalued and inconclusive. The information from the prestigious WID wealth distribution database seems to be questionable regarding the CR. It is represented as a country having quite a large (though not the very largest) wealth inequality, opposite to Slovakia as being the most equal in this sense. Even the difference between the numbers of dollar billionaires in the two countries of former Czechoslovakia, provided by *Forbes Magazine*, cannot endorse their almost opposite location on the wealth inequality ladder. The reported link between income and wealth inequality also does not occur in the data. The methodology used is presented only vaguely, so we had to resign ourselves to assessment the results presented, not having any alternative reliable source.

When moving from objective differences to their reflection in *the attitudes of the population* – which use to be the true indication of egalitarianism – a quite different and opaque world opens before us. Here, the position of Czech society is even more ambiguous than in the case of objective characteristics. A somewhat dim image of results from cross-national comparisons is partly caused by the lower quality of small sociological surveys compared to large statistical surveys. We must accept this because those surveys move on a very ‘soft terrain’ and, moreover, despite the care taken in linguistic translation, questions that are formulated the same may yet take on altered accents in culturally different environments.

It should be noted that the perceived legitimacy of inequalities does not stand alone, but is a part of the set of attitudes in the socio-economic field, and thus reflects the overall climate of society. This climate was favourable to liberal attitudes at the beginning of the transformation, including tolerance of income and wealth disparities. Gradually, however, it changed in the direction of giving preference to social security and lessening inequality. Together with weakening support for income inequalities, the expectation of larger state interventions in the economic mechanism, including price controls, job security, guarantee of a decent minimum income and housing have strengthened.

Regarding attitudes on inequality, however, the Czech population does not appear to be extraordinary in either direction. Based on the 2009 ISSP data provided in Chapter 9, the CR is located on the lower third of the ladder of the European countries surveyed, far below France but near to Austria and Western Germany. Populations of other post-communist countries, compared with the CR, are much more critical regarding income inequality. According to the latest ESS 2016 survey, Czechs are located at the very bottom of the ladder of 15 European countries regarding egalitarian attitudes and demands for the government to ensure greater income equality. The

Czech population, in this picture, appears to be not the most, but actually the least egalitarian.

The representative and guarantor of what we might call adequate equality or functional inequality is *the middle class* – whether it is more or less real or imaginary. Middle class vocabulary was widespread in the CR in the 1990s, and was a frequent subject of both public discourse and political interest. The analysis of its development in the early transformation led to the hypothesis that the new ruling elite concluded a ‘social contract’ with another social stratum, namely a narrow group of large entrepreneurs and top managers, while the middle class was tossed overboard (Večerník 1999). This was reflected in the form of privatization, the rise of the financial sector and lagging in key public service areas.

While from the point of view of empirics, the middle class is difficult to define, from the point of view of political marketing it is a very workable substance. So it is in most of developed countries. As Paul Mashegoane in his blog on Huffpost stated: ‘Politicians are capitalizing on the middle class with rhetoric that appeals to them, or urging the poor to vote for them in order to get them in the middle class - nobody campaigns with a message to make everyone rich, but they preach a message of making leaving stands better and creating jobs; essentially politicians’ message rotates around the middle class.’ ([https://www.huffingtonpost.com/paul-mashegoane/middle-class-a-market-for\\_b\\_14194962.html?guccounter=1](https://www.huffingtonpost.com/paul-mashegoane/middle-class-a-market-for_b_14194962.html?guccounter=1))

Middle class rhetoric has been politically used also in the CR since 1990, although to varying degrees. At the beginning of the transformation period, winning liberals rejected it by declaring the inadmissibility of ‘reviving class ideology’ – without understanding the fact that the concept of a middle class is directly contrary to the Marxist vision of the society. In the Czech Social Democratic Party (CSSD) camp – which was marginal early in the transition period – middle class rhetoric first appeared in the 2002 election campaign, but it was soon replaced by aggressive – and rather Marxist – rhetoric from Miloš Zeman (CSSD’s chairman at the time) about ‘the bottom ten million’, referring to the Czech population as a whole, excepting only the richest ten thousand.

Prior to the 2010 elections, CSSD’s lead politician Jiří Havel was strongly enthusiastic about the integrative role of the middle class. However, Social Democrats did not go this way – the campaign of its chairman Jiří Paroubek was finally addressed to ‘ordinary people’, maybe recommended by US experts following the ‘common man’ rhetoric used in Barack Obama’s campaign. However, this rhetoric has caused a lot of embarrassment, so at the CSSD in September 2010, the middle class was again discussed, as, according



to the words of Bohuslav Sobotka, 'about middle voters, as well as about middle classes, the social democrats must strive. Nothing new'.

In the 2017 election campaign, middle-class rhetoric was explicitly voiced on two irreconcilable poles of the political spectrum. This was referred to in the program of the Party of Direct Democracy (SPD): 'The basis of our prosperity is the labour of a broad middle class ... These people are the pillar of the state. We have to support their activity, entrepreneurship, workmanship and education.' It was also a part of the TOP 09 program: 'The middle class is the basis of the country's social and economic stability ... Czech policy neglects the natural needs and interests of the middle class and meets the demands of large corporations. At the same time, the loss of middle class' positions carries serious social and economic consequences.'

From the other side, the middle class has become a target for political protection and defence, in its various forms or sections. Recently, two agendas were raised on the political scene. Regarding employees, the CSSD before parliamentary elections 2017 suggested the introduction of a progressive income tax, with the highest tax rate proposed (originally) for earnings of CZK 50,000 monthly what is very low threshold (raised soon, after being criticized). As regards the self-employed, the relevant agenda was applied with the introduction of the requirement for electronic receipts register at points of sale. Despite the blurring of the right-left political spectrum – or possibly thanks to this – middle-class rhetoric in various political affairs thus remains an important point of reference. However, we also cannot ignore the fact that the winning party of the 2017 elections ANO did not utilize middle-class rhetoric – only the term small and medium enterprises is frequented in their electoral programme.

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The results gathered in this study cast some doubt on the generally shared opinion in the Czech Republic that this country enjoys extraordinary equality, and that there is an exceptional Czech bent towards egalitarianism. In fact, Czech society is not the most equal in earnings, nor in the economic situation of its households. The claim of the lowest poverty applies only in the optics of relative income. Although the country certainly ranks among societies with low social inequality, it is not 'so exceptional' in the objective economic equality, nor Czechs are exceptionally egalitarian in their attitudes.

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## Abbreviations

### Institutions, survey programmes and classifications

CBA	Czech Banking Association
CNB	Czech National Bank
CSSA	Czech Social Security Administration
CSO	Czech Statistical Office
ECB	European Central Bank (Frankfurt)
EFTA	European Free Trade Association
ESeG	European Socio-economic Groups
EUROMOD	Europe-wide tax-benefit model (Microsimulation Unit, University of Essex)
Eurofound	European Foundation for the Improvement of Living and Working Conditions (Dublin)
EEA	Economic Expectations and Attitudes (surveys 1990–1998)
ESS	European Social Survey
EU-SILC	European Union Statistics on Income and Living Conditions
EVS	European Values Study
EWCS	European Working Conditions Survey
GDP	Gross Domestic Product
HFCS	Household Finance and Consumption Survey
IDD	OECD Income Distribution Database
III	International Inequalities Institute (LSE, London)
ISSP	International Social Survey Programme
ISPV	Information system on average earnings
ISCO 08	International Standard Classification of Occupations
LIS	Luxembourg Income Study
METR	Marginal Effective Tax Rate
SES	Structure of Earnings Survey
STEM	Centre of empirical surveys (Prague)
TÁRKI	Social Research Institute (Budapest)
WID	World Income Database
WIIW	Wiener Institut für Internationale Wirtschaftsvergleiche

**Countries**

AT	Austria
BE	Belgium
BG	Bulgaria
CZ-CR	Czech Republic
DE	Germany
DE-E	former East Germany
DE-W	former West Germany
DK	Denmark
EE	Estonia
FI	Finland
FR	France
GR-EL	Greece
HR	Croatia
HU	Hungary
IE	Ireland
IT	Italy
LT	Lithuania
LU	Luxembourg
LV	Latvia
NL-NE	Netherlands
PL	Poland
PT	Portugal
RO	Romania
SE	Sweden
SP-ES	Spain
SI-SL	Slovenia
SK	Slovakia
UK	United Kingdom



## Summary

In public and professional discourse, there is a strong rhetoric of a rooted Czech egalitarianism. This study thus traces various objective and subjective dimensions of socio-economic inequality in an attempt to examine the validity of this rhetoric. It uses various data on levels and trends in earnings, household income and living conditions in the Czech Republic in comparison with other European countries.

After a long period of stability during the communist regime, a parallel rise in wage disparities and household income inequality began in the early 1990s: the Gini coefficient in both areas grew from 0.20 to 0.26 and the ratio of the highest to the lowest tenth of income increased by 1.6 times. In the other European transition countries, this rise occurred at an even faster pace.

Regarding earnings, they are far from egalitarian today. According to a survey of companies, in a ranking of European countries by earnings disparities the Czech Republic now figures around the middle. Further, there is little equality in the structure of earnings: gender differences in earnings are among the greatest in Europe, differences in education are slightly above the European average, and the differences among industries are well above the average.

In contrast, household income inequality in the Czech Republic is among the lowest in Europe, with less inequality observed only in Scandinavian countries. Income data based on household surveys, however, capture only about 70% of the income registered by national accounts; therefore, the real income inequality may be somewhat higher. In Scandinavian countries, the data on household income from household surveys is more reliable, due to the use of administrative data in household surveys.

The rate of poverty risk based on the relative distribution of equivalised household income, which is the most frequently quoted figure in media, is lowest in the Czech Republic. However, according to indicators related to consumption and householder perceptions of their income, the poverty rate is considerably higher. Nevertheless, the Czech Republic still ranks well in the European comparison, at approximately tenth.

In terms of wealth distribution, according to the prestigious UNU-WIDER international database and data published by Credit Suisse, the Czech Republic ranks among countries with very high wealth inequality, a direct opposite to the very flat wealth distribution in Slovakia. The figures indicating this do not, however, seem to be well substantiated, given the assumption of a close association between income and wealth inequality.

As regards attitudes towards inequality, the liberal attitudes that were widely held in the early 1990s later shifted towards more social equality views. However, a comparison of 1999 and 2008 data suggests again a slight departure from equality requirements. According to comparative European data, Czechs are not exceptional in this area, holding in fact rather weak egalitarian beliefs. Regarding the perception of an ideal society as being a 'middle-class society', the Czech Republic ranks behind Western countries but at the top of transition countries.

The results gathered in this study cast some doubt on the generally shared opinion in the Czech Republic that this country enjoys extraordinary equality, and that there is an exceptional Czech bent towards egalitarianism. In fact, Czech society is not the most equal in earnings, nor in the economic situation of its households. Although the country ranks among societies with low social inequality, Czechs are not 'so exceptional' in their objective economic equality, nor are they extraordinarily egalitarian in their attitudes.

**Assoc. prof. Jiří Večerník, PhD.,** has been a senior researcher and head of the department of Economic Sociology at the Institute of Sociology, Czech Academy of Sciences since 1990. In 1991–1993, he was Editor-in-Chief of the Czech Sociological Review, and launched its English edition. In the early 1990s, he completed several research stays, at: CEPS/INSTEAD in Luxembourg, the European University Institute in Florence, the Institute for Fiscal Studies in London, the Russell Sage Foundation in New York and the Institute for Human Sciences in Vienna. Since 1991, he has participated in many projects on tax policy, poverty and welfare policies, wage and labour market issues and social reporting. Internationally, he has cooperated with the ILO, the OECD, the World Bank and the European Commission. In 1999–2005, he was evaluator of the EU research programmes and in 2004–2007 he was a member of the ‘Network of non-governmental experts on social inclusion’ of the European Commission. He has published books titled *Markets and People. The Czech Reform Experience in a Comparative Perspective* (1996), and *Czech Society in the 2000s: A Report on Socio-economic Policies and Structures* (2009). He also edited *Ten Years of Re-building Capitalism. Czech Society after 1989* (1999, with Petr Matějů), and lastly *Work, Values, Well-being. Czech Reality in a European Context* (2016, in Czech).

**PhDr. Martina Mysíková, PhD.,** has been a researcher in the department of Economic Sociology at the Institute of Sociology of the Czech Academy of Sciences since 2008. She earned her PhD. in economics from the Institute of Economic Studies, Faculty of Social Sciences, at Charles University in Prague with her thesis titled ‘Three Comparative Essays on Gender Earnings Inequality in the Czech Republic’ in 2012. She worked in the Czech Statistical Office in the department of Social Statistics (2004–2008) and participated in the methodology and coordination of the international household survey Statistics on Income and Living Conditions (EU-SILC). Her fields of specialisation are poverty and well-being, income inequality and household economics. She has participated in various national (Czech Science Foundation) and European (7th Framework Programme EU) research projects focused mainly on surveying living conditions and satisfaction of individuals and households, and work and job values. She has authored chapters in several books and regularly publishes in Czech and European journals (Prague Economic Papers, Journal of Economics, Eastern European Economics, Post-Communist Economies).

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