

Household Indebtedness Risks in the Czech Republic

Jindřiška Šedová

Abstract—In the past 20 years the economy of the Czech Republic has experienced substantial changes. In the 1990s the development was affected by the transformation which sought to establish the right conditions for privatization and creation of elementary market relations. In the last decade the characteristic elements such as private ownership and corresponding institutional framework have been strengthened. This development was marked by the accession of the Czech Republic to the EU. The Czech Republic is striving to reduce the difference between its level of economic development and the quality of institutional framework in comparison with other developed countries. The process of finding the adequate solutions has been hampered by the negative impact of the world financial crisis on the Czech Republic and the standard of living of its inhabitants. This contribution seeks to address the question of whether and to which extent the economic development of the transitive Czech economy is affected by the change in behaviour of households and their tendency to consumption, i.e. in the sense of reduction or increase in demand for goods and services. It aims to verify whether the increasing trend of household indebtedness and decreasing trend of saving pose a significant risk in the Czech Republic. At a general level the analysis aims to contribute to finding an answer to the question of whether the debt increase of Czech households is connected to the risk of "eating through" the borrowed money and whether Czech households risk falling into a debt trap. In addition to household indebtedness risks in the Czech Republic the analysis will focus on identification of specifics of the transformation phase of the Czech economy in comparison with the EU countries, or selected OECD countries.

Keywords—household indebtedness, household consumption, credits, financial literacy

I. INTRODUCTION

As household expenses contribute to the economic growth, their role is significant in any economy. This contribution is not defined only in terms of consumption pace but also in terms of their contribution to the GDP.

During the 20th century the real income increased in Europe about 7 times resulting in the change of consumption patterns. According to Michaelis and Lorek this trend is set to continue [1].

The Czech Republic has a great potential for economic advancement and thus for great consumption [2]. It is one of those transitive European countries which have been successful in their attempts to reduce the difference in the economic development with that of the advanced EU

countries. The Czech Republic ranks 17 according to the GDP per capita in PPS in the EU-27 [3].

Alongside Slovenia, the Czech Republic belongs to the group of middle-income countries, while the majority of new member EU countries find themselves in the low middle-income category. According to Vintrova [3] the reduction of the above mentioned differences in the economic development has accelerated following the accession to the EU, where the process of integration required cultivation and development of institutions and which made the new countries more attractive for foreign capital. In comparison to the pre-accession economy the Czech Republic saw an increase of 3 percentage points in the average yearly growth rates of GDP per inhabitant before 2008. The existing gap in the economic level between the Czech Republic and the EU-27 decreased by 12 percentage points between the years 2000 and 2008. [3] The year 2010 saw an interannual real increase of the Czech GDP of 2.3%. The data showing the GDP development in the Czech Republic and major economic regions of the world shown in Tab.1 illustrate the consequences of mutual economic interconnectedness. The existence of the global economic framework caused the economies of the USA and EU to evolve in similar ways. The dependence of the Czech Republic, the so called small open economy, on the growth of its business partners shows in the similar pace of economic decrease in 2009 as well as throughout the recovery of 2010 experienced by the entire EU [4].

TABLE I
GDP GROWTH RATES.SOURCE EUROSTAT [5]

Yearly (in %)	2005	2006	2007	2008	2009	2010
CR	6.3	6.8	6.1	2.5	-4.1	2.3
EU 27	2.0	3.2	3.0	0.5	-4.2	1.8
USA	3.1	2.7	1.9	0	-2.6	2.8

The above-mentioned dynamics of the real Czech GDP growth is known to have been affected by a number of factors. From the perspective of the contribution of household consumption to the GDP it is necessary to note that at the level of production factors the real GDP growth is most affected by labour, capital and total-factor productivity. The list of factors was extended in 2005 to include employment growth which besides boosting private consumption and the GDP has also quite naturally reduced unemployment numbers [3].

Jindřiška Šedová works in Masaryk University, Faculty of Economics and Administration, Department of Law, Lipová 41a, 602 00 Brno, Czech Republic (e-mail: jsedova@econ.muni.cz)

TABLE II
UNEMPLOYMENT RATES IN THE EU-5 AND EU-27 COUNTRIES, 2007–
2010. SOURCE EUROSTAT [6]

	2007	2008	2009	2010
The Czech Republic	5.3	4.4	6.9	7.9
Hungary	7.4	7.8	10.5	11.8
Poland	9.6	7.1	8.4	9.9
Slovakia	11.1	9.5	12.3	12.8
Slovenia	4.9	4.4	6.7	8.3
EU-27	7.1	7.0	9.1	10.3

Central European countries are given by higher use of the economically active population and a more favourable demographic composition to this day.

The employment rate became a more important source of the GDP growth as late as 2005-2008 when the average annual unemployment rate stood at 1.7%. Throughout the period of 2001-2008 the employment rate was growing by the average of 0.8% in the CR. The relatively fast growth of employment between the years 2005-2008 did not contribute only to the growth of the private consumption and the GDP but also to the decline in unemployment. In 2009 the situation on the job market changes (Tab.2). A drop in the GDP was eventually followed by an expected rise in unemployment in 2009-2010 [3].

Despite the continuous growth of wages in the Czech Republic, households get indebted simultaneously spending increasing amounts of money. Spending households thus become the driving force of the Czech economy. Although the average purchasing power of the Czech consumer reaches about 55% of the OECD average and the individual consumption stands at about 62% of the OECD average [7], the volume of Czech consumption nowadays is nearing the one of the advanced countries despite minor differences.

About a half of the Czech GDP is formed by household consumption [8].

TABLE III
EXPENDITURES ON GDP, ON FINAL HOUSEHOLD CONSUMPTION AND
CONTRIBUTION OF FINAL HOUSEHOLD CONSUMPTION TO GDP IN THE
CZECH REPUBLIC (BILLIONS OF CZK, STABLE PRICES OF THE YEAR
2000), 1996-2009 [9]

Year	2000	2005	2010
GDP	2,191,282	2,628,454	3,053,252
Household consumption	1,135,483	1,326,822	1,508,527
GDP%	51.82	50.48	50.37

The Czech household indebtedness figure was 8 times higher in 2009 than in 2000. Despite its steep growth it may still be viewed as relative (judged by the state of loans in relation to household income expressed through household disposable income). In comparison with the Eurozone it is

lower by almost a half. This relative indebtedness jumped from 13% to 50% in the Czech Republic in the given period of time.

When compared to the household indebtedness in the advanced EU countries, the Czech one is still relatively low (about 28.9% of the GDP) [4], [10]. That is why the costs of servicing household obligations do not yet qualify as a factor constraining private consumption to an extent typical of countries with a higher volume of indebtedness.

A lower volume of indebtedness may also be observed in other new EU member countries (Fig. 1). This may be explained by a recent transition of these economies to the market economy and consequent inability to accumulate relative volumes of credit common in Western Europe.

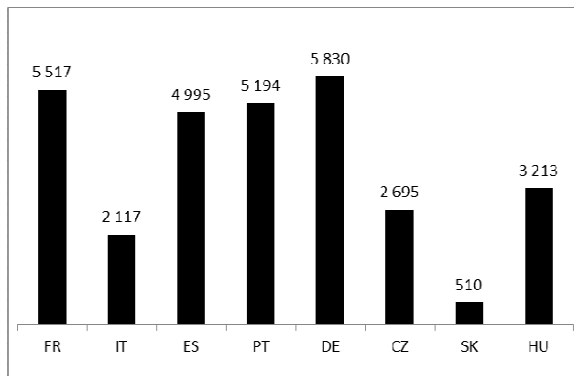


Fig. 1 Average volume of credit per household in EUR in 2010 [10]

Should we, however, consider the willingness of Czech households to take out loans, we may state they show a remarkable similarity to households of the advanced EU countries [4].

Correspondingly, their indebtedness structure tends to be the same as in the case of households in the advanced EU countries. The largest portion of credit provided to households is to cover their housing needs, followed by consumption credit and other credit types (Fig. 2).

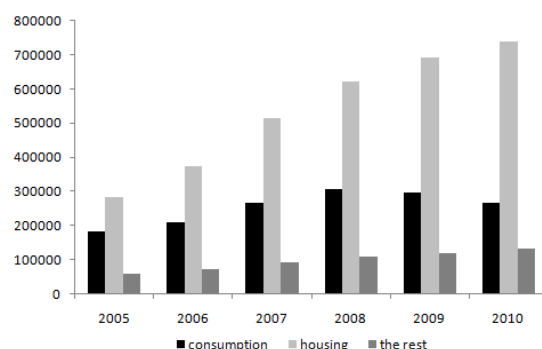


Fig. 2 Household indebtedness in billions of CZK [10]

The willingness to consume is well documented by a sudden decline in savings. While in the mid-1990s the Czech Republic belonged to the most thrifty nations (with 14% of gross

household savings rate in 1995), the readiness to save has been decreasing ever since with households falling into debt and savings rate falling under the average rates of the EU-15 (in 2004 it stood at 8%, by 2006 it had dropped to 6%). In the same period the household debt jumped from 3% of the GDP in 1997 to 17% in 2006.

The deposit-loan ratio has been decreasing to the detriment of the former.

II. FACTORS AFFECTING HOUSEHOLD INDEBTEDNESS

According to analyses the extent and pace of indebtedness in the Czech Republic have been affected especially by the following factors [11], [12],[13]:

A. Social factors

The behaviour of Czech consumers varies significantly with motivation being affected by a financial situation of an individual in question on the one hand and local traditions and customs, family social status, family life cycle, group affiliation or cultural taste on the other hand (p. 7).

The number of Czech households is growing while the number of their members is on the decline. Similar to the trends in the rest of Europe, there is a decreasing number of dependent children living in one household and a growing number of single households. On the other hand, the Czech Republic stands out by the typical egalitarian nature of its society. "It is hard to find a country in the world with smaller income differences. In European statistical surveys the Czech Republic has long occupied the first rank with the lowest poverty rate which is defined as 60% of the median income." [12] Tab. 4 shows a number of people threatened by income poverty.

TABLE VI
A NUMBER OF PERSONS IN THE CZECH REPUBLIC THREATENED BY THE
INCOME POVERTY. SOURCE: CZECH STATISTICAL OFFICE [9]

	2007	2008	2009	2010
Percentage of the total population (in %)	9,6	9	8,6	9

B. Psychological factors

Household indebtedness in the Czech Republic is increasingly affected by the fact whether consumers are guided by their "logic" or "emotions" when making a purchase decision. Recent research shows the latter is becoming a more decisive factor. This situation stems from the current level of financial literacy of the Czech population which is very low compared with the other EU countries [14]. The lack of financial literacy on purchase decision-making shows in their ability to objectively judge their financial situation, i.e. the ability to assess their own needs and risks. Due to this fact consumers tend to be easily manipulated and they often buy things which they do not need for money which they do not have, i.e. on credit. This approach may put households in difficult situations, especially if they find themselves in a

vicious circle of trying to pay off a debt with borrowed money. The above-mentioned low financial literacy of Czech consumers was further confirmed by the first complex assessment of financial literacy conducted in 2010 by the Czech National Bank and the Ministry of Finance. [14] The research demonstrates that the degree of awareness of what to do when facing financial distress is low. "Only 59% of the respondents have a plan B in case of financial problems available. The survey results suggested that Czech households pay sufficient attention neither to expenses nor to having contingency plans ready for sudden or stressful financial situations. About 50% of respondents do not set any household budgets. A habit of saving or putting aside money to build up an emergency fund together with awareness of what to do in financial difficulties is growing in proportion with education and income of respondents. The people in the Czech Republic are most likely to leave their money on their current accounts." [14] The survey, perhaps surprisingly, indicates that almost two thirds of the respondents do not read contracts which they sign where they commit themselves to long-term payments. Thus they are not aware of possible fatal consequences for themselves and their families. [17]

C. Factors connected to a concrete loan or credit

Household indebtedness in the Czech Republic is often affected by indirect and changeable factors which include decline in interest rates, easy accessibility to loans and their lengthening payment terms, lower consumer credit rates, lower housing loan rates, aggressive advertisement, etc. and also unpredictable situations such natural disasters (floods, fires, earthquakes). The Czech Republic is one of the countries whose financial system is based on banks. Therefore the financial stability of households is significantly affected by the behaviour of banks and their ability to cope with the impacts of the financial crisis.

D. Household indebtedness structure in the CR

Compared internationally, the risk attached to the extent of indebtedness may traditionally be assessed through gross indebtedness (the ratio of debt to annual income) but also by comparing the volume of this debt to wealth.

Household indebtedness compared to household income stood at 55% in 2009 while in the EU-27 it was 96%. However, Czech household debt compared to the volume of Czech household net financial assets was higher than the European average (56% in the CR, 53% in the EU-27) [16].

Indebtedness may also be compared to the total wealth of Czech households defined not only by the amount of their financial assets but also by tangible fixed assets acquired through purchase of houses or flats (frequently on credit). Compared to thus defined wealth Czech household indebtedness stood at 17% [10]. Comparison with the EU average is not possible here as apart from the Czech Republic there are only 5 other countries who quantify the state of their tangible fixed.

III. RISK OF HOUSEHOLD INDEBTEDNESS IN THE CZECH REPUBLIC

A. Low financial literacy of Czech population

Low financial literacy of the Czech population presents one of the key factors affecting indebtedness rate of Czech households. The gravity of the current status quo stems from the fact that the project of reduction of household indebtedness risks through higher financial literacy is a long-term one.

B. Pace of household indebtedness growth

Czech households have long held onto traditional values – thrift and staying out of debt. Everything changed in 2001 since when household debt has been growing exponentially. Although the financial crisis and raised alertness of banks have slowed down the speed of household indebtedness growth, household debt is expanding.

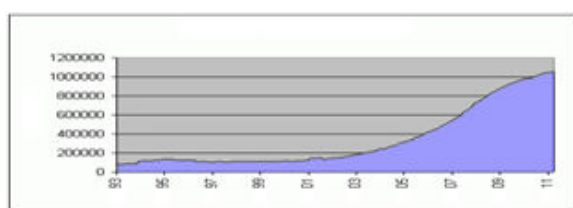


Fig. 3 Development in the volume of household bank credits in the years 1993-2011. Source: Czech National Bank

There have been several reasons behind a fast pace of household indebtedness growth, one of them undoubtedly being the stabilization of interest rates. In the 1990s the Czech Republic was going through fundamental changes resulting from the transformation processes then taking place. Under the given conditions interest rates tended to fluctuate sharply and the atmosphere in the society was that of mistrust towards banks due to privatization processes and overall instability of the financial system. Households quite logically kept their distance. When the interest rates finally stabilized at the end of the 1990s, households started to take out loans more enthusiastically [10].

According to experts the current level of household indebtedness does not threaten the stability of the financial sector in the Czech Republic [17]. It is the dynamics of indebtedness, i.e. the speed with which we draw level with more advanced debtors which is currently seen as a problem.

C. Structure of household indebtedness

There is a long-term trend of acquisition of used tangible fixed assets which is connected to privatisation of flats. Almost $\frac{3}{4}$ of the total amount of household credits are those to cover housing needs. These credits are logically linked to the acquisition of a property of certain value. Households in possession of mortgage loans thus simultaneously acquire an asset which more or less modifies the ratio between their financial obligations and wealth." [18], [12]. They are in effect long-term investments of households. Their guarantees are better secured against risks in comparison to consumer credits

and as they are designed to meet housing needs of future generations they are also morally justifiable. It is therefore recommendable not to view the total debt accumulation in isolation but to judge debts in relation to wealth assessed by the amount of tangible fixed assets (flats, houses, valuables) and financial assets (account deposits, securities). About 17% of the total Czech household wealth is burdened with debt. [10] We believe this unfavourable indicator also needs to be assessed from a long-term perspective. In comparison with advanced countries Czech households were not able to incur more debt in the 1990s due to the transformation process of the Czech economy then taking place. This situation was aided by favourable economy policies aiming to support privatisation of the state residential facilities fund. With the view of dynamics of Czech household indebtedness and closing of the gap between the level of economic development of the Czech Republic and that of advanced countries we may assume that a structure of Czech household indebtedness and its risks are likely to change.

The pitfalls associated with mortgage loans consist in their lifelong duration. The obligation ceases upon complete debt repayment. A debtor is obliged to make regular mortgage repayments although their investment does not create any real income. Simultaneous expenses are made to repair and maintain the property which will increase its future price if offered for sale. Inhabitants of the Czech Republic do not yet have sufficient experience in exercising their rights to real property, especially to flats. A mortgage loan, however, is tied to many prerequisites. Their absence might result in severe consequences for the ability of households to pay off a mortgage loan.

D. Increase in state debt

A key principle underlying philosophy of the Czech Republic and the majority of European countries is that of a social state. In the Czech Republic there is an increasing number of persons attached to the public finance which poses the risk of the private system being unable to sustain the principle with its own taxes. [19] For this reason both public and private debt will play a vital role in the future. A potential private credit bubble could lead to consequence more fatal than in the case of massive public debt. Importance of banks for the private sector is vital in the Czech Republic and also in countries with underdeveloped capital markets. Bank credits determine the extent of private investment and household consumption. Should the Czech Republic run up more debt in order to help banks, the issue of slowing down debt growth would quickly be replaced with the issue of state economic and political decision-making. Through these decisions it would be determined who the debt will be transferred to, who will bear it and who will repay it.

The resulting negative consequences are expected:

- in raised loan interest resulting in higher regular repayments and shrunk household budgets,
 - in businesses who are in need of investment credits.
- Should the bond interest rate rise, banks will be inclined to

prefer their purchase to providing credit to businesses. Thanks to a varying degree of risk the banks are likely to tighten conditions concerning credit provision and contribution requirements [18],

- rising demand for bonds. With a rising amount of bonds purchased investors will demand bigger risk premiums. The state will then borrow at higher interest rates especially in the case of long-term loans. A growing national debt also presents a risk of decreased rating for the Czech Republic which would undoubtedly affect interest rates [18].

Tax policy plays a vital role in an attempt to reduce the state debt of the Czech Republic. The Czech Republic has a compound tax quota comparable with the EU average. According to D. Marek "there are some anomalies in this quota, especially low contribution of direct taxes at the expense of indirect taxes. Assimilation to the more usual tax structure would result in the increase of VAT and consumption taxes"[19].

The above-mentioned risks might take shape in the near future. The amount of Czech debt is the greatest in all its history. Expected austerity measures and modernization of the social state designed to recover state losses will ultimately negatively impact Czech households, and middle and lower classes. The transfer of debt from the state to its citizens has its generational dimension in the Czech Republic [18].

IV. CONCLUSION

The Czech Republic is one of Europe's transition countries where it has been possible to narrow the differences in the level of economic development in comparison with advanced EU countries. The country is referred to as a small open economy which is fully obvious in the Czech dependence on the economic growth of their business partners and it also shows in a similar pace of economic decline or recovery experienced by the whole of the EU.

The assessment of Czech household indebtedness demonstrates it correlates with that of the advanced EU countries and occasionally even produces more favourable results. Analyses demonstrate the Czech Republic has been successful in its attempt to narrow the gap between itself and advanced countries in the area of basic economic indicators such as proportion of household credits to total credits, ratio of total household debt to their gross disposable income, contribution of household consumption to the GDP, etc. From this perspective risks attached to Czech household indebtedness correlate with those in advanced countries.

Increased interest rates may result in households unable to repay their loans. This will in turn lead to household insolvency, i.e. extreme indebtedness or a decline in household disposable income. A remarkable insolvency risk of indebted households may occur through the loss of employment. For this reason the sustainability of the GDP growth as well as the economic growth is highly desirable. A trend of the growing GDP accompanied by rising unemployment has turned out to

be socially ineffective. If we, however, choose to assess the gathered data in the context of consumer habits, the given institutional framework of the credit market, and creditor and debtor behaviour expressed through the degree of financial literacy, we conclude that the dynamics of Czech household indebtedness is indeed risk-prone. The household credit market is both immature and vulnerable, with a tendency to sudden departures from the trend. The credit market is characterized by its great dependence on the time factor. This means its effective and satisfactory functioning results from the balance created through long-term market processes. In this respect the Czech Republic still lacks both an adequate framework for the household credit market and complete stability of the desired basic parameters of the economic system. Significant economic changes triggered by the economic transformation have not yet made it possible for the Czech Republic to pass through the necessary growth stage in which the basic institutional market pillars would be allowed to crystallize. This conclusion might be of universal validity for all transition EU countries which show specific risks of household indebtedness. The uniqueness of these risks has its origin in the specific process of economic transition, a specific institutional framework of the household credit market and financial literacy of inhabitants. We consider the low financial literacy and unreliable time predictability to be the major risk factors in the Czech Republic. This assumption is further confirmed by a rising number of personal bankruptcies and executions.

REFERENCES

- [1] L. Michaelis, S. Lorek, *Consumption and the Environment in Europe: Trends and Future*. Danish Environmental Protection Agency, Copenhagen, 2004.
- [2] P. Kušková, A. Marková, K. Najmanová, *Czechs in Consumption Paradise. Evolution of Czech Household Consumption in Last 20 Years (in Czech)*. CENIA, 2009. Available at [http://www.mzp.cz/osv/edice.nsf/243F080C086028B1C12575DF003D0F56/\\$file/OVV-cesi_raj-20090630.pdf](http://www.mzp.cz/osv/edice.nsf/243F080C086028B1C12575DF003D0F56/$file/OVV-cesi_raj-20090630.pdf)
- [3] V. Spěváček, R. Vintrová, "Growth, Stability and Convergence of the Czech Economy in the Years 2001-2008," *Political Economy*, No 1, 2010, pp. 20–50.
- [4] M. Vinas, *Savings in Czech Way: Bet on Certainty (in Czech)*. Available at: <http://www.finmag.cz/cs/finmag/ekonomika/sporeni-po-cesku-sazka-na-jistotu/>
- [5] Database Eurostat. Real GDP growth rate. Available at: <http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=tsieb020>
- [6] Database Eurostat. Harmonised unemployment rate. Available at: <http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&language=en&pcode=teilm020&tableSelection=1&plugin=1>
- [7] OECD : *New comparison of GDP and consumption based on purchasing power parities for the year*. Paris, 2007. Available at: <http://www.oecd.org/dataoecd/53/47/39653689.pdf>
- [8] Note: We use the definition of the OECD according to which household consumption encompasses choice, purchase, use, maintenance, repair and disposal of any product or service. This definition, however, does not include the public sector consumption or consumption of goods and services by the production sector. In: OECD, 2002. „Towards Sustainable Household Consumption?“, Trends and Policies in OECD Countries, OECD. 146 pp. Available at: <http://www.oecd.org/dataoecd/28/49/1938984.pdf>
- [9] Database of Czech Statistical Office.

- [10] Database of Czech National Bank. ARAD Database. Available at: <http://www.cnb.cz/docs/ARADY/HTML/index.htm>.
- [11] D. Dubská, *Savings and indebtedness: Czech households in a debt trap?* (in Czech). Available at: [http://www.czso.cz/csu/2008edicniplan.nsf/t/950040749C/\\$File/115108k03.pdf](http://www.czso.cz/csu/2008edicniplan.nsf/t/950040749C/$File/115108k03.pdf)
- [12] J. Keller, *Introduction to Sociology*. Prague: Sociology Publisher, 2004.
- [13] J. Keller, „*World Bank and Father Goriot*“. Available at: <http://www.novinky.cz/kultura/salon/210374-jan-keller-svetova-banka-a-otec-goriot.html>
- [14] Note: Median is a value which divides the examined sample into two halves, i.e. it does not determine the total arithmetic mean or average. Consequently about two thirds of the employed will always earn the below-the-average wage irrespective of regime.
- [15] D. Hradil, *Assessment of Financial Literacy of Citizens of the Czech Republic*. Joint project of the Ministry of Finance of the Czech Republic and the Czech National Bank, 31 August 2010. Assessment was based on international OECD recommendations. (in Czech). Available at: http://www.cnb.cz/cs/verejnost/pro_media/tiskove_zpravy_cnb/2010/20100831_financi_gramotnost.html
- [16] Final research report: Financial literacy in the Czech Republic (in Czech) Available at: http://www.cnb.cz/miranda2/export/sites/www.cnb.cz/cs/spotrebitel/financi_gramotnost/mereni_fg_tk_20101213/financi_gramotnost_20101213_stemmark.pdf
- [17] Barometr Study, Cetelem 11/European markets. 2011, (in Czech). Available at: <http://www.observatoirecetelem.com>
- [18] M. Singer, *Economic crisis and the Czech Republic*. VŠE, Praha, 2010. Available at: http://www.cnb.cz/miranda2/export/sites/www.cnb.cz/cs/verejnost/pro_media/konference_projevy/vystoupeni_projevy/download/singer_20100614_vse.pdf
- [19] L. Niedermayer, D. Marek, *Czech State Most Indebted in Its History*. (in Czech). Available at: http://www.rozhlas.cz/zpravy/domaciekonomika/_zprava/665127