



The 19th International Days of Statistics and Economics

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Welcome to the online proceedings of the international conference: The 19th International Days of Statistics and Economics.

The 19th International Days of Statistics and Economics was organized by:

- The Department of Statistics and Probability and the Department of Managerial Economics, Prague University of Economics and Business, Czech Republic
- Faculty of Economics, The Technical University of Košice, Slovakia
- The Ton Duc Thung University, Ho Chi Minh City, Vietnam

The aim of the Conference was to present and discuss current problems of Statistics, Demography, Economics and Management and their mutual interconnection.

This conference proceedings contain contributions of the conference participants which were presented during both days of the conference. All these contributions have successfully passed the double-blind peer-review process.

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Editorial ethics for International Days of Statistics and Economics papers

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- treat all information relating to sent papers as confidential
- ensure the anonymity of reviewers and authors during the review process
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- are obliged to give immediate notice if the deadline for sending the review cannot be met so that it may be sent, if appropriate, to another paper reviewer
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E *Economy*

D *Demography*

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INDEBTEDNESS AND OVER-INDEBTEDNESS OF HOUSEHOLDS IN SLOVAKIA AND EU, ITS DETERMINANTS AND CONSEQUENCES

Erika Ľapinová

Abstract

The issue of household indebtedness in Slovakia and Europe is highly topical. In our paper, we will pay attention to this phenomenon and distinguish between indebtedness and over-indebtedness. Private household debt has macroeconomic, microeconomic, and non-economic impacts (especially social and psychological). In the theoretical part, we will also emphasize the causal and consequential relationships of this issue. In the analytical part of the article, using available data from Eurostat and the ECB, we will describe the scope and level of indebtedness of private households in Slovakia compared to European countries and the development trends in this area. We will point out the problems and risks that the current state of indebtedness and its dynamics can cause, and we will indicate solutions to achieve changes in a positive sense: free debt counseling, financial education for both children and adults, the role of supervision over debt providers, and the financial market (in Slovakia realized by the National Bank of Slovakia).

Keywords: households, private household debts, over-indebtedness, Slovakia, European Union, reasons, consequences, economic context

JEL Code: D1 Household Behavior and Family Economics, G5 Household Finance

Introduction

The topic of economic behavior and household decision making, as well as the personal finance of households, remains relevant, with significant implications not only for short-term and long-term prosperity, the standard of living, and the quality of life of individuals and private households, but also for macroeconomic developments in the economy of the country and its financial system. Therefore, the debt of private households, its size, structure, and dynamics of debt are important economic variables and phenomena that deserve the attention of economic science, economic theory, as well as practical economic policy of the state or the EU. In our article, we distinguish between indebtedness (the household owns debt, liabilities) and

overindebtedness (see some definitions below) of households. Particularly problematic is overindebtedness, to which we devote key attention in the theoretical and analytical part of our paper, to its description, and to identifying its causes and consequences (for the individual as well as the economy and society as a whole), emphasizing the need to address undesirable overindebtedness through existing institutions and their engagement in matters of assistance.

” Indebtedness is a complex social and economic phenomenon that affects many people and has an impact on the private life of individuals, their well-being and their ability to contribute to society. Debt can be both beneficial and harmful for households – it can lead to improvements related to consumption smoothing and resource allocation, but it can also be the reason for poverty and social exclusion, it can adversely influence mental and physical condition and disrupt family life. Household debt matters also in relation to national macroeconomic performance (rising levels of consumption expenditure by households generally stimulate the economy, while slower growth or declines in aggregate consumption expenditure by households have a dampening effect on economic growth).“ (Pytkowska et al., 2016)

1 The definitions of basic concepts. Cause and consequences, data sources, and proposed solutions

The indebtedness of households has been increasing over the last decade, and it attracts attention from economists and policy makers because it could have an effect on the sustainability of indebted households and on the stability of the economy and the financial system. An excessive accumulation of debts combined with liquidity constraints of households could cause a deterioration in the economic well-being of the households, thus increasing their vulnerability to social exclusion and poverty (Sierminska, 2014).

Tab. 1: Common indicators of over-indebtedness

Category	Indicator
Cost of servicing debt	Households spending more than 30% (or 50%) of their gross monthly income on total borrowing repayments (secured and unsecured)
	Households spending more than 25% of their gross monthly income on unsecured repayments
	Households whose spending on total borrowing repayments takes them below the poverty line
Arrears	Households more than 2 months in arrears on a credit commitment or household bill
Number of loans	Households with 4 or more credit commitments
Subjective perception of burden	Households declaring that their borrowing repayments are a "heavy burden"

Sources: D’Alessio & Iezzi, 20213; Sierminska, 2014

In the literature, there is no consensus as regards how over-indebtedness should be defined and consequently how to measure it. Different countries define indebted households differently. According to the European Commission Report (2010) on this issue, for example, a household is overindebted when existing and expected resources are insufficient to meet its financial commitments without lowering its standard of living (this may mean reducing living standard below what is regarded as the minimum acceptable in that country). The indicators of over-indebtedness need to cover all aspects of the financial commitments of households (borrowing for housing purposes, consumer credit, utility bills and rent and mortgage payments). To meet its commitments, a household generally needs to reduce its expenses or find ways to increase income. Over-indebtedness then implies an inability to meet recurrent expenses and is therefore a permanent rather than a temporary state. (Sierminska, 2014, D'Alessio and Iezzi, 2013)

D'Alessio & Iezzi (2013) compared over-indebtedness and poverty measures to disentangle the relationship between the two phenomena. They find that the above-mentioned indicators allow the different aspects of over-indebtedness to be measured, but there is limited overlap of the indicators. In fact, they identify four aspects of indebtedness: high repayments relative to income, being in arrears, making use of heavy credit, and finding debt to be a burden.

According to Daniel (2024), *excessive debt/over indebtedness* for an individual or household can be defined as a debt that the individual can no longer manage or repay, regardless of its size or the reason for its occurrence. The reasons for excessive debt, according to Daniel (2024), are varied: they can be related to income and asset levels, but they can also be caused by the level of financial (in)literacy of the individual, their financial decisions (which are related to the person's nature, frugality, caution, willingness to take risks, carefreeness, negligence in managing money, as well as to learned behavior from own parents). The reasons for excessive indebtedness can also include various sudden unexpected events: job loss, sudden illness of oneself or a close family member, disability, accident while on vacation abroad (if we forgot to insure for this case), damage or loss of property and home (due to fire, flood, storm, car accident, etc.), divorce or separation, raising children by single parents or unemployment. However, excessive indebtedness can also arise from seemingly positive events, such as an inheritance from parents (the problem may be settling the inheritance among siblings).

Financial scarcity / stress is often related to excessive debt, but this is not necessarily true in every case, as clarifies Daniel (2024). A person without debt can find themselves in financial hardship because they cannot borrow money. Another group includes people who have incurred obligations to repay despite not having borrowed, but they have a legal or ethical

obligation to repay someone (damages, medical expenses abroad due to an injury while on vacation, a high fine, expensive medications, social care for parents, settlement with siblings when inheriting from parents, etc.). The opposite relationship does not have to hold either; If a person borrowed and cannot manage their debt, they may not fall into financial hardship. The solution is a change in his economic behavior, finding a well-paid job, seeking professional advice (free state debt counseling services), etc., concludes Daniel. *Absolute financial scarcity*, according to Daniel, is a state in which there is an objective physical shortage of financial resources to meet the essential needs of a person. For example, within the EU SILC survey, the concept of material and social deprivation also involves two indicators of financial distress: 1. ability to cover arrears related to mortgage or rent, payment for utilities, or repayment of installment purchases and other loans, 2. ability to cope with unexpected financial expenses.

In the Eurofound report, 'Addressing household over-indebtedness' identifies the main types of policy action (Dubois et al., 2020) which are specified following three groups of people highly at risk of excessive debt: 1. people who have experienced a risky life event such as unemployment, relationship breakdown, leaving the parental home, illness, or unexpected home repairs; 2. People who gradually become overcommitted without such a life event (lack of financial education and financial management skills, increasing consumption habits, in some cases triggered by addiction, aggressive marketing by lenders); 3. people with low incomes who need to obtain credit or default on payments to attain a reasonable standard of living (people with social income, working poor, people with part-time jobs, zero-hours contracts, and the self-employed with little work).

We therefore mention microeconomic (operating on an individual level) determinants of over-indebtedness. These include economic, demographic, as well as social-psychological, habitual, familial, community, and similar factors (see the previous two paragraphs). For instance, Labudová (2019) also focuses on these micro characteristics of indebted households such as age, income level, or type of holding debt in her research.

The second group of factors that influence indebtedness and over-indebtedness represent macroeconomic factors. We highlight the following authors' articles: Barradas and Tomas (2023), Dumitrescu et al. (2022), Coletta et al. (2018) and Romao and Barradas (2022). Authors Coletta et al. (2018) differentiated between demand and supply factors of household debt determinants. Supply-side variables influence financial intermediary behaviour and here also belong to institutional variables. Supply-side and institutional factors (length of time required to resolve insolvencies, the quality of bankruptcy law, the legal origins and the welfare state

regime) are more robust than demand variables in influencing household debt (Coletta et al., 2018).

Fig. 1: Macroeconomic Drivers of Household Indebtedness

Household indebtedness	Asset-transaction drivers (Post-Keynesian literature and consumption wealth effects literature)	Rising housing prices Rising financial asset prices
	Consumption-oriented drivers (Behavioural economics literature, post-Keynesian literature and life-cycle model)	Rising personal income inequality Falling household labour income Welfare state retrenchment Rise of working-age population
	Monetary policy and credit supply drivers	Low interest rates Greater availability of credit

Source: Barradas, Tomas, 2023

The conventional economic theory (based on the life cycle and permanent income theories of consumption of Modigliani and Brumberg, Friedman) advocates that households maximize their utility functions over their entire life to smooth consumption. This implies that household indebtedness is only a neutral tool that aims to transfer lifetime income and wealth over time (Barradas, Tomas, 2023). „Conventional *theory does not provide a reasonable interpretation of the unprecedented and unsustainable levels of household indebtedness reached in the last years and, in particular, up to the Great Recession, because institutional and social contexts, psychological factors, and / or the existence of habits are completely ignored* (Barradas, Tomas, 2023). In the literature, we can find eight macroeconomic drivers of household debt: growth of housing prices, increase in financial asset prices, rise in personal income inequality, fall in household labour income, welfare state retrenchment, rise of the working-age population, decreasing trend of interest rates, and increased availability of credit. According to empirical research results in 26 OECD countries of Dumitrescu et al. (2022): economic growth leads to lower household debt, but the beneficial effect decreases as the level of household debt increases, inflation lowers household borrowing only if the level of debt is high, higher investments lead to higher levels of borrowing (even when household debt is already high), mortgage credit interest rates are positively linked with household debt (the link becomes weaker as the level of debt increases), higher public expenditures are generally associated with lower household debt.

Possible consequences of over-indebtedness of private households, according to Eurofound report 'Addressing household over-indebtedness' (Dubois et al., 2020) include feelings of insecurity, housing insecurity, poor health (physical and mental), family stress and

relationship breakdown, stigma, strain on social relationships, exclusion from basic financial services, barriers to obtaining employment, work accidents and industrial disease, absenteeism at work, reduced organizational commitment, lack of trust in institutions such as banks and governments. These are the consequences of leaving over-indebtedness unaddressed or addressing it late: unemployment and inactivity, bad health, nonpayment of bills, leading to subsequent administrative and legal costs for the entities involved. Less frequently, in literature, consequences like negative impact on children, criminal activity of over-indebted people, or homelessness are listed. (Dubois et al., 2020) Daniel and Klimová (2022b) also discuss the adverse effects of over-indebtedness. The authors then identified adverse effects on the working life of an employee are the author's statement and subsequent recommendation that employers themselves pay attention to the issue of excessive indebtedness of their employees.

In addition, we must not forget about social costs of over-indebtedness for a whole economy of the country and for society. The connection between poverty, social exclusion, overindebtedness and the macroeconomic situation, financial markets stability, and economic and political direction of the country is obvious; they are in a cyclical relationship.

One of the consequences of over-indebtedness, the last one we mentioned, but by no means the least significant, is the problems of changing people's behavior and motivations. Peter Daniel (2024) also describes these changes in detail. He mentions the so-called 'tunnel vision / view', which is proof that people with financial problems also differ from the rest of the population in their view of the reality of life, of society, ecology and sustainability.

Under the influence of excessive debt, not only family, personal and workplace relationships change but also the overall values and attitudes of a person, his or her vision of the surrounding world (Daniel, 2024; Daniel and Klimová, 2022b). We can document this in terms of a person's environmental attitudes. We can assume that this pro-environmental behavior is the result not only of the individual's financial situation, but also of psychological factors (attitudes, normative beliefs, perceived behavioral control) (Al Mamut et al., 2018; Wen, 2024). More generally, Hüttel et al. (2018) wrote about the motives of purchasing behavior (economically sustainable vs. unsustainable), for example.

Matthies and Merten (2022) summarized in their paper a view of the relationship between income and pro-environmental motivation as follows: income may play different roles in the interplay between pro-environmental motivation and different forms of pro-environmental behavior. Income has been shown to be a driver of consumption in general and that has a positive impact on energy consumption and carbon footprints. On the other hand, a higher income facilitates investments in energy-saving appliances or renewable energy. For

low-income households, some studies reported more curtailment behavior. Income may have a facilitating effect on efficiency behavior and the opposite effect on curtailment behavior. Furthermore, Matthies and Merten (2022) mentioned curtailment as a generalized strategy in low-income households. The authors aimed to analyze the possible moderating effect of income on the relationships between pro-environmental motivation and behavior.

According to other views, it can be assumed that lower income levels, which also imply more households with financial difficulties, and environmentally oriented/sustainable consumer behavior are negatively correlated, due to financial constraints. However, there is also evidence that, at the opposite end of the income scale, income is likewise negatively correlated with pro-environmental behavior. (Berthold et al., 2023). The reasons for this behavior are different at both ends of the income scale. Although people with sufficient financial resources do not feel the need to save resources due to the lack of these resources (they do not feel that natural resources and their quality are limited), in the case of people with financial difficulties, their reluctance to pro-environmental behavior is explained by a change in the perception of the world, the so-called tunnel vision (the same insight is also presented by Daniel, 2024).

Maglicic and Vasconcelos (2025) assume/claim that the uptake of environmentally friendly products is unequal and income dependent. In their research, the authors compared the adoption of environmentally friendly products between income quartiles. Their findings indicate: higher income groups are more sensitive to social desirability, including environmental awareness, while lower income groups are primarily concerned with financial constraints. Higher income groups are motivated by peer effects, status, and environmental concern; middle-income individuals exhibit a cascading behavior, where decisions are significantly influenced by peer behavior within the reference groups.

André (2016) in OECD Working Papers also focuses on the tools for solving the precarious situation of household indebtedness, especially over-indebtedness. A wide range of instruments can affect the development of household debt. Most of these instruments have side effects, so their choice implies difficult trade-offs. Instruments can be broadly sorted into microprudential, macroprudential, and monetary policy. Sound microprudential policy (regulations and supervision) considers André (2016) essential to ensure effective risk management and consumer protection. Monetary policy is in his opinion a crude tool to contain household debt (because this objective may conflict with the core objectives of stabilizing consumer price and output levels). Macroprudential policies have only limited effects on indebtedness and overindebtedness on a personal level.

According to Daniel (Daniel, Klimová, 2022a), personalized debt counseling is one of the most effective tools, which became a reality in Slovakia when 45 free debt counseling centers were established in 2022. They provide integrated (economic, legal, and psychological) counseling. These counseling centers not only help to solve problems, but also prevent similar situations from occurring in the future. Their effect on society (economic and noneconomic fields) is therefore clearly positive.

The Eurofound report 'Addressing household over-indebtedness' identifies the main types of policy action (Dubois et al., 2020): 'Over-indebtedness is both a cause and a consequence of poverty, deprivation, and social exclusion'. This report identifies the following three types of policy action: 1. preventive measures (credit regulation, financial education, social protection), 2. alleviative measures (debt advisory services), 3. rehabilitative measures (debt settlement procedure).

2 Data about indebtedness and overindebtedness in Slovakia and comparison with EU

In Slovakia and most European countries, we do not have official public data on debtors and their debts, i.e., there is no systematic survey specifically for this purpose. Except for the harmonized surveys, HFCS (Household Finance and Consumption Survey in euro zone member states, harmonized survey of ECB) and EU SILC (EU statistics on income and living conditions). Within the framework of the HFCS surveys, indicators such as the number of debtors; the structure of debtors by types of debt; the share of people with financial constraints (when applying for loans); the share of people with difficulties in repaying their financial obligations and debts or facing unexpected expenses are monitored.

HFCS reports show the following measures of financial burden: 1. the debt-to-asset ratio, which is calculated as the ratio between total liabilities and total gross assets for indebted households, 2. The ratio of total debt to gross household annual income for indebted households, 3. the debt-service-to-income ratio (ratio between total monthly debt payments and household gross monthly income for indebted households), 4. the mortgage debt service-to-income ratio, 5. the loan-to-value ratio of the main residence, 6. The ratio of net liquid assets to income. Net liquid assets are calculated as the sum of value of deposits, mutual funds, bonds, non-self-employment business wealth, (publicly traded) shares, and managed accounts, net of credit line/overdraft debt, credit card debt, and other nonmortgage debt.

However, there are no official statistics on the number of overindebted people because the very definition of this term is problematic. Subsequently, in the case of population surveys, the answers are obtained based on the subjective assessment of the respondents.

Partial data for individual subjects are kept in their records by individual financial entities (debtor registers, enforcement registers, lists of people discharged from debt (personal bankruptcies). The Slovak Republic Statistical Office, through the Harmonized EU SILC Survey, collects information on the threat of households to material and social deprivation. Households also answer questions concerning their financial situation (ability to cover unforeseen expenses, ability to make ends meet). These are therefore not implicit indicators of overindebtedness and are also the result of subjectively felt/perceived facts by the respondents themselves.

This is the microeconomic level of view on the issue of over-indebtedness. If we want to get a macroeconomic perspective, we can use data from the National Bank of Slovakia on nonperforming loans in the household sector (expressed in absolute volumes and as a percentage of total loans provided to households). The National Bank of Slovakia monitors and reports these data for all sectors monthly.

In addition, EFIN (European Financial Inclusion Network) in its report (Pytkowska et al., 2016) deals in more detail with the symptoms of over-indebtedness and the database available to identify the actual state of over-indebtedness. It distinguishes between so-called administrative data and population survey data (Eurostat SILC, European central banks HFCS and the pan-European survey Eurobarometer), which provide some information on the perception of the risk of falling into over-indebtedness.

Tab. 2: Percentage of households in the Euro area as a whole and its member countries holding debt in the year 2021

	euro area	BE	CZ	DE	EE	IE	GR	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PT	SI	SK	FI
DL1000i Has debt	42.9	50.1	24.1	41.4	47.1	68.1	20.6	56.9	46.2	30.4	27.7	46.3	34.2	23.7	53.9	29.6	33.1	59.0	28.9	46.6	28.9	38.9	59.2
	(0.4)	(1.1)	(0.9)	(1.1)	(1.1)	(0.8)	(1.0)	(0.8)	(0.8)	(1.0)	(1.0)	(1.9)	(2.2)	(2.1)	(1.6)	(0.8)	(0.1)	(0.8)	(1.1)	(0.8)	(1.0)	(1.4)	(0.6)
DL1100i Has mortgage debt	23.7	35.1	13.5	18.0	23.7	34.1	10.8	34.6	26.1	6.6	14.0	33.1	12.5	9.6	32.6	16.6	21.4	46.9	13.9	33.0	10.6	25.4	33.4
	(0.3)	(1.1)	(0.7)	(0.7)	(0.9)	(0.6)	(0.8)	(0.8)	(0.6)	(1.0)	(0.8)	(1.8)	(1.3)	(1.0)	(1.4)	(0.6)	(0.1)	(0.6)	(0.8)	(0.6)	(0.7)	(1.3)	(0.4)
DL1110i Has HMR mortgage	20.8	32.8	11.8	15.7	23.0	30.4	8.2	28.4	22.1	6.0	12.4	27.4	9.6	9.0	27.2	15.2	18.6	46.2	12.8	30.5	9.1	24.4	30.9
	(0.3)	(1.1)	(0.7)	(0.6)	(0.9)	(0.5)	(0.7)	(0.8)	(0.6)	(0.9)	(0.7)	(1.8)	(1.2)	(1.0)	(1.3)	(0.6)	(0.1)	(0.6)	(0.8)	(0.6)	(0.7)	(1.3)	(0.4)
DL1120i Has other property mortgage	4.7	4.2	2.0	3.8	2.1	7.2	2.7	9.9	6.6	0.6	2.1	8.3	3.2	1.2	10.1	1.9	3.2	1.9	1.3	4.6	2.0	1.3	4.7
	(0.2)	(0.5)	(0.3)	(0.4)	(0.3)	(0.4)	(0.4)	(0.6)	(0.3)	(0.2)	(0.4)	(1.1)	(0.5)	(0.3)	(0.8)	(0.2)	(0.1)	(0.3)	(0.3)	(0.4)	(0.3)	(0.4)	(0.2)
DL1200i Has non-mortgage debt	27.9	25.1	13.7	29.2	36.6	58.5	11.8	40.0	30.6	26.5	18.4	21.9	26.9	15.9	34.4	17.8	16.0	19.1	17.4	26.8	21.8	17.6	47.9
	(0.4)	(1.1)	(0.7)	(1.2)	(1.2)	(1.0)	(0.7)	(0.9)	(0.7)	(1.0)	(0.9)	(1.0)	(2.2)	(1.8)	(1.4)	(0.7)	(0.1)	(0.8)	(1.0)	(0.9)	(1.0)	(1.5)	(0.6)

Source: HFCS 2021, European Central Bank

Notes: Standard errors are shown in brackets below their corresponding figure. HMR stands for the main residence of the household. Mortgage debt includes mortgages collateralized on the main residence of the household and mortgages collateralized on other real estate property owned by the household. Non-mortgage debt includes nonmortgage loans (consumer credit loans, private loans, and other loans not collateralized on household's real

estate property), credit lines/bank overdrafts debt, and credit card debt (outstanding amount on which interest is paid at the end of the billing period).

From the harmonized survey, it is possible to see the level of indebtedness in the eurozone countries on average (it is stable, as according to the first to third waves of the HFCS survey, households in the eurozone were indebted to a very similar extent: in 2010 43.9%, in 2014 42.7%, in 2017 42.3%). Table 2 also shows the structure of this debt and the partial differences between individual countries. The countries with the lowest share of the indebted population according to HFCS 2021 data are Greece (20.6%), Lithuania (23.7%), the Czech Republic (24.1%), Italy (27.7%), Austria and Slovenia (both 28.9%), and Hungary (29.6%). At the other end of the ranking, with the highest share, above the Eurozone average, are Ireland (68.1%), Finland (59.2%), or Spain (56.9%) and the Netherlands with 59%.

Since 2010, four waves of HFCS, a harmonized survey, have also been conducted in Slovakia. The results of the fifth wave will be known in the fall of 2025. This is a survey of a representative sample. According to these data, more than a third of households in Slovakia had some debt (36.7% of households in 2014; 36.5% in 2017; 38.9% in 2020). Below in Tab. 3 are the details.

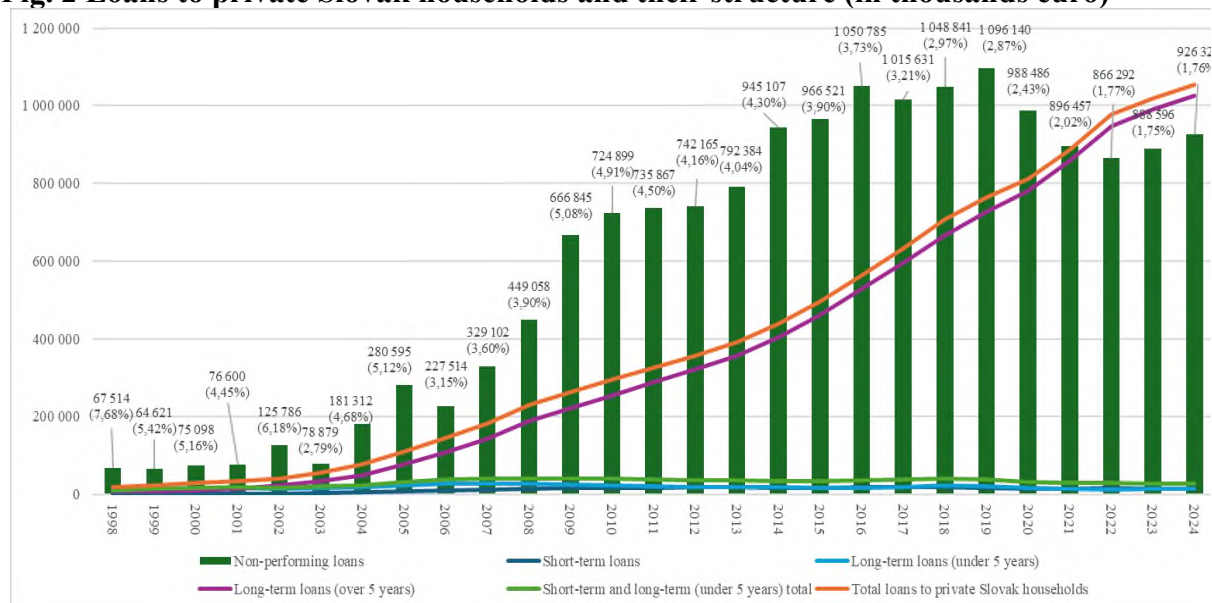
Tab. 3: Percentage of households holding debts – Slovakia vs. countries in the euro area, HFCS

	Total debt				Mortgage debt				HMR mortgage				Other property mortgage				Non-mortgage debt				Credit line / overdraft debt			Credit card debt			Non-mortgage loans					
	2010	2014	2017	2021	2010	2014	2017	2021	2010	2014	2017	2021	2010	2014	2017	2021	2010	2014	2017	2021	2010	2014	2017	2021	2014	2017	2021	2014	2017	2021	2014	2017
Euro area	43,9	42,7	42,3	42,9	23,8	23,5	23,7	23,7	19,8	20,0	20,6	20,8	5,9	5,2	4,9	4,7	28,9	28,2	27,7	27,9				6,11	4,0	2,0	4,24	3,3	3,0	20,33	18,4	14,4
Overall Slovakia	36,70	36,6	38,9		16,21	20,7	25,4		15,18	19,6	24,4		1,43	1,4	1,3		25,32	21,4	17,6													
Regional breakdown																																
BA	43,79	42,9	47,9		20,24	22,6	28,8		20,24	21,6	27,7		2,64	1,4	1,0		31,15	29,8	23,3	13,63	10,9	4,6	16,28	10,6	9,5	16,52	23,0	11,6				
TT	38,76	40,3	37,0		19,46	25,8	30,7		19,18	25,1	30,7		0,28	0,8	0,0		26,45	17,1	12,3	7,08	2,0	1,4	2,23	0,0	3,2	23,24	16,1	11,3				
TN	31,79	35,3	37,0		17,39	23,6	24,8		17,31	22,2	23,9		0,07	1,8	1,4		16,32	18,9	16,8	4,09	3,1	2,9	0,00	2,8	4,8	14,05	16,0	12,8				
NR	36,68	35,4	38,1		13,90	17,9	21,1		12,95	17,4	19,7		1,24	0,5	1,4		28,86	20,5	19,7	5,16	2,7	2,6	2,62	2,0	0,6	24,55	19,3	18,2				
ZA	36,08	34,9	25,0		15,70	15,6	19,4		14,55	14,9	19,4		1,15	1,5	1,1		24,98	22,3	8,0	5,34	3,9	0,0	3,80	1,4	1,3	20,71	19,5	6,8				
BB	34,70	33,5	47,8		15,14	17,9	26,8		10,99	15,7	25,6		4,19	2,2	1,2		23,43	22,6	27,4	4,86	2,4	3,2	2,22	1,4	2,1	21,80	20,8	24,4				
PO	39,20	33,5	31,7		16,33	19,7	23,6		15,08	17,8	21,5		1,25	1,9	2,1		28,53	19,8	10,7	7,02	2,4	0,7	3,75	3,4	0,0	22,48	16,6	10,0				
KE	32,37	37,5	44,0		12,50	23,2	28,0		12,29	22,6	26,9		0,21	0,7	1,9		21,79	19,2	20,4	1,64	3,9	0,4	1,74	3,7	1,4	19,29	15,5	19,8				
Household size																																
1	18,27	19,1	21,1		7,58	8,9	13,5		7,47	7,9	13,2		0,28	1,1	0,3		11,92	12,7	10,4	1,90	2,0	1,0	2,39	2,3	1,2	8,47	9,7	8,6				
2	23,89	22,6	26,7		11,07	12,0	14,9		10,84	11,2	13,7		1,56	1,0	1,2		15,90	13,9	15,9	2,61	3,3	3,4	2,98	1,7	2,4	13,50	12,4	11,9				
3	45,51	47,1	51,2		16,68	29,9	36,7		15,50	29,5	35,1		1,18	0,6	2,1		35,07	23,1	20,2	10,05	3,4	1,2	7,05	3,0	5,4	27,09	20,3	16,6				
4	53,56	55,7	55,7		28,79	31,4	38,7		25,85	29,5	38,2		3,03	1,8	0,8		32,25	34,3	20,5	9,72	7,6	2,1	3,72	4,7	2,9	26,29	29,9	17,0				
5+	55,29	48,0	43,0		22,45	25,9	25,6		21,29	23,6	24,6		1,52	3,1	2,1		41,43	29,5	21,4	8,91	3,8	1,3	6,37	7,1	2,7	35,08	24,6	19,5				
Housing status																																
Owners - outright	23,57	19,3	17,0		1,33	1,3	1,3		0,00	0,0	0,0		1,33	1,3	1,3		22,33	18,3	15,8	4,70	2,7	1,6	4,05	2,3	1,3	18,12	16,8	14,1				
Owners - with mortgage	100,00	99,7	100,0		100,00	99,7	100,0		100,00	99,7	100,0		2,65	1,1	1,3		30,75	26,7	16,0	11,41	8,1	1,9	8,51	6,8	4,9	21,78	19,2	10,7				
Renters / other	33,98	33,2	32,4		0,62	2,2	1,5		0,00	0,0	0,0		0,62	2,2	1,5		33,98	31,6	32,1	7,39	4,9	5,1	0,77	3,1	9,1	29,45	27,4	24,6				
Income quintiles																																
Less than 20	18,73	17,2	16,8		3,92	5,6	7,7		3,57	4,9	7,2		0,48	0,7	0,6		15,52	13,0	9,8	1,79	1,8	1,4	2,88	0,4	1,0	11,56	11,6	8,2				
20-39	28,04	28,7	26,8		10,17	14,3	14,3		9,54	14,0	13,9		0,83	0,4	0,4		19,88	17,4	14,3	2,40	2,4	1,0	2,13	2,4	1,9	16,93	15,5	12,8				
40-59	42,29	43,6	49,6		18,76	25,2	33,8		18,16	23,8	33,4		0,89	1,6	0,9		27,58	24,4	23,4	6,01	3,7	3,2	4,26	2,2	3,3	21,75	22,9	19,0				
60-79	42,66	46,9	46,8		19,19	26,2	31,6		17,57	24,4	29,5		2,40	2,2	2,4		30,03	29,1	20,0	8,64	7,2	1,4	4,18	5,2	3,1	23,06	23,0	16,7				
80-100	51,87	46,8	54,4		29,06	32,2	39,6		27,13	30,8	38,1		2,54	2,0	2,2		33,62	23,3	20,3	11,73	4,9	3,1	7,79	6,2	5,6	28,42	19,2	15,2				
Net wealth quintiles																																
Less than 20	39,86	46,3	43,2		12,29	25,2	20,3		11,99	24,4	19,6		0,37	0,8	0,8		32,10	29,1	26,2	6,19	6,0	3,6	2,27	3,7	4,6	27,85	24,5	22,7				
20-39	37,59	39,4	46,9		19,42	23,3	35,7		18,93	22,7	35,5		0,53	0,6	0,4		22,34	22,0	18,6	3,75	3,2	1,2	3,25	2,3	2,7	19,44	20,0	15,8				
40-59	35,64	31,2	34,5		16,82	17,0	24,1		15,88	16,2	23,4		1,60	1,3	0,8		23,81	17,9	12,9	5,75	3,7	1,3	3,85	1,8	1,8	18,43	16,2	11,4				
60-79	32,62	31,1	39,8		14,24	16,4	26,1		13,37	14,8	24,7		1,12	1,7	2,1		23,41	19,9	18,3	6,47	3,5	1,5	4,51	5,6	3,7	17,72	16,4	13,8				
80-100	37,77	35,1	29,9		18,28	21,6	20,8		15,75	19,7	18,9		3,52	2,4	2,4		24,93	18,3	11,8	8,39	3,5	2,5	7,34	3,0	2,0	18,22	15,0	8,1				
Age of reference person																																
16-34	58,92	56,9	62,5		33,54	36,4	48,5		32,61	34,7	44,7		3,76	1,8	5,5		32,63	26,9	25,1	4,46	4,1	1,1	3,82	2,0	5,7	29,46	24,2	20,9				
35-44	56,22	57,7	65,3		32,38	35,7	47,6		30,56	33,5	46,1		1,92	2,6	1,5		33,69	31,5	24,5	11,36	6,6	3,3	4,29	6,0	3,8	26,05	25,7	19,9				
45-54	40,49	48,4	47,8		16,93	29,6	29,7		15,90	29,0	29,5		1,37	1,0	0,8		28,66	28,1	22,7	7,96	7,2	1,6	7,51	5,2	5,0	23,37	23,0	18,9				
55-64	31,23	21,5	21,4		5,55	6,9	10,1		4,81	6,1	9,5		0,87	0,9	0,6		28,68	17,0	12,8	5,13	1,8	3,2	3,44	2,1	1,1	22,77	16,0	9,6				
65-74	12,71	11,3	9,5		1,84	2,8	2,0		1,06	2,1	1,6		0,79	0,7	0,4		10,86	9,2	7,6	0,81	0,8	0,4	3,53	1,1	0,9	8,10	8,9	6,4				
75+	1,95	3,9	7,7		0,22	1,5	2,3		0,22	1,2	2,3		0,00	0,3	0,0		1,73	2,7	5,5	0,26	0,3	0,9	0,26	0,0	0,6	1,47	2,3	5,2				
Employment status of reference person																																
Employee	48,80	48,3	52,3		23,06	28,4	36,3		21,85	27,2	35,1		1,86	1,6	1,8		32,57	28,0	22,3	8,33	5,7	2,7	6,51	4,9	4,0	26,35	23,4	18,0				
Self-employed	44,92	45,1	51,9		28,53	33,1	34,3		26,21	31,0	32,0		2,86	2,4	2,3		25,78	17,6	22,0	9,07	2,9	2,3	3,88	2,6	4,6	16,56	16,1	17,0				
Other not working	35,24	37,5	21,7		6,37	6,0	4,7		6,37	6,0	4,7		0,00	0,0	0,0		30,63	34,6	17,0	2,15	8,2	3,2	2,52	1,7	0,2	26,99	30,6	16,8				
Retired	11,92	10,8	8,6		1,30	2,6	2,6		0,89	1,9	2,6		0,42	0,7	0,1		10,74	9,0	6,2	1,91	0,7	0,5	0,79	0,9	0,7	9,42	8,5	5,4				
Education of reference person																																
Primary or no education	24,95	18,6	25,2		5,64	3,8	7,0		5,64	1,7	7,0		0,00	2,1	0,0		21,23	16,6	20,2	4,02	0,8	2,7	1,69	0,1	0,6	18,91	16,6	18,1				
Secondary	39,96	38,3	38,1		16,28	21,4	23,9		15,53	20,4	23,0		1,22	1,1	1,0		28,83	22,1	17,9	6,77	4,4	1,4	5,01	3,1	2,7	23,12	19,2	15,5				
Tertiary	32,87	38,7	44,5		22,76	25,2	34,4		20,11	23,8	32,9		3,05	1,8	2,4		15,68	21,2	16,1	5,15	3,9	3,2	3,22	5,2	4,3	11,54	16,8	10,7				

Source: HFCS 2021, 2017, 2014, 2014, European Central Bank, National Bank of Slovakia

above the columns in parentheses). The long-term trend in defaulted loans is positive; their share of the total loans granted is negligible and does not increase. People fail at least in paying off mortgage loans and housing loans, while they fail the most with consumer loans and credit cards. The National Bank states that despite the existence of nonperforming loans, these represent minimal shares, and the banking sector is stable in the long term. (see The macro-prudential commentary of the National Bank of Slovakia, March 2025).

Fig. 2 Loans to private Slovak households and their structure (in thousands euro)



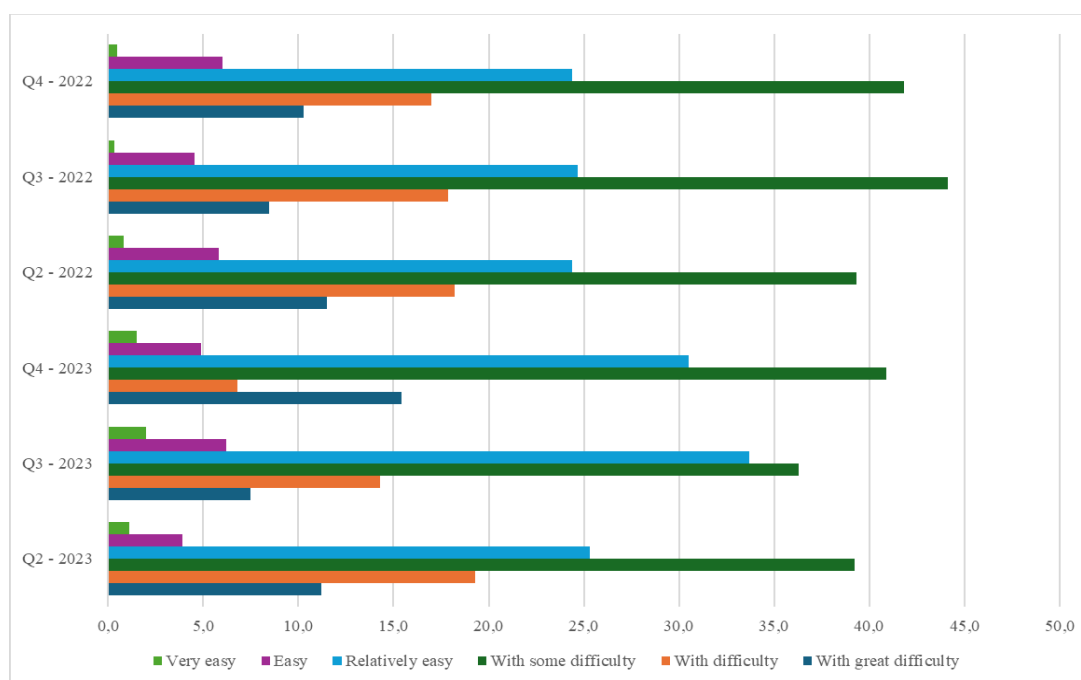
Note: for line graph (right secondary axis), for column graph (left secondary axis), values in parentheses are the percentage of failed loans out of the total loans granted.

Source: National Bank of Slovakia, available from <https://nbs.sk/statisticke-udaje/financne-institucie/banky/statisticke-udaje-penaznych-financnych-institucii/uvery/>

It concerns the subjective perception of financial difficulties by households. According to this data collected within the context of EU SILC surveys: approximately 40% of households experience significant/serious financial difficulties during the monitored period. If we wanted to find any continuity in past and present data on financial distress and the burden of households within the EU SILC surveys in Slovakia, it is a challenge. The methodology for collecting data and the nature of the questions on these topics have changed. Between 2009 and 2014, information was collected about *households' subjectively perceived ability to cover unexpected expenses*, while from 2015 to 2018, information was collected regarding the *subjectively felt ability to cover usual expenses* and subsequently questions about *the financial burden of housing costs and repayments*. Since 2017, in the context of data on material (and later also social) deprivation, two of the deprivation items are *a) "the household had arrears related to mortgage or rent, utility bills, or repayment of purchases in installments and other loans" and*

b) "the household cannot cope with unexpected expenses equal to the amount set as the monthly national poverty risk threshold for the previous year." Based on data from EU SILC, we cannot evaluate the continuous development of financial hardship or disproportionate household indebtedness in the way we would envision or wish. However, we can monitor responses to specific questions that are partial indicators of financial difficulties or selected indicators of disproportionate indebtedness. For example, in the years 2017 to 2021, households reported arrears (a) in a range of 6.3 to 10%, and (b) households reported inability to face unexpected expenses in the same monitored time frame in a proportion ranging from 27% in 2021 to 34.6% in 2017). The latest data are shown in Fig. 3.

Fig. 3: Financial (in)sufficiency according to the subjective assessment of the respondents



Source: Slovak Republic Statistical Office, EU SILC 2022 and 2023

In Table 4 and Fig. 4, there are data for Slovakia on credit constraints from HFCS surveys. To compare the overall level of financial difficulties of households in Slovakia with the EU average, we immediately present the average European values in the first row (tab. 4). The first row shows the percentage of households that applied for credit in the last three years. The second row shows those who were denied credit or were offered a smaller amount than they applied for among those who applied in the last three years. The third row shows those who do not apply for credit due to a perceived credit constraint. The last row shows the

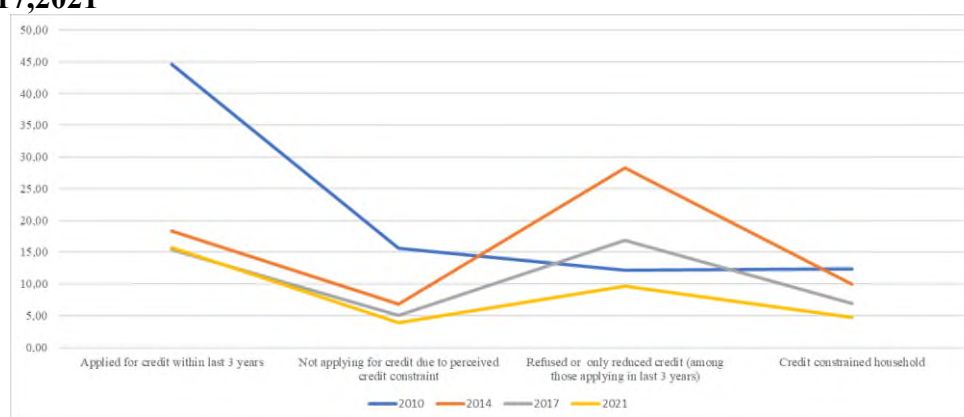
percentage of credit-constrained households. A credit-constrained household is defined as a household to which one or more of the following situations apply: (i) applied for credit within the last 3 years and was turned down, and did not report successful later reapplication, (ii) applied for credit but were not given as much as they applied for, or (iii) did not apply for credit due to a perceived credit constraint.

Tab. 4: Credit constraints of Slovak private households according to HFCS Waves 2010, 2014, 2017, 2021

Credit constraints (% of households)	2010	2014	2017	2021	2010	2014	2017	2021	2010	2014	2017	2021	2010	2014	2017	2021
	Applied for credit within last 3 years				Not applying for credit due to perceived credit constraint				Refused or only reduced credit (among those applying in last 3 years)				Credit constrained household			
Euro zone member states	22,40	18,40	23,20	21,90	17,50	12,60	10,60	10,50	6,50	6,80	M	M	8,60	8,30	M	M
Slovakia	44,60	18,4	15,37	15,7	15,6	6,8	5,00	3,9	12,2	28,2	16,85	9,7	12,4	10,0	6,95	4,7
Regional breakdown																
BA		28,4	13,81	12,1		14,8	13,23	7,4		40,5	23,69	11,9		21,5	15,02	8,1
TT		21,0	17,92	13,5		2,9	1,42	0,0		19,8	6,29	14,4		7,1	2,54	1,9
TN		21,9	16,86	9,6		4,3	2,64	3,0		19,1	15,27	6,2		5,17	3,4	
NR		14,6	13,86	18,0		4,3	0,14	0,6		17,0	12,56	0,0		5,1	1,81	0,6
ZA		16,8	11,24	9,1		4,9	4,48	0,7		41,1	13,44	0,0		9,3	5,87	0,7
BB		16,2	17,28	24,9		4,3	2,53	4,9		21,5	20,45	13,7		5,7	5,96	6,9
PO		16,9	15,87	17,3		11,6	6,66	2,0		37,1	9,91	6,2		14,7	7,26	3,1
KE		12,0	16,45	21,2		5,7	7,55	10,9		19,4	29,11	17,5		7,4	10,38	12,0
Household size																
1		11,6	6,61	7,4		6,9	3,74	1,2		23,7	12,49	7,9		8,4	4,27	1,6
2		12,2	10,33	11,3		4,1	5,34	2,2		46,3	17,88	12,6		8,0	6,46	2,9
3		23,4	18,87	20,6		7,8	4,30	5,9		28,2	19,21	7,9		10,0	6,91	6,4
4		24,6	24,70	23,6		4,8	5,40	3,6		25,1	13,59	7,7		10,1	8,35	5,5
5+		24,8	19,52	15,9		11,9	6,67	8,0		22,6	20,30	13,8		15,5	9,97	8,9
Housing status																
Owners - outright		10,4	8,03	7,3		4,0	3,66	2,1		20,2	14,84	9,3		5,1	4,56	2,5
Owners - with mortgage		57,3	41,92	38,9		6,5	2,93	5,4		28,8	12,91	5,2		20,2	8,24	6,8
Renters / other		16,3	14,18	14,1		20,6	16,93	11,4		50,8	44,35	40,2		22,8	19,42	13,9
Income quintiles																
Less than 20		7,8	6,21	6,4		4,9	4,89	2,9		24,7	20,19	41,8		5,4	5,89	3,8
20-39		15,1	13,32	11,8		8,1	5,24	3,7		20,7	35,15	9,3		9,4	8,68	4,0
40-59		20,2	18,61	24,9		9,7	4,90	4,9		39,0	13,05	5,7		13,1	6,53	5,8
60-79		20,2	17,40	16,2		8,1	5,66	2,0		28,3	19,91	7,3		12,2	8,25	3,2
80-100		28,4	21,33	19,2		3,1	4,31	5,9		25,6	5,09	6,2		9,8	5,37	6,9
Net wealth quintiles																
Less than 20		22,4	23,31	20,0		17,6	10,59	9,6		42,5	20,93	22,9		20,4	13,30	11,2
20-39		15,6	15,70	22,0		3,3	5,34	2,9		24,0	19,63	1,9		5,7	8,20	3,2
40-59		18,0	15,65	12,3		4,8	2,67	1,4		26,0	18,56	10,1		9,2	5,00	2,6
60-79		13,2	11,16	14,4		4,3	2,75	2,0		28,8	9,12	6,0		6,8	3,54	2,8
80-100		22,6	10,97	9,7		3,9	3,61	3,3		18,3	9,81	4,9		7,7	4,66	3,8
Age of reference person																
16-34		36,3	26,97	36,3		12,2	12,56	8,1		27,3	17,48	7,8		20,8	15,36	8,1
35-44		26,7	21,20	25,4		10,6	4,76	6,8		27,9	11,56	8,7		15,3	6,67	8,9
45-54		16,2	20,31	18,8		4,5	6,24	4,5		24,6	20,37	13,2		7,6	9,49	5,5
55-64		17,3	10,46	6,4		7,2	3,99	1,4		35,8	15,12	3,6		9,2	5,47	1,6
65-74		6,8	5,25	2,5		2,9	1,81	0,4		18,6	32,92	29,8		3,8	2,99	1,0
75+		1,9	1,04	0,9		0,4	0,00	1,0		21,1	21,43	0,0		0,4	0,22	1,0
Employment status of reference person																
Employee		25,3	20,09	21,5		8,3	5,67	4,9		24,5	14,53	8,8		12,7	7,97	6,1
Self-employed		19,2	17,54	22,3		4,9	5,05	5,9		28,4	16,63	4,1		9,0	6,85	6,1
Other not working		19,4	15,48	8,6		15,5	13,22	6,0		61,1	41,46	66,2		18,0	17,98	7,3
Retired		5,3	5,50	2,2		2,6	2,59	0,6		28,0	23,59	19,1		3,3	3,54	0,9
Education of reference person																
Primary or No Education		11,4	9,10	9,1		7,6	8,14	2,7		43,7	37,78	38,7		10,6	10,50	4,8
Secondary		20,6	15,58	16,2		6,9	4,39	3,4		28,1	18,02	7,5		10,2	6,52	4,0
Tertiary		15,0	17,14	16,4		5,9	5,55	5,2		21,3	9,61	9,8		8,7	6,80	6,5

Source: Household Finance and Consumption Survey - wave 2021, 2017, 2014 and 2010. M = missing value.

Fig. 4: Credit constraints of Slovak private households according to HFCS Waves 2010, 2014, 2017, 2021



Source: Household Finance and Consumption Survey - wave 2021, 2017, 2014 and 2010. M = missing value.

Conclusion

Excessive debt (over-indebtedness) and financial distress are reflected not only in the economic, material aspects of people's lives, in their quality of life, health, and life satisfaction, but also on the psychological and social level, in the way they see the world, in their value attitudes. The causes or triggers are manifold, the impacts and consequences are felt not only by the over-indebted individual, but also by the economy and society (not only at the economic level, but also multidimensionally). In the article, we provide information on the level and structure of indebtedness of population in Slovakia (compared to Europe); we specifically distinguish data on overindebted private households. In addition to naming the causes and consequences of overindebtedness, and despite lack of empirical data on the issue, we realized analysis and comparison of this data, we indicated potentially possible solutions, as we found them in the literature, and as they are also heard from the mouths of Slovak experts on the issue.

The European Union specifically addresses the issue of indebtedness and over-indebtedness. The Consumer and mortgage credit directives play a key role in credit regulation. The general discussion of over-indebtedness is based on EU survey data analysis. In March 2017, the European Commission committed to taking steps against over-indebtedness in the Consumer Financial Service Action Plan. The opinion of the European Economic and Social Committee on "Consumer protection and appropriate solutions to overindebtedness in order to prevent social exclusion" also discusses the manifestations of overindebtedness, its risks, the need to prevent it (combating poverty and social exclusion, financial education, responsible consumption, responsible lending, combating usury) and the need to resolve an already unfavorable debt situation (advice on financial services and consumption, free legal advice bureaus, enforcement law, etc.).

The actors in this field of potentially possible solutions are not only the over-indebted themselves, but also the state, public institutions, employers, free debt-counseling centers. Legislation, education, supervision, counseling, and support are important for the purpose of finding solutions but also preventing undesirable situations in the future. Only a comprehensive solution to the problem of over-indebtedness, not only on the economic, but also on the psychological, legal, social (relational) level, and in the cooperation of the various actors mentioned above, can bring desired results.

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