SILESIAN UNIVERSITY OF TECHNOLOGY PUBLISHING HOUSE

SCIENTIFIC PAPERS OF SILESIAN UNIVERSITY OF TECHNOLOGY 2022
ORGANIZATION AND MANAGEMENT SERIES NO. 160

A STUDY OF HOUSEHOLD INVESTMENT BEHAVIOR IN SLOVAKIA DUE TO THE COVID-19 PANDEMIC

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Purpose: This article is written due to the need to study the investment behavior of households in Slovakia and changes in the investment behavior of households due to the COVID-19 pandemic.
Design/methodology/approach: The main methods used in the article are analysis, comparison, and synthesis. These methods were used in the researched issue of investment behavior. The main document from which the data were obtained was The Slovak survey of the financial situation and household consumption as a part of the European Household Finance and Consumption Survey (HFCS) published by National Bank of Slovakia with cooperation of European Central Bank. These surveys were published in 2010, 2014 and 2017. By mutual comparison of these surveys and subsequent analysis, we can observe changes in the investment behavior of households in recent years. The analyzes were partially supplemented by various studies from the last year as well as partial outputs of the European Household Finance and Consumption Survey, which was researched in 2021, but at the time of writing this article had not yet been published.
Findings: The results of the research presented clearly indicate a changing trend in the behavior of household investments. Strongly conservative households are gradually beginning to trust investment in mutual funds, bonds, and shares, and the share of funds deposited in deposits is gradually declining and is approaching the European average. Investment in real estate remains the most popular investment in Slovakia. These are often the main real estate used by households for housing or investment properties.
Originality/value: The article presents interesting findings in the area of investment behavior of households in Slovakia and points to the upcoming change in investment behavior. The results of the research will help to set and update the content of subjects dealing with financial literacy and investing at a technically oriented university.

Keywords: Investment, Household, COVID-19.

Category of the paper: Research paper.

1. Introduction

Investing should be one of the basic financial activities for every household. Savings alone and the creation of reserves are not enough for long-term operation, although these activities are necessary. Several studies show that Slovak households are at the bottom of the EU and OECD investment rankings. This trend is beginning to change, as the new data show. In this article, we will examine the results of extensive surveys conducted by the National Bank of Slovakia in cooperation with the Statistical Office of the Slovak Republic, which were conducted in 2010, 2014 and 2017. The latest data from 2021 have not yet been published. In the last part of the work, we deal with the impact of the COVID-19 pandemic on the investment behavior of households.

2. Results

The annual investment rate of households in Slovakia and neighbouring countries is shown in Figure 1. The investment rate in Slovakia has remained between 6,7-6,9% in recent years. In 2017, there was a turnaround, when the countries of Hungary, Poland, and Slovakia had values close to each other, and subsequently the development in Hungary changed positively, while in Poland it was negative. In 2020, Slovakia had 1,49% less than the EU average. The gross investment rate of households is defined as gross fixed capital formation divided by gross disposable income, with the latter being adjusted for the net change in pension entitlements. Austria has the highest investment rate of 9,27%. The projection in EU countries for 2021 is also rising (a 9% year-on-year increase in the EU).

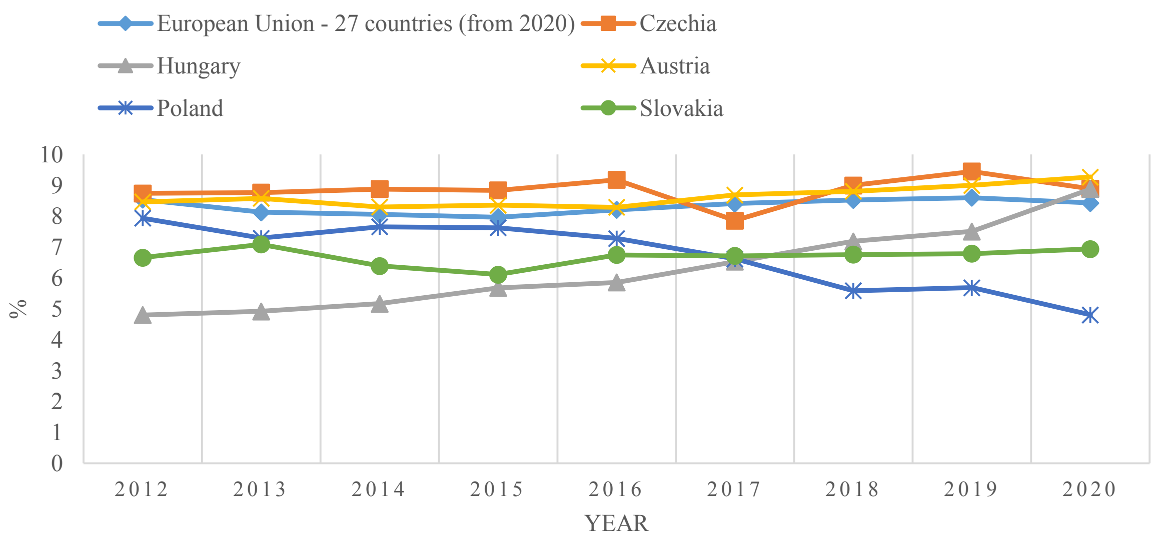

Figure 1. Gross Investment rate of households 2012-2020 in selected countries. Source: Statistics, Eurostat, Household Investment Rate.

The household savings rate, on the other hand, has been increasing across the board in recent years. In each of the monitored countries, as well as in the European Union, we can see an increase in the years 2019-2020. In Slovakia, household savings increased from 9,83% in 2019 to 10,86% in 2020. Slovakia is 7,4% below the EU average. The biggest savings of households have in 2020 Czechia (20,97%), right after Austria (19,69%). The average of EU countries is 18,27% (Statistics Eurostat, 2022).

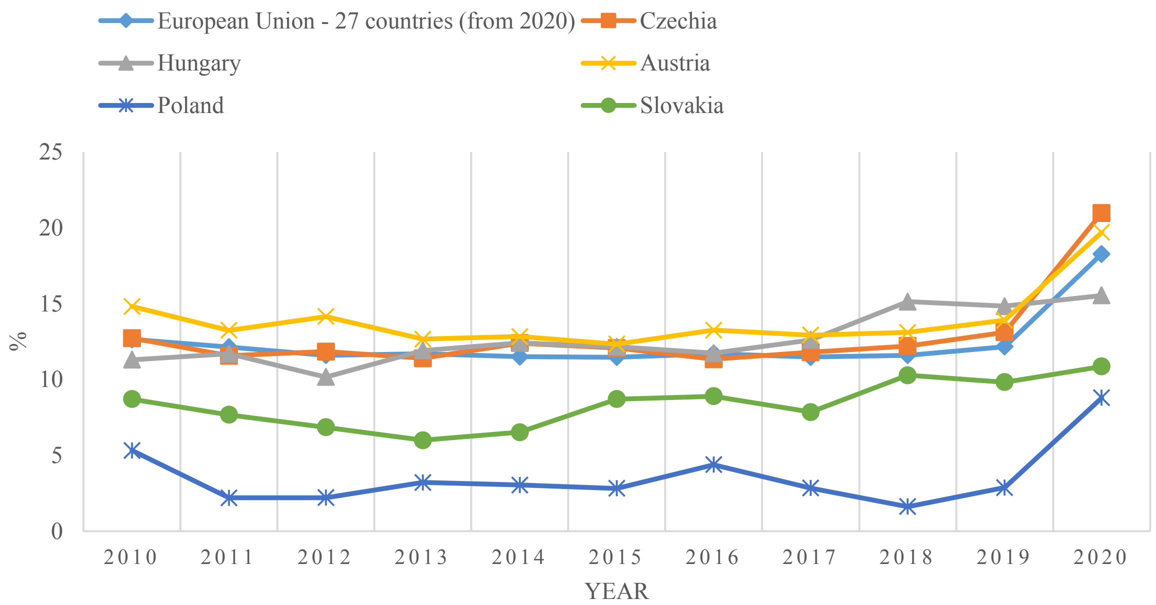

Figure 2. Household savings rate 2010-2020 in selected countries. Source: Statistics, Eurostat, Household Saving Rate.

2.1. Results of the survey on the financial situation of Slovak households

The Slovak survey of the financial situation and household consumption is part of the European Household Finance and Consumption Survey (HFCS), coordinated by the ECB (European Central Bank). This survey was conducted in Slovakia for the first time in 2010, later it was conducted in 2014 and the last published results are from 2017. Slovakia was also involved in the survey in June 2021, but the results have not yet been published (Slovensko získa nové dáta o finančnej situácii a spotrebe domácností, 2021). All euro area countries are currently participating, as well as some noneuro area countries (Poland, Hungary, Croatia, Romania, and Czech Republic). The project aims to supplement macroeconomic data with information at the individual level of households, which captures the heterogeneity of households in terms of financial distribution resources (Kucserová and Strachotová, 2019).

The study published by Kucserova and Strachotova (2019) summarizes the main results of the third wave, which was carried out by the NBS (National Bank of Slovakia) in 2017 in cooperation with the Statistical Office of the Slovak Republic. The results of the first and second wave are presented in the works of Senaj and Zavadil (2012) and Cupák and Strachotová

(2015). The methodology for detecting the first and second waves of HFCS is given in HFCN (2013) and HFCN (2016).

From the HFCS surveys, we can get comparative data on the assets and liabilities. The project is coordinated by ECB, the survey methodology is the same for all countries, which carry it out mostly through their central banks, so the obtained data can be compared between the participating countries. The HFCS is primarily focused on gathering structural microeconomic data on household wealth and its components- financial assets, real assets, and liabilities. The survey also collects other information in order to analyse the economic decisions taken by households (e.g., household income, intergenerational transfers, selected categories of consumption and credit constraints, as well as demographic characteristics of surveyed individuals such as age, education, or occupational status) (Household Finance and Consumption Network – HFCN, 2022).

Management of Slovak households in the period between the second and third waves of the HFCS survey (2014-2017) led to an increase in flows on the assets and liabilities side. Households invested their resources in real assets, while financial assets increased only very slightly. The value of the main housing and the value of other real assets increased significantly. However, financial liabilities also increased, but not to the same extent as real assets.

The main finding of the latest wave of the survey (HFCS, 2017) compared to the second wave of the survey (HFCS, 2014) is that the net wealth of Slovak households has increased. Net wealth includes real assets (household main residence and other real estate property, vehicles, valuables, and business property) and financial assets (deposits, mutual funds, bonds, shares, money owed to households, voluntary pension/whole life insurance, other financial assets) less financial liabilities (housing loans and other debts). The median net wealth of Slovakian households reached 70,3 thousand € in the third wave of HFCS. (Kucserová and Strachotová, 2019). The neighboring countries had a median net wealth as follows: Hungary (36,3 thousand €), Poland (60,5 thousand €), Austria (82,7 thousand €). The biggest median net wealth had Luxembourg (498,0 thousand €). Figure 3 shows a map of the median net wealth of selected countries. Median net wealth remained broadly stable between 2014 and 2017 at just under 100 thousand € (European Central Bank, 2020).

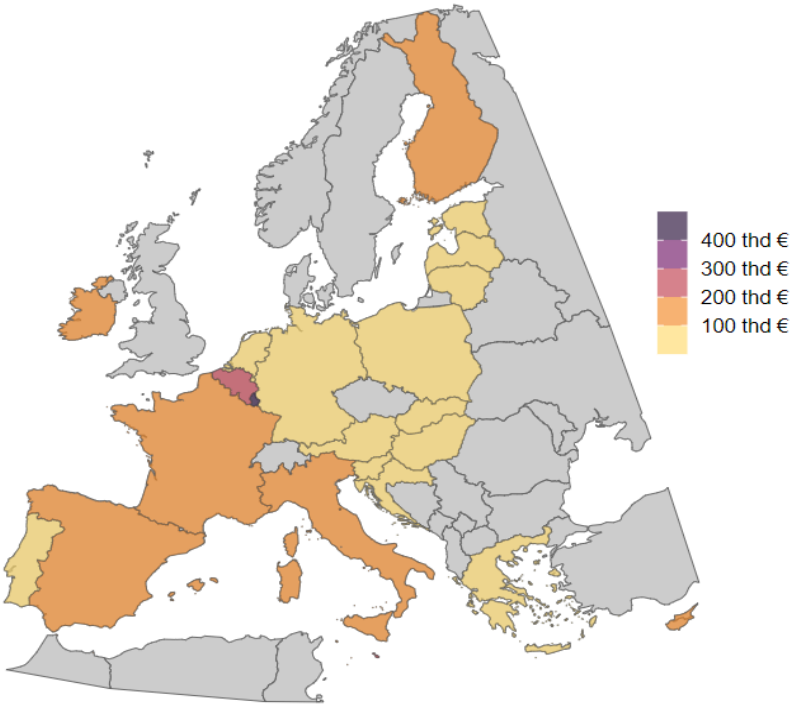

Figure 3. Median net wealth of households (HFCS, 2017). Source: HFCS dahsboard (Oesterreichische Nationalbank) https://oenb.shinyapps.io/HFCS_Keyfigures/#section-countries.

In terms of housing ownership, net wealth increased mainly in the large group of owners without a mortgage (an increase of 37% to a median of 82 thousand €). The highest growth of 69,2% and the highest net wealth of 95 thousand € (median) was achieved by a group of households with a reference person aged 55-64 (Kucserová and Strachotová, 2019). These numbers correspond to the preference of households in Slovakia to invest conservatively, especially in real estate.

The share of households with negative net worth, that is, debt greater than the sum of their real and financial assets, remained at approximately the same level (2,4%). Negative net wealth is widespread, especially among tenants (16,6%) and in younger age groups 16-34 (4,9%) (Kucserová and Strachotová, 2019).

Real assets contributed the most to the increase in net wealth, with a median increase of 35% to 74 000 €. Within real assets, it was mainly the main housing, which was owned by up to 88,8% of households. The median value increased by 40% to 70 thousand €. Housing was acquired mainly by younger households (reference person 16-34 years, participation rate increased by 10,4 pp to 76,1%) with middle and higher incomes, mainly due to loans. The share of households that own other real estate besides the main dwelling increased (by 8,6 pp to 28%); the share of households that own a vehicle (by 7,3 pp to 68%) and the share of households that own business assets (by 4,2 pp to 15%), Despite the high share of main housing in real property, the composition of real assets has changed slightly in favor of assets since 2014 from business.

Financial assets make up only 8% of total assets on average, and their stock is relatively stable in the long run compared to real assets. According to the HFCS 2017 survey, they increased by 9,3% to 2,8 thousand € (conditional median), thus contributing only slightly to the growth of net wealth. Financial assets continue to be held mainly by households in deposits (approximately 92% of households say they own deposit products). The share of households with other financial assets (eg financial derivatives) decreased the most, from 3,6% in HFCS 2014 to 1% in HFCS 2017. Bonds continue to be owned by households only exceptionally (0,8% of households), but their median increased significantly from 2 400 € to 13 400 €. This means that existing owners of financial assets have significantly increased their financial investments. Households with the lowest incomes (the lower 20% of the income distribution) own financial assets only in the amount of approximately 1,1 thousand € and are almost exclusively depository products in banks.

The share of households with a mortgage for the main residence increased slightly (by 4,4 percentage points to 19,6%). However, the median household debt almost doubled (from 6 000 € to11,4 thousand €). The mortgage for the main residence contributed significantly to this, and its median increased from 21 thousand € to 31 thousand €. The debt more than doubled for the youngest from 16 to 34 years to a median of 23,6 thousand € and at the same time this age group became the group with the highest volume of debt. Within household liabilities, housing loans continue to lead, their share increasing from 82,4% to 89% in the last wave. This increase was mainly supported by the mortgage for the main residence. In 2017, all loans, other than housing loans, had a lower share of total liabilities. Figure 4 shows the net wealth of the households and its components.

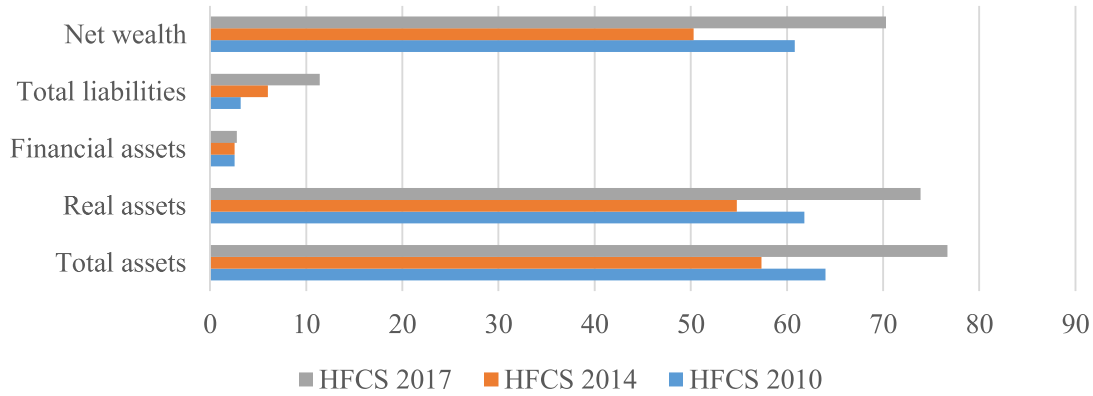

Figure 4. Net wealth of households in Slovakia and its components, conditional median (thd. €). Source: HFCS 2010, HFCS 2014, HFCS 2017.

The favorable development on the labor market since 2016 was reflected in the growth of median household incomes and food consumption and expenditure on consumer goods and services. The median gross annual income of households increased by 22% to 16 thousand €. The bottom 20% of income groups in particular improved (5 500 € out of the original 3 900 € in HFCS 2014). Figure 5 shows the median of the total household gross income in HFCS 2017 in the European countries.

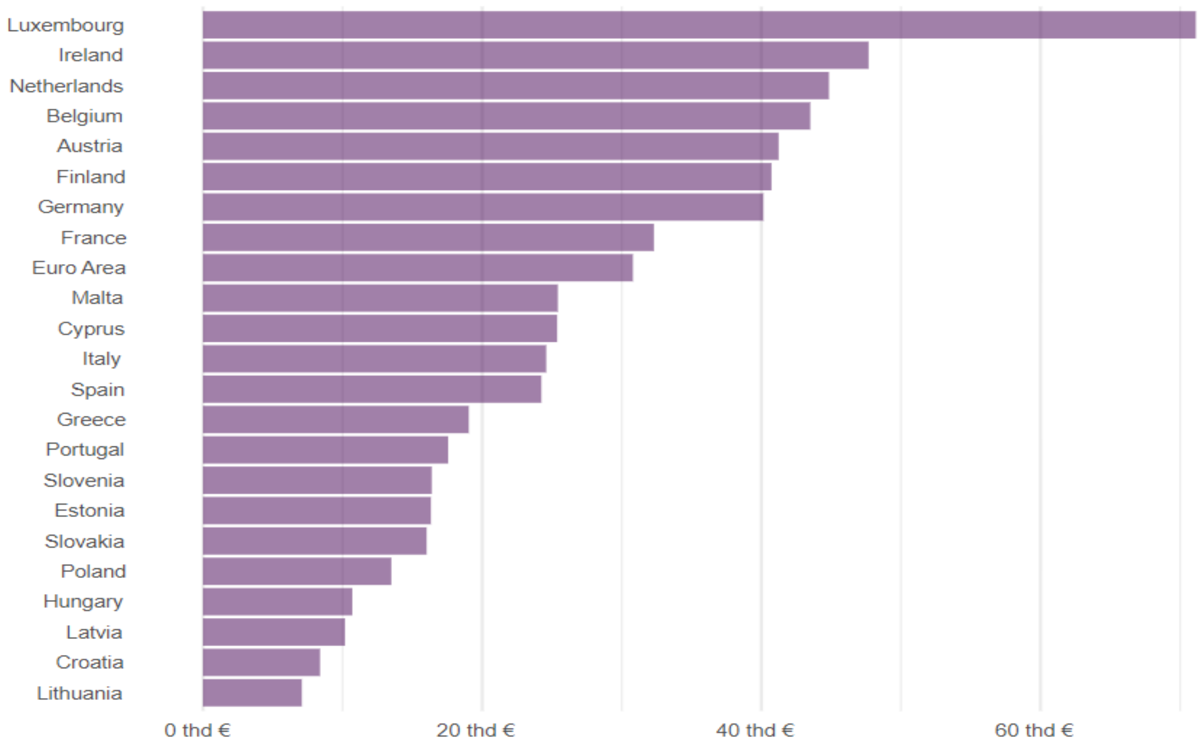

Figure 5. Total household gross income, median (HFCS, 2017). Source: HFCS dahsboard (Oesterreichische Nationalbank) https://oenb.shinyapps.io/HFCS_Keyfigures/#section-countries.

2.2. Structure of assets of households in Slovakia

Slovak households are considered conservative investors, who invest mainly in real estate and have a very small percentage of financial assets among European countries. These are also evidenced by the results of the latest HFCS 2017 survey, where financial assets in Slovak households accounted for almost half the conditional mean value of European countries. Figure 6 illustrates the conditional mean distribution of total assets between real assets and financial assets in Slovakia and in the Euro area during the last two HFCS surveys.

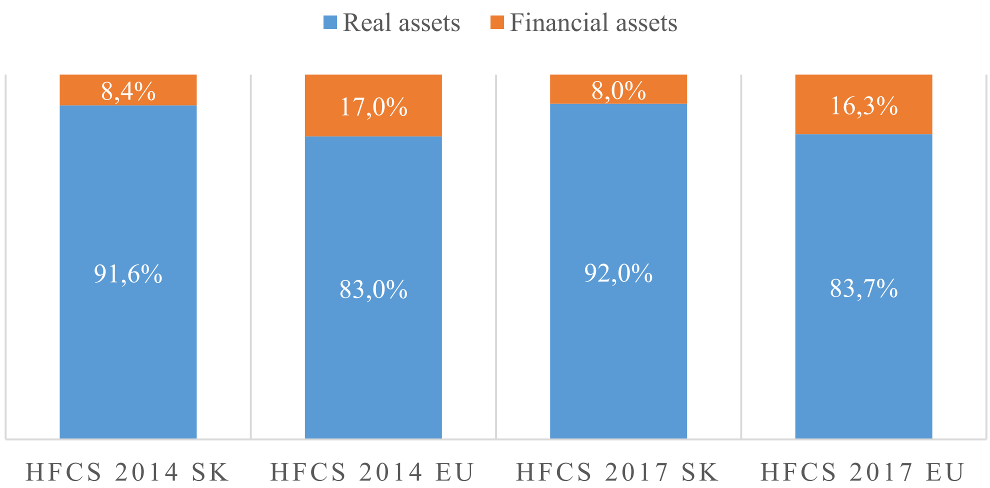

Figure 6. Structure of total household assets in Slovakia and the euro area (conditional mean). Source: HFCS 2014, HFCS 2017.

Table 1 reports statistics for the asset holdings of households in Slovakia and the euro area. During the same period, the median total asset value was lowered by 2,4% to 131 300 €. In Slovakia, the development was the opposite, where it increased by 34% to € 73.9 thd. €. The most important real asset remained the main residence of the households in Slovakia and also in the euro area. The conditional median value of the main residence rose from 161 300 € to 165 700 € (EU) and from 50 000 € to 70 000 € in Slovakia (European Central Bank, 2020) (Cupák and Strachtová, 2015) (Kucserová and Strachotová, 2019).

Table 1.
Structure of real assets in Slovakia and the euro area (conditional median, thd. €)

Assets type	2014 EU	2014 SK	2017 EU	2017 SK
Total real assets	132,6	54,8	131,0	73,9
Household main residence	161,3	50,0	165,7	70,0
Other real estate property	91,0	13,8	95,9	16,6
Vehicles	5,6	3,5	6,0	5,0
Valuables	3,0	0,5	3,0	0,6
Self – employment business wealth	30,4	5,8	30,0	5,7
Total financial assets	10,6	2,6	10,3	2,8
Deposits	5,9	1,8	6,1	2,0
Mutual funds	15,0	5,8	15,0	6,0
Bonds	19,5	-	20,0	13,4
Shares	7,4	0,4	8,0	0,8
Money owed to households	3,1	2,0	3,0	1,5
Voluntary pensions/whole life insurance	13,4	2,8	14,0	4,2
Other financial assets	3,1	0,6	2,5	4,9

Source: HFCS, 2014; HFCS, 2017; European Central Bank, 2020.

Deposits remained the most widely held financial asset in household portfolios. The conditional median value rose by 2,9% from 5 900 € in 2014 to 6 100 € in 2017 in euro area, and in Slovakia rose by 11% from 1 800 € to 2 000 €. The second most widely held financial asset was "voluntary pensions and whole life insurance". The conditional median value rose from 13 400 € in 2014 to 14 000 € in 2017 (EU), and in Slovakia rose from 2 800 € in 2014 to 4 200 € in 2017. Other types of financial assets, such as publicly traded shares, bonds, and other financial assets, were held by less than one out of ten households. (European Central Bank, 2020)

92% of households own financial assets. The conservative approach prevails, so deposits (71.9%) and voluntary pensions/whole life insurance (15.6%) remain the most widely distributed products. Other financial instruments (mutual funds, shares, money owed to households, and other assets) are owned to a much lesser extent. Although deposits remain the dominant instrument, their share of total financial assets fell by 4 percentage points, mainly in favor of bonds, shares, and other assets. This change probably reflects a greater incentive for households to move savings from deposits to higher-yielding financial assets, as the interest rate on household savings is low in the long run. In 2017, a typical Slovak household owned deposits in the amount of 2 000 € and investment life insurance in 4 200 €. Only 4% of households owned mutual funds with a median value of 6 000 €. Figure 7 shows the portfolio of financial assets of Slovakian households (Kucserová and Strachotová, 2019).

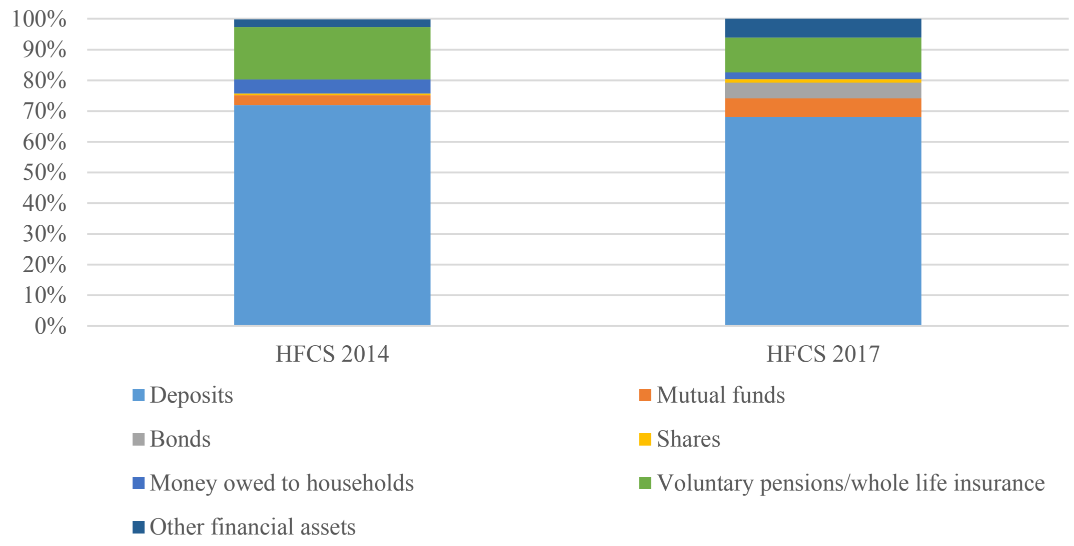

Figure 7. Portfolio of financial assets of Slovakian households. Source: HFCS, 2014; HFCS ,2017.

2.3. Change in the investment behavior of households in Slovakia during a Covid-19 pandemic

Due to the COVID-19 pandemic, Slovakia is likely to be in the deepest economic crisis in peacetime. Massive revenue shortfalls caused by quarantine measures, production shutdowns, and service cuts will affect tens of thousands of households. At the same time, 10% of Slovak households did not have any financial reserves before this crisis, 20% have reserves for a maximum of one month, and half of households have reserves for a maximum of six months. Households working in the most affected sectors of trade, services, and crafts are even worse, 30% have the most reserves for a month and 60% for less than six months. Therefore, it is essential that the measures to compensate for the loss of income of the most affected employees/enterprises be swift and flexible (Šuster, Cupák, and Klacso, 2020).

The positive trend of increasing reserves during the crisis was also confirmed by a survey by FOCUS and the PARTNERS Foundation from June 2020, which states that almost 78% of households make reserves for worse time, 20% have a reserve of 6 months, 24% have a reserve of two up to five-month income, and 16% have a reserve of twice the monthly income (PARTNERS GROUP SK, 2021).

Up to 54% of people felt the economic consequences of the pandemic more or less negatively on their finances. According to an IMAS survey (conducted on a sample of 500 respondents) for the Erste Group, approximately 7% of the pandemic had a significant negative impact on the financial situation, and almost half (47%) felt only negatively. The rest of the respondents (about 46%) stated that COVID-19 did not affect their financial situation. An important role in this case is played by several factors that are decisive – whether the individual (or household) had created a sufficient reserve for adverse situations in which sectors household members work and what their composition is. The loss of one income due to job loss will be different in a household with two parents and two children than in a household with a single mother or families with many children, which are groups at high risk of poverty (Horňák, 2021).

Limited consumption opportunities, subdued economic activity, and its impact on wages could also have an impact on individuals' savings. Although about 18% of people reported saving less than usual at the time of a pandemic, two-thirds were able to save the same, and about 17% were able to postpone more per month than before the pandemic.

In these cases, it was mainly people who:

- found a job during the pandemic,
- feared the effects of the pandemic and therefore preferred to build a reserve,
- due to limitations, they did not have as many opportunities to spend.

Among the age groups, young people in particular were able to put off more, but their situation could often be simplified due to living with their parents. Young Slovaks leave their home nest very late, on average just before the age of 31, which could help their financial situation and provide more opportunities to save money (Horňák, 2021).

Almost two thirds of the respondents indicated that they plan to accumulate their savings in a current or savings account in the future, but investments that more than a third of the respondents consider as a way of saving in the future are increasingly coming to the fore. In general, we can see a growing proportion of people who have a positive attitude towards investing. Most still choose a more conservative portfolio, with a fifth preferring more risky investments with the potential for higher returns – but their share is growing over time. This group consists mainly of young people and men. Gradually, with increasing age, the willingness to take risks decreases, which is also a positive pattern, as some risky investments may require a long investment horizon, which at an old age may not correspond to the period when an individual will need funds (Horňák, 2021).

The mentioned trend of increasing Slovaks' interest in investing can also be seen in a survey conducted by the 2muse agency for OVB. According to the survey, up to 58% of respondents are expected to save for retirement, while at the beginning of the pandemic it was only 28%. At the same time, we are seeing a strong interest in increasing financial literacy, which is at a very low level in Slovakia. As many as 44% of respondents plan to supplement their education in the field of investing and valuing savings (OVB Allfinanz Slovensko a.s., 2021).

The increase in household interest in saving and investing, i.e. the appreciation of available funds, is also visible in other countries. People tend to save and invest more in times of crisis than in times of abundance.

Partners Group reports a year-on-year increase (2020-2021) of 9% in investment and 14% in the life insurance segment. In general, it increased its sales by 12% (PARTNERS GROUP SK, 2022).

The pandemic in Slovak households was also reflected in deferred consumption, when due to pandemic restrictions they could not spend the money earned. The value of money in banks thus increased year-on-year from 38 billion € in January 2020 to 41.25 bn. € in January 2021, an increase of more than 8%. Money in current accounts even increased by as much as 17% to 23.2 billion. €. This increase is mainly attributed to reduced household consumption (PARTNERS GROUP SK, 2021).

Over the past year, environmentally and socially responsible investment has been on the rise worldwide. Firms that are trustworthy and socially responsible will be included by the rating agency among ESG companies. Everyone who cares about what they invest in has the opportunity in Slovakia to invest their money in environmental funds, through which these companies are financed. Responsible and ethical funds are referred to by the abbreviation ESG / SRI, which is derived from the three words "Environmnetal – Social – Governance", resp. Sustainable and Responsible Investments (TA3, 2022). ESG funds are experiencing a significant year-on-year increase. This trend will continue in the coming years. According to Ovčarík, the number of ESG funds has doubled in the last year and new ones are being added every day. Their advantage, in addition to environmental aspects, is also lower volatility and higher interest of the young generation (25-40 years old) in these funds (Pravda, 2021).

3. Summary

The results of the research presented clearly indicate a changing trend in the behavior of household investments. Strongly conservative households are gradually beginning to trust investment in mutual funds, bonds, and shares, and the share of funds deposited in deposits is gradually declining and is approaching the European average. The young generation is thinking more environmentally friendly and a stronger demand for ESG investments is beginning to show. The COVID-19 pandemic caused the closure of households, which began to spend less and available funds increased year on year. Restrictions related to the pandemic have positively affected the development of open investment and asset management applications that can be used from a distance. However, households lag behind the average in the European Union in terms of net financial assets. Due to the high percentage of deposits from the total financial assets of the household, Slovak households can feel the impact of high inflation the most.

Investment in real estate remains the most popular investment in Slovakia. These are often the main real estate used by households for housing or investment properties. The results of the HFCS survey, which was carried out in 2021, have not yet been published, and therefore the results from the first three waves of the HFCS surveys were used in the study. Slovak households lag behind the average of the euro area, as well as of OECD countries, in terms of investment and in the structure of assets. This is also caused by the annually sharply criticized low financial literacy of the Slovak population.

Acknowledgements

The contribution is a partial output of the KEGA research task no. 011STU-4/2022 "Creating a model of education supporting the increase of competencies of students of a non-economically oriented university in the field of innovative, entrepreneurial thinking and business support" conducted at the Institute of Management of the STU in Bratislava.

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