European Research Studies Journal
Volume XXIV, Special Issue 3, 2021

pp. 963-972

COVID-19 and the Size and Composition of Household Savings in the European Union Countries

Submitted 18/07/21, 1st revision 01/08/21, 2nd revision 26/08/21, accepted 10/09/21

Urszula Banaszczak-Soroka[1], Ewa Pancer-Cybulska[2]

Abstract:

Purpose: *This paper aims to examine the impact of the pandemic on the size of household financial savings in 2020 in all EU countries, not only in terms of value but also in terms of the composition of financial instruments in the portfolio (expressed in current prices) and the dynamics of their change.*
Design/Methodology/Approach: *The paper uses descriptive analysis, statistical inference, literature review, and act analysis. The size and composition of household savings between 1Q/2018 and 4Q/2020 for the EU Member States are assessed.*
Findings: *Based on studies carried out, it should be concluded that there is a significant stratification of household savings in EU countries. The dynamics of changes in savings and the share of analyzed elements of the portfolio varied considerably across nations. There was a significant repricing of financial instruments in 1Q/2020 compared to 4Q/2019.*
Practical Implications: *The research results can be used by various institutions operating in the financial sector to shape investment strategies for savings accumulated by households.*
Originality/Value: *The study addresses the critical and relevant issue of the size and structure of household savings in the EU-27 countries affected by the pandemic. It caused a profound upheaval of entire economies and consequently affected every individual. Due to the size of the publication, many aspects that may have a direct or indirect impact on the category under study (of savings) were not considered, such as GDP value, disposable income, unemployment rate, inflation, and many other factors that have sometimes undergone radical changes in the EU countries. Arguably, such a broad approach would significantly enhance the cognitive value of the article.*

Keywords: *Households, household financial assets, savings portfolio.*

JEL code: *D14, D31, E21, E32.*

Paper Type: *Research article.*

Acknowledgement: *"The project is financed by the Ministry of Science and Higher Education in Poland under the programme "Regional Initiative of Excellence" 2019 - 2022 project number 015/RID/2018/19 total funding amount 10 721 040,00 PLN".*

[1]*Ph.D., University of Wrocław, Poland, urszula.banaszczak-soroka@uwr.edu.pl;*
[2]*Ph.D., Associate Professor, Wroclaw University of Economics and Business, Poland, ewa.pancer-cybulska@ue.wroc.pl;*

1. Introduction

Keynes (2003) gives a simple definition of savings, savings is "the difference between income and consumption expenditure." Various incentives determine the proportion of income distribution, the sum of all monetary and non-monetary benefits the household receives, reduced by taxes and social and health insurance contributions, to consumption and savings. We can divide them into objective ones, e.g., fiscal policy, interest rates, inflation, and others, and subjective ones, e.g., prudence, forethought, calculating, speculation, and others (Keynes, 2003; Owsiak, 2016). A new determinant has emerged at the beginning of 2020, impacting all the economic categories listed above – the Covid-19 pandemic.

The generated financial surpluses (savings) by household decisions can be directed to the financial market-creating financial assets or non-financial market-creating tangible assets of the household. Household financial savings are a source of capital for the economy (Aniła and Gołaś, 2012; Bańbuła, 2008; Milic-Czerniak, 2016), and for the household the basis for wealth growth and security in extreme situations, such as loss of work or health. It should be noted that in such cases, a critical issue is not only the size of financial assets but also their structure (savings portfolio), considering the state of possession of liquid and hard-to-sell, low-risk and/or high-risk, passive, and investment instruments (Banaszczak-Soroka, 2018). The nominal value of accumulated financial assets (which we present in the article) depends on the prices at which they can be liquidated at any given time. They can deviate from the purchase price both in minus and in plus.

In examining the impact of the pandemic on the size and structure of household savings in EU countries, the authors used Eurostat data (every quarter) collected following the methodology contained in Regulation (EU) no. 549/2013 of the European Parliament and the Council of 21 May 2013 on the European system of national and regional accounts in the EU (ESA, 2010). For ESA 2010, in points 2.118 – 2.128, a household is defined in the following way, "the household sector consists of persons or groups of persons who are consumers and entrepreneurs producing marketable goods and non-financial services provided that the production of goods and services does not take place within separate entities treated as enterprise-type units" (Zalega, 2007; Bywalec 2017). The same legal act identifies eight basic categories of financial assets that can be of interest to the household: cash and deposits, debt securities, equity, personal and life insurance, pension entitlements, investment funds, loans and advances, derivatives, and incentives for employees, describing them in detail in Chapter 5 of the ESA 2010.

This paper aims to examine the impact of the pandemic on the size of household financial savings in 2020 in EU member states, not only in terms of their sum but also the value of specific financial instruments in the portfolio and the dynamics of their change. The volumes examined are expressed in current prices (Khan *et al.*, 2020; Grima *et al.*, 2020). To increase the precision of the study, the size and structure of household savings over the broader period from 1Q/2018 to 4Q/2020 were assessed. The authors pose the following hypotheses:

H1 – there is a significant stratification of household savings in EU member states, which the pandemic has further exacerbated,
H2 – there has been a substantial repricing of financial instruments in Q1/2020 compared to Q4/2019.

The paper uses descriptive analysis, statistical inference, literature review, and act analysis. Based on the conducted research, the adopted research hypotheses should be positively verified. The study addresses the critical and relevant issue of the size and structure of household savings in the EU-27 countries affected by the pandemic. Due to the volume of the publication, many aspects that can directly or indirectly affect the category under study (of savings) such as GDP value, disposable income, unemployment rate, inflation, and many other factors that were subject to sometimes radical changes under the influence of Covid-19 were not included. The authors intend to continue research in this area in future publications.

2. Literature Review

Financial assets (savings) of households in EU countries: When analyzing the situation of EU households regarding the value of savings, attention is drawn to the vast disparity between individual countries. For example, German families had the highest savings over the entire period under review (Q1/2018 – € 5921 billion; 4Q/2020 – € 6950 billion) the lowest Latvian (1Q/2018 – € 24.6 billion; Q4/2020 – € 29.9 billion). Globally, household savings across the EU increased by 15.4% between Q1/2018 and Q4/2020 from € 27.4 trillion to € 31.6 trillion. The most significant increase in financial assets over the same period occurred in Romania, where savings increased by 32.0%. In 7 countries, households increased their holdings by a quarter, e.g., the Estonians or the Dutch, and the smallest increase concerned the Spanish, only 3.8% (Table 1).

Looking at the dynamics of savings in the EU over the whole period under review, it is noteworthy that they increased systematically from quarter to quarter. In the first quarter of 2020, compared to the fourth quarter of 2019, there was a slight regression, in percentage terms, of 3.7% (€ 1.1 trillion). In terms of quarter-on-quarter changes in the value of savings, the situation in individual EU countries was slightly different. Periods of regression occurred sporadically in a few countries such as Romania, Greece, and Spain. In the remaining countries, an upward trend prevailed. However, in the first quarter of 2020, 23 countries saw their household financial assets reduced, with 12 countries below the EU-wide average loss and 11 above it. In 4 countries, financial assets increased (Table 1). The first quarter of 2020 is when the pandemic will spread to all EU countries when the first restrictions (lockdowns) and the resulting consequences for economies and every individual occur.

This situation has translated into varying degrees of change in the financial wealth of households. In the sensitive first quarter of 2020, the wealthiest German families saw their savings decrease by 2.0% (or € 130 billion) compared to Q4/2019, while the last-place Latvian households saw their savings fall by 3.7% (or € 1.4 billion). In percentage terms, the Swedes (€ 138 billion) and the Greeks (€ 30 billion) experienced the most significant loss of financial wealth in the first quarter of 2020, at around 11% each. The 11 countries with asset losses of more than 3.7% also include Hungary, 7.1% (€ 13.2 billion), Denmark 6.8% (€ 74 billion), and Poland 6.6% (€ 35 billion). Slight losses of less than 3.7% were suffered by the Slovaks 0.12% (€ 0.1 billion) and the Maltese 0.42% (€ 0.1 billion). As already mentioned in the four countries, the financial wealth of the residents was increasing. The Lithuanians saw their savings rise by 6.2% (€ 5 billion), the Dutch by 3.2% (€ 90 billion), and the Cyprians by 0.75% (€ 38 million).

***Table 1.** Household savings in EU countries between 1Q/2018 and 4Q/2020 in million €.*

	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3	2019Q4	2020Q1	2020Q2	2020Q3	2020Q4
Latvia	24622	25299	25675	26022	26527	26870	27226	27436	26884	28035	28616	29912
Malta	27661	27530	27836	27336	27995	28204	29122	29131	29010	29679	29856	30443
Estonia	29883	30516	31336	32081	32500	33792	34811	36136	34999	35969	36255	37675
Cyprus	46539	46766	46984	47724	48402	48610	49611	50474	50854	52341	52803	53319
Lithuania	39100	40229	40795	42032	43926	44138	45938	47333	50254	51864	52502	56456
Slovenia	49765	50847	51415	52696	54028	55233	55938	57499	57207	59678	59990	61910
Croatia	59641	61382	62564	63078	63963	65572	67260	68128	66073	68272	69227	70614
Slovakia	70516	71460	72579	73528	75549	76940	77644	79122	79030	81283	83162	85665
Bulgaria	76289	77449	78657	80103	81567	83268	84952	87371	86947	88183	89121	87446
Luxembourg	92143	95745	93910	94994	99293	100797	104152	102825	100953	104537	105386	110039
Romania	124890	126045	128318	118864	118661	121795	122950	154096	154181	158445	160003	164749
Hungary	162357	158636	164494	170364	174111	177314	176486	184481	171348	177937	176476	183528
Greece	261125	255285	251409	245770	255425	266607	264816	269974	240076	252041	253112	278951
Czechia	245169	242048	249366	269783	276104	283884	284596	296646	280684	295825	300814	319134
Finland	303733	309413	311449	304298	314555	321119	325578	331151	316942	333563	342643	354376
Ireland	362746	371976	369964	363356	379269	381861	396081	405415	397278	411926	419245	433197
Portugal	401402	406725	409671	411016	413036	416955	419114	423447	420709	429149	433113	440086
Poland	475389	462096	482396	490098	506590	517374	510346	525034	490457	532394	527986	549421
Austria	672776	679374	681318	684666	702234	710723	716688	724713	709273	733016	739556	763085
Denmark	963117	993392	1008914	965748	1021089	1057297	1079957	1088216	1014136	1077206	1126291	1208994
Belgium	1310912	1320516	1316071	1297188	1343583	1363453	1386573	1392326	1332238	1390454	1402955	1448113
Sweden	1342296	1358068	1411565	1348338	1410630	1426540	1433632	1504983	1336416	1501014	1568675	1699558
Spain	2227225	2265806	2237357	2230806	2276656	2332168	2316389	2342456	2229591	2302508	2263877	2304473
Netherlands	2451384	2484617	2471666	2504368	2620650	2749438	2905799	2803916	2894478	3013168	3028277	3071242
Italy	4292454	4298488	4278376	4174561	4408913	4464463	4521868	4610044	4318956	4512547	4564091	4711753
France	5350675	5407998	5437544	5301039	5519987	5657678	5736518	5773346	5537113	5837456	5893470	6095904
Germany	5921225	5996217	6064999	6037658	6186232	6290489	6367531	6511509	6380873	6630357	6738986	6950019
Total	27385033	27663921	27806627	27457514	28481475	29102578	29541576	29927206	28806957	30188846	30546488	31600063

***Source:** Financial balance sheets,* [*https://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do*](https://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do).

Portfolio and dynamics of change in household savings in EU countries (selected financial instruments): Tracking the structure of household savings in individual EU countries, it is worth pointing out from the outset that there is no single universal portfolio of financial assets of Europeans. We can indicate countries with portfolios dominated by cash or deposits, followed by other, more modern but passive financial instruments such as life insurance, pension insurance, investment funds, and finally investment instruments, which at the same time are characterized by a much higher risk, debt or equity securities.

The most conservative form of savings is cash. In the EU, the share of money in the portfolio ranged between 2.5% and 3.0% during the period under review (Q1/2018 – Q4/2020). In the quarter of interest, cash holdings increased by almost 3% (€ 22 billion). In 8 countries, the share of cash in the portfolio was lower than in the EU, and in the remaining countries, it was higher. A significant percentage of money is characteristic for countries such as Greece, Slovakia, or Poland (about 10% – 12%). In countries such as the Netherlands, Denmark, Sweden, or Bulgaria, the share of cash in the portfolio did not exceed 0.5%. They analyzed the dynamics of changes in this category of savings in the quarter of interest, as many as 16 countries saw households increase their potential in this area. Danish families saw the most significant increase of 17% (Q4/2019 – € 5.7 billion; Q1/2020 – € 6.7 billion) and Cyprus by 13% (€ 1.7 billion and € 1.9 billion respectively). The lowest growth in cash was in Belgium, where it increased by 2.1% (Q4/2019 € 40.1 billion; Q1/2020 € 41.0 billion). The most profound cash loss was in Sweden with almost 11% (Q4/2019 – € 4.8 billion; 1Q/2020 – € 4.2 billion), the shallowest in Finland – 0.35% (€ 9.23 billion; € 9.20 billion).

At the EU level, deposits in the household portfolio have been on a decreasing trend throughout the period (around 15% in 1Q/2018 and about 12% in 4Q/2020). Deposits grew marginally by 0.38% in the first quarter of 2020 compared to the last quarter of 2019 (i.e., 1.5 billion). The increase in household deposits during this period was characteristic of almost all EU countries. Exceptions to this rule were few. The highest share of this financial instrument in household assets is found in Cyprus. Residents of this country place as much as 56% of their surpluses in deposit-taking institutions. Slightly fewer deposits in the portfolio are characteristic of Slovak and Greek households – about 50 %, followed by Slovenian, Polish, Luxembourg, Maltese, Croatian, Czech, Austrian, or Portuguese households (about 40 % in the surveyed period).

The lowest percentage of deposits in the savings structure is characteristic for homes in Denmark and Sweden – about 13%, and in the Netherlands and Hungary – about - 16%. Looking at the Q1/2020 to Q4/2019 dynamics of deposits, it is notable that only in 6 EU countries did households see a reduction in their portfolio. The most significant losses in percentage terms occurred in Hungary – 5.0% (from € 31.3 billion in Q4/2019 to € 29.8 billion in Q1/2020) and in the Czech Republic – 3.7% (€ 112.8 billion, respectively; € 108.7 billion) or in Sweden – 1.5% (€ 192.8 billion respectively; € 189.8 billion). In other countries, i.e., Finland and Sweden, in Lithuania or Austria, the reduction scale did not exceed 1%. Irish households saw the most significant increase of over 5.4% from € 132.6 billion in Q4/2019 to € 139.8 billion. Romanians' deposits increased by 3.8% from € 46.3 billion in 4Q/2019 to € 48.0 billion in 1Q/2020 (Figure 1).

In EU countries, private pension provision instruments have steadily increased their share of Europeans' portfolios from 13.7% to 15.0% at the end of the period under review. In the critical quarter of 2020, there was an almost imperceptible increase in these instruments in the portfolio of households of all EU countries. Interestingly, apart from 3 countries where there was an increase in this category, i.e., Germany, the Netherlands, Finland, in others very deep cavities have sometimes been reported. In the Dutchman's portfolio, nearly 60% were instruments linked to voluntary pension schemes. Among EU countries with almost 35% are Irish households, followed by Swedish households – about 30%. The lowest interest in saving for voluntary retirement is characteristic of the Greeks, with a share of less than 1% in the savings structure, and the Hungarians, Finns, and Luxembourgers at around 3.5% each. As many as 24 countries saw a reduction in household savings in this category (Figure 1).

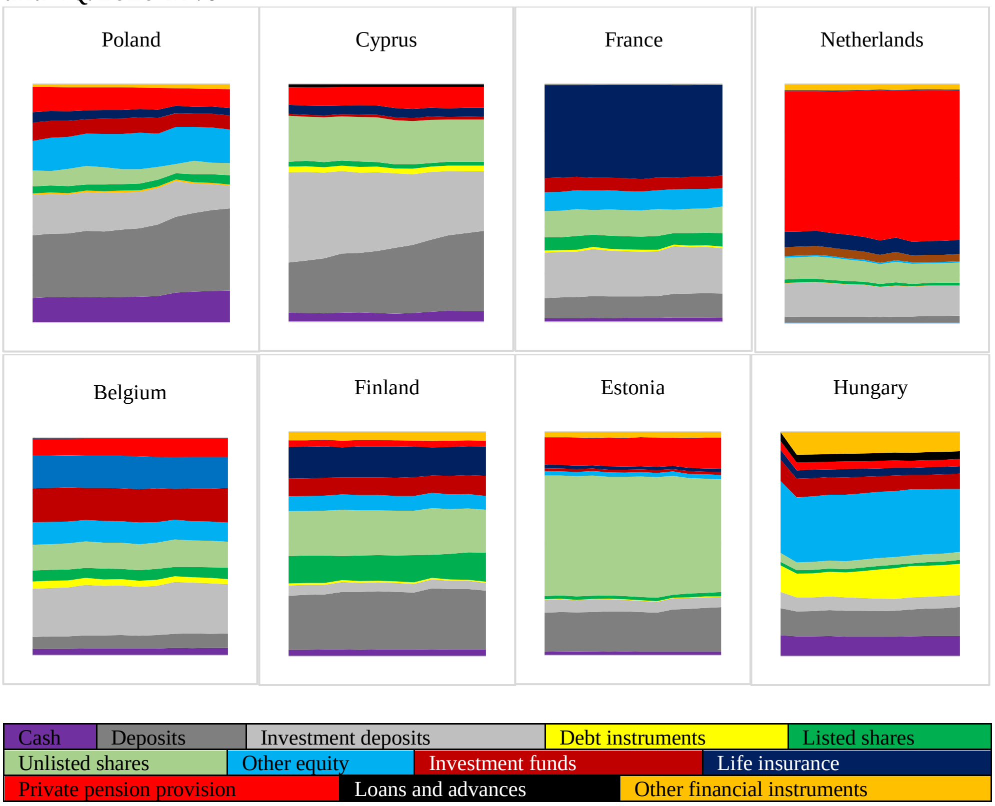
The most considerable devaluation affected households in Poland in Q1/2020. They have lost ¼ of savings accumulated involuntary forms of pension security, i.e., € 11 billion (4Q/2019 – € 43.0 billion; Q1/2020 – € 32.0 billion). A significant loss, however, much smaller than that of the Poles, about 13%, was recorded by Hungarian households, i.e., € 0.6 billion (€ 5.9 billion respectively; € 5.3 billion) and Sweden, i.e., € 60.8 billion (€ 472.7 billion respectively; € 411.9 billion). Italians experienced the most minor change, just 0.78% (Q4/2020 – € 276.3 billion; Q1/2020 – € 274.2 billion).

Life insurance amounted to nearly 18% of the EU population's savings. EU households suffered a slight loss of 3.4% in this category on their portfolios, i.e., € 0.2 billion (Q4/2019 – € 5.2 trillion; Q1/2020 – € 5.0 trillion). French households are the absolute dominant in this category with a 36% share of the portfolio. In the second place, this form of saving is used by precautious Danes (nearly 20% of the portfolio). However, this direction of protection did not interest Bulgarians – with the share of life insurance in the portfolio of 0.87%, Romanians (1.42%), or Poles (3.8% in the portfolio). Households in 3 countries did not lose savings placed in insurance. This time it was the Luxembourgers; their portfolio in this category increased by 3.2%, or € 400 million (Q4/2019 – € 11.2 billion; Q1/2020 – € 11.6 billion). In other countries, there was a loss of savings placed with insurance companies. The Polish ones experienced the most significant losses – nearly 13%, i.e., € 2.2 billion (€ 16.2 billion respectively; € 14.0 billion), Hungarian households – 12% (€ 6.3 billion respectively; € 5.6 billion). Greek lost only slightly more than 1% (4Q/2019 – € 10.0 billion; 1Q/2020 – € 9.9 billion) and 1.77% Croatian households (€ 2552 million, respectively; € 2507 million).

Passive forms of saving also include instruments created by investment funds: participation units and investment certificates. The activity of European households in this field is rather conservative. In the EU, they account for around 8-9% of the portfolio. Families overall saw their portfolio value shrink by nearly 13% in a sensitive quarter (Q4/2019 – € 2.7 trillion; Q1/2020 – € 2.3 trillion). Only the Belgians with a share of 15.3% or the Spanish with a share of -14.4% are in the vanguard of the buyers of investment fund instruments. On the opposite side is a group of countries where households are minimally interested in this form of saving, e.g., Bulgaria and Ireland

– 0.71% each, or Cyprus – 0.74% in the portfolio. Investment funds are the only category of financial instruments where households in all EU countries suffered a loss, in many cases exceeding 20%, e.g., 27.0% of savings in investment funds were lost by Croatians (€ 2.2 billion respectively; € 1.6 billion), 24.4% Lithuanians (€ 284 million respectively; € 214.7 million), and one-fifth of Poles (€ 31.6 billion respectively; € 25.4 billion) or the Greeks (€ 7.5 billion; € 5.9 billion). Bulgarians experienced minor, severe losses (€ 637.6 million respectively; € 599.0 million) and Slovaks (€ 6.4 billion respectively; € 6.0 billion), after about 6% in 1Q/2020 vs. 4Q/2020.

Figure 1. *Example structures of household savings in EU countries between 1Q/2018 and 4Q/2020 in %*



Source: *Own elaboration based on Eurostat data*

Listed shares are not a popular form of investment for surplus funds in the EU country space. Their share in the portfolio of EU residents was 4.0-4.5% of the portfolio value. This is another financial instrument where the lost benefits were close to 20%, i.e., € 0.3 trillion (Q4/2018 – € 1.3 trillion; Q1/2020 – € 1.0 trillion). The maximum share of listed shares is characteristic for inhabitants of Spain (6.2%) and Sweden (6.0%). Practically no interest in the stock market is recorded in Dutch (1.4%) or Estonian

(1.5%) households. Households suffered the most significant losses on equities and related instruments between Q4/2019 and Q1/2020 relative to other financial instruments.

All the world's stock markets had a panic sell-off of stocks in Q1/2020 (especially in March). After a few weeks, the slump turned into a strong bull market, bringing investors, especially in biotech companies, substantial gains. The reduction in savings has affected people in all EU countries. Almost 40% (Q4/2019 – € 3.1 billion; 1Q/2020 – € 1.9 billion) lost shares in Romanian household portfolios, or nearly a third in Greek ones (4Q/2019 – € 7.4 billion; 1Q/2020 – € 5.0 billion) (Figure 1).

Another instrument in this group is unlisted shares. This group of financial instruments in the portfolio of EU residents oscillated around 8%. These financial instruments also reduced household savings by up to 16% (about 400 billion euros). In percentage terms, losses were higher in 6 EU countries than in the EU combined, lower in 7 countries, and recorded asset gains in the remainder. These financial instruments dominated the portfolios of Estonians, accounting for almost 55% of the value of their financial assets or Lithuanians – 35%. Unlisted shares lost 37% of their value in Greek (4Q/2019 – € 72.1 billion; 1Q/2020 – € 45.6 billion) and Italian (4Q/2019 – € 425.7 billion; Q1/2020 – € 256.8 billion) households. An almost imperceptible reduction in the value of this instrument occurred in Luxembourg, just 1.47% (Q4/2019 – € 3.14 billion; Q1/2020 – € 3.10 billion).

On the other hand, households in 14 countries saw an increase in the value of unlisted stocks. The percentage gain in unlisted stocks was also polarised. At one end, Romanian families increased about 36% (Q4/2019 – € 13.9 billion; 1Q/2020 – € 19.0 billion) and in second place Bulgarian with an almost imperceptible growth of 0.01%.

Around 8% of the European household's portfolio was made up of other equity instruments, which brought minimal losses to residents in the region of 1.6% or around € 41 billion. In 8 countries, there were slight increases in other equities in the portfolio ranging from 0.66% to 1%. In other cases, there were changes in the negative. The mentioned securities had a significant share in the portfolio of Hungarian and Bulgarian households – nearly 30%. On the other side of the table were families from Greece with 0.5% and the Netherlands with 0.63% of the portfolio. The most significant discount affected the securities of Romanian households – more than 17%, i.e., € 3.4 billion (Q4/2019 – € 19.3 billion; 1Q/2020 – € 15.9 billion), or Danish 10%, i.e., over € 5 billion (€ 51.3 billion, respectively; € 45.9 billion). The smallest, almost invisible revaluation of equity instruments occurred, for example, in Finland 0.07%.

3. Conclusion

The effects of the Covid-19 pandemic have been felt acutely by the economies and populations of EU countries. According to Eurostat data, GDP in Q1/2020 compared to Q4/ 2019 decreased by 9.0% in the EU (in current prices) (Eurostat, 2021). The stifling of economic growth through social distancing implemented by EU governments has led to an unprecedented increase in the number of workers absent from work due to illness or reduced working hours and more job losses. Eurostat estimated that workers' income losses, before government compensation, amounted to about 5% of total earnings in Q1/2020 (Eurostat, 2021). These two statistics alone allow us to extrapolate that households were directly affected by the impact of the pandemic on their financial situation. The research conducted confirms this fact.

Savings of all households in the EU decreased, in percentage terms by 3.2%, in value terms by € 1.1 trillion. A similar situation occurred in as many as 23 countries, of which 12 countries saw their financial assets decline less than the EU average and 11 more. Looking at households' portfolios in terms of losses incurred on individual financial instruments, it appears that passive instruments (cash and deposits) generated portfolio surpluses (cash in 16 countries, deposits in 22 countries) rather than losses (cash in 11 countries; deposits in 5 countries). In the group of passive instruments with the presence of an intermediary institution, such as insurance, pensions or investment funds, changes in the portfolio were more severe. In the case of life insurance, Europeans lost about 3.5%, i.e., € 174 billion. This circumstance affected households in 24 countries, with losses reaching over 10% in 7 countries. Instruments linked to private pensions collectively accounted for 0.19% (€ 7 billion) of growth for European households but in some countries, such as Poland, a loss of ¼ of savings in pensions.

Mutual fund shares recorded the largest losses in this block of financial instruments in households' portfolios. At EU level, the loss exceeded 13% (i.e., € 342 billion), in 6 countries the loss of financial assets due to this exceeded 20% and in 18 countries 12%. Investment instruments, especially listed and unlisted shares, surprised with losses in the first quarter of 2020. Across the EU, the former recorded a 20% (€ 250 billion) loss, the latter 16% (€ 400 billion). The fall in savings, in some countries on listed shares was close to 40%, such as Romania or Greece, and on unlisted shares was over 35%, such as Poland, Greece or Italy. Consecutive quarters of growth in all EU countries for all financial instruments.

References:

Aniła, P., Gołaś, Z. 2012. Zastosowanie wielowymiarowych metod statystycznych w typologii strategii oszczędnościowych gospodarstw domowych w Polsce (Application of multidimensional statistical methods in the typology of household savings strategies in Poland). Materiały i Studia, 282, 11-14.

Banaszczak-Soroka, U. 2018. Wielkość i struktura oszczędności gospodarstw domowych krajów Unii Europejskiej w kontekście planu inwestycyjnego dla Europy. Wybrane aspekty (The size and structure of household savings in European Union countries in the context of the investment plan for Europe. Selected aspects). In: Pancer-Cybulska, E., Biegun, K. (Ed.). Czym żyje Unia Europejska? (What does the European Union live with?). Wybór zagadnień, 135-166. Wrocław: Uniwersytet Ekonomiczny, Przedstawicielstwo Regionalne Komisji Europejskiej.

Bańbuła, P. 2008. Oszczędności i wybór międzyokresowy – podejście behawioralne (Savings and intertemporal choice - behavioral approach). Materiały i Studia, 208, 7-12-49.

Bywalec, C. 2017. Gospodarstwo domowe. Ekonomika. Finanse. Konsumpcja. Kraków: Wydawnictwo Uniwersytetu Ekonomicznego (Household. Economics. Finances. Consumption. Krakow: Publishing House of the University of Economics). Kraków, 15-18.

Eurostat. Financial balance sheets. Retrieved from: https://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do.

Eurostat. GDP and main components (output, expenditure and income. Retrieved from: https://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=namq_10_gdp&lang=en

Eurostat. Impact of COVID-19 on employment income - advanced estimates. Retrieved from: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Impact_of_COVID-19_on_employment_income_-_advanced_estimates&stable=1.

Grima, S., Dalli Gonzi, R., Thalassinos, I.E. 2020. The Impact of COVID-19 on Malta and its Economy and Sustainable Strategies. Available at SSRN: https://ssrn.com/abstract=3644833.

https://www.bankier.pl/tag/koronawirus-na-gpw-i-gieldach-swiatowych.

Keynes, J.M. 2003. Ogólna teoria zatrudnienia, procentu i pieniądza (General theory of employment, interest and money). Warszawa: PWN, 57.

Khan, S., Rabbani, R.M., Thalassinos, I.E., Atif, M. 2020. Corona Virus Pandemic Paving Ways to Next Generation of Learning and Teaching: Futuristic Cloud Based Educational Model. Available at SSRN: https://ssrn.com/abstract=3669832.

Mercer. CFA Institute Global Pension Index 2020. Retrieved from: https://www.mercer.com.au/our-thinking/global-pension-index.html.

Milic-Czerniak, R. 2016. Finanse osobiste. Kompetencje, narzędzia, instytucje, projekty, decyzje (Personal Finance. Competences, tools, institutions, projects, decisions). Warszawa: Difin, 117.

Owsiak, S. 2016. Finanse. Warszawa: PWE, 222.

Regulation (EU) No 549/2013 of the European Parliament and of the Council of May 21, 2013 on the European system of national and regional accounts in the European Union. NS. Of EU of 23/06/2013 L 174.

Zalega, T. 2007. Gospodarstwo domowe jako podmiot konsumpcji. Studia i Materiały (Household as a subject of consumption. Studies and Materials), 1, 7-10.