THE FINANCIAL INDICATORS OF THE POPULATION, THE BASIC PILLAR OF SOCIETAL SUSTAINABILITY AT THE NATIONAL LEVEL (II)

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Abstract: *According to European regulations, as well as according to the methodology for the allocation of European funds at the regional level, the financial indicators of the population of the member states are reference indicators regarding the sizing of the amounts related to the funds included in the Multiannual Financial Framework and with the direct objective of defining "investments for the employment of work and economic growth". The essential objective of the study and perspective consists in establishing the basic pillars of the concentrated picture of the financial indicators of the population, in terms of the achieved values of the primary indicators, based on which five relevant relative indicators were calculated that characterize the financial condition of the population, which influence in directly the potential and performance of the national economy. The research methodology in the work is based on conceptual definitions, as well as calculation formulas of the primary indicators, respectively of the derived indicators, calculated for the period 2007-2022. In the paper we will present the results of the study, namely the calculation of the primary indicators for a series of 2007-2022 data, and the novelty element of this paper is given by the definition and calculation of some derived indicators that reflect the current financial state of the population at national level, basic pillar of societal sustainability. Furthermore, the creation of a graphically and descriptively represented image, with multi-year coverage (2007-2022), of the evolution of the financial indicators of the population lead us to the conclusions of the established theme.*
Keywords: *finance, population, sustainability.*
JEL Classification*: F65, J11, Q56.*

1. Introduction

The purpose of this research is to create a graphically represented image of the evolution of the financial indicators of the population in the period 2007-2022. As for the objectives, they are adapted annually to explore and follow the possibilities of development and moving to new stages, capitalizing on the results accumulated by calculating the indicators finances of the population in the previous periods of the study.

The main objective consists in establishing the basic pillars of the concentrated table of financial indicators of the population in terms of the achieved values of the absolute primary indicators, based on which 16 relevant relative indicators were calculated that characterize the financial condition of the population, and which directly influence the potential and the performance of the national economy.

The harmonization of data only for the year 2021 was given by the fact that for the year 2022, the available data necessary for the calculation of the derived indicators stops at quarter III inclusive (for part of the primary indicators), many of which are being centralized at the level of public institutions, therefore some of the primary indicators were not identified as being reported at the level of the institutions mentioned in the study. Therefore, we calculated only those derived indicators for which we identified primary indicators reported at the end of 2021.Display quotations of over 40 words, or as needed.

Literature review

The sustainability of society at the national level is a multidimensional concept that encompasses economic, social, and environmental aspects. One of the critical components of societal sustainability is the financial well-being of the population. Financial indicators play a critical role in determining the overall health of a nation's economy and the well-being of its citizens. This literature review aims to explore existing research on population-level financial indicators, their importance in assessing societal sustainability, and their impact on the overall development of a nation. Among these indicators identified in the specialized scientific literature are: 1. Financial indicators and economic health: a) Income and wealth inequality: The level of income and wealth inequality in a society has profound implications for the sustainability of society. Studies have shown that high levels of inequality can impede economic growth, exacerbate social tensions, and lead to negative health and education outcomes for less privileged sections of the population (Piketty, 2014; Stiglitz, 2012). b) financial inclusion and access to services: financial inclusion refers to the extent to which individuals and businesses can access financial services. It is a crucial factor in promoting economic growth and reducing poverty. Research indicates that improving financial inclusion has a positive impact on income distribution and increases opportunities for upward social mobility (World Bank, 2017). 2. Financial indicators and social welfare: a) Household debt and financial stress: the level of household debt and financial stress can have a significant impact on the well-being of a population. High levels of household debt have been linked to increased rates of mental health problems and reduced ability to invest in education and health (Bridges & Disney, 2010; Drentea & Lavrakas, 2000). b) Preparing for retirement: Financial preparation for retirement is essential to ensure long-term social sustainability. Studies have highlighted the importance of pension systems and retirement savings in ensuring financial independence in old age (Barr & Diamond, 2009; Lusardi & Mitchell, 2011). 3. Financial indicators and environmental sustainability: a) Sustainable investment and green finance: The concept of sustainable investment and green finance has gained prominence in recent years. b) financial indicators related to environmentally responsible investments can influence a nation's environmental policies and practices (Scholtens & Kang, 2018). 4. Financial literacy and education: a) Financial literacy and decision-making: Financial literacy is essential for individuals to make informed financial decisions. Research has indicated that improving financial literacy can lead to better financial planning, debt reduction, and increased savings rates (Lusardi & Tufano, 2015; Van Rooij et al., 2011). b) Financial Education Initiatives: Various financial education initiatives have been implemented in different countries to improve financial literacy. Evaluating the effectiveness of such initiatives is crucial for understanding their impact on societal sustainability (Fernandes et al., 2014; Hastings et al., 2013). This literature review underlines the importance of financial indicators as a fundamental pillar of societal sustainability at the national level. Moreover, we emphasize the complex relationship between financial indicators, economic health, social well-being, and environmental sustainability. To promote sustainable development, policymakers must prioritize initiatives that promote financial inclusion, reduce income inequality, and increase education and financial literacy. Furthermore, further research is needed to explore the dynamic nature of financial indicators and their role in ensuring a more sustainable and equitable future for nations and their populations. Within the primary and derived indicators presented in this work, we wanted to develop based on the research methodology addressed, and to propose a set of own derived indicators that show the state of the population indicators at the level of a state (in our case Romania), being able to be approached at the level of any other state, and which otherwise constitute the multiplying effect of the results of our work.

2. Materials and research method

In the work, the primary indicators are calculated and based on them, the derived indicators are calculated, the influencing factors of the financial status of the population at the national and European level.

Regarding the primary indicators, in the years 2021-2022, years of "recovery" after the pandemic, the primary indicators mainly recorded higher values compared to 2020 (pandemic year), for some of the indicators (financial assets, income and expenses of the population, gross disposable income of the population, saving, financial debt or GDP). There are also indicators with values lower than the year 2020, namely financial investments of the population, Population, Interest rate collected (on deposits) or Interest rate paid (on loans) if we refer to the year 2021. The primary data identified were sourced from the databases of the National Bank of Romania (from the National Financial Accounts 2007 - 2021 and the monthly bulletins from the period 2007 - 2023) and the National Institute of Statistics (Statistical Yearbook of Romania, editions 2007 - 2022, Monthly Statistical Bulletin from the period 2007 - 2023, Press Releases).

As for the derived indicators, for the year 2022, since most of the reported data are only available up to the level of the third quarter inclusive, we calculated eight indicators, of which four had lower values than in 2021, respectively four, higher values.

The achieved values of the absolute primary indicators, based on which the 16 relevant relative indicators that characterize the financial status of the population, for the years of the analyzed period, were calculated, are presented in the table below (Table 1). It should be specified that the values of the indicators for the year 2022 are provisional data, they will be revised during 2023. Therefore, according to the Table mentioned above, in the years 2021-2022, years of "return" after the pandemic, the primary indicators recorded mainly higher values compared to 2020 (pandemic year) for some of the indicators (financial assets, income and expenditure of the population, gross disposable income of the population, saving, financial debts or GDP). There are also indicators with values lower than the year 2020, namely financial investments of the population, Population, Interest rate collected (on deposits) or Interest rate paid (on loans) if we refer to the year 2021.

The financial assets of households have a weight of 79.9% in relation to GDP; if we look at the financial assets by instruments, we notice that in 2021 the availability of cash and deposits predominates, but also participations and shares/fund units (increasing compared to 2020), potential causes being the improvement of the degree of digitization in the financial market and the increase stock market indices from 2021, combined with the strengthening of the population's confidence in the capital market (purchases of new fund units outstripped redemptions). Also, economic growth, salary increases, and capital market performance led to an increase in receivables from the insurance, pension and standardized guarantee systems financial instrument category compared to the previous year.

In 2022, the total indebtedness of the population continued its upward trend, but at a less alert pace than in the previous year, amid recent developments regarding high interest rates and increased uncertainty regarding economic developments. In structure, bank loans represent the most important component of the population's indebtedness, highlighting mortgage and reference consumer loans, loans granted by non-bank financial institutions, newly granted loans by non-bank financial institutions show a similar evolution.

Table 1. The evolution of the primary indicators regarding the characterization of the financial status of the population in the period 2007 – 2022

Indicator	UM	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
AFP s	mil.lei	410503	413696	334346	337052	349705	416456	538323	641026	675641	720233	770649	738759	919817	1091953	1206081	n/a
AFP f	mil.lei	32457	144882	-8349	25885	70943	83271	103083	20327	137318	44592	50416	-31890	181058	172136	114128	n/a
AFE f	mil.lei	291730	331335	148074	126276	197748	159740	89456	16902	46308	110372	82474	64146	320653	336813	325088	n/a
ALC s	mil.lei	78920	97462	109002	117502	129722	137460	149317	161737	176782	202739	222592	239304	272803	309599	339919	n/a
CHB	mil.lei	136480	143443	153427	154003	158928	165379	173291	183398	209825	254450	263114	347072	392497	419280	475834	548487
CHD	mil.lei	8766	12890	12078	10544	10367	8665	8068	6660	6147	6379	7241	7531	9767	9341	10896	10177
CNE f	mil.lei	-49277	-55186	-23108	-18155	-28041	-8334	7471	13488	14683	-4096	-17518	-14515	-10492	-17101	-22052	n/a
CNP f	mil.lei	8701	13650	21321	32435	26139	46223	90559	16106	11800	64151	-22287	25056	26135	28901	-35731	n/a
CRP s	mil.lei	80460	113589	116452	120195	121578	122628	122130	120513	107953	113037	114283	119436	160000	149 878	177500	171 488
CTP s	mil.lei	410503	413698	334345	290620	313666	370742	461740	493591	516051	563012	584969	624747	680974	653735	674655	680929
DTP s	mil.lei	101479	137544	137835	151112	158433	163460	165072	161484	151870	189838	205594	219986	233185	n/a	265831	267293
DEP s	mil.lei	64990	80518	94930	105388	113068	123595	132287	139559	146780	163462	178660	241686	222399	256 680	283869	398408
ECF s	mil.lei	281719	268151	267400	258937	275787	329856	412876	436677	456547	499919	530414	534176	532039	614505	634000	653020
FBP	mil.lei	8284	9284	9625	29886	30836	33345	35348	34333	35206	34044	36053	37098	36913	35621	37045	42343
IFV f	mil.lei	9808	12257	4163	15413	17625	40629	84756	19767	9420	9919	10207	11197	10525	13800	11790	11672
IPF	mil.lei	236389	220124	245714	133568	130908	163880	157090	139319	133049	123137	155152	192389	236638	242554	245950	268086
IVF f	mil.lei	27248	37814	26599	23217	25049	19325	7155	1101	7987	58169	55870	41954	48223	23855	36531	41217
PFE f	mil.lei	211552	156639	90358	75978	102196	77445	99516	25177	46989	151464	71223	22234	36949	-29572	31805	24644
PFP f	mil.lei	29592	28140	-1738	-4442	1478	563	665	2556	6674	14429	12191	15739	13339	41278	6088	7902
PIB	mil.lei	416007	514007	501139	533881	565097	595367	637456	668590	712588	765135	856727	940478	1059803	1066781	1187402	1412457
POP	mii	22562	22542	22516	22481	22434	22391	22346	22298	22242	22223	22215	22197	22175	22089	21980,5	21943
Rdp	%	13,30	15,80	17,30	14,11	14,00	13,26	11,32	9,47	5,69	5,64	5,93	5,94	7,69	6,83	6,63	7,07
Rdi	%	6,70	9,55	11,89	7,29	6,24	5,31	4,00	2,92	1,24	0,60	0,69	2,14	1,97	1,82	1,58	1,95
VDB	mil.lei	251208	330147	313038	321980	324227	336621	448548	470408	426795	434358	492590	611554	678564	662539	701969	n/a
VBP	mil.lei	200549	265161	279977	276993	255752	171336	180202	250692	239711	296852	310832	400611	458224	500856	553117	628798

Source: the databases of the National Bank of Romania (from the National Financial Accounts 2007 - 2021 and the monthly bulletins from the period 2007 - 2023) and the National Institute of Statistics (Statistical Yearbook of Romania, editions 2007 - 2022, Monthly Statistical Bulletin, 2007 - 2023, Press releases), Report on financial stability, 2007-2022 editions, NBR, Bucharest, Romania (NBR, 2007-2022)], (NIS, 2007-2022), (NBR, 2007-2022) (CCFM, 2017)

In addition to the reference studies at the level of specialized academic institutions, for the construction of the relevant relative indicators selected for the purpose of evaluating the financial status of the population, for the period 2007 – 2021, the following absolute indicators were used:

AFE = Total financial assets, receivables, of the residential sectors, including cash, deposits, loans, securities, etc.

AFP = Gross financial assets: the financial assets available to the population at a given moment, regardless of nature, maturity, degree of risk and forms of ownership; it is also called the financial wealth of the population; it is both a flow and a stock indicator, representing the claims of the population in the form of bank investments, IPB, or financial investments, IPF, that is, cash, demand deposits, time deposits, short-term securities, long-term securities, credits, etc.;

ALC = Liquid financial assets: cash (from income) + transferable deposits + securities with a term of less than 3 months, held by the population, to be able to repay the committed loans at maturity.

CHB = Total monetary expenditure of the population expresses the expenses related to the consumption of goods and services, for investments, taxes, and financial expenses, including interest.

CHD = Interest expenses: expresses the financial expenses made annually by the population for interest payments

CNE = The net financing capacity of the economy, the set of resident sectors, positive or negative (financing required): represents the net financing capacity of the economy, as the difference between the set of financial assets, the financial claims of the resident sectors, and the set of their financial liabilities, the difference can be, as a rule, positive, but sometimes also negative, signifying a need to finance the economy.

CNP = The population's net financing capacity, positive or negative (financing required): represents the population's net financing capacity, as the difference between the population's financial assets, financial claims, and its financial debts, the difference being, as a rule, positive, but sometimes also negative, signifying a need for population financing.

CRP = Bank credits received by the population: total bank credits received by the population, but also loans on other banking instruments, regardless of maturity and risks.

CTP = Total financial claims of the population: financial savings, total financial claims of the population, regardless of nature, instrument, and institution.

DEP = Bank deposits of the population: the total of bank deposits and other bank savings instruments of the population, regardless of maturity, risks or income generated.

DTP = Financial debts of the population: the total financial debts of the population, regardless of nature (banking or non-banking), instrument and institution, recorded at the end of the year.

ECF = Financial savings: the total savings, through financial instruments of any kind, held by the population at the end of the year, in the form of their banking and financial assets, constituting the total financial claims of the population (CTP).

FBP = Gross fixed capital formation of the population represents the value of durable goods intended for purposes other than consumption, utilitarian, with a certain value, acquired by the population, as a rule, through investments, to be used for a duration longer than a year

IFV = Financial investments of the population, banking, and non-banking: the monetary value of the financial investments of the population, banking and non-banking, carried out over a period of one year, meaning the purchase of banking and financial saving instruments.

IPF = Investments on the financial market, in various financial securities, of the population, in shares and participations (ACP) and in debt securities, such as bonds (TLO)

IVF = Total physical investments of the population (IVT – IFV): the monetary value of the total physical investments of the population of the population, made over a period of one year, meaning payments for the purchase of durable goods, with a life span of more than one year.

IVT = Total investments of the population: total investments of the population, carried out over a period of one year (IVF + IFV)

PFE = Total financial liabilities, commitments, debts of the institutional sectors of the economy, according to SCN, overall, the difference between the receivables and financial debts of the sectors generating a negative or positive balance, the negative balance representing a need for external financing.

PFP = Financial liabilities of the population, commitments, at a given moment, regardless of nature, maturity, degree of risk and forms of ownership; it is also called the financial debt of the population; it is both a flow and stock indicator, representing the commitments, debts of the population in the form of liquid, short, medium, and long-term, banking, and non-banking debts.

GDP = Gross Domestic Product: the main macroeconomic aggregate of the national accounting system that expresses the gross added value of the goods and services reached at the last stage of the economic circuit, which were produced within a country by domestic and foreign economic agents in a certain period, usually a year.

POP = Population: a group of individuals brought together by ties of citizenship and by establishing domicile on the territory of the state, in relation to which the latter exercises its sovereign power over the entire data set from which a sample is selected and in relation to which the auditor wishes to formulate its conclusions, statistically being evaluated at the end of the year, according to the data from the Statistical Yearbook.

Rdi = Rate of interest collected (on deposits), which expresses the interest rate collected by the population on savings instruments, such as bank deposits, purchased financial securities, etc.

Rdp = Rate of interest paid (on loans) which expresses the interest rate paid by the population for loans taken out, such as bank loans.

VBP = Monetary income of the population: the total monetary income obtained by the population, for periods of one year, from any available source, such as monetary income, but also other liquidities available during the year.

VDB = Gross disposable income of the population: the balance of the income account and measures the part of the created value available to the population for final consumption and gross economy (from which financial saving is achieved).

However, to be able to understand each of the derived indicators, we consider the sheets of relevant indicators for the population as relevant as presented below.

(1) Indicator 1

1. Section: I. Financial macroeconomics.
2. Name: Financial savings rate of the population.
3. Symbol: Ref.
4. Degree of synthesis: derivative indicator.
5. Data source: Financial Accounts – BNR and Statistical Yearbook.
6. Calculation formula:

$$Ref=ECF/GDP \times 100 \qquad (1)$$

7. Explanations of the previous notation:

• ECF = total savings, through financial instruments of any kind, held by the population at the end of the year, in the form of their banking and financial assets, constituting the population's total financial claims (CTP).

• GDP = Gross Domestic Product: the main macroeconomic aggregate of the national accounting system that expresses the gross added value of the goods and services reached at the last stage of the economic circuit, which were produced within a country by domestic and foreign economic agents in a certain period, usually a year.

8. Economic significance: it is a stock indicator; the indicator highlights the financial saving per inhabitant, the saving potential of the population; the indicator can be determined by stock or by flow (savings made during the year).

9. Usefulness in economic analysis: it allows the analysis, but also by types of savings (through indicators derived from detail) of the population's savings potential and comparative analysis in time or space.

10. Mode of use within the work: the indicator can be correlated with other generic indicators of the population's financial savings, but also with specific indicators of the population's financial status; at the same time, the indicator can be integrated into the network of indicators for evaluating the financial status of the population, which highlights their

interconnections and co-determinations in the perspective of a complex synthetic evaluation indicator.

(2) Indicator 2

1. Section: I. Financial macroeconomics.
2. Name: Coefficient of the population's propensity to save.
3. Symbol: Cie.
4. Degree of synthesis: derivative indicator.
5. Data source: Financial Accounts – BNR and Statistical Yearbook.
6. Calculation formula:

$$Cie=(\Delta ECF/ECFb)/(\Delta VBP/VBPb) \quad (2)$$

, where "b" stands for the base period.

7. Explanations of the previous notation:

• ECF = total savings, through financial instruments of any kind, achieved by the population during the year, in the form of their banking and financial assets, constituting the total financial claims of the population (CTP).

• VBP = the total monetary income obtained by the population, for periods of one year, from any available source, such as income of any monetary nature, but also other liquidities available during the year

8. Economic significance: it is a flow indicator; the indicator highlights, through flows, the degree of savings of the population's monetary income and, implicitly, the dynamics of its financial potential, being useful for the knowledge and design of banking and financial policies.

9. Usefulness in economic analysis: it allows the analysis of the willingness to save of the population, being useful for the correlative analysis with the population's income and consumption indicators, and with the banking indicators specific to the population, of the dynamics of the population's saving and investment potential.

10. Mode of use within the work: the indicator can be correlated with other generic indicators of the population's savings and financial indebtedness, but also with specific indicators of the population's financial status; at the same time, the indicator can be integrated into the network of indicators for evaluating the financial status of the population, which highlights their interconnections and co-determinations in the perspective of a complex synthetic evaluation indicator.

(3) Indicator 3

1. Section: I. Financial macroeconomics.
2. Name: The coefficient of financial indebtedness of the population.
3. Symbol: Cip.
4. Degree of synthesis: derivative indicator.
5. Data source: Financial Accounts – BNR and Statistical Yearbook.
6. Calculation formula:

$$Cip=DTP/POP \quad (3)$$

7. Explanations of the previous notation:

• DTP = total financial debts of the population, regardless of nature (banking or non-banking), instrument and institution, registered at the end of the year.

• POP = total population: a grouping of individuals united by ties of citizenship and by establishing domicile on the territory of the state, in relation to which the latter exercises its sovereign power over the entire data set from which a sample is selected and in relation to which the auditor wants to formulate his conclusions, being evaluated at the end of the year, according to the data from the Statistical Yearbook

8. Economic significance: the indicator highlights the financial debt per inhabitant, the debt capacity of the population, which depends, first, on the quality of the financial system and the level of income and purchasing power of the population; the indicator can be determined by stock or by flow (debts committed during the year).

9. Usefulness in economic analysis: it allows the analysis, but also by types of indebtedness (through indicators derived from detail) of the indebtedness capacity of the population and comparative analysis in time or space.

10. Mode of use within the work: the indicator can be correlated with other generic indicators of the population's savings and financial indebtedness, but also with specific indicators of the population's financial status; at the same time, the indicator can be integrated into the network of indicators for evaluating the financial status of the population, which highlights their interconnections and co-determinations in the perspective of a complex synthetic evaluation indicators.

3. Results & discussion

The financial assets of households account for 79.9% of GDP, if we look at the financial assets by instruments [3]. we notice that in 2021 the availability of cash and deposits predominates, but also participations and shares/fund units (increasing compared to 2020), potential causes being the improvement of the degree of digitization in the financial market and the increase stock market indices from 2021, combined with the strengthening of the population's confidence in the capital market (purchases of new fund units outstripped redemptions). Also, economic growth, salary increases, and capital market performance led to an increase in receivables from the insurance, pension and standardized guarantee systems financial instrument category compared to the previous year.

As for the financial liabilities of households, they increased in 2021, the stock of financial commitments being 18.9% in GDP and 5.4% in the stock of financial liabilities of the national economy. In the structure, the main financial liabilities are committed loans and other payables.

The volume of new credit is also highlighted, higher than that registered before the pandemic, mortgage loans, loans for the purchase of a home representing approximately half of the flow of loans, as well as consumer credit.

In 2022, the total indebtedness of the population continued its upward trend, but at a less alert pace than in the previous year, amid recent developments regarding high interest rates and increased uncertainty regarding economic developments. In structure, bank loans represent the most important component of the population's indebtedness, highlighting mortgage and reference consumer loans, loans granted by non-bank financial institutions, newly granted loans by non-bank financial institutions show a similar evolution.

It should be noted that about half of the mortgage loans were granted to individuals who were real estate buyers for the first time; due to climate changes, also felt among the population, mortgage loans with a climate destination have started to become attractive for individual borrowers, a proportion of about 30% of the mortgage loans granted being "green loans", intended for green buildings and increasing energy efficiency.

Regarding the incomes and expenses of the population, they recorded rising values compared to the previous year (2020), with incomes growing at a faster pace compared to expenses; the main destinations of the expenses made by households are the consumption of food, non-food goods, services and transfers to the public and private administration and to the social insurance budgets (taxes, contributions, contributions, as well as covering some needs related to household production); it should be mentioned that the investment expenses for the purchase or construction of houses, the purchase of land and equipment necessary for household production, have a small share in the total expenses of the households of the population (only 0.4%). Within monetary incomes, the largest share was held by salaries and other incomes associated with them, incomes from social benefits, and incomes in kind. Given the current economic context (inflation, increased energy prices), it is households that are turning to their own savings or using excess savings accumulated during the pandemic. However, these savings from deposits are likely to be concentrated among households with higher incomes, over time that lower-income households spend a larger share of their income on basic food and home maintenance. It is also possible that some households will have to limit consumption or become dependent on government support to meet maintenance/consumption expenses (current expenses and bill payments).

Regarding the values of the relevant relative indicators characterizing the financial status of the population, in this paper we present the following:

Indicator 1. Financial savings rate of the population (Ref)

It highlights the degree of financial saving of the population, in other words, the degree of financial capitalization, the formation of the financial wealth of the population, being influenced by the evolution of the population's income, interest rates and dividends, as well as the development of the banking system.

Table 2. The evolution of the financial savings rate in the period 2007 – 2022

indicators	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
ECF s th lei	281719	268151	267400	258937	275787	329856	412876	436677	456547	499919	530414	534176	532039	614505	634000	653020
GDP th lei[2]	416007	514007	501139	533881	565097	595367	637456	668590	712588	765135	856727	940478	1059803	1055549	1179377	1412457
Ref %	67,72	52,17	53,36	48,50	48,80	55,40	64,77	65,31	64,07	65,34	61,91	56,79	50,20	58,22	53,00	46,23

Source: the databases of the National Bank of Romania (from the National Financial Accounts 2007 - 2021 and the monthly bulletins from the period 2007 - 2023) and the National Institute of Statistics (Statistical Yearbook of Romania, editions 2007 - 2022, Monthly Statistical Bulletin, 2007 - 2023, Press releases), Report on financial stability, 2007-2022 editions, NBR, Bucharest, Romania (NBR, 2007-2022)], (NIS, 2007-2022), , (NBR, 2007-2022) (CCFM, 2017).

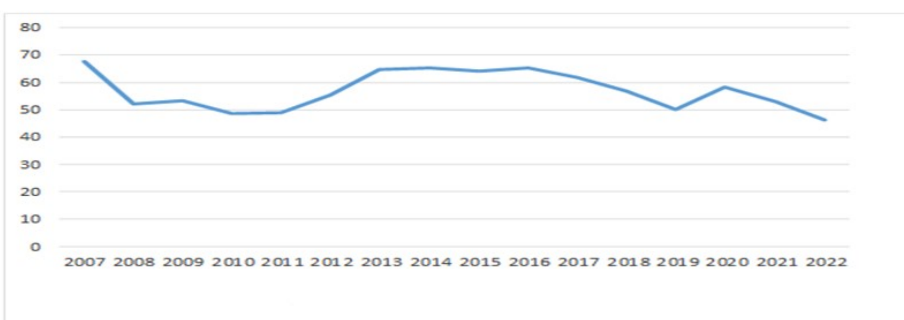

Fig. 1. The evolution of the financial savings rate of the population in the period 2007 – 2022

Source the databases of the National Bank of Romania (from the National Financial Accounts 2007 - 2021 and the monthly bulletins from the period 2007 - 2023) and the National Institute of Statistics (Statistical Yearbook of Romania, editions 2007 - 2022, Monthly Statistical Bulletin, 2007 - 2023, Press releases), Report on financial stability, 2007-2022 editions, NBR, Bucharest, Romania (NBR, 2007-2022)], (NIS, 2007-2022), (NBR, 2007-2022) (CCFM, 2017).

[2] Leu- romanian national currency, 1 EUR= 4.9510 lei, on 12.07.2023

In the analyzed period, it is mainly noticeable that the trend of the decrease in the level of this indicator as it was also presented in the previous report, i.e., at the end of the 2022 period it has a value 6.77 pp lower than that of 2021, being an opposite rhythm to that of 2020 compared to 2019, respectively an increase of 8.02 pp. In 2021, it registers a decrease of approx. 5.00 pp compared to 2020. It is obvious that the population's investments in financial securities were affected by the impact of the financial crisis generated by multiple crises (the Covid pandemic crisis, the energy crisis, the increase in inflation and implicitly the crisis of the war in Ukraine).

Indicator 2: The coefficient of the population's propensity to save (Cie)

Table 3. The evolution of the coefficient of propensity to save in the period 2007 – 2022

indicator	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
ECF mil.lei	281719	268151	267400	258937	275787	329856	412876	436677	456547	499919	530414	534176	532039	614505	634000	653020
VBP mil.lei	200549	265161	279977	276993	255752	171336	180202	250692	239711	296852	310832	400611	458224	500586	553117	628798
ΔECF	56149	-13568	-751	-8463	16850	54069	83020	23801	19870	43372	30495	3762	-2137	82466	19495	19020
ΔVBP	1991	64612	14816	-2984	-21241	-84416	8866	70490	-10981	57141	13686	89604	57613	42362	52531	75681
ΔECF/E	0,25	-0,05	0,00	-0,03	0,07	0,20	0,25	0,06	0,05	0,10	0,70	0,12	-0,56	0,15	0,03	0,03
ΔVBP/V	0,01	0,32	0,06	-0,01	-0,08	-0,33	0,05	0,39	-0,04	0,24	0,23	6,55	0,64	0,09	0,09	0,12
Cie	25,00	-0,16	-0,05	3,00	-0,88	-0,61	5,00	0,15	-1,25	0,42	3,04	0,02	-0,88	1,68	0,33	0,25

Source: the databases of the National Bank of Romania (from the National Financial Accounts 2007 - 2021 and the monthly bulletins from the period 2007 - 2023) and the National Institute of Statistics (Statistical Yearbook of Romania, editions 2007 - 2022, Monthly Statistical Bulletin, 2007 - 2023, Press releases), Report on financial stability, 2007-2022 editions, NBR, Bucharest, Romania (NBR, 2007-2022)], (NIS, 2007-2022), , (NBR, 2007-2022) (CCFM, 2017).

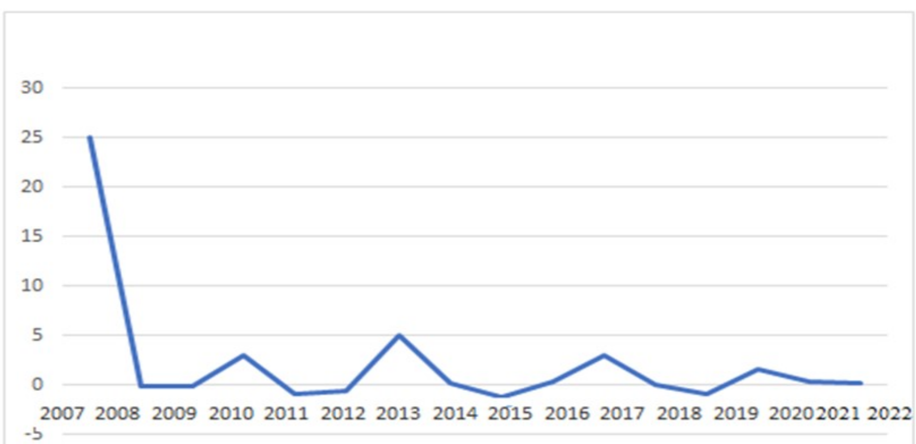

Figure 2. The evolution of the coefficient of the propensity to save the population in the period 2007 – 2022

Source: the databases of the National Bank of Romania (from the National Financial Accounts 2007 - 2021 and the monthly bulletins from the period 2007 - 2023) and the National Institute of Statistics (Statistical Yearbook of Romania, editions 2007 - 2022, Monthly Statistical Bulletin, 2007 - 2023, Press releases), Report on financial stability, 2007-2022 editions, NBR, Bucharest, Romania (NBR, 2007-2022)], (NIS, 2007-2022), , (NBR, 2007-2022) (CCFM, 2017).

The evolution of the level of this indicator highlights two phenomena: in certain periods (2008, 2009, 2011, 2012, 2015 and 2019) the growth coefficient of saving was exceeded by the growth coefficient of monetary incomes, because in other periods (2007, 2010, 2013, 2014, 2016, 2017, 2018, 2020, 2021 and 2022) financial saving to register a positive saving growth coefficient and above that of money income.

Although there was an increase in the increase in the monetary income of the population during 2022 compared to 2021, respectively from (0.09) to (0.12), the growth coefficient having an increasing trend from (0.32) to (6.55), in the period 2007 - 2018, population savings, reflected by the savings growth rate, decreased in the last period (reaching a negative minimum of (-0.44) in 2019 compared to 2018), and the coefficient of the population's propensity to save decreased from 25.00 (in 2007 compared to 2006) reaching a negative minimum of (-0.88) for 2019 compared to 2018. Moreover, in 2020 we observe a return of this indicator, registering a positive value of (1.68) in 2020, but followed by a downward trend in the last two years 2021 and 2022. At the same time, it will be found, through other indicators, that the degree of indebtedness of the population.

However, the year 2020 records a significant increase in the level of the indicator compared to the previous year, a fact caused by the increase in both the population's savings and monetary incomes, but at the level of 2021, because of multiple crises, the coefficient of the population's propensity to save is maintained at a positive level but registering a decrease in its value.

Indicator 3: The debt ratio of the population (Cip)

Table 4. The evolution of the debt ratio in the period 2007 – 2022

indicator	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
DTP th.lei	101479	137544	137835	151112	158433	163460	165072	161484	151870	189838	205594	219986	233185	249,508	265831	267293
POP th loc	22562	22542	22516	22481	22434	22391	22346	22298	22242	22223	22215	22197	22175	22142	22047	21943
Cip th lei/loc	4,50	6,10	6,12	6,72	7,06	7,30	7,39	7,24	6,83	8,54	9,25	9,91	10,52	11,27	12,05	12,18

Source: the databases of the National Bank of Romania (from the National Financial Accounts 2007 - 2021 and the monthly bulletins from the period 2007 - 2023) and the National Institute of Statistics (Statistical Yearbook of Romania, editions 2007 - 2022, Monthly Statistical Bulletin, 2007 - 2023, Press releases), Report on financial stability, 2007-2022 editions, NBR, Bucharest, Romania (NBR, 2007-2022)], (NIS, 2007-2022), , (NBR, 2007-2022) (CCFM, 2017).

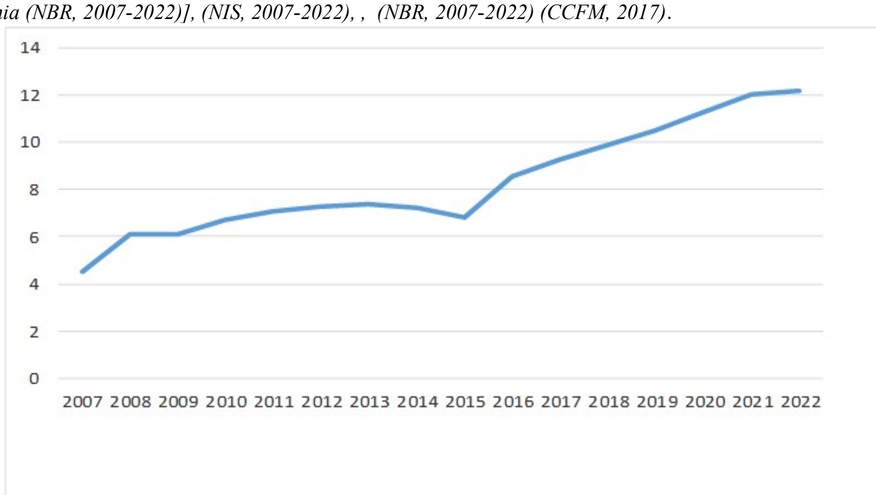

Figure 3. Evolution of the debt ratio of the population in the period 2007 – 2022

Source: the databases of the National Bank of Romania (from the National Financial Accounts 2007 - 2021 and the monthly bulletins from the period 2007 - 2023) and the National Institute of Statistics (Statistical Yearbook of Romania, editions 2007 - 2022, Monthly Statistical Bulletin, 2007 - 2023, Press releases), Report on financial stability, 2007-2022 editions, NBR, Bucharest, Romania (NBR, 2007-2022)], (NIS, 2007-2022), , (NBR, 2007-2022) (CCFM, 2017).

It is noted that the degree of indebtedness of the population has increased significantly, but the effect of inflation must also be considered, in nominal terms the degree of indebtedness is increasing, during the analyzed period the evolution of the indebtedness ratio increased by 0.13 p.p. in 2022 compared to 2021, and in 2022 it reaches the value of 12.18 p.p.

Obviously, the evolution of this indicator must be correlated with the evolution of interest rates, the purchasing power of the population, and with other financial indicators of the population, the indicator highlighting the indebtedness capacity of the population, but also the current context existing at the national, European, and global level, generated by multi-crisis.

4. Conclusions

The analyzes so far of the financial indicators relevant to the household sector allow the drawing of some generic conclusions regarding the characteristics highlighted by the population, from a financial point of view, in the analyzed period, namely:

- fluctuating evolutions of some relevant financial indicators, often contrary to the financial dynamics of a market economy, mainly due to global and regional crises with a direct impact on the national economy, as well as their overlap with the reforms managed within the Recovery and Resilience Plan which Romania is now implementing and which constitutes a Strategic Document that establishes the investment priorities and reforms necessary for recovery and sustainable growth, linked to the green and digital transition envisaged by the European Commission for the period 2022-2026.

- the reduced financial potential of the population, compared to that of the EU countries, but also to the needs of the development of the saving-investment cycle, primarily for the beneficial evolution of the economy, as well as the evolution of prices for basic products generated by the multiple crises that dominated the year 2022. In this sense, the affirmation of the population as the priority internal financier of the economy, often the only one, highlights the shortage of investment opportunities specific to the Households of the population, in an economy with quite a few viable, authentic financial resources.

- the relevant indicators regarding the assessment of the financial status of the population are directly influenced by the evolution of some representative indicators at national and European level, such as: the evolution of economic growth, the evolution of the active population in the economy and the labor market, the evolution of the viability of public finances, the evolution demographic changes at the national and European level, or the mobility of the active workforce, so necessary for the sustainable development of the strategic sectors of activity (the volume of remittances).

- the evolution of the primary indicators regarding the characterization of the financial status of the population in the period 2007 - 2022, especially for the active population, is directly influenced by the quality of employment of able-bodied and employed adults. Moreover, we appreciate that indicators such as the financialization rate of the population's income, the population's financial savings rate, net financial assets and the net financing capacity of the economy are directly influenced by employment in the economic sectors, as well as by how the energy market evolves of work both at national and European level (CCFM, 2019), (CCFM, 2020), (CCFM, 2021), (CCFM, 2022)

- decorrelations and dynamic discrepancies between relevant financial indicators, derived from absolute financial indicators, which highlights the still turbulent state of financial flows and circuits in the economy.

- at the level of 2021, in the EU, we notice that Romania is, from the perspective of both components (assets and liabilities), at the "tail" of the ranking. Financial assets relative to GDP increased in the EU, but in Romania, although they increased slightly compared to 2020, households have the lowest value of financial assets relative to GDP, only a third of the EU average in 2021 (CCFM, 2022)

- from the point of view of the financial assets of households, Romania has a share of 81.9% of the GDP, the states that overtake it, having values at a significant distance, being Latvia (105.7%), Slovakia (107.6%), Poland (108.4%). The countries in the first places are Denmark (434% of GDP, approximately five times more than the level in Romania), the Netherlands, Sweden, Belgium (shares exceeding 300% of GDP).

- as regards Romania's financial debts (% GDP), in 2021 they totaled 21.6% of GDP, countries in the immediate vicinity in the ranking being Hungary (24.6% of GDP), Latvia (21.9 %), or Lithuania (26.7%). Also, countries with a very high debt level are Denmark (109.1%, approximately 5 times more compared to Romania), Cyprus or the Netherlands.

- It is worth noting the evolution of the European population, as well as the reference indicators according to the European Commission reports, namely the fact that in 2018, life expectancy at birth was increasing: 78.2 years for men and 83.7 years for women. This trend is expected to continue men born in 2070 could live 86 years and women 90 years. In 2018, the average number of births was 1.55 to a woman and the average age of the mother was 31.3 years. By 2070, it is estimated that 30.3% of the population will be 65 years or older (compared to 20.3% in 2019) and 13.2% will be 80 years or older (compared to 5.8 % in 2019). At EU level, the composition of families is changing: two parents with children, people living alone, single parents or couples without children. The share of Europe's population in the world is decreasing. It is estimated that in 2070 it will be just under 4% of the world's population. All these developments will have a direct impact on the primary and derived indicators related to the population at national and European level (CCFM,2022).

-The impact of demographic changes with a direct effect on the financial indicators of the European population. Europe's working-age population is shrinking, and we need to identify levers to support economic growth by attracting citizens to the labor market and increasing productivity. To cope with the phenomenon of the aging of European society, our health and care systems will have to adapt further, and we will have to find ways to finance public spending, including the development of innovative financial instruments, support for this segment, against the background of population aging. Demographic issues often vary significantly across countries. As certain regions may experience rapid demographic change, this will generate new opportunities and challenges, from investment to infrastructure and access to services. Finding new solutions to help citizens navigate this process of change will be essential. The private pension system in Romania (Pillar 2+Pillar 3) reached the threshold of 100 billion lei, for the first time since its establishment at the end of 2022 according to data published by the Financial Supervisory Authority (ASF). Thus, the total assets of the Pillar 2 pension funds amounted to 96.449 billion lei, in December 2022, and the net assets of the Pillar 3 pension funds amounted to 3.622 billion lei, which leads to a total of net assets of 100.071 billion lei, at the end of 2022. It is the first time since the establishment of the private pension system in Romania, in 2008, when this threshold was exceeded (CCFM, 2022)

- Demographic changes can also have an impact on Europe's position in the world. The percentage it will hold in the global population and GDP will be comparatively less. It is therefore more important that Europe is united, stronger, and more strategic.

-Demographic changes and the twin ecological and digital transitions often influence, support, or accelerate each other: strategic foresight will therefore be an essential tool for anticipating and designing tailored policies to address these issues (Rusu, E. at all, 2022)

- European financing is and will remain in the short and medium term, an opportunity both for the member states and for institutions and SMEs to have a starting point and, implicitly, with a direct impact on the financial indicators related to the population. The major challenge for national and European authorities is to deal with the overlap of the 2021-2023 funding packages with complementary funding areas, namely the Multiannual Financial Framework 2021-2027, the Resilience and Recovery Mechanism 2021-2023 and the European Green Deal. 2021-2050, packages that also overlap with the post-programming period 2014-2020 and the adoption of strategic national plans with direct societal impact. The investments and reforms included under the "Green Transition" Pillar, represent cumulative non-reimbursable support and loans worth EUR 15.314 billion are expected to contribute to Romania's climate and energy objectives.

- The gloomy economic scenario given by inflation, recession, and the energy crisis, leads us to state that the great challenge in terms of policies at the governmental level is given by the support of purchasing power due to inflation, especially for the vulnerable population, as well as the implementation correctness of the reforms at the level of state institutions and for the societal good.

- The funds allocated to Romania by the European Union represent a basic pillar for the sustainable development of the national economy and for achieving the objectives of the UN Agenda 203, respectively for supporting economic, social, and territorial cohesion, respectively for the objectives of sustainable development. Within the Memorandum on the official submission to the European Commission of the Partnership Agreement for the 2021-2027 programming period, 16 programs were defined, eight national and eight regionals. The new element is the operational programs dedicated to transport infrastructure, health and just transition. All these programs add up to a value of over 32 billion euros (CCFM, 2022)

However, it should be noted that the work also has limitations, due to the lack of data, which is to be included and processed in future research.

The general conclusion is that the years 2021-2022 influenced the financial state of the population, the uncertainty regarding the state of health, the workplace, inflation, or resources causing households to be cautious in their consumption or saving behavior. In this sense, first, average incomes have increased compared to 2020, also average expenses have increased in turn (except for investment expenses intended for the purchase or construction of housing, the purchase of land and equipment necessary for household production, the purchase of shares etc. have a small share in the total expenses of the population's households).

Although the year 2022 is notable for the tense economic context, with war on the border, energy crisis, inflation of over 16% and interest on deposits at half, the number of Romanians with bank deposits of more than 100,000 euros has increased significantly, possible influences in this meaning given the high profits and high salaries obtained in some economic sectors, such as the banking sector, the energy sector, oil & gas, while at the opposite pole for many Romanians the increase in ROBOR and the explosion of electricity and natural gas prices led to a reduction in available income/ money.

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