

FINANCIAL SITUATION AND ATTITUDES TOWARDS SAVING IN POLISH SOCIETY:EVIDENCE FROM MICRO DATA

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Abstract

Savings of the household sector are undoubtedly very important both in terms of micro- (for the optimum personal finance management) and macroeconomics (from the perspective of the economic growth). Furthermore, the major transformation has occurred in the household saving behavior in Poland in recent years. This is due to sharp changes in the functioning of the households in the period of economic transformation and is the result of the global financial and economic crisis. This paper provides empirical evidence of the complex interrelations of income, level of optimism/pessimism, attitudes towards saving and households' consumption-savings decisions.

There is a strong income and savings relationship due to the positive income effect on the household saving propensity (through the increased motivation and the long run planning acceptance) and the saving ability due to ample satisfaction of household consumption needs. Higher income leads to the self-restraint rejection.

The level of household optimism/pessimism exerts a substantial effect on the saving motives and attitudes towards saving. The decreasing expectations leads to the slope of the overall saving motivation. Moreover pessimists seem to reveal the lowest inclination to deliberate saving. Simultaneously, they seem to be most suspicious about the bank loan incurring. The level of optimism is positively associated with both the share of savers and the level of accumulated savings.

Key words: *Households, saving, income, financial expectations, attitudes towards saving, Poland*

JEL classification codes: *D91, D12*

1. Introduction

The saving behavior has continued to attract the interest of economists both at theoretical and empirical levels due to the important role that national savings play in economic growth process.^[1]

Long-term economic growth requires capital investment and consistently high saving rates over time in a country can translate into funds being available for growth. Moreover, higher levels of domestic savings allow a larger portion of a country's overall debt to be financed internally. Analysts consider this to be more sustainable option than high debt levels primarily financed by external (foreign) creditors.^[2] Hence, domestic savings support the economic sovereignty of a country (Rytelewska (2005), Olszewska (2010), Aridas, Pasquali, Magno, & Bedell (2010)). National savings reflect the intertemporal choice of the three principal subsectors of the economy: households, business, and

¹Misztal (2011), Ciftcioglu & Begovic (2010) are examples of recent studies indicating a positive relationship between domestic savings and economic growth in emerging and developing economies.

²Very strong household savings have traditionally financed Japan's very large debt burden, but the country has seen a significant decline in saving rates in the new millennium (Kłopocka, 2014).

general government. The vast majority of studies on saving behavior concentrates on household saving due to the importance of household saving in the determination of national saving: generally, most of the saving comes from the surplus household sector, and the deficit private corporate and public sectors draw on household savings to meet their investment requirements and finance the resource gaps.

Household saving is defined as the difference between a household's disposable income (mainly wages received, revenue of the self-employed and net property income) and its consumption (expenditures on goods and services). Household savings are very important not only in terms of macroeconomics but in the microeconomics perspective, as well. Savings reduce household exposure to the liquidity risk, raise the ability to withstand income and demand shocks, protect against the potential insolvency and its adverse socioeconomic consequences. Kłopotcka (2013) elaborates on the significance of household saving for their economic security.

From the household's point of view saving represents a decision not to consume current income. As Browning & Lusardi (1996) notice, the first list of saving motives has been formulated by Keynes (1936). It consists from eight items:[3]

1. "To build up a reserve against unforeseen contingencies" (the precautionary motive);
2. "To provide for an anticipated future relationship between the income and the needs of the individual..." (the life-cycle motive);
3. "To enjoy interests and appreciation..." (the intertemporal substitution motive);
4. "To enjoy a gradually increasing expenditure..." (the improvement motive);
5. "To enjoy a sense of independence and the power to do things, though without a clear idea or definite intention of specific action" (the independence motive);
6. "To secure a masse de manoeuvre to carry out speculative or business projects" (the enterprise motive);
7. "To bequeath a fortune" (the bequest motive);
8. "To satisfy pure miserliness, i.e., unreasonable but insistent inhibitions against acts of expenditure as such" (the avarice motive).

Browning & Lusardi (1996) add one more motive:

9. "To accumulate deposits to buy houses, cars, and other durables" (the down payment motive).

They denote the considerable heterogeneity in the motives for saving: "It is unlikely that a single explanation will suffice for all members of a population at any given time or even for the same person over a long stretch of time". Furthermore, these motives are complementary and actual saving is determined by the complex set of reasons (Browning & Lusardi, 1996). Schunk (2009) shows that heterogeneity in saving behavior is systematically related to the importance that households attach to different co-existing saving motives.

The motives most widely recognized by researchers and practitioners are: saving for retirement (to finance consumption after retirement when current earned income is reduced or zero), precautionary saving (to meet possible emergencies, e.g. unemployment, sickness), target saving (to accumulate assets for the acquisition of durables and other big expenditures) and bequest saving (to leave assets behind to one's children and other heirs in the form of inter vivos transfers and/or bequests). The imperfect synchronization of income receipts and consumption expenditures gives rise to a household's transaction demand for liquid assets.

The absolute income hypothesis (Keynes, 1936), the permanent income hypothesis (PIH) (Friedman, 1957) and the life-cycle hypothesis (LCH) (Modigliani & Brumberg, 1954) are the starting points for analyses of household saving behavior. Kosny & Piotrowska (2013), Attanasio & Weber (2010), Rytelawska (2008), Bańbuła (2006), Liberda (2000), Browning & Lusardi (1996) and others provide a critical surveys of the large literature on the models of intertemporal allocation. Psychology has contributed theories and techniques for studying the cognitive, motivational and social factors that affect saving.

A number of empirical studies have estimated the effect of various economic and demographic variables on household saving. Age, income, income uncertainty, wealth, risk tolerance, saving horizon, homeownership, household composition, health status, education, race/ethnicity, self-employment, and unemployment are the most often tested factors at the micro level (see Fisher & Anong (2012) for the literature review). Rates of return, economic and political uncertainty, borrowing constraints, financial depth, fiscal policy, pension system, income and wealth distribution are examples of the macro determinants (Loayza, Schmidt-Hebbel, & Servén, 2000).

Most of the studies focus on the long-established market economies. More attention needs to be devoted to the post-communist countries, distinguished by the impact of the years of communist rule that are not covered sufficiently by the literature. The goal of this study is to shed light on the complex interrelations of opinions on current conditions, level of optimism/pessimism, attitudes towards saving and households' consumption-savings decisions in Poland. The current study extends the literature by investigating the relationship of households financial expectations, saving motives and attitudes towards saving in one of the Central and Eastern European countries, i.e. Poland.

The major transformation has occurred in the household saving behaviour in Poland in recent years. This is due to sharp changes in the functioning of the households in the period of economic transformation and is the result of the

³The designations in parentheses are given by (Browning & Lusardi, 1996) but they almost always follow Keynes.

global financial and economic crisis. Niculescu-Aron & Mihăescu (2012) reveal that the former communist countries had a strong orientation towards saving until 1990. The high values of the saving rates were determined, on the one hand by the wish to be able to finance various acquisitions, especially durable goods or cars, and on the other hand, by the shortage of consumption goods (involuntary saving). After 1990 the important political, economic, social and cultural transformations have stimulated the consumption behaviours and the saving rate registered considerable decreases.

Kośny (2013) has analyzed the economic situation of households in Poland in the period 2000-2010. He suggests that savings increase in periods of slower economic growth whereas in the fastest growth period (2005–07) a significant decrease in the level of savings was observed. He suggests that a possible explanation for this phenomenon may be found in the purpose of savings. Most households declare that they are saving ‘for a rainy day’ – 64% in the upper income group and 61% in the lower income group (2011). In this context, a good economic situation may lead to the use of such savings for various types of expenditure. This explanation is in accordance with (Nofsinger, 2012) results for developed economies. He demonstrates that household behavior exacerbates the boom/bust economic cycle. In boom times, the increase in debt load and decrease in saving rate spurs economic growth. In bust times, households repay debt and save more, which drags on an already slow economy.

The changing economic situation exerts a profound influence not only on the propensity to save but on the structure of allocation of personal savings invested in financial assets as well. Debski & Swiderski (2011) empirically show that when the economic situation improves in Poland, more personal savings are allocated in shares quoted on the organised market and in mutual funds and less savings are allocated in deposits and debt securities, the share of cash also drops, but when the economic situation is unfavourable, resulting in a decline in the stock exchange market and an increase in interest rates, the above mentioned figures behave in the opposite manner.

Aniola & Gołaś (2013) concentrate on the identification of the socio-demographic factors affecting the saving rate of Polish households. They show that household financial behaviours are most influenced by: gender, age, level of education, disability as well as the socio-occupational status and income level. According to the results of an earlier study conducted by Rószkiewicz (2004) on the sample of Polish households income appears to be the main determinant that differentiates the propensity to save and the types of financial behavior patterns. Important role of psychological conditionings was revealed, too. Roszkiewicz (2006) shows that the precaution and life cycle motives of saving are observable in the Polish society but restrain seems to be marginal. In addition, attitudes towards saving are varied by some demographic and socio-economic features. Poles with higher social-economic position are rejecting self-restraint shifting towards consumerism.

2. Data and methodology

Data analysed in the further part of the publication was reached as the result of the research project concerning the saving process of the Polish households conducted between 15th April 2012 and 30th June 2012. The applied methods include the In-home Interview and (CAWI) Computer Assisted Web Interview according to the quota sampling based on the data of the Central Statistical Office referring to the structure of the households in Poland and their access to Internet. Realization of the planned research was possible thanks to the engagement of the bachelor seminar participants who, as the interviewers, conducted 234 In-home Interviews and 523 Computer Assisted Web Interviews. The total number of respondents was 757.

The questionnaire included 69 questions. The questions analyzed in this study are presented in tables 1-5.

As a consequence of the literature review the following hypotheses regarding the relationship between the income, level of optimism/pessimism, saving motives, attitudes towards saving and other aspects of household saving behavior are proposed:

H1: Household income exerts a significant effect on the saving motives, attitudes towards saving and self reported saving potential i.e. it determines both saving propensity and saving ability. Thereupon there is a strong income and savings relationship.

H2: The level of households optimism/pessimism exerts a significant effect on the saving motives and attitudes towards saving i.e. it determines household saving propensity. Thereupon there is a strong household financial expectations and savings relationship.

Table 1. Question referring to the saving motives

	Please choose the number that represents how you feel about the following saving motives:	Possible answers:				
		1 little importance	2	3	4	5 great importance
Q25a	To build up a reserve against unforeseen contingencies					
Q25b	To finance consumption after retirement					

Q25c	To support children (children's education, to help the kids out)					
Q25d	To build up a reserve for medical expenses					
Q25e	To enjoy interests and appreciation					
Q25f	To enjoy a gradually increasing expenditure					
Q25g	To enjoy a sense of independence					
Q25h	To secure a masse de manoeuvre to carry out business projects					
Q25i	To leave a bequest					
Q25j	To give current financial support to children (grandchildren)					
Q25k	To satisfy the unreasonable but insistent inhibitions against acts of expenditure as such					
Q25l	To accumulate assets for the acquisition of a house					
Q25m	To accumulate assets for the acquisition of durables					
Q25n	To accumulate assets for home (flat) improvements/repairs					
Q25o	To meet contractual commitments (debt repayment)					

Table 2. Questions referring to the attitudes towards saving

	Please choose the number that represents how you feel about the following statements:	Possible answers:				
		1 strongly disagree	2	3	4	5 strongly agree
Q1	The rational budget management requires to refrain from spending all available funds					
Q2	The rational budget management requires long run planning					
Q3	Generally it is more reasonable to pay for "big ticket" expenses with previously accumulated savings than to incur debt					
Q4	Saving is reasonable only when it does not require effort					
Q5	It is reasonable to economize to accumulate savings					
Q6	It is reasonable to use bank credit whenever it is available					
Q7	Most of Poles don't have savings					
Q8	There is no need to save if one has high incomes					
Q9	It is difficult for people to put aside a portion of their income					
Q10	It is difficult for people to plan their saving and spending in the long run					
Q11	My financial well being is substantially influenced by the state of country's finance					
Q12	My financial well being is substantially influenced by the state of the economy in my region					

Table 3. Question referring to the self-reported financial situation of the household

	Q 21 Please choose the statement that describes your household situation:	Answer:
a	Our income exceeds expenditures and therefore we easily accumulate residual savings	
b	We economize deliberately to accumulate saving	
c	We usually spend about as much as income and we don't save	
d	We usually spend more than income so we don't save	

Table 4. Question referring to the level of household savings

	Q 26 Please choose the item that describes the level of your household savings:	Answer:
a	no savings	
b	three months' income or less	
c	more than three months' income but not more than six months' income	
d	more than six months' income but not more than twelve months' income	
e	more than annual income	

Table 5. Question referring to the level of optimism/pessimism

	Q 34 Please choose the item that describes your expectations regarding changes in the financial situation of your household within 2-3 years:	Answer:
a	it will improve	
b	it will be constant	
c	it will worsen	

3. Results

At first we verify the income - saving behavior hypothesis H1: Household income exerts a significant effect on the saving motives, attitudes towards saving and self reported saving potential i.e. it determines both saving propensity and saving ability. Thereupon there is a strong income and savings relationship.

Table 6 demonstrates that in general the higher is the income of the household head the stronger is the overall acceptance of the saving motives. The enterprise motive (Q25h) shows the most profound determination by income level. In all income groups the precautionary motive is the most important one, and the avarice motive is the less important one. The independence motive and children support motive are one of the most important reasons to save for all income quartiles. The bequest motive is of a very little importance in all groups.

The acceptance of the saving motives increases with income although the motives hierarchy of all income groups is quite similar.

Table 7 gives empirical support for the hypothesis that income exerts substantial effect on attitudes towards savings. The higher the income of the household head is the stronger is the approval of:

- the statement that "Saving is reasonable only when it does not require effort" (Q4),
- the statement that "It is reasonable to use bank credit whenever it is available"(Q6).

Moreover, this is the fourth quartile (not the first one) that demonstrates the weakest appreciation for the deliberate saving (Q5). It is worth noticing that the group with lowest incomes reveals the weakest disagreement to the statement: "There is no need to save if one has high incomes" (Q8).

Table 6. Income of the household head and the saving motives

	Income of the household head						
	1st quartile (≤ 1800.00)	2nd quartile (1800.01 - 2589.00)	3rd quartile (2589.01 - 4000.00)	4th quartile (4000.01+)			
	Mean	Mean	Mean	Mean	MIN	MAX	Range
Q25a	3.994	4.211	4.103	4.013	3.994	4.211	0.217
Q25b	3.418	3.509	3.729	3.642	3.418	3.729	0.311
Q25c	3.458	3.602	3.796	3.876	3.458	3.876	0.418
Q25d	3.609	3.677	3.683	3.433	3.433	3.683	0.251
Q25e	3.011	3.108	3.194	3.345	3.011	3.345	0.333
Q25f	3.432	3.377	3.367	3.479	3.367	3.479	0.112
Q25g	3.573	3.698	3.704	3.839	3.573	3.839	0.266
Q25h	2.195	2.121	2.452	2.766	2.121	2.766	0.645
Q25i	2.183	2.323	2.444	2.561	2.183	2.561	0.378
Q25j	2.663	2.694	2.824	2.886	2.663	2.886	0.223
Q25k	1.886	1.878	1.913	2.051	1.878	2.051	0.173
Q25l	3.090	3.258	3.290	3.236	3.090	3.290	0.200
Q25m	3.429	3.316	3.554	3.385	3.316	3.554	0.237
Q25n	3.264	3.325	3.506	3.379	3.264	3.506	0.241
Q25o	2.851	3.076	3.029	2.674	2.674	3.076	0.403
Mean	3.070	3.145	3.239	3.238			

Table 7. Income of the household head and the attitudes towards saving

	Income of the household head						
	1st quartile (≤ 1800.00)	2nd quartile (1800.01 - 2589.00)	3rd quartile (2589.01 - 4000.00)	4th quartile (4000.01+)			
	Mean	Mean	Mean	Mean	MIN	MAX	Range
Q1	3.585	3.652	3.942	3.692	3.585	3.942	0.357
Q2	3.797	3.823	3.984	3.987	3.797	3.987	0.191
Q3	4.033	4.055	4.142	3.885	3.885	4.142	0.257
Q4	2.230	2.378	2.400	2.459	2.230	2.459	0.229
Q5	4.033	3.994	4.068	3.758	3.758	4.068	0.310
Q6	1.956	2.067	2.063	2.140	1.956	2.140	0.184
Q7	3.546	3.421	3.447	3.338	3.338	3.546	0.209
Q8	2.284	2.135	2.079	2.146	2.079	2.284	0.205
Q9	3.831	3.945	3.916	3.713	3.713	3.945	0.231
Q10	3.852	3.804	3.832	3.822	3.804	3.852	0.048
Q11	3.044	3.098	3.105	3.000	3.000	3.105	0.105
Q12	3.148	3.405	3.263	3.369	3.148	3.405	0.257

Table 8 shows that in the richest households group there is the highest percentage of households having a surplus of income over expenditures and the lowest share of households with insufficient incomes to cover necessary consumption. It supports the hypothesis that income exerts an effect on self reported saving potential, however the effect is weaker than expected.

Table 9 certainly confirms the strong positive relationships of income and the level of household savings. This is due to the positive income effect on:

- the household saving propensity through increased motivation (table 6) and long run planning acceptance (table 7)

- the saving ability due to ample satisfaction of household needs (table 8). Higher income leads to residual saving, where one does not spend all of income and therefore saves by default. The results are in line with the findings of Rószkiewicz (2006) that Poles with higher social-economic position are rejecting self-restraint shifting towards consumerism.

Table 8. Income of the household head and the self reported saving potential

	1st quartile (≤ 1800.00)	2nd quartile (1800.01 - 2589.00)	3rd quartile (2589.01 - 4000.00)	4th quartile (4000.01+)
	Percentage	Percentage	Percentage	Percentage
Q21a	3.3			
	16.4	18.9	14.2	20.4
Q21b	42.1	37.8	40.0	47.1
Q21c	29.0	31.1	38.9	28.7
Q21d	9.3	12.2	6.8	3.8
Total	100.0	100.0	100.0	100.0

Table 9. Income of the household head and the level of savings

	1st quartile (≤ 1800.00)	2nd quartile (1800.01 - 2589.00)	3rd quartile (2589.01 - 4000.00)	4th quartile (4000.01+)
	Percentage	Percentage	Percentage	Percentage
Q26a	57.4	42.1	22.1	14.6
Q26b	27.3	38.4	43.2	33.8
Q26c	10.9	12.2	24.7	19.7
Q26d	2.2	4.9	5.3	15.9
Q26e	2.2	2.4	4.7	15.9
Total	100.0	100.0	100.0	100.0

The second part of the study focuses on the financial expectations - saving propensity hypothesis H2: The level of households optimism/pessimism exerts a significant effect on the saving motives and attitudes towards saving i.e. it determines household saving propensity. Thereupon there is a strong household financial expectations and savings relationship.

Table 10. The level of households optimism/pessimism and the saving motives

	Q34					
	a	b	c			
	Mean	Mean	Mean	MIN	MAX	Range
Q25a	4.040	4.145	3.769	3.769	4.145	0.376
Q25b	3.660	3.565	2.953	2.953	3.660	0.707
Q25c	3.737	3.645	3.381	3.381	3.737	0.357
Q25d	3.476	3.726	3.597	3.476	3.726	0.250
Q25e	3.418	2.962	2.750	2.750	3.418	0.668
Q25f	3.654	3.223	2.762	2.762	3.654	0.892
Q25g	3.895	3.519	3.323	3.323	3.895	0.572
Q25h	2.581	2.215	2.016	2.016	2.581	0.565
Q25i	2.363	2.413	1.806	1.806	2.413	0.606
Q25j	2.699	2.832	2.541	2.541	2.832	0.291
Q25k	1.931	2.013	1.475	1.475	2.013	0.538
Q25l	3.444	3.029	2.508	2.508	3.444	0.936
Q25m	3.604	3.356	2.683	2.683	3.604	0.922
Q25n	3.326	3.426	2.857	2.857	3.426	0.569

Q25o	2.969	2.954	2.516	2.516	2.969	0.454
Mean	3.253	3.135	2.729			

Table 10 first of all indicates that decreasing expectations leads to the slope of the overall saving motivation. The very important saving motives are: the medical expenses motive (excluding the optimist respondents), the children support motive, the retirement motive, the independence motive and the precautionary motive on the top for all groups of households. The motives of the least importance are: the avarice motive and the bequest motive. It is worth attention that the biggest difference in the motive scores between optimists and pessimists occurs in case of the following motives (in sequence): the acquisition of a house (0.936), the acquisition of durables (0.922), the improvement motive (0.892), the retirement motive (0.707), the intertemporal substitution motive (0.668), the independence motive (0.572). The surprising observation is that the precautionary motive mean does not rise with the decreasing financial expectations. On the contrary, the pessimists demonstrates the lowest inclination to save for "rainy days" (figure 1), although the precautionary motive is their "number one" motive.

Figure 1. The precautionary motive and the level of financial optimism/pessimism

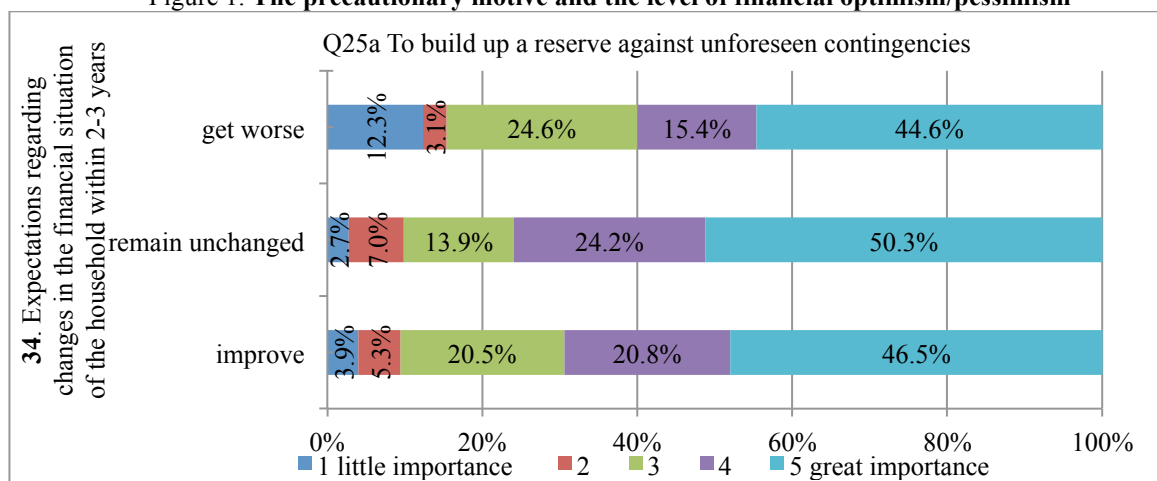


Table 11. The level of household optimism/pessimism and attitudes towards saving

	Q34					
	a	b	c			
	Mean	Mean	Mean	MIN	MAX	Range
Q1	3.717	3.752	3.723	3.717	3.752	0.035
Q2	3.931	3.855	4.047	3.855	4.047	0.192
Q3	4.003	4.067	4.046	4.003	4.067	0.064
Q4	2.280	2.373	2.708	2.280	2.708	0.428
Q5	4.006	3.967	3.877	3.877	4.006	0.129
Q6	2.014	2.121	1.923	1.923	2.121	0.198
Q7	3.427	3.394	3.785	3.394	3.785	0.391
Q8	2.053	2.191	2.477	2.053	2.477	0.424
Q9	3.864	3.830	3.815	3.815	3.864	0.049
Q10	3.836	3.773	3.985	3.773	3.985	0.212
Q11	2.914	3.167	3.154	2.914	3.167	0.253
Q12	3.309	3.255	3.308	3.255	3.309	0.055

Table 11 shows the relationship of the household sentiment about its financial situation in 2-3 years and the attitudes towards saving. The biggest differentiation in household attitudes occurs in reference to the acceptance of effort while saving (Q4, Q8). The pessimists seem to reveal the lowest inclination to deliberate saving. Simultaneously, they seem to be most suspicious about the bank loan incurring (Q6). Households that are more optimistic about their financial situation prospects display more positive attitude to bank credit. It suggests that pessimists are more passive participants of the financial services market than optimists. This finding is in line with the literature that confirms the relationship of consumer confidence and propensity to borrow. For example Lamdin (2008) demonstrates that changes

in the consumer sentiment measure are related to subsequent changes in revolving credit use. Dawson & Henley (2012) investigate the association between unrealized financial expectations (over-optimism) and subsequent mortgage repayment difficulties, using British longitudinal data. Evidence is provided that over-optimism is associated with increased likelihood of mortgage arrears.

Table 12. The level of household optimism/pessimism and the level of savings

	Q34		
	a	b	c
	Percentage	Percentage	Percentage
Q26a	27.4	39.4	46.2
Q26b	41.6	29.1	41.5
Q26c	15.2	20.0	7.7
Q26d	6.6	7.3	3.1
Q26e	9.1	4.2	1.5
Total	100.0	100.0	100.0

Table 13. The level of household optimism/pessimism and the level of the household head income (PLN)

	Q34					
	a		b		c	
	N	Mean	N	Mean	N	Mean
Q56a	336	3913.89	298	3495.08	60	2367.06

Table 14. The precautionary motive for saving and the level of household optimism/pessimism and income of the household head

		Q34					
		a		b		c	
		N	Mean	N	Mean	N	Mean
Q56a							
1st quartile	(<= 1800.00)	77	4.208	76	3.934	28	3.571
2nd quartile	(1800.01 - 2589.00)	71	4.141	76	4.329	14	3.929
3rd quartile	(2589.01 - 4000.00)	95	3.937	80	4.250	9	4.556
4th quartile	(4000.01+)	82	3.976	60	4.100	9	3.778

Table 12 gives the evidence for the significant linkage of financial expectations and household saving behavior. The level of optimism is positively associated with both the share of savers and the level of accumulated savings. 27 percent of households that are optimistic about their financial situation prospects declares no savings while the rate of non savers among pessimists reaches 46 percent. The level of accumulated savings is substantially higher in the group of households expecting positive changes in their financial situation (9.1 percent of optimists and only 1.5 percent of pessimists declare savings exceeding their annual income). It seems to be a result of low motivation to save (table 10) and low acceptance of deliberate saving that requires self-restraint among pessimists (table 11).

However this findings are surprising in the context of the main body of the literature on the precautionary saving. There is abundant evidence that increased uncertainty causes greater savings rates (the most recent examples are are Mastrogiacomio & Alessie (2014), Bande & Riveiro (2013), Ceritoglu (2013), Chamon, Liu, & Prasad (2013), Tokuoka (2013), Garcia, Barros, & Silvestre (2011), Alessie & Teppa (2010). However some research finds little or no evidence on precautionary motive (e.g. (Fossen & Rostam-Afschar, 2013). Income risk is the most often used measure of uncertainty, but some researchers have applied other variables. Brown & Taylor (2006) investigate how financial expectations influence saving and consumption. Their findings suggest that financial optimism is inversely associated with wealth and saving, supporting the precautionary motive.

Here we find no support for the hypothesis that the negative expectations about the future raise the motivation to save for emergencies. To solve the puzzle we control for the income of the household head in the groups of respondents with different level of optimism. The results (table 13) shed light on the income distribution among these groups. The pessimistic appraisal of the future is significantly connected with the lower income. Therefore in the next

step we analyze the precautionary motive in reference to both the level of household financial optimism/pessimism and income of the household head (table 14). The results are rather ambiguous as the pessimists show the lowest acceptance of the precautionary motive in three of four income groups but, on the other hand, the pessimists of the third quartile are the group declaring the highest importance of the precautionary motive. The issue of precautionary motive and its determinants is an important direction of further research.

4. Conclusions

Savings of the household sector are undoubtedly very important both in terms of micro- (for the optimum personal finance management) and macroeconomics (from the perspective of the economic growth). Furthermore, the major transformation has occurred in the household saving behavior in Poland in recent years. This is due to sharp changes in the functioning of the households in the period of economic transformation and is the result of the global financial and economic crisis.

This justified our decision to carry out a research project aimed at an analysis of the households' attitudes to save in the context of their current and forecasted economic situation. This paper provides the empirical evidence of the complex interrelations of household income, level of optimism/pessimism, attitudes towards saving and households' consumption-savings decisions.

We provide empirical evidence supporting the hypothesis that household income exerts a significant effect on the saving motives, attitudes towards saving and self reported saving potential i.e. it determines both saving propensity and saving ability. There is a strong positive income and savings relationship due to the positive income effect on the household saving propensity (through increased motivation and long run planning acceptance) and the saving ability due to ample satisfaction of household needs. Higher income leads to residual saving, where one does not spend all of income and therefore saves by default.

The level of household optimism/pessimism exerts a substantial effect on the saving motives and attitudes towards saving. The decreasing expectations leads to the slope of the overall saving motivation. Moreover pessimists seem to reveal the lowest inclination to deliberate saving. Simultaneously, they seem to be most suspicious about the bank loan incurring. The level of optimism is positively associated with both the share of savers and the level of accumulated savings.

In our opinion, measuring household saving and its determinants (including current and forecasted economic situation, attitudes and motives) is an important direction of further research.

References

- [1] Alessie, R. & Teppa, F. (2010). Saving and habit formation: Evidence from Dutch panel data. *Empirical Economics*, 38, 385–407. doi:DOI 10.1007/s00181-009-0272-z
- [2] Aniola, P. & Golaś, Z. (2013). The Financial Behaviour Of Polish Households. *Whither Our Economies–2013*, 1-9.
- [3] Aridas, T., Pasquali, V., Magno, A., & Bedell, D. (2010). Household Saving Rates. *Global Finance Magazine*. Retrieved May 31, 2014, from <http://www.gfmag.com/global-data/economic-data/916lqg-household-saving-rates>
- [4] Attanasio, O. P., & Weber, G. (2010). Consumption and Saving: Models of Intertemporal Allocation and Their Implications for Public Policy. *Journal of Economic Literature*, 48(3), 693–751. doi:10.1257/jel.48.3.693
- [5] Bańbula, P. (2006). Oszczędności i wybór międzyokresowy: podejście behawioralne. *Materiały i Studia*, 208. Warszawa: Narodowy Bank Polski.
- [6] Bande, R., & Riveiro, D. (2013). Private Saving Rates and Macroeconomic Uncertainty: Evidence from Spanish Regional Data. *Economic and Social Review*, 44(3), 323–349.
- [7] Brown, S., & Taylor, K. (2006). Financial Expectations, Consumption and Saving: A Microeconomic Analysis. *Fiscal Studies*, 27(3), 313–338. doi:10.1111/j.1467-8578.2006.00037.x
- [8] Browning, M., & Lusardi, A. (1996). Household saving: Micro theories and micro facts. *Journal of Economic Literature*, 34(4), 1797–1855.
- [9] Ceritoglu, E. (2013). The impact of labour income risk on household saving decisions in Turkey. *Review of Economics of the Household*, 11(1), 109–129. doi:10.1007/s11150-011-9137-2
- [10] Dawson, C., & Henley, A. (2012). Something will turn up? Financial over-optimism and mortgage arrears. *Economics Letters*, 117(1), 49–52. doi:10.1016/j.econlet.2012.04.063
- [11] Chamon, M., Liu, K., & Prasad, E. (2013). Income uncertainty and household savings in China. *Journal of Development Economics*, 105 (C), 164–177. doi:10.1016/j.jdeveco.2013.07.014
- [12] Ciftcioglu, S., & Begovic, N. (2010). Are domestic savings and economic growth correlated? Evidence from a sample of Central and East European countries. *Problems and Perspectives in Management*, 8(3), 30-35.
- [13] Debski, W., & Swiderski, B. (2011). Change in the allocation structure of personal savings invested in financial assets in Poland, 2003–2009. *Transformations in business & economics: scholarly papers*, 10(1), 81–97.

- [14] **Fisher. P. J.. & Anong. S. T.** (2012). Relationship of Saving Motives to Saving Habits. *Journal of Financial Counseling and Planning*. 23(1). 63–79.
- [15] **Fossen. F. M.. & Rostam-Afschar. D.** (2013). Precautionary and Entrepreneurial Savings: New Evidence from German Households. *Oxford Bulletin of Economics and Statistics*. 75(4). 528–555. doi:10.1111/j.1468-0084.2012.00702.x
- [16] **Friedman. M.** (1957). *A Theory of the Consumption*. Princeton: Princeton University Press.
- [17] **Garcia. M. T. M.. Barros. C.. & Silvestre. A.** (2011). Saving behaviour: Evidence from Portugal. *International Review of Applied Economics*. 25(2). 225–238.
- [18] **Keynes. J. M.** (1936). *The general theory of employment, interest and money*. London: MacMillan.
- [19] **Kłopocka. A.** (2013). Consumer Confidence as a Determinant of Household Propensity to Save. *Constantin Brancusi University of Targu Jiu Annals - Economy Series*. 6. 13–20.
- [20] **Kłopocka. A.** (2014). Kierunki zmian w procesach oszczędzania gospodarstw domowych w Japonii. *Acta Universitatis Lodzensis Folia Oeconomica*. 299(1). 225–234. doi:11089/210
- [21] **Kośny. M.** (2013). Economic activity, saving, credit and income polarisation in Poland. *Post-Communist Economies*. 25(4). 512–528. doi:10.1080/14631377.2013.844931
- [22] **Kośny. M.. & Piotrowska. M.** (2013). Economic security of households and their savings and credits. *National Bank of Poland Working Paper*. (146).
- [23] **Lamdin. D. J.** (2008). Does Consumer Sentiment Foretell Revolving Credit Use? *Journal of Family and Economic Issues*. 29(2). 279–288. doi:10.1007/s10834-008-9099-6
- [24] **Liberda. B.** (2000). *Oszczędzanie w gospodarce polskiej: teorie i fakty*. Warszawa: PTE Dom Wydawniczy Bellona.
- [25] **Loayza. N.. Schmidt-Hebbel. K.. & Servén. L.** (2000). What Drives Private Saving Across the World? *Review of Economics and Statistics*. 82(2). 165–181. doi:10.1162/003465300558678
- [26] **Mastrogiacomo. M.. & Alessie. R.** (2014). The precautionary savings motive and household savings. *Oxford Economic Papers-New Series*. 66(1). 164–187. doi:10.1093/oep/gpt028
- [27] **Misztal. P.** (2011). The relationship between savings and economic growth in countries with different level of economic development. *E-Finanse: Financial Internet Quarterly*. 7(2). 17–29.
- [28] **Modigliani. F.. & Brumberg. R.** (1954). Utility analysis and the consumption function: An interpretation of cross-section data. Franco Modigliani. In: *Post Keynesian Economics*. ed. Kenneth K. Kurihara. 388–436. New Brunswick: Rutgers University Press.
- [29] **Niculescu-Aron. I.. & Mihăescu. C.** (2012). Determinants of Household Savings in EU: What Policies for Increasing Savings? *Procedia - Social and Behavioral Sciences*. 58. 483–492. doi:10.1016/j.sbspro.2012.09.1025
- [30] **Nofsinger. J. R.** (2012). Household behavior and boom/bust cycles. *Journal of Financial Stability*. 8(3). 161–173. doi:10.1016/j.jfs.2011.05.004
- [31] **Olszewska. G.** (2010). Stopy oszczędności wewnętrznych a wzrost gospodarczy w krajach Europy Środkowej na przykładzie Polski. Czech. Słowacji oraz Węgier. *Acta Universitatis Lodzensis Folia Oeconomica*. 173–184.
- [32] **Rószkiewicz. M.** (2004). Skłonność Polaków do oszczędzania w świetle teorii finansów behawioralnych. *Ekonomista*. (5). 675–695.
- [33] **Rószkiewicz. M.** (2006). Attitudes Towards Saving in Polish Society During Transformation. *Social Indicators Research*. 78(3). 429–452. doi:10.1007/s11205-005-1605-8
- [34] **Rytelewska. G.** (2005). *Bankowość detaliczna*. Warszawa: PWE.
- [35] **Rytelewska. G.** (2008). *Gospodarstwa domowe*. In *System finansowy w Polsce* (Vol. 2. pp. 399–433). Warszawa: PWN.
- [36] **Schunk. D.** (2009). What Determines Household Saving Behavior? An Examination of Saving Motives and Saving Decisions. *Journal of Economics and Statistics (Jahrbuecher Fuer Nationaloekonomie Und Statistik)*. 229(4). 467–491.
- [37] **Tokuoka. K.** (2013). Saving response to unemployment of a sibling. *Journal of Economic Behavior & Organization*. 89. 58–75.