HOUSEHOLD ECONOMIC SECURITY ACROSS COHORTS

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Abstract

The paper is aimed at explaining differentiation in economic security of households through cohort differences. Identifying cohorts is based on common educational and professional experiences. The research introduces the concept of economic resourcefulness defined as the capability to make economic decisions that contribute to economic security of a household. Economic security of a household is defined as the ability to achieve income necessary for covering household needs at its suitable level and to create financial reserves to be at disposal in case of unfavorable accidence. The research uses an exploratory analysis based on structural equation modeling. The questionnaire survey carried out in Poland in 2013 is a source of data for observed variables in an empirical model of economic security. The findings confirm that common educational and professional experiences, controlling for economy conditions, influence economic resourcefulness of household's members and, as a consequence, their economic security. The conclusion, however, refers to the Polish society and socio-economic development experienced by cohorts of Poles since 1990.

Keywords: security, household, cohort, resourcefulness

JEL Codes: D14

1. Introduction

Economic security of households is one of financial stability dimensions. The economic security at a microeconomic level influences the welfare of individuals, individual identity and behavior in the labor market and at a macroeconomic level is the primary goal of the state and consumes a significant portion of public expenditure. Carrying out monetary and fiscal policies as well as using some macroprudential tools such as loan-to-value (LTV) and debt-to-income (DTI) ratios require information on economic decisions made by households which contribute to security of a family.

The purpose of the paper is to find out differences in economic security across cohorts. It is presumed that common educational and professional experiences, controlling for economy conditions, influence the households' economic resourcefulness and their economic security. Poland is a case used to illustrate an approach to economic security suggested by the paper.

The paper structure is as follows: the definitions of economic security suggested in the literature are presented in the second section; the third section covers a research hypothesis,

objectives, the definitions of main concepts, a description of a conceptual model as well as an empirical model; the research results are discussed in the fourth section; and finally conclusions and research limitations are in the fifth section.

2. Theory

Twenty-first century has brought a wider research related to economic security. Initially, the researchers focused on economic risk. Hacker, in his well-known book "The great risk shift. The New Economic insecurity and the decline of the American Dream" (2006) stressed that for Americans, income inequality has become less of a problem, and on the first plan came the fear for the future life of their families. The reason for this fear has become a very significant increase in the volatility of family income and the increase in risk associated with a decrease in the value of assets. The works of Hacker (2006; 2007) initiated a wave of empirical research on the trends of changes in income (Jacobs, 2007; Hacker *et al.,* 2014; Nichols and Rehm, 2014). Consequently, researchers began to shift attention from the risk in the direction of economic security and its causes, to which economic resourcefulness can be counted.

In the literature, economic security is usually determined by the conditions required for sense of security. Beeferman (2002, p. 1) proposes a practical definition of what it means that people have a sense of economic security. They need assurance that in the short term they will be able to meet basic needs and in the long run – that they gain a well-paid job, will be able to improve the qualifications and will have sufficient financial resources to buy a flat or a house, start a business, start a new career and that these resources will allow them to survive the changes and crises in their lives and ensure a high quality of life when retired. To important aspects, determining economic security, belong also the consumer behavior (Piotrowska, 2017). All these conditions, taken together, can be modeled as an expression of economic resourcefulness.

The report, "By a Thread: The New Experience of America's Middle Class" (2007) prepared jointly by the Demos: A Network for Ideas and Action, and The Institute on Assets and Social Policy at Brandeis University, an index of security of the middle class was based on responses to the question: what should have the middle class to feel safe in an economic sense? The answer is as follows: financial assets, education, income and health care for all members of the family.

International Labour Organization (www.ilo.org) in the ILO Socio-Economic Security Programme has adopted the definition of "economic security", which indicates a number of conditions, fulfillment of which can be identified with a sense of security. Economic security in this definition consists of two parts: the basic social security and work-related safety (Berloffa and Modena, 2014).

Summing up, in the short term protection against adverse situations are: a stable income from work or other sources (equity, real estate), insurance (private and social), liquid resources, including precautionary savings, human capital, social capital and common equity. In the long term, economic security can result also from ownership of less liquid assets (houses, flats, durable goods), but the most important components of economic security are the stability of geo-political situation and favorable demographic trends.

3. Methodology

3.1. Purpose, hypothesis and objectives of the study

In the paper, economic security of households is defined as the ability to achieve income necessary for covering household needs at its suitable level and to create financial reserves to be at disposal in case of adverse events (sickness, job loss, family breakdown).

The research introduces a concept of economic resourcefulness to explain the perception of economic security. Economic resourcefulness is defined as a set of family member capabilities to make economic decisions - in the fields of labor, saving, investing, borrowing and insuring – aimed at building economic security of a family.

The purpose of the paper is to find out differences in economic security across cohorts. It is presumed that common educational and professional experiences, controlling for economy conditions, influence economic resourcefulness of households and as a consequence their economic security. Poland is a case used to illustrate an approach to economic security suggested by the paper.

A hypothesis verified in the paper states: There are differences in economic security of households which can be explained by socio-economic development experienced by different cohorts.

The detailed objectives are as follows:
- to build a conceptual model of economic security;
- to measure economic security across cohorts;
- to identify cohort differences in: 1) the relationships between variables in empirical models of economic security; 2) the resourcefulness effects; and 3) changes in mean values of economic security, by educational level.

3.2. A conceptual model of economic security

A conceptual model of economic security, suggested in the paper, covers the economic security as a consequence of economic resourcefulness and some mediators.

3.2.1. Antecedents of individual economic resourcefulness

Socio-economic status of parents and socio-economic development which an individual has experienced in his life make him more or less economically resourceful. Parents' educational attainment and their well-being have impact on economic decision and well-being of their adult children (see Piotrowska and Kośny, 2017 for the analysis of intergenerational mobility).

Socio-economic development refers, in the paper, to educational and professional experiences as well as to economic conditions under which an individual enters a labor market, and a career stage of an individual during an economic transition.

3.2.2. Economic resourcefulness

A resourceful individual has a stable, well-paid job and he is able to find additional work facing financial problems. He possesses a real estate or/and valuable belongings which are insured. He is able to borrow money, if necessary, from bank or other sources. He invests in his children. His behavior, regarding saving and running up debts, contributes to economic security of his family.

3.2.3. Economic security of a household

Economically secure family meets its needs at an acceptable level. It is able to maintain its living standards in the closer and further future, to meet unexpected expenses, to recover from an unexpected decrease in household income.

3.2.4. Mediators

There are two mechanisms, or mediators, included in the model. Educational and professional aspirations of an individual are a mediator of effects of parental socio-economic status on economic resourcefulness of an adult child. Health of an adult child is a second mediator that links both parental socio-economic status and socio-economic development with economic security of an adult child's family.

3.3. Cohort-sequential design with independent samples

The accomplishment of the research aim requires proper design of the study. There are two constrains to consider: 1) in a simple comparison of persons who are at different ages at one point in time (cross-sectional data), age effects may be confused with cohort effects and 2) unfortunately in Poland there are no available longitudinal data related to the paper scope.

The lack of longitudinal data implies a lack of information about personal developmental what neglects the possibility to reveal cohort effects and age effects. The cohort effect is defined as the effect of being born in a certain time, region, period or having experienced the same life experience (in the same time period), on the development or perceptions of a particular group. These perceptions, characteristics or effects are unique to the group in question. In other words, a birth cohort experiences the same historical, social, and environmental events at the same age, potentially giving rise to unique, cohort-specific values, attitudes, and preferences. Age effects are variations resulting from the biological and social processes of aging specific to individuals, such as physiological changes and the buildup of social experience.

The solution which can reduce the single cross-section studies limitation is cohort-sequential design with independent samples. Admittedly, such a design does not give full information on intra-individual change and inter-individual differences across generations. However, cohort-sequential design with independent samples allows to differentiate cohort differences and age differences controlling for history (Schaie, 1994, p.51).

It is assumed that basis of personality is created until the age of 6 then the period of cohort feature creation follows and covers the age of 6–20. Between 15 and 20 the phase of cohort signal identification occurs thus the common cohort value pattern is formed.

The socio-economic context for differentiation of cohorts is connected with economic and social changes in Poland during transition from a central planned economy under the communistic regime to a market economy. The first stage of transition took place in the 90s, the second one covered the years 2000-2004 and it was aimed at the ultimate preparation of Poland to the EU accession in 2004. Since 2005 Poland has developed in a direction of an advanced market economy, although it still belongs to a group of emerging markets. The transition has resulted in three great changes in the economy and the society: 1) dynamic growth of private sector (a contribution of the private sector to the GDP is the biggest, small and medium size enterprises create the majority of jobs), 2) openness of the economy (FDI growth, high technology, the western style of management not only in foreign firms but also in domestic ones, two millions of Poles have found jobs abroad), and 3) very dynamic growth in a fraction of high educated people (a number of people in age of 25-64 with a tertiary level

of education increased from 10% in 1995 to 22% in 2011 as well a number of mothers with a tertiary educational level increased from 6% at the beginning of the 90s to more than 47% in 2013 while a number of mothers with primary education or even without any educational level attained declined in this period from 18% to 4%).

The research covers three samples of respondents which represent three cohorts named: cohort 1: "Children of transition"; cohort 2: "Youth of transition"; cohort 3: "Mobile-working-age-adults of transition".

Cohort 1: "Children of transition" – respondents are characterized as follows: all levels of education attained in a market economy, possibilities to study in the EU, difficult entry to the labor market after the financial crisis, professional training in a more advanced market economy ("an advanced market economy" in comparison to the first stage of transition, not in comparison to the old members of the EU) ;

Cohort 2: "Youth of transition" – respondents are characterized as follows: secondary and tertiary levels of education in a market economy, easy entry to the labor market just after Poland's accession to the EU (dynamic growth during 2005-2007), extended professional experiences and more or less stable professional carrier during the financial crisis;

Cohort 3: "Mobile-working-age-adults of transition" – respondents are characterized as follows: childhood in the communism time, all educational levels in the communism times, professional experiences achieved in the communism times, training at the first stage of transition, stable professional position during the financial crisis.

3.4. Data

The questionnaire survey is a source of data for observed variables. The survey was carried out by the professional polling agency in Poland in June 2013. The respondents were asked to express their opinions directly in the course of face-to-face interviews. The polling agency carrying out the survey has chosen respondents at random.

Table 1: General information on respondents by cohorts

Information of respondents	Name of the cohort		
	Cohort 1 „Children of Transition" (N=215)	Cohort 2 „Youth of Transition" (N=197)	Cohort 3 „Mobile-Working-Age-Adults of Transition" (N=388)
	Age in 2013 (Year of the questionnaire survey)		
	25-34, born 1979-88	35-44, born 1969-1978	45-64, born 1949-1968
Fraction of respondents with tertiary educational level attained, as % of respondents in the cohort	42%	28%	13%
Mean monthly income per person in a respondent's household (PLN)	1803	1343	1550
Mean monthly income per household (PLN)	3816	4090	3083

Source: Author's calculation.

The selection of the respondents had been representative due to the voivodship (Poland is divided into 16 administrative units called voivodships), age, gender and educational level attained. The whole sample covers 800 respondents aged between 25 and 64. This sample is divided into three cohorts. The cohort 1: "Children of transition" covers 215 respondents; the cohort 2: "Youth of transition" – 197 respondents; the cohort 3: "Mobile-working-age-adults of transition" – 388 respondents. General information on respondents in each cohorts is presented in Table 1.

There is a considerable difference in an educational level across cohorts and much less visible differentiation in mean income. A fraction of respondents with tertiary educational level attained is more than three times higher in the youngest cohort (respondents aged 25-34) in comparison to a fraction of respondents in the oldest cohort (45-64 years), 42% and 13% respectively, see Table 1.

3.5. Empirical model

3.5.1. Estimation technique

Two main research concepts – economic resourcefulness and economic security – are latent variables. This suggests using an exploratory analysis based on structural equation modeling (SEM) in IBM SPSS Amos. Maximum likelihood is a method for was applied to estimate structural equation models. A structural equation model (SEM) is built separately for each cohort and estimated by using the data for this cohort. Each SEM is constructed to specify hypothetical relationships among variables: 1) how the latent (or unobserved) variables can be related to each other (this part of the model is called the structural model) and 2) how the observed variables can depend on the latent variables (this part of the model is called the measurement model).The structural model (the relationships between the latent variables) for each cohort covers the same six latent variables named as follows:
- Socio-economic status of respondent's parents,
- Aspirations of a respondent,
- Economic resourcefulness of a respondent,
- Propensity to save,
- Propensity to run-up-debts,
- Economic security of a respondent's household.

3.5.2. Measures

The measurement model for each cohort consists of six distinct measurement submodels which specify how each of the six latent variables influences a group of observed variables – see Tables 2A-2D.

Measures of the observed variables are based on responses to the questions in the questionnaire survey. The majority of questions refer to individual attainment/opinion/behavior of a respondent. Smaller part of questions concerns a financial situation of a respondent's household, like income per person, a level of savings/total indebtedness, managing of household's income. Regarding such questions it is assumed that responses given by a respondent are representative for her/his household as a whole (only one member of a household was asked).

Table 2A: Variables in SEMs

| Latent variable | Observed variables dependent on a latent variable | | |
	Symbol	Explanations	Including a variable in SEM estimated for the cohort*
Socio-economic status of respondent's parents	Q29	Did your parents ever have financial problems?	C,Y, M (Q31A →Q29)
	Q30	Do/did your parents own a house/flat?	C
	Q31A	What is your father's educational attainment?	C,Y, M
	Q31B	What is your mother's educational attainment?	C,Y, M
	Q18	Are chronic diseases an obstacle for you to earn money?	C (Q31A →Q18), M (Q31B →Q18)
	Q15	Do you think your family and friends would lend you enough money to survive with your children for a period of: up to 1 month; 1-2 months; 3-5 month; more than 6 months	C
	Q16	Are you capable of taking additional job facing financial problems?	M
	M22_2	Which from the expressions given below describes the best the way of managing your household income?	Y
	Q42(ln)	What is a value of your flat/house	M (Q31A→ Q42)
Aspirations of a respondent	EDU	What is your highest educational attainment	C,Y, M
	Q44	What is your main source of income	C,Y, M
	Q28	Do/did your children attend extra-paid activities?	Y, M
	Q10	What is your household total indebtedness, , as a multiplicity of household's monthly income?	M

* Cohort identification: C - Children of transition, Y - Youth of transition, M - Mobile-working-age-adults of transition
Source: own calculations.

Table 2B: Variables in SEMs

Latent variable	Observed variables dependent on a latent variable			Including a variable in SEM estimated for the cohort*
	Symbol	Explanations	
Economic resourcefulness of a respondent	Q2	Are you employed full time or do you work at least 35 hours per week this year?	C,Y, M
	Q3	Were you employed full time or did you work at least 35 hours per week two years ago?	C,Y, M
	Q14	Do you think a bank would give you a loan because of your creditworthiness?	C,Y, M
	Q15	Do you think your family and friends would lend you enough money to survive with your children for a period of: up to 1 month; 1-2 months; 3-5 months; more than 6 months	M
	Q16	Are you capable of taking additional job facing financial problems?	C,Y, M
	Q17	Do you have any valuable belongings you could sell having financial problems?	C,Y, M
	Q41	What is the property right of your house/flat?	C,Y, M
	Q20	Do you or anybody from your household buy house/flat insurance?	C,Y, M
	Q34	Do you support your parents permanently?	M
	Q37	Do you think your household will be able to maintain the living standard for the coming two years?	Y, M
	Income	What is income per person in your household? (ln)	C,Y, M
	Q28	Do/did your children attend extra-paid activities?	C
Propensity to save	Q22	Do you have any private pension savings apart from the state pension insurance fund?	C,Y, M
	Q23	Do you think you can save such an amount of money which could substantially rise your pension?	C,Y, M
	Q25	Do you think it is up to you how much money you will have in your life?	C,Y, M
	Q26	When you get a bonus/prize or gift will you save it or spend?	C,Y, M
	Q40	What will be your main source of maintenance when you are retired?	C,Y, M
	Q7	What is the estimated level of your savings, as a multiplicity of household's monthly income?	C,Y, M
	Q42	What is a value of your flat/house (ln)	C,Y, M

* Cohort identification: C - Children of transition, Y - Youth of transition, M - Mobile-working-age-adults of transition
Source: own calculations.

Table 2C: Variables in SEMs

Latent variable	Observed variables dependent on a latent variable		
	Symbol	Explanations	Including a variable in SEM estimated for the cohort*
Propensity to run up debts	Q10	What is your household total indebtedness, , as a multiplicity of household's monthly income?	C,Y, M
	Q10A	Do you think the total income of your household is high enough to refrain from loans?	C,Y, M
	Q12	Which sentence best describes the situation of your household: 1. Debt repaying forces my household to limit spending on basic goods; 2. Debt repaying forces my household to limit spending on luxury goods; 3. No limits in spending due to debt repaying 4. No answer	C,Y, M
Economic security of a respondent's household	Q37	Do you think your household will be able to maintain the living standard for the coming two years?	C
	Q39	Do you think your household will be able to maintain the today living standard when you are retired?	C,Y, M
	Q19	Did your income decline due to your illness last year?	C, M
	M22_2	Which from the expressions below describes the best the way of managing your household income?	C,Y, M
	Q5 (ln)	What unexpected expenses can you meet during few days without any loans and any financial support from the others?	C,Y, M
	Q38_6	Do you recognize an unexpected decrease in your household's income as a main threat to economic security of your household in the future?	Y

* Cohort identification: C - Children of transition, Y - Youth of transition, M - Mobile-working-age-adults of transition
Source: own calculations.

Table 2D: Variables in SEMs

Explanation for additional relationships		
Observed variable influences other observed variable		Including a variable in SEM estimated for the cohort*
Q 31B: What is your mother's educational attainment?	→ Q18: Are chronic diseases an obstacle for you to earn money?	M
Q 31A: What is your father's educational attainment?	→ Q18: Are chronic diseases an obstacle for you to earn money?	C
Q18: Are chronic diseases an obstacle for you to earn money?	→ Q19: Did your income decline due to your illness last year?	C, M
Q 31A: What is your father's educational attainment?	→ Q 42 (ln): What is a value of your flat/house	M
Q 31A: What is your father's educational attainment?	→ Q29: Did your parents ever have financial problems?	M
Q 31B: What is your mother's educational attainment?	→ Q27: Can you expect financial support from your children when you are old?	M
Q28: Do/did your children attend extra-paid activities?	→ Q27: Can you expect financial support from your children when you are old?	M
Q27: Can you expect financial support from your children when you are old?	→ Q14: Do you think a bank would give you a loan because of your creditworthiness?	M
Observed variable influences latent variable		
Q29: Did your parents ever have financial problems? →	Propensity to run up debts	M

* Cohort identification: C - Children of transition, Y - Youth of transition, M - Mobile-working-age-adults of transition

Source: own calculations.

The measures of observed variables are scaled as follows:
- 1 – it means a high level of a variable,
- 0 – it means a low level of a variable.

For the questions with a choice of options:
- EDU, Q31A, Q31B – 1 for a tertiary level of education while 0 for other levels,
- M22_2 – 1 for options 1-4 while 0 for options 5-8 (where specific values denote: 1: We have enough money for everything and for saving for the future, 2: We have enough money for everything without renunciation but no savings for the future, 3: We live economically and we have enough money for everything, 4: We live economically to save for major spending, 5: We have enough money for cheap food, clothing, apartment rent and installment of credit repayment, 6: We have enough money for cheap food, clothing, apartment rent but not for installment of credit repayment, 7: We have enough money for cheap food and clothing, but not for apartment rent, 8: We have enough money for cheap food but not for clothing, 9: We don't have enough money even for cheap food, 10: No answer),
- Q12 – 1 for option 1 while 0 for options 2-3 (see the explanation for the variable in Tables 2A-2D).

A few observed variables are measured in other way:
- Income per person in a household is measured in Polish currency (PLN, logarithm),
- Q5 – What unexpected expenses can you meet during few days without any loans and any financial support from the others? - is measured in PLN (logarithm),
- Q42 – a value of a respondent's flat/house (PLN, logarithm),
- Q7 – a level of savings as a multiplicity of household's monthly income,
- Q10 – a level of total indebtedness as a multiplicity of household's monthly income,
- Q15 – measured in a number of months.

The matrix of implied covariances for all variables in the model can be used to carry out a regression of the unobserved (latent) variable on the observed variables. The resulting regression weight estimates can be obtained from IBM SPSS Amos and they are named the factor score weights. These factor score weights give regression weights for predicting the unobserved variables from the observed variables. A measure of a latent variable is a weighted sum of the individual observed scores using the factor score weights. In the paper the factor score weights are calculated separately for each cohort. For example, the measure of resourcefulness for an individual in the cohort "Children of transition" is the sum of observed scores computed as follows:

individual response to Q31A (1 or 0) x cohort-factor-score-weight for Q31A + …..

3.5.3. Model evaluation

All regression coefficients in each SEM, estimated for the cohorts, are significant at the 0.05 level (a majority of them are significant at the 0.01 level). All covariances between the errors included in the model are significant at the 0.05 level.

Model evaluation is one of the most unsettled and difficult issues related to a structural modeling. The literature suggests several fit measures. In the paper the SEM estimated for each cohort is evaluated on a base of the following ones:

P is a "p value" for testing the hypothesis that the model fits the data.

CMIN/DF is the minimum discrepancy, divided by its degrees of freedom. The ratio should be close to 1 for correct models.

CFI is the comparative fit index. CFI values close to 1 indicate a very good fit.

RMSEA - root mean square error of approximation - a value of the RMSEA of about 0.05 or less indicates a close fit of the model in relation to the degrees of freedom.

PCLOSE - is a p value for testing the null hypothesis that the population RMSEA is no greater than 0.05

The values of the fit measures used in the research are presented in Table 3. The evaluation results indicate a good fit of all three models

Table 3: Summary of the Fit Measures

Model for the cohort	P	CMIN/DF	CFI	RMSEA	PCLOSE
Children of transition	0.918	0.905	1.000	0.000	1.000
Youth of transition	0.887	0.907	1.000	0.000	1.000
Mobile-working-age-adults of transition	0.841	0.931	1.000	0.000	1.000

Source: own calculations.

4. Results and analysis

The exploratory analysis reveals some cohort and age differences. Comparisons made across large age spans showed that the variance related to cohorts far exceeds that related to the age. This enabled an identification of magnitudes of generational (cohort) differences between "Children of transition" and "Mobile-working-age adults of transition". While in comparison of similarly aged persons it is reasonable to assume cohort differences to be rather small, this enables to identify magnitudes of age differences between "Children of transition" and "Youth of transition".

Identification of cohort and age differences is based on comparisons of: 1) the relationships between variables in the SEMs estimated separately for each cohort (see Tables 2A-2D); 2) standardized total effects of latent variables across cohorts (see Table 4), and 3) the mean values of economic security measures across cohorts (see Table 5 and 6).

4.1. Relationships between variables in SEMs

In general, respondents in the cohort "Children of transition" (respondents aged 25-34) are much better educated and much more familiar with products in a financial market (all levels of their education were attained in the market economy, professional training in the advanced market economy) than respondents in the cohort "Mobile-working-age adults of transition" (shortly, "Adults of transition, respondents aged 45-64).

This can explain a difference in the impact of "Propensity to save" on "Diversification in sources of income during retirement". For the "Children of transition" (as well as for the cohort 2 – respondents aged 35-44) diversifying long-term investment is one of direct measures of their behavior in saving process, while for the "Adults of transition" the impact is mediated by their opinion whether their well-being depends on themselves ("Do you think it is up to you how much money you will have in your life?), see Table 3.

Experiences of the "Children of transition" in a financial market make them more independent from the parental influence. This can explain why in their SEM "Propensity to run up debts" depends directly only on their "Resourcefulness", while in the SEM of "Adults of transition" this latent variable is influenced additionally by "Financial problems of their parents", see Table 3.

In general, comparison of SEMs suggests that economic decisions made by the "Children of transition" depend directly on their own resourcefulness and the impact of parental socio-

economic status on their decisions is only indirect, mediated by their "Aspirations" (however this indirect impact is the strongest in the cohort 1 because, parental status of respondents in the cohort "Children of transition" is much higher than in the cohort "Adults of transition" – mean value of the latent variable "Socio-economic status of respondent's parents" is 0,454 in comparison to 0,188). While in the SEM for the "Adults of transition" parental status influences directly two variables: the ability to find additional job and a value of real estate possessed by a adult child. This statistical significance of parental support results from informal relationships among older members of the Polish society.

There is one more cohort difference linked with a perception of investment in children. For the "Children of transition" money spent on child development is one of resourcefulness measures, while for the "Adults of transition" investment in a child's activities has been a matter of their aspiration, see Table 3.

4.2. Standardized total effects

A standardized total effect is a measure of both direct (unmediated) and indirect (mediated) effects of a variable A on variable B after standardizing all variables. See Table 4 that presents the total effect of each column variable on each row variable, for example the standardized total (direct and indirect) effect of "Economic resourcefulness of a respondent" on "Propensity to save" is 0.961. That is, due to both direct (unmediated) and indirect (mediated) effects of "Resourcefulness of a respondent" on "Propensity to save", when "Resourcefulness of a respondent" goes up by 1 standard deviation, "Propensity to save" goes up by 0,961 standard deviation.

Figures in the Table 4 confirm that young people (aged 25-34, cohort 1) – better educated, with professional training in the advanced market economy, and having parents with a higher socio-economic status – can make private economic decisions more rational than people aged 45-64 (cohort 3). An increase in economic resourcefulness among these young respondents declines their propensity to run up debts as well as total indebtedness much stronger in comparison to these total effects among the oldest cohort of respondents (age of 45-64) – compare -0.533 to -0.258 and -0.401 to -0.173 in Table 4. Two other differences refer to total effects of resourcefulness on purchasing insurance and diversifying retirement investments. The impact of resourcefulness in both cases is stronger for the cohort 1 than cohort 3 – compare 0.518 to 0.353 and 0.187 to 0.051 in Table 4.

Moreover, the effects of resourcefulness on propensity to save as well as savings are the strongest for the youngest cohort.

4.3. Comparison in mean values of economic security across cohorts

The measure of economic security is calculated on a base of the SEMs for each cohort and it is normalized from 0 to 1, where higher value denote higher economic security of a respondent's household (see Table 5). Higher mean values of economic security for the oldest cohort (cohort 3) than for the youngest one (cohort 1) suggest an age difference rather than a cohort one. In general, people aged 45-64 should be economically secure more than people aged 25-34 because they had more time to gather more wealth and pay out their loans. This conclusion is obvious.

Table 4: Standardized total effects of "Economic resourcefulness of a respondent" and "Economic security" across cohorts

	Economic resourcefulness of a respondent		
	Cohort 1: Children of transition (aged 25-34)	Cohort 2: Youth of transition (aged 35-44)	Cohort 3: Mobile-working-age-adults of transition (aged 45-64)
Propensity to save	0.961	0.764	0.894
Propensity to run up debts	-0.533	-0.465	-0.258
Economic security	0.947	0.976	0.869
Diversification in income sources of maintenance during retirement	0.187	0.346	0.051
Purchases of insurance	0.518	0.442	0.353
Savings	0.572	0.405	0.433
Total indebtedness	-0.401	-0.260	-0.173

*The total effect of each column variable on each row variable after standardizing all variables. For example, 0.961 - a first figure in the Table 4: The standardized total (direct and indirect) effect of "Economic resourcefulness of a respondent" on "Propensity to save" is 0.961. That is, due to both direct (unmediated) and indirect (mediated) effects of "Resourcefulness of a respondent" on "Propensity to save", when "Resourcefulness of a respondent" goes up by 1 standard deviation, "Propensity to save" goes up by 0,961 standard deviation.
Source: own calculations.

Table 5: Mean values of economic security across cohorts, by educational level

Educational level of a respondent	Mean value of economic security of a household		
	Cohort 1: Children of transition (aged 25-34)	Cohort 2: Youth of transition (aged 35-44)	Cohort 3: Mobile-working-age-adults of transition (aged 45-64)
Tertiary	0.607	0.707	0.718
Secondary	0.449	0.593	0.567
Basic vocational	0.315	0.412	0.459
Primary	0.232	0.252	0.371
Whole cohort	0.492	0.562	0.516

The measure of economic security is calculated on a base of the SEMs for each cohort and it is normalized from 0 to 1. Higher value, higher economic security of a respondent's household.
Source: own calculations.

Interesting data is presented in Table 6 where the mean value of economic security for the cohort 2 ("Youth of transition" – respondents aged 35-44) serves as a base for comparisons. The changes in mean economic security are differentiated across cohorts and by education level. The age difference is visible only in reference to people with low and very low educational level. They are more economically secure when aged 45-64 than people in cohort

2 (aged 35-44). While the cohort difference can be recognized regarding people aged 45-64 with tertiary and secondary levels of education. These people have the same economic security, on average, as people aged 35-44. Educational and professional experiences of middle-age people (cohort 2) – secondary and tertiary levels of education in a market economy, easy entry to the labor market just after Poland's transition to the EU (dynamic growth during 2005-2007), extended professional experiences and more or less stable professional carrier during the financial crisis – enable them to receive economic security at the same level like people 10-20 years older. This suggests that qualification of the cohort 2 must be higher than skills and knowledge of older people (cohort 3), even with the same educational level. This can be recognize as evidence of the cohort difference.

Table 6: Ratios of mean values of economic security across cohorts, by educational level

Educational level of a respondent	Mean value of economic security of a household, as % of mean economic security of cohort 2		
	Cohort 1: Children of transition (aged 25-34)	Cohort 2: Youth of transition (aged 35-44)	Cohort 3: Mobile-working-age-adults of transition (aged 45-64)
Tertiary	85.9	100	101.6
Secondary	75.7	100	95.6
Basic vocational	76.5	100	111.4
Primary	92.1	100	147.2
Whole cohort	87.5	100	91.8

Source: own calculations based on Table 5.

5. Conclusion

The paper is aimed at explaining differentiation in economic security of households through cohort differences. Identification of cohorts is based on common educational and professional experiences. The research introduces the concept of economic resourcefulness defined as the capability to make rational economic decisions which contribute to economic security of a household.

The findings reveal that:

- Economic decisions made by the members of the youngest cohort, having educational and professional skills attained in a market economy, depend directly on their own resourcefulness. The impact of parental socio-economic status on their decisions is only indirect, mediated by their "Aspirations", while in the SEM of the oldest cohort parental status influences directly two variables: the ability to find additional job by an adult child and a value of real estate possessed by an adult child.

- An increase in economic resourcefulness among the youngest respondents declines their propensity to run up debts as well as total indebtedness much stronger than for the oldest cohort of respondents.

- Total effects of economic resourcefulness on purchasing insurance and diversifying retirement investments are stronger for the youngest cohort than for the oldest one.

- The effects of resourcefulness on a propensity to save as well as savings are the strongest for the youngest cohort.

- Educational and professional experiences of middle-aged people (it means secondary and tertiary levels of education attained in a market economy, easy entry to the labor

market just after Poland's transition to the EU, extended professional experiences and more or less stable professional carrier during the financial crisis) enable them receiving economic security at the same level like for people 10-20 years older.

The research results confirm that common educational and professional experiences, controlling for economy conditions, influence economic resourcefulness of household's members and, as a consequence, their economic security.

The research limitations should be emphasized. The conclusions refer to the Polish society and socio-economic development experienced by cohorts of Poles since 1990. More country studies are required to generalize the main conclusion that cohort differences explain differentiation in economic security of households.

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