FAMILY 500 PLUS AND SUBJECTIVE WELL-BEING OF THE RECIPIENTS: POLAND IN 2016 – 2021 PERIOD

by

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Abstract

The study is aimed at evaluation of impact of the "Family 500 plus" benefit system in Poland on subjective perception of the beneficiaries' economic conditions. **Special attention is paid to psychological effects of pressure on the recipient. Those effects are examined by comparing subjective assessments with more objective indicators of economic status, especially the household equivalent incomes**. It is assumed that discrepancies between "subjective" and "objective" indications may be partly attributed to social attitudes towards the recipients of 500 plus. To evaluate subjective well-being of the household members five various questions on their subjective material situation are utilised. The answers are employed as dependent variables in ordered logit models, while shares of 500 plus in the household income create a core explanatory variable. **The estimates of marginal effects on this variable demonstrate relatively positive, though not stable in time, psychological effects of 500 plus**. This is especially true for 2019 – 2021 period. Such effects may be observed not only in comparison with the recipients of other social benefits but also with remaining part of the society for last three years. Therefore, one can conclude that **500 plus, in spite of negative attitudes of significant part of the society, has generally a positive psychological effect on the recipients.**

Outline of the presentation

1. Basic facts about Family 500 plus

2. Motivation of the study and the main question: **did negative attitudes against the recipients embodied by some part of the society (including politicians, media and scientific research) affect negatively their mental comfort?**

3. Methodological issues

4. Main results

5. Discussion

- FAMILY 500 PLUS, is a system of benefits granted to the Polish families with children. It was introduced in April 2016 and ensured **unconditional 500 PLN** (circa 115 euro or 34% of the average per capita income) per child allowance for families with at least two children and **means tested benefits of same size for one-child families**. **In July 2019 the income criterion was waived**.

- Total spendings both in 2017 and in 2023 were equal to 6% of the state budget.

- Most of the studies claimed **positive effect on material well-being** and **no significant effects on fertility rates**. Some studies confirmed negative effects of Family 500plus on the labour supply (especially among women) while some others did not claim demotivation effects.

Motivation

The study has been inspired by observation of the public life in Poland, especially of politicians' discussions, contents of the traditional and electronic media and from the perspective of, say, "a common citizen". The main question is: **whether negative attitudes of a significant part of the Polish society against the recipients affected negatively their mental comfort**.

This issue is handled by **comparing answers to subjective well-being questions with more objective measures of well-being, especially equivalent income**. More technically: answers to subjective well-being questions are dependent variables in ordered logit models while shares of 500 plus and of other social benefits are among independent variables.

More on inspirations: some informal observations

- Many oppositional (in 2016 – 2021 years) politicians and media were presenting 500 plus recipients as mainly low educated and most demanding people.

- In some scientific publications referring to 500 plus the conclusions were combined with words like "populism" or even „fascism" (Ost, 2018).

- Observing Internet forums and social media sometimes gave an opportunity to understand better the word „hate" (collection of 7000+ comments reviewed by Michoń, 2021 a, 2021b).

- It seems that critics of 500 plus from most of oppositional politicians has been used as a tool against the (former) government rather than as critics of the program itself (Karwacki and Szlendak, 2020). The closer parliamentary election (in October 2023), the more favourable for 500 plus rhetoric from most of oppositional parties.

The data come from the annual Household Budget Survey (hereafter: HBS), including, inter alia, household incomes split into circa 90 categories, **answers to several subjective questions yielding self-assessments of own material situation** as well as large set of **socio-demographic household attributes**. The latters are employed as **control variables in regression models**. Unfortunately, the questions referring directly to 500 plus are not comprised in the survey. Moreover, there are no questions allowing evaluation of general well-being or life satisfaction of the respondents.

The data

The respondents are asked to answer the following questions:

- **How do you assess the overall material standing of your household**? (the answers range from "very good" to "very bad")
- **Which of the following terms best describes the way you manage money in your household?** (the answers range from "we can afford some luxury" to "we don't even have enough for our basic needs")
- **Describe the level of meeting your consumer needs.** In this question eight groups of commodities/services are classified (the answers range from "good" to "bad"; for some sorts of needs, like education, it is allowed to answer "not applicable")
- **What income level would you describe as: "very good", "good", "scarcely sufficient", "insufficient" and "very bad".** The answers allow self-assessment of the actual household income.

- **Dependent variables** in the ordered logit models:

Four answers to the subjective well-being questions above (five-point scale) supplemented by an aggregate indicator

- Core **independent variables**:

Shares in the total household income: i) of 500 plus ii) of other social benefits, and iii) of labour/self-employment income used as a benchmark for two previous ones. The central formal question is: **whether the probabilities of high satisfaction are increasing or decreasing functions of those shares?**

- **Control variables**:

equivalent income (OECD 70/50 equivalence scales applied), squared equivalent income and large set of household attributes having potential impact on material and financial situation of the households

Descriptive statistics on Family 500plus

Table 1. Mean subjective households' self-assessments and shares of social benefits in recipient households' income: 2015 – 2021.

Type of assessment	2015	2016	2017	2018	2019	2020	2021
Material standing	3.18	3.31	3.39	3.55	3.63	3.70	3.72
Managing money	2.84	2.89	2.94	2.91	3.00	3.06	3.11
Subjective income level	3.98	4.09	4.11	4.18	4.26	4.27	4.24
Meeting consumer needs	3.33	3.38	3.46	3.55	3.62	3.68	3.71
Aggregate indicator	2.75	2.86	2.94	3.01	3.13	3.21	3.24
Financial optimism	2.99	3.05	3.07	3.08	3.11	2.97	2.98
Share of 500 plus	10.1%*	16.9%	14.7%	13.6%	12.8%	12.4%	11.6%
Share of other social benefits	11.5%	12.2%	11.7%	12.2%	11.6%	13.3%	13.2%

* For 2015 r. sum of all family allowances is reported, for the succeeding years only 500 plus.

Descriptive statistics on Family 500plus

Table 2. Changes in income and subjective assessments among **new 500 plus recipients**: two-year panels.

Category	2015-16	2016-17	2018-19	2019-20
Equivalent income				
whole sample	10.1%	4.5%	7.9%	2.9%
new 500 plus recipients	21.7%	8.0%	6.7%	3.3%
Self assessment of material standing				
whole sample	3.3%	2.2%	2.5%	1.2%
new 500 plus recipients	7.8%	3.0%	2.4%	1.5%
Self assessment of money management				
whole sample	2.1%	1.7%	2.9%	1.1%
new 500 plus recipients	6.1%	2.8%	2.8%	1.3%
Subjective income				
whole sample	3.4%	1.1%	2.4%	0.6%
new 500 plus recipients	12.2%	3.3%	2.8%	1.3%
Self assessment of meeting consumer needs				
whole sample	1.6%	1.9%	1.6%	0.7%
new 500 plus recipients	6.2%	3.0%	2.0%	1.3%
Share of 500 plus recipients in the sample	11.1%	20.3%	24.6%	24.1%
new 500 plus recipients	100%	48.9%	23.3%	30.7%

Descriptive statistics on Family 500plus

Table 3. Spearman correlation coefficients for equivalent incomes and subjective assessments.

Type of subjective assessment	2015	2016	2017	2018	2019	2020	2021
Material standing							
whole sample	0.507	0.498	0.494	0.496	0.476	0.458	0.433
family benefits recipients	0.327	0.426	0.437	0.426	0.423	0.409	0.349
Managing money							
whole sample	0.504	0.506	0.501	0.533	0.501	0.486	0.483
family benefits recipients	0.315	0.417	0.426	0.460	0.443	0.432	0.408
Income level							
whole sample	0.509	0.504	0.510	0.521	0.519	0.533	0.536
family benefits recipients	0.451	0.499	0.518	0.526	0.516	0.538	0.563
Meeting consumer needs							
whole sample	0.472	0.468	0.470	0.470	0.455	0.436	0.401
family benefits recipients	0.200	0.414	0.443	0.422	0.428	0.400	0.345

Relatively small absolute values suggest **sizeable impact of non-income factors on subjective assessments of own standing**.

Five plots displayed on succeeding pages demonstrate **marginal effects (for probabilities of obtaining a certain answer) on shares of Family 500 plus and of other social benefits** in ordered logit models with the five dependent variables Y_S taking five possible values k:

$$P(Y_S = k) = f(500+, other\ benefits, income, control\ variables) + \varepsilon$$

The dependent variables are:
- general evaluation of own material standing
- evaluation of managing money
- subjective evaluation of the household income
- subjective evaluation of meeting consumer needs
- aggregate subjective indicator capturing four preceding ones

Marginal effects are displayed for two best evaluations („very good" and „good"):

$$\frac{\partial P(Y_S = k|\boldsymbol{X})}{\partial X_j}$$

(s = 1, 2, …, 6 – number of the question and k = 1, 2 – number of the answer). As estimates for financial optimism (s = 6) are usually non-significant, they are not reported.

For example, a marginal effect for probability of highest self-assessment due to the household income most likely would be positive. Effects for our variables of interest (shares of 500 plus and of other benefits) and relations between them cannot be predicted so easily.

Figure 1. Marginal effects due to shares of Family 500 plus and of other social benefits in the household income: **general evaluation of own material standing**
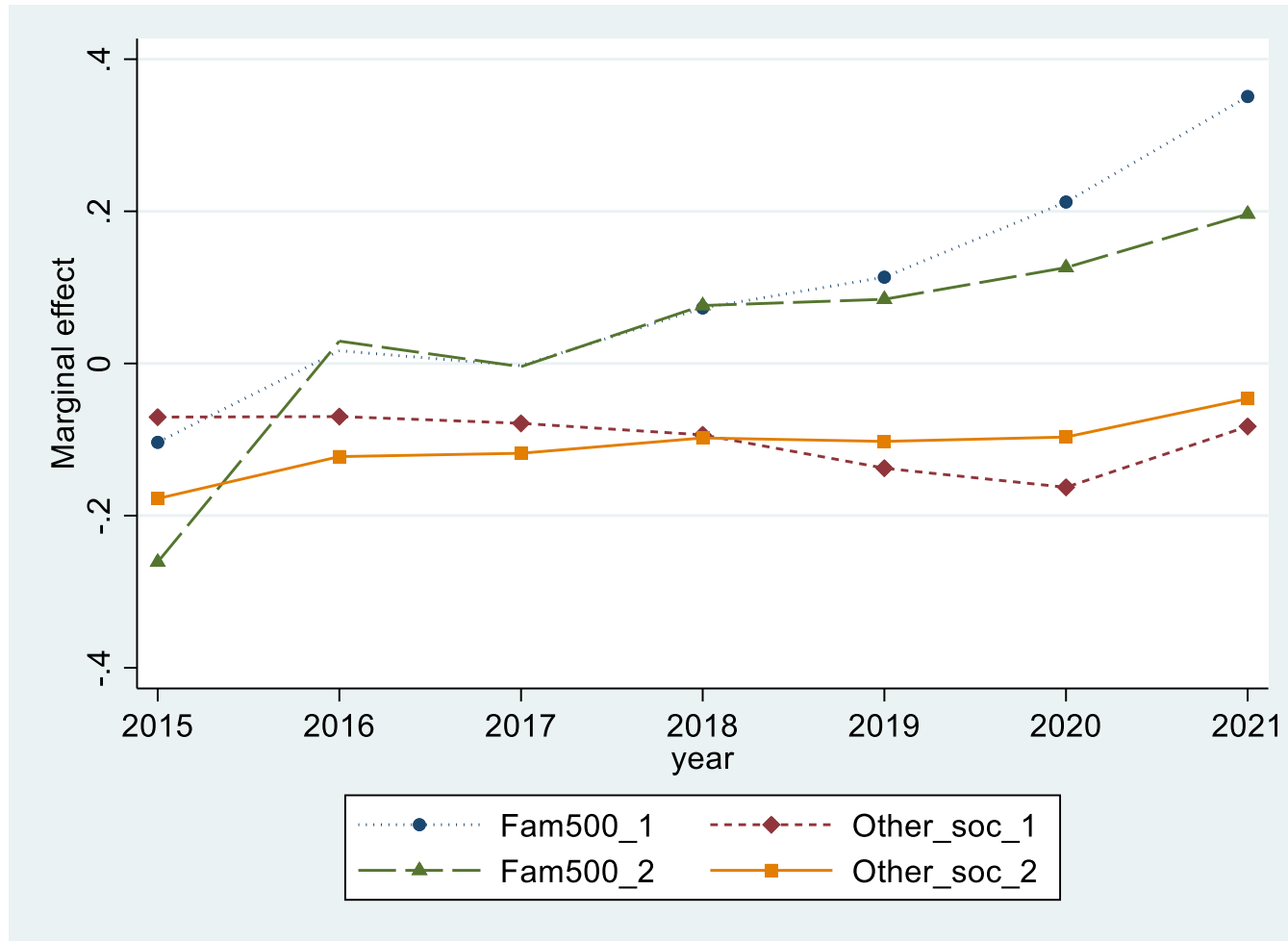
Legend: 1 stands for highest and 2 for second highest satisfaction
If no marker, the estimate is not significant at 0.1 level

Figure 2. Marginal effects due to shares of Family 500 plus and of other social benefits in the household income: **evaluation of managing money**
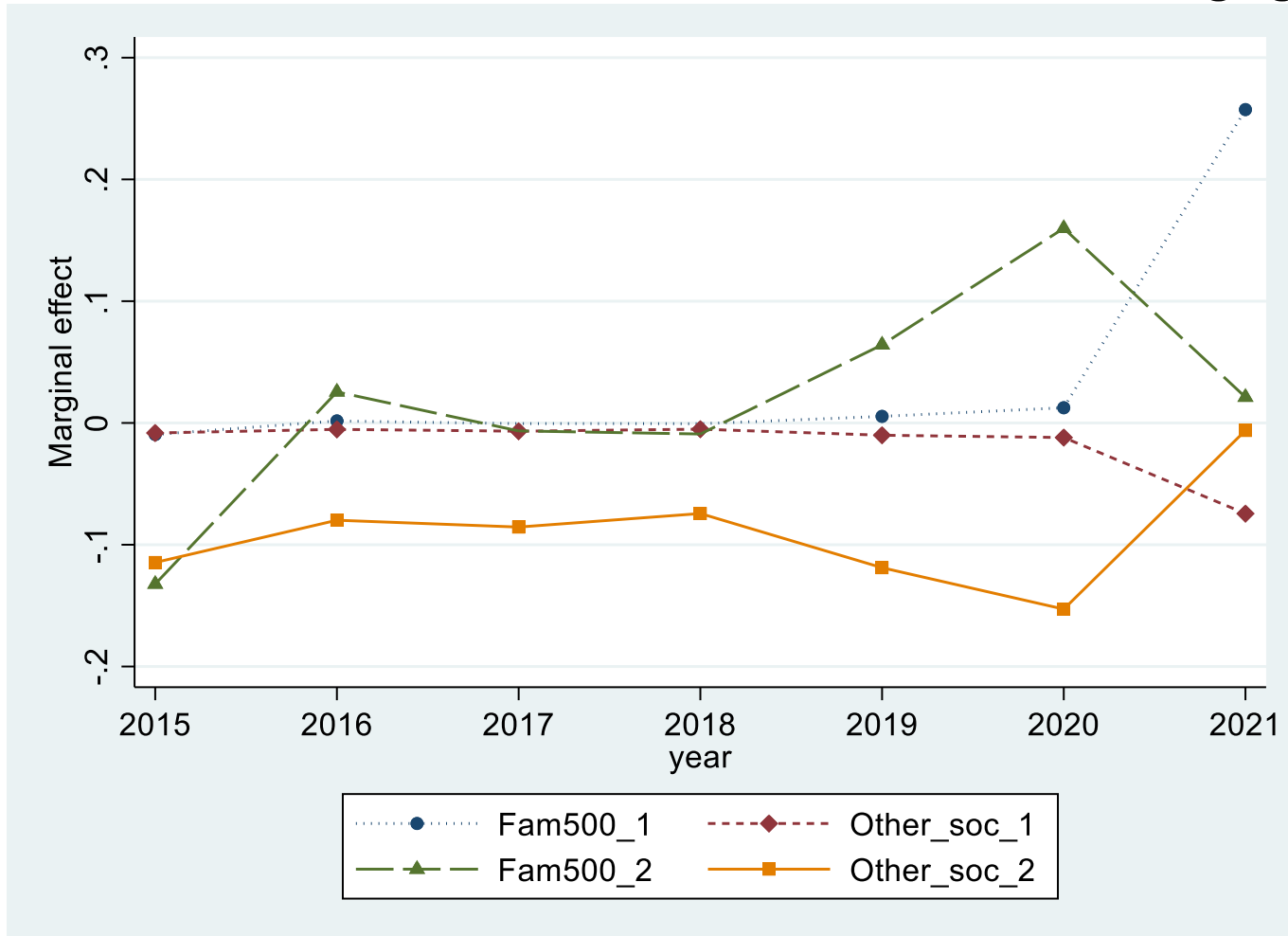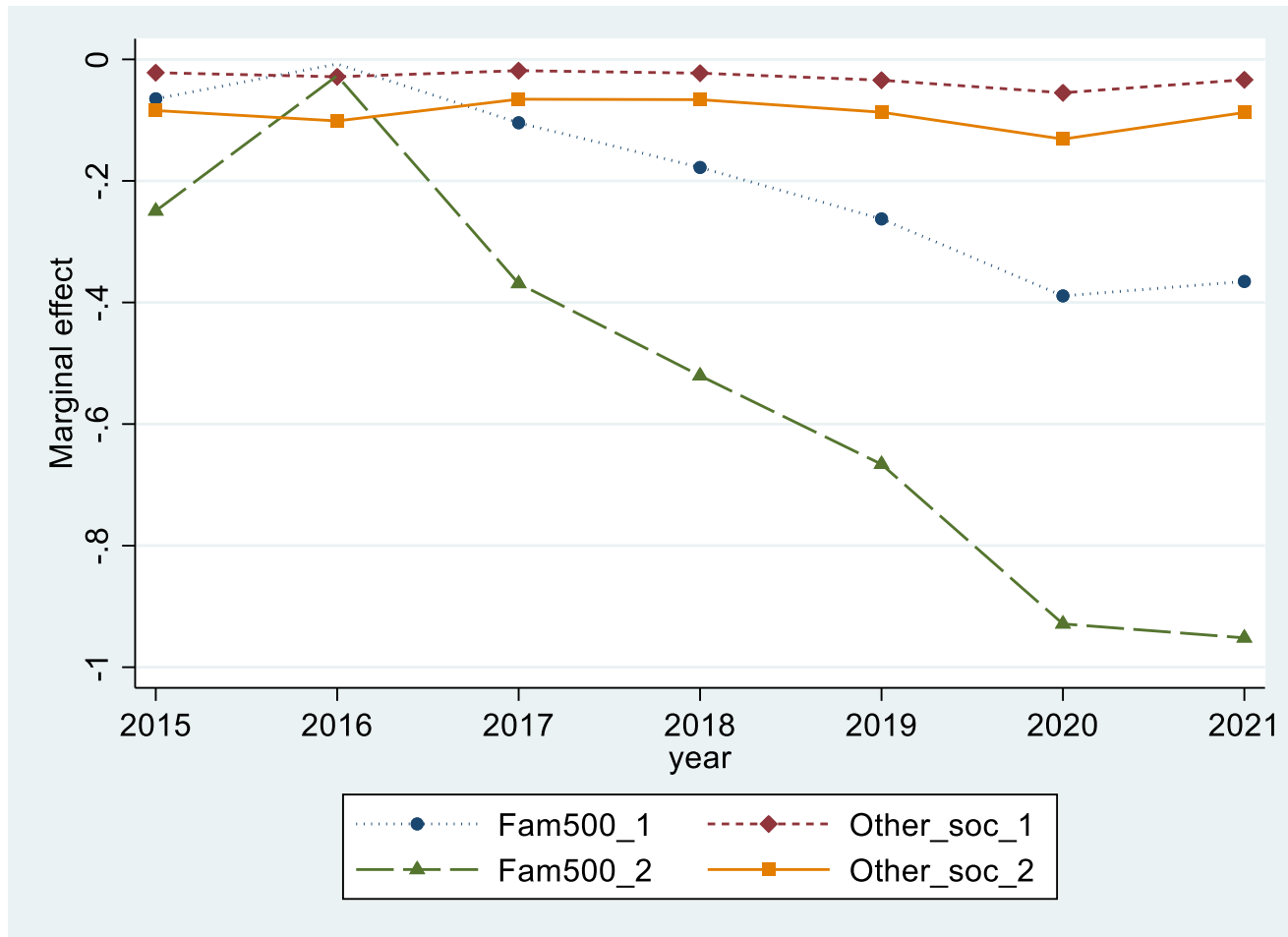

Legend: 1 stands for highest and 2 for second highest satisfaction
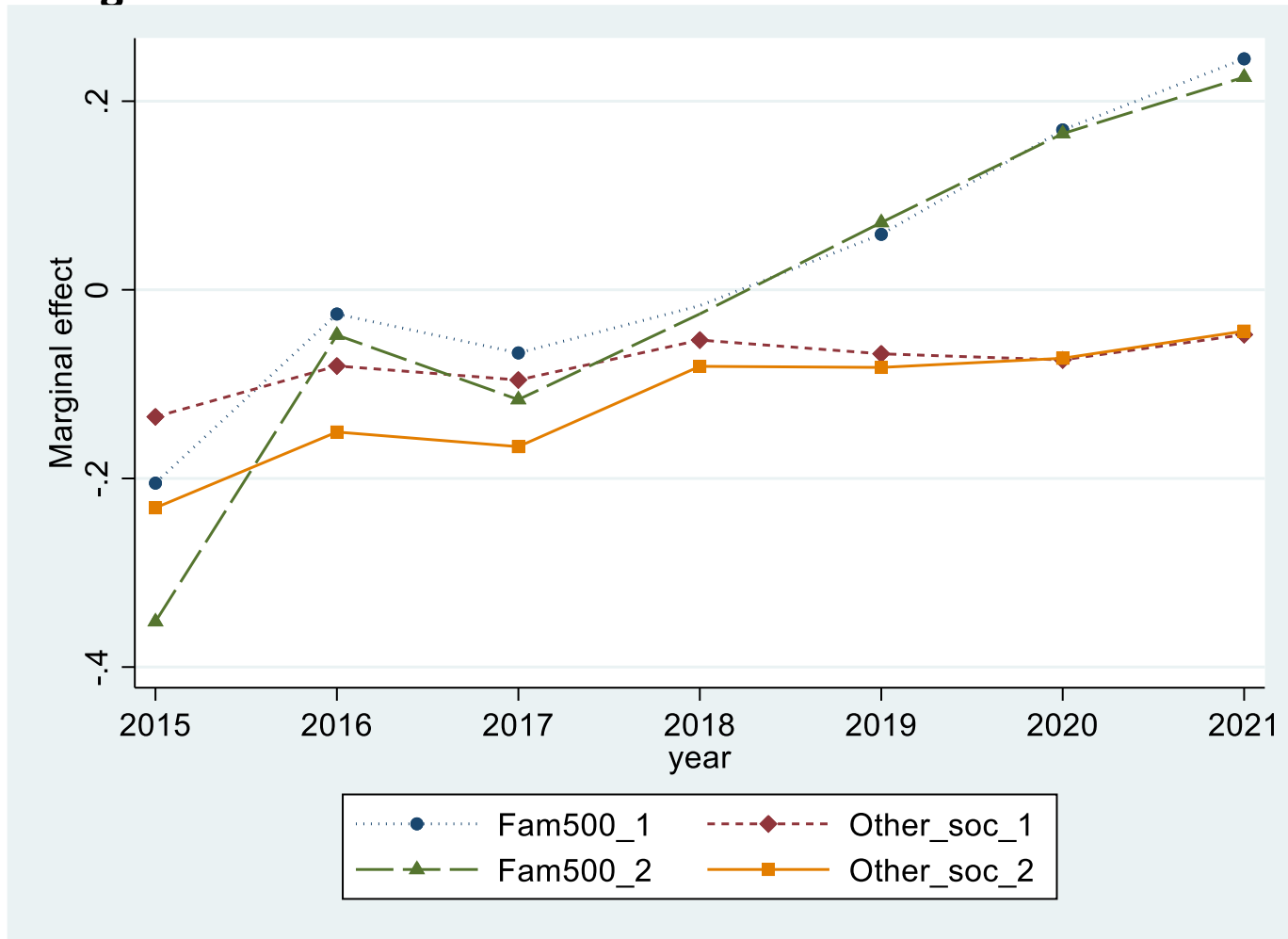If no marker, the estimate is not significant at 0.1 level

Figure 3. Marginal effects due to shares of Family 500 plus and of other social benefits in the household income: **subjective evaluation of the household income**

Legend: 1 stands for highest and 2 for second highest satisfaction
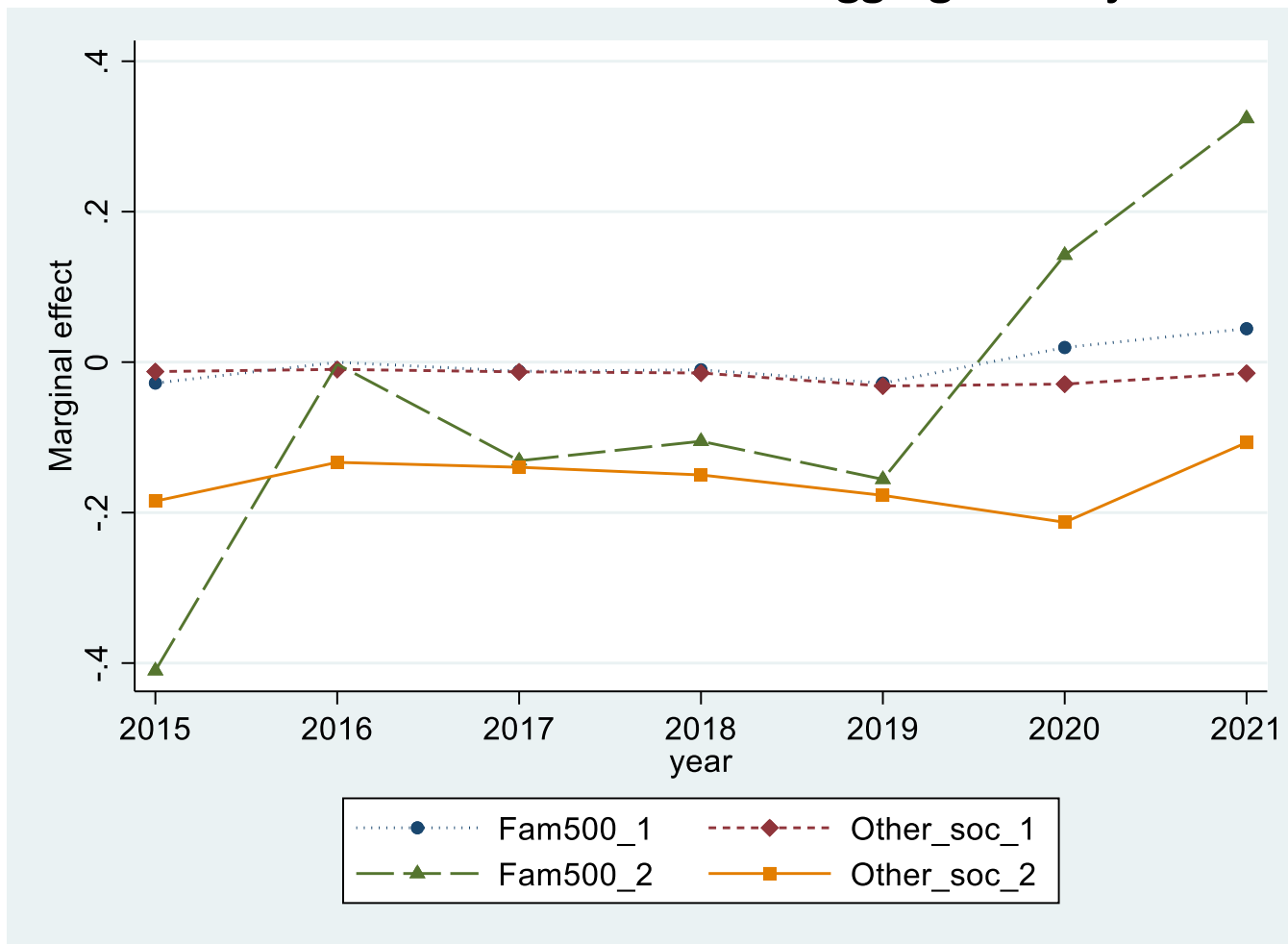If no marker, the estimate is not significant at 0.1 level

Figure 4. Marginal effects due to shares of Family 500 plus and of other social benefits in the household income: **subjective evaluation of meeting consumer needs**

Legend: 1 stands for highest and 2 for second highest satisfaction
If no marker, the estimate is not significant at 0.1 level

Figure 5. Marginal effects due to shares of Family 500 plus and other social benefits in the household income: **aggregate subjective indicator**

Legend: 1 stands for highest and 2 for second highest satisfaction
If no marker, the estimate is not significant at 0.1 level

General conclusions

1. **The marginal effects on Family 500plus are usually greater than zero, contrary to the effects obtained for other social benefits**. This suggests positive impact of 500 plus on mental comfort of its recipients (**similar to that observed for shares of labour/self-employment income**) while receiving other types of benefits reduces this comfort.
2. **Starting from 2019 or 2020 considerable increases of estimates for 500 plus can be observed**, in spite of economic crisis resulting from SARS-Cov2 epidemic. This may be attributed to: i) **waiving income criterion for one-child families in July 2019**, ii) **changes in rhetoric of the main oppositional parties** caused by approaching elections in 2023.

3. The **only exception** to the above trends may be observed for **subjective evaluation of the household income** (based on comparing actual incomes to the declared five minimum income thresholds). In this case all estimates of **marginal effects** for subjective assessment of the household income **are negative** (this is true also for shares of labour/self-employment income) and **lower that those observed for other social benefits**. This may be explained by higher financial aspirations of 500 plus recipients who declare higher minimum income thresholds than non-recipients.

4. More generally, the **Family 500 plus recipients seem to be relatively immune to negative pressure experienced.**

Discussion and hypotheses to be tested further on

1. Relatively positive impact of Family 500 plus on subjective satisfaction from own material situation may by caused, inter alia, by **increasing economic safety being a result of its long-lasting perspective** (many other social transfers, like unemployment benefits or social assistance are temporal).

2. Mental comfort of the recipients may be **improved by gaining more opportunities to stay with their children** at the cost of economic activity. The latter usually results in decreasing earnings, however using equivalent income as a control variable in regression models reduces impact of that change on subjective assessments. Moreover, it seems to be rational to assume that most of the recipients lowering their economic activity put more weight to family values than those staying at their jobs.

Discussion

3. Selecting household equivalent income as a variable controlling for objective material situation is not an ideal choice. The consumer expenditures as a proxy variable to the household permanent income/wealth were applied as an alternative objective measure of material standing. The estimates of marginal effects obtained with the use of this variable are less favourable for 500 plus: number of negative estimates is higher, though a generally relatively positive impact on subjective well-being is confirmed. Moreover, fitting the models to empirical data is usually worse when consumer expenditures are used.

4. Some authors maintain that happiness is a fixed personality trait which is rather insensitive to external changes. Using panel data with fixed-effects might be a solution to this problem. Unfortunately, the HBS data utilised in the present study include two-year panels only which is not sufficient to apply successfully this method. The problem of fixed personality trait is partly resolved here by using its relatively stable various correlates like education level, type of residence or housing conditions. Nevertheless, huge changes in the estimates suggest that "500 plus happiness" is not fixed in time, most probably due to external changes.

THANK YOU VERY MUCH FOR YOUR ATTENTION

- **Appendix: Explanatory variables in the regression models (the household attributes)**

  - share of 500 plus in total household disposable income

  - share of other social benefits in total household disposable income

  - share of labour/self-employment income (including income from agriculture) in total household disposable income

  - disposable equivalent income, squared disposable equivalent income

  - household size (number of persons), squared household size

  - number of children below 18

  - main source of income (8 binary variables)

  - number of disabled people

  - number of unemployed people

- household's head age, squared household's head age

- binary variable indicating presence of people with an university degree in the household

- binary variable indicating presence of people with a secondary education (but not with an university degree) in the household

- type of residence (5 binary variables)

- binary variable indicating autonomic (not shared with other people) dwelling

- form of dwelling ownership (3 binary variables)

- self-evaluation of ability to pay the debt (4 binary variables)

- self-evaluation of change in economic standing during the last 12 months (5-point scale)