# "Four Bright Coins Shining At Me" Financial Education In Childhood, Financial Confidence In Adulthood

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#### Abstract

We analyze the impact of receiving an allowance (pocket money) in childhood on financial confidence in adulthood. We measure the level of confidence using the self-reported financial knowledge. The analysis exploits a Dutch survey carried out in 2015. It estimates causal effects by controlling for parental attitudes and by using a "within family" fixed effect model. The results are robust and point to a long lasting effect of pocket money as an informal educational vehicle to help children acquiring basic financial concepts and form good habits, such as planning.

Keywords: pocket money; financial education; financial confidence.

**JEL**: D91; I22; J13

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#### 1. Introduction

The role of financial literacy in enhancing people's capabilities to more effectively manage their incomes and wealth in the life cycle has long been recognized, at both the theoretical and the empirical level. Policy recommendations have envisaged in financial education programs a major instrument to help people to save for their retirement, to avoid taking up "too much" debt or making imprudent mortgage decisions or suffering the negative consequences of myopic financial decisions. Although the effectiveness of these programs is yet to be firmly established, the general principle that financial education can be seen as a necessary tool - certainly not sufficient - to create a less unequal playing field in the economic sphere is well recognized.

There are various ways, of course, to help people to acquire basic financial elements (*literacy*) and possibly to build further knowledge on these elements: from formal/compulsory programs in school, which cover all the students involved, to informal/voluntary courses specifically addressed to segments of the population considered to be "more at risk" of poor financial decisions. Parents can also contribute by providing children with the first financial concepts and the opportunity to learn.

In this paper, we look at one possible way to help children to acquire a basic familiarity with decisions involving money, i.e. the practice of "pocket money". More specifically, we try to establish whether the children's habit of managing a little money - received more or less regularly by parents/grandparents - produces long lasting consequences in terms of building up a greater ability to cope with financial matters later on in life. The basic idea is that the habit of properly managing some pocket money could generate a familiarity with "good" financial behaviors, like planning, which are maintained later in life.

Using Dutch data, we indeed provide sound evidence of a positive effect of receiving an allowance during childhood on the level of (self-assessed) financial literacy as adult: children who are used to receive an allowance are also more knowledgeable in adulthood.

The research is quite novel, as the previous literature has concentrated on the effects of (wellstructured) financial education programs for children/students and pointed out that these courses produce a persistent impact ((Bernheim, Garrett, & Maki, 2001), (McCormick, 2009)). (Batty, Collins, & Odders-White, 2015) for the US, (Romagnoli & Trifilidis, 2015) for Italy, (Alan & Ertac, 2016) for Turkey provide evidence of long-lasting effects of basic courses taught to pupils in elementary schools. Furthermore, (Gross, Ingham, & Matasar, 2005) discuss the implementation and benefits of a financial literacy course at the university level. (Carlin & Robinson, 2012) provide evidence of higher savings, faster debt repayment and less reliance on credit for students who attended a course than peers who did not. Finally, (Becchetti, Caiazza, & Coviello, 2013) show the effects in terms of higher propensity to get economic news in the media, while (Lührmann, Serra-Garcia, & Winter, 2015) show less impulsiveness in purchasing. Very little has been written, instead, on the effect of allowances and pocket money during childhood on subsequent financial behavior. (Bucciol & Veronesi, 2014) and (Brown & Taylor, 2016) represent an exception: they analyzed the relation between allowance and saving behavior. More generally, (Furnham, 1999)and (Furnham, 2001) studied parental attitudes and children behaviors concerning allowances. In addition to this, (Holford, 2016) studied the relation between pocket money and teenagers' labor supply.

The topic, however, is worth studying more in depth not only because the practice of pocket money can be a good supplement to formal financial literacy courses in school, but also because it can shed some light on the role of (good) habit formation (like acquiring some ability to plan) on saving behavior.

In this context, our paper is also related to the literature on habit persistence in saving behavior over the lifetime and across generations. These ideas can be traced back to (Becker, 1993) and have been investigated more recently by, among the others, (Webley & Nyhus, 2006), (Friedline, Elliott, & Chowa, 2013), (Caballé & Moro-Egido, 2014), and (Cronqvist & Siegel, 2015). Furthermore, it is worth mentioning that it has been established that children are able to use sophisticated saving strategies (Otto, Schots, Westerman, & Webley, 2006).

From a policy perspective, if some families help their children to acquire basic knowledge and to form good habits and some do not, this can enhance inequality. (Lusardi, Michaud, & Mitchell, 2016) find that 30-40% of wealth inequality can be attributed to financial knowledge. It is important, thus, that formal education programs are institutionalized in order to create a more leveled playing field and compensate, at least partially, for the differences that can be passed on by the families.

Last but not least, this analysis takes inspiration from the literature summarized in (Heckman, Stixrud, & Urzua, 2006) and (Cunha, Heckman, & Schennach, 2010) on cognitive and non-cognitive abilities, as well as on the positive effects of early childhood education. This is particularly important for disadvantaged children (Heckman & Masterov, 2007). Our paper contributes to this literature by stressing the importance of developing financial skills early in life and by estimating their returns later in life.

The structure of the paper is the following. Section 1 motivates the research question and links it to the existing literature; section 2 describes the data we have used in the empirical analysis; section 3 discusses the empirical results and section 4 concludes and illustrates some policy implications.

#### 2. Data and descriptive statistics

The data for this analysis are drawn from the DHS Household Survey 2015, a longitudinal survey collected every year since 1993 by CentERdata at Tilburg University and sponsored by the Dutch Central Bank. The aim of the survey is to collect information about the economic and psychological determinants of saving behaviors at the individual and household levels. The data set is quite rich, providing detailed information about individual characteristics, employment, pensions, living conditions, mortgages, income, assets, loans, health, economic and psychological concepts.

A characteristic of the DHS survey is that data are collected using an online questionnaire. Households without a computer or access to the Internet are provided with a basic computer connected to the Internet. This computer is specifically designed for older people and individuals with low computer skills. CentERdata provides technical assistance. (Teppa & Vis, 2012) discuss the advantage and disadvantages of self-administered surveys and provide additional information on the dataset. (CentERdata, 2015) also provide additional information on the survey. The response rate at the individual level is usually high, above 70%. Participants received a monetary compensation for filling in the questionnaire.

Between April and October 2015, 2,128 households were interviewed. This random sample is representative of the Dutch population. All household members aged 16 or more were invited to complete the questionnaire, although some sections focused only on certain individuals such as the household head.

The data contain information on whether the interviewed person received an allowance or pocket money during childhood and on how she judges her own current financial knowledge. Connecting

these two variables – as we have done in Figure 1 – clearly indicates that financial confidence is higher among who received those an allowance as a child. Indeed, among the respondents who did not receive pocket money when children, only 22.7% deemed themselves knowledgeable or very knowledgeable, while the same figure increases to 30.1% among those who received such allowance, a statistically significant difference (t-value: -4.3).



In the next section, we will exploit different econometric techniques in order to confirm that this positive relationship actually reflects a causal impact of early financial education on financial literacy in adulthood.

#### **3. Empirical Results**

#### 3.1 Main specification

Our aim is to test whether receiving, on a regular basis, an allowance between the age of 8 and 12 increases financial literacy, measured as self-reported financial knowledge, later in life. In our dataset, respondents were asked to measure how knowledgeable they consider themselves with respect to financial matters using a scale ranging from 1 to 4. Given the logical ordering of this dependent variable, we can use an order probit model. As far as the key independent regressor is concerned, we construct an indicator variable equal to one if the individual reported regularly receiving pocket money as a child, even if parents sometimes forgot to comply. We assign zero when the respondent reported receiving no allowance or receiving it only occasionally. Around 54% of the individuals in the relevant sample reported regularly receiving such an allowance. The estimated coefficients are reported in the first column of Table 1, while the subsequent columns contain the marginal effects on financial knowledge for the four confidence levels.

With respect to the (usual) concerns about the endogeneity of our key regressor, we have two observations. First, the pocket money we refer to was received during childhood, so it is unlikely that it is correlated with some of the covariates that affect financial literacy in adulthood. Government measures and macroeconomic shocks, for instance, may influence financial knowledge; nonetheless, these factors are not correlated with whether or not the respondent received pocket money as a child. Therefore, omitting the corresponding variables should not lead to biased estimates. Second, we have included several socio-demographic controls in the regression: gender, age, education, working and marital status, household composition, income, as well as regional indicators (a detailed description of these controls, as well as their summary statistics, is included in the Appendix). The effect of receiving pocket money remains statistically significant. More importantly, we control for parental attitudes and family background by adding an indicator variable equal to one if the respondent's (grand)parents taught her, between ages 12 and 16, how to manage a little budget. This variable should thus (partially) capture the cultural environment in which the person grew up. This should tackle the issue of omitted variables, which may affect financial knowledge and be correlated with the allowance.

Our main result is that if an individual used to receive an allowance, she is more confident on financial issues in adulthood. In particular, this regressor decreases the probability that an individual will consider herself "not knowledgeable" (Level 1) or "more or less knowledgeable" (Level 2) by 1-3 percentage points, while it increases the probability that such individual will answer "knowledgeable" (Level 3) or "very knowledgeable" (Level 4) by around 1-3 percentage points.

Among the other regressors, it is interesting to note that female respondents are less likely to report high levels of financial knowledge<sup>4</sup>. Furthermore, parenting during adolescence seems to play an important role, too. Indeed, individuals tend to have higher levels of financial knowledge if their parents or grandparents taught them directly some money management techniques. The order of magnitude is also rather large, comparable to the one of tertiary education. This suggests that being trained to budgeting in adolescence has a substantial impact on subsequent behaviour as adult, particularly if compared with other factors such as general education.

<sup>&</sup>lt;sup>4</sup> We have also tried to add an interaction term between allowance and gender: the coefficient is significant at a 10-percent level and negative. When not reported, tables are available upon request.

	(1)	(2)	(3)	(4)	(5)
	Coeff	Level 1	Level 2	Level 3	Level 4
Financial knowledge					
Allowance	0.118**	-0.028**	-0.011**	0.030**	$0.009^{**}$
	(0.055)	(0.013)	(0.005)	(0.014)	(0.004)
Female	-0.321***	$0.076^{***}$	0.029***	-0.080***	-0.025***
	(0.052)	(0.012)	(0.006)	(0.013)	(0.005)
Age	-0.003	0.001	0.000	-0.001	-0.000
2	(0.002)	(0.001)	(0.000)	(0.001)	(0.000)
Tertiary education	0.216***	-0.051***	$-0.020^{***}$	$0.054^{***}$	$0.017^{***}$
	(0.054)	(0.013)	(0.005)	(0.013)	(0.005)
Log(Individual Gross Income)	0.039***	-0.009***	-0.004***	0.010***	0.003***
	(0.011)	(0.002)	(0.001)	(0.003)	(0.001)
Working	-0.027	0.006	0.002	-0.007	-0.002
5	(0.065)	(0.015)	(0.006)	(0.016)	(0.005)
Parents taught budgeting	0.196***	-0.046***	-0.018***	0.049***	0.015***
	(0.066)	(0.016)	(0.006)	(0.016)	(0.005)
Married	0.147**	-0.035**	-0.013**	0.037**	0.012**
	(0.059)	(0.014)	(0.006)	(0.015)	(0.005)
Number of children in the HH	-0.008	0.002	0.001	-0.002	-0.001
	(0.028)	(0.007)	(0.003)	(0.007)	(0.002)
Threshold 1	-0.466**	(1111)	(1111)	(/	
	(0.197)				
Threshold 2	1.136***				
	(0.197)				
Threshold 3	2.406***				
	(0.203)				
Regional dummies	Yes	Yes	Yes	Yes	Yes
Observations	2014	2014	2014	2014	2014
	-011	-011	-011	-011	-011

### Table 1: Estimated Coefficients - 4 Categories - Order Probit

Standard errors in parentheses. Clustered SE at household level. Source: DHS 2015

The first column reports the estimated coefficients from the order probit

The reported marginal effects are divided into four columns:

The Level 1 refers to the probability of reporting 'Not Knowledgeable'

The Level 2 refers to the probability of reporting 'More or less knowledgeable'

The Level 3 refers to the probability of reporting 'Knowledgeable'

The Level 4 refers to the probability of reporting 'Very Knowledgeable' p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01

#### 3.2 Sensitivity analysis

To strengthen our analysis, we have also estimated an order logit models, finding results that are qualitatively very similar to the order probit model. For the sake of completeness, we have then estimated a linear model. The OLS coefficient of the allowance is 0.08 and it is significant, thus supporting the conclusions from the nonlinear models.

Robustness checks as the inclusion of additional controls have also been performed: adding homeownership does not substantially change the results. The same can be said of using the number of household members instead of the number of children in the household. Further, when we include age as a quadratic function as a regressor, its coefficient is not statistically significant, ruling out a nonlinear impact of age.

The DHS data contain additional information about the respondent's occurrences during childhood and adolescence. Indeed, we have already referred to one variable – i.e. whether respondent's parents taught her how to manage a small budget – that we used to control for family background characteristics. As an additional robustness check, we add all the other variables as regressors in our model. In particular, we include four new indicator variables. The first one indicates whether the respondent used to do little household chores in the relevant age group, i.e. between 8 and 12 years. The second measures the child's financial autonomy, i.e. whether the respondent's parents had no or little control, or on the contrary full or near full control, as to how to spend the pocket money. The third one indicates whether the respondent had one or more "little" jobs on the side when she was a teenager (12-16 years old). The fourth one indicates whether the respondent's parents or grandparents directly stimulated her to save money as a teenager. Our conclusions do not change: receiving an allowance during childhood has a statistically significant impact on the respondent's financial knowledge. The marginal effects are similar in magnitude to those presented in Table 1. Moreover, as expected, given the multicollinearity among these variables, all these additional controls have coefficients that are not statistically different from zero.

In a specular way, it is interesting to note that if we remove "Parents taught budgeting" from the set of regressors, the coefficient of the pocket money is larger in magnitude (0.142 instead of 0.118 in Table 1). Nevertheless, the allowance's marginal effects are similar to those in Table 1 and highly statistically significant.

So far we have used an indicator variable to signal whether or not an individual received a regular allowance as a child. This choice has been made not only for the sake of simplicity and in order to have a parsimonious model given the relatively small sample size, but also because of the potential measurement error due to possible misremembering: after many years, individuals may recall whether they used to receive such an allowance; however, they may not very well remember how often this was the case. Moreover, the word "sometimes" in the option "yes, but it was sometimes forgotten" could induce different thresholds among respondents (Peracchi & Rossetti, 2012). Therefore, an indicator variable attenuates these issues. Nevertheless, we have also investigated

potential heterogeneity effects, shown in Table 2. Indeed, the model is the same as in Table 1, but we use three indicators variables for allowance instead of just one. The first variable is equal to one if the respondent always received an allowance as a child, zero otherwise; the second is one only if the respondent used to receive such an allowance "almost always", i.e. if sometimes parents forgot about it. The third variable is set to one if the respondent's parents occasionally gave her an allowance, while the groups of people who did not received an allowance during childhood is our comparison group. Given this set up, it is possible to conclude that the group of people who always received an allowance drove the previous section's results. Indeed, such regressors are associated with statistically significant marginal effects in Table 2. On the other hand, the other two groups are not distinguishable from those who did not get pocket money. We can thus claim that receiving an allowance in childhood can increase financial confidence in adulthood only if parents are consistent and follow their commitment throughout the years.

	(1)	(2)	(3)	(4)	(5)
	Coeff	Level 1	Level 2	Level 3	Level 4
Financial knowledge					
Allowance - Aways	0.153**	-0.036**	-0.014**	0.038**	$0.012^{**}$
	(0.062)	(0.015)	(0.006)	(0.015)	(0.005)
Allowance - Almost always	0.078	-0.019	-0.007	0.019	0.006
	(0.113)	(0.027)	(0.010)	(0.028)	(0.009)
Allowance - Occasionally	0.077	-0.018	-0.007	0.019	0.006
	(0.082)	(0.019)	(0.008)	(0.020)	(0.006)
Female	-0.319***	$0.076^{***}$	$0.029^{***}$	-0.080***	-0.025***
	(0.052)	(0.012)	(0.006)	(0.013)	(0.005)
Age	-0.002	0.001	0.000	-0.001	-0.000
	(0.002)	(0.001)	(0.000)	(0.001)	(0.000)
Tertiary education	0.214***	-0.051***	-0.020***	0.053***	$0.017^{***}$
	(0.054)	(0.013)	(0.005)	(0.013)	(0.005)
Log(Individual Gross Income)	0.039***	-0.009***	-0.004***	$0.010^{***}$	0.003***
-	(0.011)	(0.002)	(0.001)	(0.003)	(0.001)
Working	-0.029	0.007	0.003	-0.007	-0.002
	(0.065)	(0.015)	(0.006)	(0.016)	(0.005)
Parents taught budgeting	$0.190^{***}$	-0.045***	-0.017***	$0.047^{***}$	$0.015^{***}$
	(0.066)	(0.016)	(0.006)	(0.016)	(0.005)
Married	$0.150^{**}$	-0.035**	-0.014**	$0.037^{**}$	$0.012^{**}$
	(0.059)	(0.014)	(0.006)	(0.015)	(0.005)
Number of children in the HH	-0.006	0.002	0.001	-0.002	-0.000
	(0.028)	(0.007)	(0.003)	(0.007)	(0.002)
Thereshold 1	-0.433**				· · ·
	(0.199)				
Thereshold 2	1.169***				
	(0.200)				
Thereshold 3	2.439***				
	(0.205)				
Regional dummies	Yes	Yes	Yes	Yes	Yes
Observations	2014	2014	2014	2014	2014

Table 2: Estimated Coefficients - 4 Categories - Ordered Probit - Heterogeneity allowance

Standard errors in parentheses

Clustered SE at household level

Source: DHS 2015

The first column reports the estimated coefficients from the order probit

The reported marginal effects are divided into four columns:

The Level 1 refers to the probability of reporting 'Not Knowlegeable'

The Level 2 refers to the probability of reporting 'More or less knowledgeable'

The Level 3 refers to the probability of reporting 'Knowledgeable'

The Level 4 refers to the probability of reporting 'Very Knowledgeable'

p < 0.10, p < 0.05, p < 0.05, p < 0.01

#### 3.3 Within-couple fixed-effect

Since our relevant regressor is time-invariant, we cannot exploit the panel dimension of DHS by estimating an individual fixed-effects (FE) model. However, the survey questions on economic and psychological concepts are asked to more than just one individual per household. Therefore, as an additional robustness check, we focus on the household head and the spouse and use the variation within the household by adding a FE to capture all common factors between these two individuals. More specifically, we use a first-difference estimator and verify whether different levels of financial literacy within the couple are due to different financial education during childhood. The idea behind this approach is that since there is assortative matching in the marriage market (Verbakel & Kalmijn, 2014), partners share several individual characteristics which may affect financial literacy. The FE model should allow us to control for these unobservable components.

The estimated coefficient from a FE linear probability model is reported in Table 3<sup>5</sup>. Having received pocket money increases the probability of reporting some knowledge in financial matters by more than 10 percentage points. Indeed, in this model we have used as dependent variable an indicator equal to one if the respondent reported some positive level of knowledge on financial matters, zero otherwise. This effect is statistically significant and similar to the impact of allowance on the latent variable in the order probit model.

It is reassuring that the estimated results from the conditional FE logit model are also qualitatively similar, confirming that the above result is not driven by the selected functional form.

As in the previous section, we have extended our controls by adding all the available family characteristics related to childhood and adolescence. The coefficient of the allowance remains highly statistically significant, with a coefficient of 0.135.

Furthermore, we have estimated a linear FE model with the 4-level categorical variable for financial knowledge. As shown in the second column of Table 2, the coefficient of the allowance is qualitatively similar to our previous estimates, thus supporting the above conclusions.

We could also test whether the fixed effects are appropriate for the analysis by following Mundlak's approach<sup>6</sup>. We have consequently estimated a random effect order probit model in which the set of regressors includes the household means (i.e. the average between the household head and her spouse) of the individual regressors. We have then tested whether such averages are jointly significant. The resulting p-value is rather high (0.59), so we cannot reject the random effect model hypothesis. Despite this, the coefficient of allowance remains positive and significant.

<sup>&</sup>lt;sup>5</sup> By construction, we have used in this specification a sample of individuals who are either the household head or the partner. For comparison, we have also tried to estimate a simple order probit as in the previous paragraphs by using the same sample as the FE model and by adding an indicator equal to one if the individual is the household head. Results do not change substantially.

<sup>&</sup>lt;sup>6</sup> See (Greene, 2012) page 380.

Results are confirmed also by using an alternative dependent variable. Indeed, using as left-hand side variable an indicator equal to one if the respondent reported some positive level of knowledge on financial matters, zero otherwise, does not alter the results. The coefficients of the aforementioned regressors constructed using the household means are still not jointly significant in the random effect probit model (p-value 0.21). Nevertheless, we also compared the conditional logit fixed effect and random effect models using an Hausman test: the resulting p-value is below 0.1, so using the fixed effect model is more conservative.

	(1)	(2)
	2 Categories	4 Categories
Financial knowledge		
Allowance	$0.1024^{**}$	0.1921**
	(0.0476)	(0.0816)
Female	$-0.0835^{*}$	-0.1296
	(0.0458)	(0.0918)
Age	-0.0070	-0.0211
-	(0.0067)	(0.0145)
Tertiary education	0.0429	$0.1709^{*}$
-	(0.0572)	(0.0988)
Log(Individual Gross Income)	0.0005	0.0187
-	(0.0068)	(0.0125)
Working	-0.0726	-0.1947*
ç	(0.0542)	(0.1005)
Parents taught budgeting	-0.0100	-0.0232
	(0.0591)	(0.0943)
Household head	0.0566	0.1886**
	(0.0421)	(0.0856)
Constant	$1.2018^{***}$	$3.0575^{***}$
	(0.4067)	(0.8518)
Observations	1953	1953
WithinR <sup>2</sup>	0.07457	0.14179
OverallR <sup>2</sup>	0.01340	0.02964
Average obs per ind	1.23	1.23

 Table 3: Estimated Coefficients for the within-household linear fixed-effect model

Standard errors in parentheses. Clustered SE at household level. Source: DHS 2015 \*p < 0.10, \*\*p < 0.05, \*\*\*p < 0.01

#### 4. Conclusions and directions for future research

This study aims at enriching the literature on financial literacy and education by looking at a specific way a child can get a basic financial education and start forming good habits in financial matters, such as some financial planning. We provide robust evidence of a positive effect of receiving pocket money during childhood on the level of (self-assessed) financial literacy in adulthood. Individuals who used to receive a (somewhat regular) allowance in their infancy are also more knowledgeable adults. This result offers indirect evidence of the importance of providing basic financial education to children in order not only to endow them with essential knowledge to understand notions and tradeoffs and acquire some planning capabilities, but also to develop some good habits that seem to persist in time.

Our result is consistent with previous work on financial literacy suggesting that: a) more financially literate households are less vulnerable to under-saving and therefore are better equipped for retirement (van Rooij, Lusardi, & Alessie, 2011) and b) its uneven distribution within the population is a fact that explains a significant part of wealth inequality (Lusardi et al., 2016). Giving pocket money to children is a simple and inexpensive way to provide financial literacy to children and prepare them for future choices. While this represents an objection to arguments against financial education on the basis of its costs and limited benefits ((Willis, 2011), (Fernandes, Lynch Jr, & Netemeyer, 2014)), it also stresses the importance of school programs delivered to all children, as a way to smooth the differences among families and create a more leveled playing field.

Further research is encouraged to investigate, possibly with a cross-country comparison, whether receiving an allowance during childhood affects educational achievements - specifically math knowledge and abilities - as well as financial decisions later in life. Gender bias in the pocket money practice and its implications are also worth investigating.

## Appendix

## A1. Summary statistics – All respondents

2,677 2,676	2.131 0.546	0.730	1	4
2,676			1	4
<i>,</i>	0.546	0 400		
5 1 2 7		0.498	0	1
5,137	0.508	0.500	0	1
5,130	43.309	23.322	0	96
5,137	0.264	0.441	0	1
2,098	9.314	2.880	0	12.627
5,137	0.230	0.421	0	1
5,133	1.147	1.241	0	6
5,137	0.359	0.480	0	1
3,651	0.583	0.493	0	1
2,676	0.774	0.419	0	1
2,676	0.808	0.394	0	1
2,676	0.669	0.471	0	1
2,676	0.290	0.454	0	1
2,676	0.450	0.498	0	1
	5,137 2,098 5,137 5,133 5,137 3,651 2,676 2,676 2,676 2,676	$\begin{array}{ccccccc} 5,137 & 0.508 \\ 5,130 & 43.309 \\ 5,137 & 0.264 \\ 2,098 & 9.314 \\ 5,137 & 0.230 \\ 5,133 & 1.147 \\ 5,137 & 0.359 \\ 3,651 & 0.583 \\ 2,676 & 0.774 \\ 2,676 & 0.808 \\ 2,676 & 0.669 \\ 2,676 & 0.290 \end{array}$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$

Financial knowledge	Freq.	Percent	Cum.
1. Not knowledgeable	462	17.26	17.26
2. More or less knowledgeable	1,499	56	73.25
3. Knowledgeable	618	23.09	96.34
4. Very knowledgeable	98	3.66	100
Total	2,677	100	

Allowance	Freq.	Percent	Cum.
0. No	1,216	45.44	45.44
<b>1.</b> Yes	1,460	54.56	100
Total	2,676	100	

Variable	Obs	Mean	SD	Min	Max
Financial Knowledge	2,014	2.162	0.734	1	4
Allowance	2,014	0.541	0.498	0	1
Female	2,014	0.461	0.499	0	1
Age	2,014	55.479	15.983	17	92
Tertiary education	2,014	0.364	0.481	0	1
Log(Individual Gross Income)	2,014	9.336	2.861	0	12.627
Working	2,014	0.446	0.497	0	1
Number of children in the household	2,014	0.686	1.054	0	6
Married	2,014	0.724	0.447	0	1
Household Head	1,933	0.675	0.468	0	1
Parents taught budgeting	2,014	0.783	0.413	0	1
Parents taught saving	2,014	0.818	0.386	0	1
Teen Work	2,014	0.676	0.468	0	1
Chore	2,014	0.289	0.453	0	1
Parents managed expenditures	2,014	0.454	0.498	0	1

## A2. Summary statistics – Order probit sample (Table 1 Column 1)

Financial knowledge	Freq.	Percent	Cum.
1. Not knowledgeable	330	16.39	16.39
2. More or less knowledgeable	1,104	54.82	71.2
3. Knowledgeable	504	25.02	96.23
4. Very knowledgeable	76	3.77	100
Total	2,014	100	

Allowance	Freq.	Percent	Cum.
0. No	925	45.93	45.93
1. Yes	1,089	54.07	100
Total	2,014	100	

#### A3. Variable description

*Financial confidence*. The different dependent variables used in the empirical section have been derived from the following original question:

How knowledgeable do you consider yourself with respect to financial matters?

- 1. Not knowledgeable
- 2. More or less knowledgeable
- 3. Knowledgeable
- 4. Very knowledgeable

*Allowance*. The key regressors used in the empirical section have been derived by the following original question:

When you were between 8 and 12 years of age, did you receive an allowance from your parents then? By allowance we mean a fixed amount received on a regular basis.

- 1. Yes
- 2. Yes, but it was sometimes forgotten
- 3. Occasionally
- 4. No

The distribution of the answers across this spectrum for the whole sample is reported in the next table. Note that this question was not asked to all individuals.

Allowance	Freq.	Percent	Cum.
Yes	1,266	24.64	24.64
Yes, but it was sometimes forgotten	194	3.78	28.42
Occasionally	332	6.46	34.88
No	884	17.21	52.09
Missing	2,461	47.91	100
Total	5,137	100	

*Female* is an indicator variable equal to one if the respondent was a female individual, zero if the respondent was a male one.

Age has been computed subtracting the year of birth of the respondent from 2015.

*Tertiary education* is an indicator variable equal to one if the respondent completed a university education (Wetenschappelijk onderwijs) or an advanced vocational training (HBO eerste of tweede fase), zero otherwise.

*Individual gross income* is an aggregate variable directly computed by CentERdata starting from the different income components provided by the respondents. The technical details are discussed in (CentERdata, 2015). We have taken the logarithm of this income variable. If the income was

originally zero, also this variable was set to zero. As a robustness check, we have also tried to add an indicator variable equal to one if such an income was zero in the model of Table 1: the marginal effects of allowance do not change substantially. A similar conclusion can be reached if the logarithm of income is set to missing for individuals with zero income.

*Working* is an indicator variable equal to one if the primary occupation of the respondent was a paid job, zero otherwise. Primary occupation is defined as the most time-consuming one. Paid work includes: work at one's own expense or risk, work in the family business (own, or business of spouse or parents), employed on a contractual basis, sheltered workshop, in training at a company or institution (receiving wage or salary), trainee/apprentice (receiving wage or salary).

*Number of children in the household* is a numerical variable counting the number of children who were living in the household at the time of the survey.

*Married* is an indicator variable equal to one if the respondent's marital status was "married", "registered partnership", or "living together with partner (not married)"; zero if the declared marital status was "divorced". "widowed", or "never married".

*Household Head* is an indicator variable equal to one if the respondent declared that her position in the family was the household head.

*Parents taught budgeting*. Respondents were asked whether their parents or grandparents try to teach them how to budget when they were between 12 and 16 years of age. This variable was set equal to one if they answered "Yes, they gave me advice and practical help", "Yes, they gave me some advice and practical help", "Yes, but to a certain extent"; zero if their reply was "No".

*Parents taught saving*. Respondents were asked whether their parents or grandparents stimulate them to save money when they were between 12 and 16 years of age. This variable was set equal to one if they answered "Yes, they emphasized the necessity of saving", "Yes, they told me how important saving is", or "Yes, but to a certain extent"; zero if their reply was "No, not at all".

*Teen work.* Respondents were asked whether they had a job on the side (like a newspaper round, a job on Saturday, etc.) when they were between 12 and 16 years of age. This variable was set equal to one if they answered "Yes, I had many jobs on the side at that time", "Yes, I had a few jobs on the side at that time", "Yes, I had one job on the side at that time"; zero if their reply was "No, I did not have a job on the side at that time".

*Chore*. Respondents were asked whether they did little household chores from which they received some money from their parents when they were between 8 and 12 years of age. This variable was set equal to one if they answered "Often" or "Sometimes"; zero if their reply was "Occasionally", "Hardly ever", or "Never".

*Parents managed expenditure*. Respondents were asked whether they could spend their money as they pleased when they were between 8 and 12 years of age. This variable was set equal to one if

they answered "My parents decided on how I spent all my money" or "My parents decided on how I spent most of my money"; zero if their reply was "Part of my expenditure was decided by me, the rest was decided by my parents", "Mostly, I could decide on how I spent my money", or "I could decide on all my expenditures".

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