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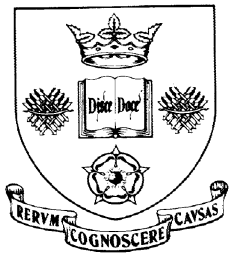

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The Saving Behaviour of Children: Analysis of British Panel Data

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Abstract: We explore the influences on the saving behaviour of children aged 11 to 15 using panel data drawn from the British Household Panel Survey Youth Questionnaire. Our empirical findings suggest that parental allowances/pocket money exert a moderating influence on the probability that a child will save, whilst hours of paid work undertaken by the child are positively associated with the probability that a child will save. The saving behaviour of parents, however, does not appear to influence the saving behaviour of their offspring. In contrast, financial optimism on the part of parents does appear to lower the probability that their children will save. In addition, our empirical analysis reveals some interesting differences relating to the determinants of the saving behaviour of boys and girls as well as evidence of state dependence in the saving behaviour of children.

Key Words: Household Finances; Intergenerational Analysis; Panel Data; Saving.
JEL Classification: D12; D14

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1. Introduction and background

Over the past three decades, the empirical literature exploring household finances has been growing steadily (see Guiso et al., 2002, for a comprehensive review of this area). In general, in the existing literature, economists have focused on specific aspects of the household financial portfolio such as debt (for example, Brown and Taylor, 2008), the demand for risky financial assets (for example, Hochguertel et al., 1997) and savings (for example, Browning and Lusardi, 1996). One area, which has attracted limited interest in the economics literature, concerns the intergenerational link between the attitudes towards finances of parents and their children. In contrast, there has been considerable recent interest in the relationship between the educational attainment of parents and their children (see Black and Devereux, 2011, for a recent survey). Extensive empirical evidence has supported the existence of a strong positive intergenerational association in educational attainment.[1]

The aim of this paper is to explore whether an intergenerational link exists between the saving behaviour of parents and their children as well as to explore the influences on the saving behaviour of children more generally. One might conjecture that an intergenerational link may exist between the attitudes towards finances between parents and their children as parents may seek to equip their children with particular values and life skills. A relatively extensive literature exists exploring the implications and importance of financial literacy for a range of financial decisions such as preparation for retirement, saving behaviour, stock market participation and financial portfolio diversification, with the focus generally being on U.S. households (see, for example, Lusardi and Mitchell, 2007), yet there has been limited discussion of the intergenerational relationship between such skills and attitudes. Such an

[1] See Brown et al. (2011) for discussion of possible explanations for this positive intergenerational relationship.

association may reflect an intergenerational link between both cognitive skills in terms of financial literacy as well as non cognitive skills in terms of personality traits such as attitudes towards finances and taking risk.[2] As argued by Lusardi and Mitchell (2007), p. 213, 'savings decisions are complex, requiring consumers to possess substantial economic knowledge and information.' It may be the case, therefore, that parents who possess a certain degree of financial literacy may seek to impart such skills to their offspring in order to equip them with financial management skills for the future.

There has been recent interest amongst policy-makers in promoting financial literacy amongst children and adults to enhance financial outcomes. For example, 'Economic-Well-being and Financial Capability' forms part of the UK National Curriculum for schools, albeit a non-statutory component, with the aim of teaching school pupils to manage their money and finances effectively. Guidance on how to incorporate personal finance education into the curriculum is provided nationally by the Department for Education.[3] In the context of the need for 'the adults of the future' to take responsibility for their finances, the Financial Services Authority (2006) conducted a survey of 1,156 UK primary and secondary schools to explore the provision of personal financial education in schools in the UK.[4] The findings indicate that, although a high level of importance is attached to such education in schools, it attracts a relatively low profile within the school curriculum. Out of the 582

[2] Brunello and Schlotter (2011) present a comprehensive review of the growing empirical literature in economics exploring the role of non cognitive skills for school and labour market outcomes, and argue that there is evidence that high cognitive test scores reflect both high cognitive skills and non cognitive skills such as motivation and personality traits. In a recent contribution, Anger (2011) explores the transmission of cognitive and non cognitive skills from parents to their offspring using the German Socio-Economic Panel. The findings suggest that the intergenerational association is not as strong for non-cognitive skills as compared to cognitive skills.

[3] See https://www.education.gov.uk.

[4] The Financial Services Authority, which was set-up by the UK Government, regulates the financial services industry in the UK.

secondary schools teaching personal finance, 55% covered the topic of savings and investments.

Although there has been limited interest in the economics literature in this area, some interest in this intergenerational relationship exists in sociology and related disciplines, with the focus on 'parental financial socialisation' of college students. For a concise survey of this area and a recent contribution to this literature, see Grinstein-Weiss et al. (2011), who explore a sample of low and moderate income households and find that adults who received relatively high levels of money-management education from their parents during their childhood had lower credit card debt and higher credit scores as adults.

It is apparent, therefore, that both parents and the teaching of personal finance in schools may serve to influence the current money management of children as well as their future money management during adulthood. Hence, we aim to contribute to the existing literature by exploring the relationship between attitudes towards finance in the form of savings between parents and their offspring in order to shed some light on the potential intergenerational aspect of the determinants of attitudes towards finances, which has not been the focus of existing research in economics. In particular, we focus on analysing potential parental influences on the financial decisions made by their offspring during childhood by exploring the impact of parental saving on their offspring's saving behaviour as a child, as well as exploring the influences on the saving behaviour of children more generally.

The finances of children are arguably driven by two main sources: pocket money or allowances financed by parents; and earnings from part-time work such as paper rounds and baby-sitting. There are a small number of studies in the economic psychology literature exploring the provision of pocket money to children. For

example, Furnham (2001) explores parental attitudes towards pocket money amongst a sample of 300 British parents. Approximately three-quarters of the sample believed that children should be encouraged to save pocket money or financial gifts with only a third of the sample being of the opinion that a fixed amount should be saved. The majority of parents believed that saving should commence with the start of pocket money. Furthermore, three-quarters of parents expressed the opinion that children as young as age 10 should explore savings accounts in order to choose the most appropriate one. Such findings support the notion that the provision of pocket money represents a kind of 'economic education' within the household, an area of research which has attracted attention in the psychology literature (see, Barnet-Verzat and Wolff, 2002, for a concise survey of this area). Barnet-Verzat and Wolff (2002) explore the motives behind intergenerational financial transfers focusing on pocket money and discuss three main motives in the economics literature for transfers from parents to children: 'altruism, exchange and preference shaping.'[5] Their econometric study of 5,300 families in France indicates heterogeneity in parental motives to give pocket money and no support for the assumption that a single motive is universally true.

In terms of children's earned income, there appears to be less interest in the economics literature in the part-time work of children in the context of developed countries in contrast to the literature on developing countries.[6] The standard labour supply framework predicts an inverse relationship between children's hours of paid labour supply and parental allowances/pocket money, with parental

[5] Altruistic motives refer to the 'warm glow' parents may enjoy from giving their children money whereas exchange motives refer to the services children may provide to parents such as carrying out household chores and preference shaping relates to the provision of economic education.

[6] Gong (2009) concludes from a review of findings from the existing literature on developed countries that 'the primary motivation for youths to work is to finance short-term personal consumption rather than support family expenses or save for college.' P. 654.

allowances/pocket money serving to act essentially as unearned income for children. In general, this inverse relationship has been confirmed by the findings reported in the relatively small empirical literature in this area. For example, Dustmann et al. (2009) analyse the labour supply of British 16 year olds as well as the financial transfers that they received from their parents. The findings indicate interdependency between the labour supply of 16 year olds and parental financial transfers. Similarly, Gong (2009), analysing a sample of 12 to 16 year olds drawn from the US National Longitudinal Survey of Youth, finds that parental pocket money reduces the incentives of youths to work. In our empirical analysis of the saving behaviour of children, we explicitly allow for the effects of allowances or pocket money and income from work received by children.

2. Data and Methodology

Our focus on the intergenerational relationship between the saving behaviour of parents and their offspring clearly requires information on the saving behaviour of both parents and their children. For this purpose, we use the British Household Panel Survey (BHPS), a survey conducted by the Institute for Social and Economic Research comprising approximately 10,000 annual individual interviews, which meets our data requirements. For wave one, interviews were conducted during the autumn of 1991. The same individuals are re-interviewed in successive waves – the latest available being 2008. Since 1994, children aged 11 to 15 completed a short interview for the BHPS Youth Questionnaire. Thus, we are able to match the responses to the BHPS Youth Questionnaire with that of the adult questionnaires in order to link information relating to children and their parents.

Specifically, in the BHPS Youth Questionnaire for years 1997 to 2001 and 2005, the children were asked '*what do you usually do with your money?*' The

possible responses were: *save to buy things*; *save and not spend*; and *spend immediately*. The responses thus provide information relating to the saving behaviour of children and enable us to analyse the saving behaviour of a sample of dependent children as opposed to young adults. We pool these waves of the BHPS Youth Questionnaire in order to form an unbalanced panel of data with 6,201 observations. The responses to this question by the age of the respondents are detailed below.

Saving Behaviour of Children Aged 11 to 15						
	Age 11	Age 12	Age 13	Age 14	Age 15	All ages
Save to buy things	41%	41%	45%	44%	45%	43%
Save and not spend	40%	39%	36%	34%	29%	35%
Spend immediately	19%	20%	19%	22%	26%	22%
OBSERVATIONS	1,157	1,295	1,251	1,259	1,239	6,201

It is apparent that the proportion of children responding in each category is relatively stable across the age range. The responses indicate that a significant proportion of children spend their money immediately and, hence, do not save.

For these years, children aged 11 to 15 are also asked about the amount of money that they received in the form of pocket money or allowances. Specifically children are asked: '*How much money did you receive last week to spend on yourself? Please include pocket money and any allowance you get. But if you have a job, do not include money you earned.*' Additional information is also available relating to hours worked for pay and the money they have received from that work. Specifically, children were asked: '*Last week, how many hours did you spend doing work for pay?*'[7] They were also asked: '*How much money did you earn last week? Do not*

[7] In the UK, there are legal restrictions imposed on child employment (for further details see http://www.direct.gov.uk/en/Parents/ParentsRights/DG_4002945). In particular, during school term time children may work a maximum of 12 hours per week, whereas during school holidays, 13 to 14 (15 to 16) year olds may work a maximum of 25 (35) hours per week. The interviews for the BHPS took place in January, February, March, April, May, September, October, November and December. Since the interviews did not take place in the main school holiday period (July and August), we treat 12 hours per week as the upper limit on hours worked. We, therefore, omit 2% of the sample of children who report weekly hours of work in excess of 12 hours.

include pocket money or allowances.'[8] It is apparent that the responses to this question could potentially cover earnings from both formal and informal employment. Indeed, children in the UK are legally allowed to work from the age of 13, with certain exceptions that allow working at a younger age, such as work in television, the theatre or modelling, which requires a performance licence. Hence, reported hours of work below the age of 13 could relate to this specific type of work or could reflect informal work, possibly carried out at home. The responses to the questions on allowances and part-time work by the age of the respondents are summarised below.

Income Sources of Children Aged 11 to 15						
Sample = All Children						
Average	Age 11	Age 12	Age 13	Age 14	Age 15	All ages
Allowance (£)	6.51	8.07	9.03	11.35	12.81	9.59
Weekly Earnings (£)	1.28	1.70	3.19	4.51	7.40	3.63
Hours Worked	0.39	0.51	0.89	1.41	2.08	1.05
% Positive Hours	14%	17%	26%	32%	39%	26%
OBSERVATIONS	1,157	1,295	1,251	1,259	1,239	6,201
Sample = Children Reporting Positive Hours of Work						
Average	Age 11	Age 12	Age 13	Age 14	Age 15	All ages
Allowance (£)	8.70	8.17	8.56	9.91	10.75	9.53
Weekly Earnings (£)	5.24	7.87	10.92	13.45	18.20	12.72
Hours Worked	2.58	2.95	3.44	4.44	5.30	4.10
OBSERVATIONS	161	224	323	399	486	1,593

In accordance with expectations, the amount of allowances, the number of hours worked and weekly earnings all increase with age. This is also the case with the number of children reporting positive hours of work, with 39% of 15 year olds reporting positive hours of paid work as compared to only 14% of 11 year olds.

Parents, on the other hand, were asked: '*Do you save any amount of your income for example by putting something away now and then in a bank, building society, or Post Office account other than to meet regular bills? About how much on average do you manage to save a month?*' The responses to this question provide relatively detailed information pertaining to the regular saving behaviour of parents.

[8] All monetary variables in the subsequent analysis are deflated using 2001 prices.

We are thus able to match the saving behaviour of parents with that of their offspring: 36% of the matched sample indicate that both parents and offspring save whilst 13% indicate that neither parents nor their offspring save. In addition, parents were asked to indicate whether they were saving for '*no specific reason.*' The responses to this question reveal information relating to whether or not individuals are in the habit of regular saving without a specific purpose. As well as providing information on parental saving, the BHPS includes information on the financial expectations of adults in the household. To be specific, adult members of the household were asked: '*Looking ahead, how do you think you yourself will be financially a year from now, will you be: better than now; worse than now; or about the same.*' Hence, we are also able to explore whether parental financial expectations influence the saving behaviour of their offspring.

We focus on exploring the determinants of the probability that children spend their money immediately, i.e. they do not save, via a random effects binary probit framework as follows:

$$\begin{aligned} &S_{it} = 1 \quad if \quad S_{it}^{*} = \gamma \log\left(A_{it}\right) + \theta Hr_{it} + \boldsymbol{F}_{it}'\boldsymbol{\phi} + \boldsymbol{X}_{it}'\boldsymbol{\varphi} + \varepsilon_{it} > 0 \\ &S_{it} = 0 \quad otherwise \end{aligned} \tag{1}$$

where there are i=1,…N children, and t=1,…T time periods, S_{it}^{*} is a latent dependent variable, $\log\left(A_{it}\right)$ is the allowance received by the child in the previous week,[9] Hr_{it} denotes the number of hours worked by the child in the previous week, $\boldsymbol{F}_{it}$ is a vector of parental financial controls (described in detail below) and $\boldsymbol{X}_{it}$ is a vector of additional child and household characteristics (see below). The error term in equation (1) can be written as a function of two components, an individual specific element

[9] Approximately 14% of children do not have a weekly allowance. In order to convert to natural logarithms, we add one to the level of the weekly allowance.

that does not vary with time and a remaining component, which is assumed to be uncorrelated over time, $\varepsilon_{it} = \alpha_i + \nu_{it}$. The individual specific unobservable effect is denoted by α_i and ν_{it} is a random error term. We adopt a random effects specification, where $\nu_{it} \sim IN\left(0, \sigma_i^2\right)$. To marginalise the likelihood, it is assumed that, conditional on the covariates in equation (1), the α_i are $IN\left(0, \sigma_\alpha^2\right)$ and independent of ε_{it} and the covariates. Since the individual specific time invariant random effect, α_i, captures unobserved individual heterogeneity, the random effects probit specification controls for unobserved heterogeneity. The correlation between the individual specific element of the error term is a constant given by $\rho = corr\left(\varepsilon_{ik}, \varepsilon_{il}\right) = \sigma_\alpha^2 \Big/ \left(\sigma_\alpha^2 + \sigma_\nu^2\right) \quad k \neq l$, which represents the proportion of the total variance contributed by the panel variance component. For a full discussion of the random effects probit model see Arulampalam (1999). In order to explore whether the influences on the saving behaviour of boys and girls differ, we repeat the analysis splitting by the gender of the child, where around 50% of the sample of 6,201 children are boys.

The child may be less likely to save if he/she has exhibited such behaviour in the past. Hence, in order to explore the robustness of our findings, we also explore whether state dependence is exhibited in the child's saving behaviour by analysing the dynamics of their saving behaviour over the time period. The child's likelihood of spending money immediately, i.e. not saving, over the period is modelled as follows, based upon a random effects dynamic panel estimator (see Stewart, 2006):

$$\begin{aligned} &S_{it} = 1 \quad if \quad S_{it}^* = \pi S_{it-1} + \gamma \log\left(A_{it}\right) + \theta Hr_{it} + \boldsymbol{F}_{it}'\boldsymbol{\phi} + \boldsymbol{X}_{it}'\boldsymbol{\varphi} + \upsilon_i + \omega_{it} > 0 \\ &S_{it} = 0 \quad otherwise \end{aligned} \tag{2}$$

Although it is assumed that ω_{it} is white noise, the composite error term, $\psi_{it} = \upsilon_i + \omega_{it}$, is likely to be correlated over time due to the individual specific time invariant υ_i term. The individual specific random effects specification adopted implies equi-correlation between the ψ_{it} in any two different time periods given by the following constant: $\lambda = corr(\psi_{ik}, \psi_{il}) = \sigma_\upsilon^2 / (\sigma_\upsilon^2 + \sigma_\omega^2) \quad k \neq l$. The covariates are defined as in equation (1), which are discussed in detail below, and S_{it-1} is a binary indicator of the child's past saving behaviour, that is whether the child did not save in the previous year. The analysis is conducted over 5,103 observations covering the period 1997-2001.[10] We also consider the saving behaviour of boys and girls separately within this dynamic framework, with sample sizes of 2,580 and 2,523 respectively.

State dependence in terms of the statistical significance of S_{it-1} and the size of π, as well as the importance of heterogeneity, as indicated by λ, can be investigated by estimating equation (2). In order to deal with the initial conditions, following Stewart (2006, 2007), we include a static reduced form equation for the first period using the same covariates as in equation (2), but excluding the lagged dependent variable. Also included in the static reduced form equation are binary controls for the occupation that the head of household, i.e. the child's parent, was first employed in (where an unskilled occupation or never employed form the reference category), which act as identifying variables. These additional controls are jointly significant in the static reduced form equation.

In estimating the random effects probit and the dynamic probit models, we explore three specifications, which differ in terms of the parent's financial variables, $\boldsymbol{F}_{it}$. The first specification includes the natural logarithm of the total amount of

[10] We have excluded the year 2005 from the analysis given the three year gap in the panel.

savings of both parents as well as a binary indicator for whether both parents save for '*no specific reason*' and a binary indicator for whether both parents are financially optimistic (i.e. they both think that they will be better off financially in a year's time) and a binary indicator for whether they believe that they will be '*about the same*' financially in a year's time. In the second specification, the natural logarithm of the total amount of the father's savings is included as well as a binary control for whether the father saves for no reason and controls for the financial expectations of the father. In the third specification, we control for the mother's saving behaviour and the mother's financial expectations. The second and the third specifications allow us to explore whether fathers and mothers exert different influences on the saving behaviour of their children.[11]

In the set of explanatory variables in vector $\boldsymbol{X}_{it}$, we control for child characteristics including: gender; a quadratic in age; whether the child lives with his/her birth parents; a binary indicator for whether the child has a computer at home; in terms of educational aspirations, we control for whether the individual intends to go to college or sixth form after the compulsory schooling age of 16. Additionally, we control for household characteristics, in particular: household labour income; household non labour income; housing tenure to proxy household wealth, i.e. owning the home without a mortgage, owning the home with a mortgage and renting from the council; the number of adults in the household; the number of children in the household; a binary indicator for a single parent household; year controls; and region controls. Summary statistics of the above variables are presented in Table 1. The average age of the children in the sample is 13, 33% (38%) of fathers (mothers) are financially optimistic, in terms of educational aspirations 67% (77%) of boys (girls)

[11] For all monetary covariates, in order to convert to natural logarithms, we add one to the level of the variable in question.

intend to continue in education after reaching the compulsory school leaving age, and around 21% of children live in a single parent household.

3. Results

Random Effects Probit Framework

In Table 2 Panel A, we present the findings from the random effects probit analysis for the three specifications described in detail above. Clearly, across the three specifications, over time the unobserved individual child heterogeneity of the panel is of importance both in terms of magnitude and statistical significance in explaining the residual variance, as can be seen by the estimated ρ parameter. The results indicate that the child's allowance is positively associated with the probability that the child spends his/her money immediately, i.e. does not save, across all three specifications. The magnitude of the effect of a 1 per cent increase in the child's allowance is also stable across the three specifications increasing the probability that the child does not save by 2.1 percentage points. In contrast, the number of hours that the child works per week is inversely associated with the probability of not saving, thus, indicating a distinct difference in the influence of these two different sources of children's income on their saving behaviour.

Across the three specifications, the total amount of savings of the parents, the father's savings and the mother's savings all have statistically insignificant effects on the saving behaviour of their children. Hence, it would appear that the actual saving behaviour of parents does not influence the saving behaviour of their offspring, which may reflect the possibility that parents do not share information regarding such household financial matters with their children. In contrast, with respect to the parent's financial expectations, optimistic or stable financial outlooks as compared to pessimistic financial expectations are positively associated with the probability of the

child not saving, with a magnitude of approximately 2 to 3 percentage points. This corresponds to around a 14% increase in the unconditional probability that the child does not save. Hence, the financial outlook of the child's parents does appear to matter as compared to the actual saving behaviour of parents, with the financial expectations of the father being particularly important in terms of the magnitude of the influence.

Turning briefly to comment on the additional control variables, the age of the child and whether the child resides with his/her birth parents are both inversely associated with the probability of not saving. Interestingly, the age effects dominate the marginal effects in terms of magnitude across the three specifications, yet no clear pattern was evident in the raw data discussed in Section 2 above. In addition, whether the child indicates that he/she intends to go to college or sixth form after completing compulsory education has a relatively large inverse effect on the probability of not saving. In contrast, not having a computer in the household and being in a single parent household are both positively associated with the probability of the child not saving, which accords with intuition in that single parent households are more likely to be financially constrained and, hence, income received by the child may be required for immediate consumption purposes. There is no influence from the level of household labour and non labour income on the probability of the child not saving, rather it would appear that wealth effects are more important as proxied by housing tenure. Specifically, whether the home is owned outright decreases the likelihood that the child does not save by approximately 5 percentage points across the three specifications. To summarise, the magnitudes of the effects stemming from the child's allowance and the financial attitudes of the parents are around a third of the size of the

marginal effect associated with whether the child intends to go to college or sixth form and are comparable with the influence of the child's gender.[12]

It is apparent from the small existing empirical literature on children's income in the context of developed countries that the amount of the parental allowance received by the child and the number of hours worked by the child may be interdependent (see Gong, 2009). Hence, in order to explore the robustness of the findings presented in Table 2 Panel A, although we do control for both the parental allowance and the child's hours of work in the previous analysis, we endogenise the child's allowance and the number of hours worked by estimating a bivariate tobit model following the approach of Gong (2009).[13] Specifically, the child's allowance is modelled conditional upon their hours of work, child and household characteristics. The identifying covariates, which follow the existing literature, are total family income and the education and employment status of the mother and the father. The number of hours worked is modelled conditional upon the child's allowance, child and household characteristics, where, again following the existing literature, the identifying covariates are the hourly pay received by the child for paid work and the education and employment status of the mother and the father.[14] We use the results from estimating this simultaneous equations model to predict the allowance and the number of hours worked per week and we then re-estimate equation (1) replacing the

[12] In order to further explore the robustness of our empirical findings, we have also utilised a multinomial logit framework with clustered standard errors to control for the repeated child observations distinguishing between three categories of saving behaviour: spend immediately; save to buy things; and save and not spend. We specify spend immediately as the base category. Our findings are in line with those reported in Table 2 with the child's allowance being inversely associated with both saving categories and hours of work being positively associated with both saving categories.

[13] The tobit framework allows for the truncation of the dependent variable at zero since work hours by definition cannot take negative values.

[14] The results from estimating the simultaneous model, which are available upon request, are consistent with the existing literature in that there is an inverse relationship between the child's weekly allowance and hours worked.

exogenous values of the allowance and hours worked with the values predicted from the bivariate framework.[15]

In Table 2 Panel B, we summarise the findings from repeating the analysis in Table 2 Panel A replacing the parental allowance and hours of work with their predicted values obtained as described above. In terms of signs and statistical significance, it can be seen that the results relating to the parental allowance and hours of work are robust to this approach, with the magnitude of the marginal effect of the parental allowance being heightened and that of hours worked being reduced. Thus, our findings of a positive influence of parental allowances and a negative influence of children's work hours on the probability of children not saving would appear to be relatively robust.

To investigate whether differences exist between the influences on the saving behaviour of boys and girls, we repeat the analysis above splitting by the gender of the child. In addition, this also allows us to explore the relationship between the saving behaviour of mothers and daughters and the relationship between the saving behaviour of fathers and sons. The results are summarised in Table 3A, where both the child's allowance and hours worked are exogenous variables and in Table 3B, where these variables are treated as endogenous. There are two panels in Tables 3A and 3B: Panel A presents the results for boys and Panel B presents the results for girls. For brevity, both tables only show the parameters associated with the key covariates of interest. As found for the sample as a whole, the estimated ρ parameters indicate that unobserved child heterogeneity in the panel is of importance for both girls and boys.

[15] The standard errors have been adjusted to allow for the inclusion of the predicted variables. It should also be noted that the estimated coefficients of the predicted allowance and hours variables might be inconsistent, see Wooldridge (2002). However, we are primarily concerned with only the sign and the significance of the effect in order to ascertain the robustness of our previous results.

It is evident for both boys and girls that the amount of the allowance received is positively associated with the probability that the child does not save, with the magnitude of the marginal effect being slightly larger for girls. This is the case when the allowance is exogenous (see Table 3A) and also when the allowance is treated as endogenous (see Table 3B). Interestingly, the influence of the number of hours worked per week for boys is statistically insignificant when hours of work are treated as exogenous (Table 3A), whereas the influence of hours of work becomes statistically significant once this variable is treated as endogenous (Table 3B). Such findings highlight the importance of allowing for the potential interdependence between the parental allowance received by boys and the number of hours they work. For girls, the number of hours worked has an inverse relationship with the probability of not saving in both Table 3A and Table 3B.

In accordance with the results presented in Table 2, the total amount saved by the parent does not influence the probability of the child not saving for both boys and girls. However, controlling for whether the parent states that they save for no specific reason does decrease the probability that boys do not save. If the father saves for no specific reason then the son is 3.6 percentage points less likely not to save, whilst there is no significant effect from whether the mother saves for no specific reason. A noticeable difference between the saving behaviour of boys and girls concerns the influence of parent's financial expectations. For girls, regardless of whether it is the financial optimism of the father or the mother, having a financially optimistic parent increases the probability that the child does not save by around 3.6 percentage points, whilst no such effect is evident for boys.

Dynamic Panel Probit Framework

We now explore the robustness of our empirical findings once the potential state dependence of the child's saving behaviour is allowed for. The results of estimating equation (2) are summarised in Table 4 (exogenous allowance and hours of work) and Table 5 (endogenous allowance and hours of work). Panel A of Tables 4 and 5 presents the results based upon all children, and Panels B and C present the results of estimating equation (2) for boys and girls, respectively. Given the statistical significance of the random effects terms throughout the different models, unobserved heterogeneity is once again clearly of importance in explaining unsystematic variation.

Following Stewart (2007), we focus our discussion on the estimated coefficients. Throughout the specifications, there is evidence of state dependence since whether the child did not save in the previous period is positively correlated with the child's current saving behaviour – regardless of gender. Despite the presence of state dependence, the allowance received by the child is still of importance in influencing saving behaviour and this is apparent for both boys and girls. Noticeably, the effect of the allowance is much stronger in terms of magnitude for girls' saving behaviour once the allowance is endogenised. There is also a noticeable effect for the financial expectations of the parents, which continue to have a statistically significant influence once state dependence is allowed for. For example, the effect of whether the father of the child is financially optimistic on the child's saving behaviour is around a tenth of the magnitude of the effect of the lagged dependent variable. However, decomposing the analysis by gender reveals that this effect increases to approximately a third of the size of the influence of the lagged dependent variable when considering boys only. Furthermore, once state dependence is allowed for, the father-son and the

mother-son associations between financial optimism and the child's saving behaviour are greater in magnitude than those for the father-daughter and the mother-daughter pairings. Hence, there is some evidence of an 'own' gender effect for males in the role of the financial expectations of the parent in influencing the saving decisions of their offspring.

4. Conclusion

This paper contributes to the growing empirical literature exploring household finances and, specifically, contributes to our understanding of a relatively neglected area of the economics literature relating to the saving behaviour of children. To be specific, we explore the determinants of children's saving behaviour using British panel data focusing on the role of parents via giving allowances to their children, their own saving behaviour and communicating their own financial outlook. We find relatively robust evidence suggesting that the allowance or pocket money that the child receives from their parents influences their saving behaviour and, in particular, that the amount of the allowance is positively associated with the probability of not saving. In contrast, hours of paid work undertaken by the child are positively associated with the probability that the child saves. Hence, it is apparent that different sources of income received by children appear to influence their saving behaviour in contrasting ways. This finding is robust to allowing for the potential interdependence between allowances received by children and hours of work supplied by children.

Our findings also suggest that the actual saving behaviour of parents does not influence the saving decisions of their offspring, although the financial outlook of the parents does affect the saving behaviour of children. In addition, our findings highlight some interesting differences in the determinants of the saving behaviour of boys and girls, such as the influence of parent's financial expectations, suggesting that

the differences in household finances, such as the propensity to hold risky financial assets, across adult males and females reported in the existing literature, may relate back to differences in attitudes towards finances during childhood. Finally, although the sample used for the analysis is based upon a group of children aged 11-15, there is evidence that their past attitudes towards saving influence their current behaviour, i.e. state dependence.

Our empirical findings, thus, reveal some interesting insights relating to the saving behaviour of children and indicate that such behaviour is influenced by a variety of factors, some of which can be shaped by parents via, for example, the provision of allowances/pocket money or encouraging children to carry out some paid work. In addition, it is apparent that the extent to which parents share their expectations regarding household finances with their children may also influence the saving behaviour of their offspring. The diffusion of information regarding finances amongst household members thus appears to play an important role in the saving behaviour of children, especially for girls. Furthermore, the evidence of state dependence in children's saving behaviour indicates that their future saving may also be influenced. Parents may thus be able to instil certain attitudes towards finances in their children, which consequently may be taken by children into adulthood. With increasing levels of debt and relatively low levels of saving at the household level, it is apparent that exploring the extent to which the saving behaviour and the financial management skills of children can be influenced provides potentially important information from a policy-making perspective. We hope, therefore, that our empirical findings will serve to stimulate further research into this important aspect of household finances and intergenerational analysis, which remains relatively unexplored in the economics literature.

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TABLE 1: Summary Statistics

	ALL CHILDREN		BOYS		GIRLS	
	MEAN	*STD*	MEAN	*STD*	MEAN	*STD*
Child does not save [#]	0.214	*0.410*	0.205	*0.404*	0.223	*0.416*
Log child allowance	1.687	*1.094*	1.628	*1.094*	1.747	*1.091*
Hours worked by child per week	1.053	*2.306*	1.123	*2.351*	0.983	*2.257*
Log savings: both parents	2.294	*2.660*	2.370	*2.700*	2.217	*2.618*
Log savings: father	1.796	*2.323*	1.890	*2.372*	1.699	*2.269*
Log savings: mother	1.991	*2.343*	2.050	*2.374*	1.932	*2.312*
Save for no specific reason: both parents [#]	0.171	*0.377*	0.181	*0.385*	0.162	*0.368*
Save for no specific reason: father [#]	0.173	*0.378*	0.182	*0.386*	0.163	*0.369*
Save for no specific reason: mother [#]	0.188	*0.391*	0.195	*0.396*	0.181	*0.385*
Expect finances to improve: both parents [#]	0.328	*0.469*	0.327	*0.469*	0.329	*0.470*
Expect finances to improve: father [#]	0.334	*0.471*	0.336	*0.472*	0.332	*0.471*
Expect finances to improve: mother [#]	0.384	*0.486*	0.381	*0.486*	0.387	*0.487*
Expect no change in finances: both parents [#]	0.592	*0.491*	0.602	*0.490*	0.582	*0.493*
Expect no change in finances: father [#]	0.602	*0.489*	0.617	*0.486*	0.587	*0.493*
Expect no change in finances: mother [#]	0.711	*0.453*	0.711	*0.453*	0.712	*0.453*
Male child[#]	0.504	*0.500*	–		–	
Age of child	13.035	*1.423*	13.038	*1.419*	13.031	*1.427*
Age of child squared	171.924	*37.258*	172.014	*37.145*	171.832	*37.379*
Natural child [#]	0.919	*0.274*	0.912	*0.283*	0.925	*0.263*
Number of children in household	1.483	*0.595*	1.470	*0.584*	1.496	*0.607*
Child has computer [#]	0.281	*0.450*	0.252	*0.434*	0.311	*0.463*
Child intends to go to college [#]	0.723	*0.447*	0.677	*0.468*	0.770	*0.421*
Child in single parent family [#]	0.213	*0.409*	0.210	*0.407*	0.215	*0.411*
Number of adults in household	4.352	*1.270*	4.340	*1.218*	4.364	*1.321*
Home owned outright [#]	0.089	*0.285*	0.092	*0.290*	0.085	*0.279*
Home owned on mortgage [#]	0.598	*0.490*	0.606	*0.489*	0.589	*0.492*
Home rented [#]	0.203	*0.403*	0.198	*0.398*	0.209	*0.407*
Log labour income	7.729	*0.692*	7.745	*0.693*	7.112	*0.690*
Log non labour income	6.410	*1.173*	6.379	*1.166*	6.442	*1.179*
OBSERVATIONS	6,201		3,128		3,073	

[#] denotes a binary variable.

TABLE 2: Probability that child does not save; random effects probit model

	BOTH PARENTS			FATHER			MOTHER		
PANEL A: Exogenous allowance, hours	COEF	TSTAT	M.E.	COEF	TSTAT	M.E.	COEF	TSTAT	M.E.
Log child allowance	0.1137	*(4.27)*	0.0215	0.1135	*(4.26)*	0.0214	0.1132	*(4.25)*	0.0214
Hours worked by child per week	-0.0355	*(2.88)*	-0.0067	-0.0354	*(2.87)*	-0.0067	-0.0351	*(2.85)*	-0.0066
Log savings	0.0010	*(0.01)*	0.0001	-0.0030	*(0.18)*	-0.0006	-0.0015	*(0.10)*	-0.0003
Save for no specific reason	-0.1535	*(1.93)*	-0.0289	-0.1412	*(1.58)*	-0.0267	-0.1051	*(1.25)*	-0.0199
Expect finances to improve	0.1232	*(1.92)*	0.0233	0.1255	*(1.99)*	0.0237	0.1096	*(1.66)*	0.0207
Expect no change in finances	0.1681	*(2.10)*	0.0317	0.1702	*(2.21)*	0.0321	0.1441	*(2.07)*	0.0271
Male child	-0.1130	*(1.67)*	-0.0213	-0.1152	*(1.70)*	-0.0218	-0.1104	*(1.63)*	-0.0208
Age of child	-1.0087	*(2.77)*	-0.1905	-1.0106	*(2.78)*	-0.1908	-1.0062	*(2.76)*	-0.1899
Age of child squared	0.0411	*(2.96)*	0.0078	0.0412	*(2.96)*	0.0078	0.0410	*(2.95)*	0.0077
Natural child	-0.2597	*(2.56)*	-0.0491	-0.2574	*(2.53)*	-0.0486	-0.2594	*(2.55)*	-0.0489
Number of children in household	0.0228	*(0.43)*	0.0043	0.0233	*(0.44)*	0.0044	0.0220	*(0.42)*	0.0041
Child has computer	0.2856	*(4.11)*	0.0539	0.2853	*(4.11)*	0.0539	0.2854	*(4.11)*	0.0539
Child intends to go to college	-0.3247	*(5.19)*	-0.0613	-0.3245	*(5.19)*	-0.0613	-0.3239	*(5.18)*	-0.0612
Child in single parent family	0.3749	*(3.00)*	0.0708	0.3629	*(2.98)*	0.0685	0.2591	*(2.58)*	0.0489
Number of adults in household	0.0081	*(0.25)*	0.0015	0.0074	*(0.23)*	0.0014	0.0080	*(0.24)*	0.0015
Home owned outright	-0.2621	*(1.80)*	-0.0495	-0.2624	*(1.80)*	-0.0495	-0.2591	*(1.77)*	-0.0489
Home owned on mortgage	-0.0105	*(0.10)*	-0.0020	-0.0091	*(0.09)*	-0.0017	-0.0114	*(0.11)*	-0.0022
Home rented	0.1554	*(1.37)*	0.0294	0.1553	*(1.37)*	0.0293	0.1593	*(1.41)*	0.0301
Log labour income	-0.0221	*(0.40)*	-0.0042	-0.0205	*(0.37)*	-0.0039	-0.0215	*(0.39)*	-0.0041
Log non labour income	0.0049	*(0.18)*	0.0009	0.0056	*(0.20)*	0.0010	0.0034	*(0.12)*	0.0006
Wald chi squared (41), *p value*	174.94, *p=[0.000]*			175.11, *p=[0.000]*			173.70, *p=[0.000]*		
ρ, *p value*	0.5803, *p=[0.000]*			0.5805, *p=[0.000]*			0.5807, *p=[0.000]*		
	BOTH PARENTS			FATHER			MOTHER		
PANEL B: Endogenous allowance, hours	COEF	TSTAT	M.E.	COEF	TSTAT	M.E.	COEF	TSTAT	M.E.
Log child allowance	0.3336	*(2.57)*	0.0631	0.3364	*(2.59)*	0.0636	0.3264	*(2.51)*	0.0617
Hours worked by child per week	-0.0065	*(4.39)*	-0.0012	-0.0065	*(4.38)*	-0.0012	-0.0065	*(4.37)*	-0.0012
Log savings	-0.0010	*(0.01)*	-0.0001	-0.0031	*(0.19)*	-0.0006	-0.0016	*(0.11)*	-0.0003
Save for no specific reason	-0.1511	*(1.70)*	-0.0286	-0.1388	*(1.55)*	-0.0262	-0.1026	*(1.22)*	-0.0194
Expect finances to improve	0.1226	*(1.91)*	0.0232	0.1259	*(1.90)*	0.0238	0.1075	*(1.63)*	0.0203
Expect no change in finances	0.1684	*(2.11)*	0.0319	0.1722	*(2.24)*	0.0326	0.1436	*(2.07)*	0.0271
Wald chi squared (41), *p value*	175.49, *p=[0.000]*			175.76, *p=[0.000]*			174.17, *p=[0.000]*		
ρ, *p value*	0.5788, *p=[0.000]*			0.5790, *p=[0.000]*			0.5792, *p=[0.000]*		
OBSERVATIONS	6,201								

Notes: (i) 5 year dummy variables and 16 regional controls are included. Control variables in Panel B are as given in Panel A; (ii) Standard errors are available for the marginal effects on request.

TABLE 3A: Probability that child does not save (split by gender), exogenous allowance and hours; random effects probit model

	BOTH PARENTS			FATHER			MOTHER		
PANEL A: Boys	COEF	TSTAT	M.E.	COEF	TSTAT	M.E.	COEF	TSTAT	M.E.
Log child allowance	0.1122	*(3.05)*	0.0203	0.1119	*(3.05)*	0.0202	0.1114	*(3.03)*	0.0201
Hours worked by child per week	-0.0182	*(1.08)*	-0.0033	-0.0180	*(1.07)*	-0.0033	-0.0183	*(1.08)*	-0.0033
Log savings	0.0049	*(0.26)*	0.0009	0.0063	*(0.28)*	0.0011	0.0025	*(0.12)*	0.0005
Save for no specific reason	-0.2023	*(1.82)*	-0.0365	-0.2001	*(1.80)*	-0.0361	-0.1194	*(1.01)*	-0.0216
Expect finances to improve	0.0965	*(0.96)*	0.0174	0.0982	*(1.01)*	0.0177	0.0598	*(0.65)*	0.0108
Expect no change in finances	0.1769	*(1.55)*	0.0319	0.1520	*(1.41)*	0.0274	0.1156	*(1.19)*	0.0209
CONTROLS	As in Table 2								
Wald chi squared (40), *p value*	117.13, *p=[0.000]*			116.79, *p=[0.000]*			115.76, *p=[0.000]*		
ρ, *p value*	0.5603, *p=[0.000]*			0.5606, *p=[0.000]*			0.5597, *p=[0.000]*		
OBSERVATIONS	3,128								
	BOTH PARENTS			FATHER			MOTHER		
PANEL B: Girls	COEF	TSTAT	M.E.	COEF	TSTAT	M.E.	COEF	TSTAT	M.E.
Log child allowance	0.1227	*(3.14)*	0.0242	0.1228	*(3.14)*	0.0242	0.1214	*(3.10)*	0.0239
Hours worked by child per week	-0.0566	*(3.09)*	-0.0111	-0.0566	*(3.09)*	-0.0112	-0.0559	*(3.05)*	-0.0110
Log savings	-0.0046	*(0.24)*	-0.0009	-0.0103	*(0.44)*	-0.0020	-0.0057	*(0.26)*	-0.0011
Save for no specific reason	-0.1338	*(1.05)*	-0.0264	-0.1146	*(0.89)*	-0.0226	-0.1177	*(0.98)*	-0.0231
Expect finances to improve	0.1801	*(1.95)*	0.0355	0.1783	*(1.96)*	0.0351	0.1845	*(1.93)*	0.0363
Expect no change in finances	0.1378	*(1.21)*	0.0272	0.1643	*(1.48)*	0.0324	0.1558	*(1.55)*	0.0306
CONTROLS	As in Table 2								
Wald chi squared (40), *p value*	101.72, *p=[0.000]*			101.88, *p=[0.000]*			101.83, *p=[0.000]*		
ρ, *p value*	0.5878, *p=[0.000]*			0.5885, *p=[0.000]*			0.5897, *p=[0.000]*		
OBSERVATIONS	3,073								

Notes: (i) 5 year dummy variables and 16 regional controls are included. Control variables in Panel B are as given in Panel A; (ii) Standard errors are available for the marginal effects on request.

TABLE 3B: Probability that child does not save (split by gender), endogenous allowance and hours; random effects probit model

	BOTH PARENTS			FATHER			MOTHER		
PANEL A: Boys	COEF	TSTAT	M.E.	COEF	TSTAT	M.E.	COEF	TSTAT	M.E.
Log child allowance	0.2439	*(2.15)*	0.0440	0.2401	*(2.12)*	0.0433	0.2456	*(1.91)*	0.0444
Hours worked by child per week	-0.0094	*(3.06)*	-0.0017	-0.0094	*(3.04)*	-0.0017	-0.0094	*(3.05)*	-0.0017
Log savings	0.0052	*(0.28)*	0.0009	0.0065	*(0.29)*	0.0012	0.0029	*(0.13)*	0.0005
Save for no specific reason	-0.2002	*(1.81)*	-0.0361	-0.1977	*(1.80)*	-0.0356	-0.1175	*(1.01)*	-0.0212
Expect finances to improve	0.1016	*(1.01)*	0.0183	0.0999	*(1.02)*	0.0180	0.0677	*(0.73)*	0.0122
Expect no change in finances	0.1793	*(1.58)*	0.0324	0.1495	*(1.38)*	0.0269	0.1224	*(1.25)*	0.0221
CONTROLS	As in Table 2								
Wald chi squared (40), *p value*	118.69, *p=[0.000]*			118.23, *p=[0.000]*			118.12, *p=[0.000]*		
ρ, *p value*	0.5602, *p=[0.000]*			0.5607, *p=[0.000]*			0.5580, *p=[0.000]*		
OBSERVATIONS	3,128								
	BOTH PARENTS			FATHER			MOTHER		
PANEL B: Girls	COEF	TSTAT	M.E.	COEF	TSTAT	M.E.	COEF	TSTAT	M.E.
Log child allowance	0.3462	*(1.99)*	0.0686	0.3471	*(1.94)*	0.0687	0.3354	*(1.97)*	0.0662
Hours worked by child per week	-0.0078	*(3.38)*	-0.0015	-0.0078	*(3.38)*	-0.0015	-0.0077	*(3.35)*	-0.0015
Log savings	-0.0050	*(0.28)*	-0.0010	-0.0110	*(0.48)*	-0.0022	-0.0060	*(0.28)*	-0.0012
Save for no specific reason	-0.1298	*(1.02)*	-0.0257	-0.1096	*(0.86)*	-0.0218	-0.1152	*(0.97)*	-0.0227
Expect finances to improve	0.1752	*(1.90)*	0.0347	0.1733	*(1.92)*	0.0343	0.1781	*(1.97)*	0.0352
Expect no change in finances	0.1352	*(1.19)*	0.0268	0.1619	*(1.46)*	0.0320	0.1569	*(1.56)*	0.0310
CONTROLS	As in Table 2								
Wald chi squared (40), *p value*	99.13, *p=[0.000]*			99.30, *p=[0.000]*			99.21, *p=[0.000]*		
ρ, *p value*	0.5849, *p=[0.000]*			0.5860, *p=[0.000]*			0.5869, *p=[0.000]*		
OBSERVATIONS	3,073								

Notes: (i) 5 year dummy variables and 16 regional controls are included. Control variables in Panel B are as given in Panel A; (ii) Standard errors are available for the marginal effects on request.

TABLE 4: Probability that child does not save, exogenous allowance and hours; dynamic panel probit model

PANEL A: All Children	BOTH PARENTS		FATHER		MOTHER	
	COEF	TSTAT	COEF	TSTAT	COEF	TSTAT
Child does not save$_{t-1}$	1.2843	*(5.12)*	1.2706	*(5.03)*	1.7358	*(4.77)*
Log child allowance	0.1222	*(2.92)*	0.1231	*(2.94)*	0.1225	*(2.90)*
Hours worked by child per week	-0.0245	*(1.25)*	-0.0248	*(1.27)*	-0.0244	*(1.24)*
Log savings	-0.0201	*(0.99)*	-0.0353	*(1.41)*	-0.0337	*(1.43)*
Save for no specific reason	-0.0373	*(0.27)*	0.0287	*(0.21)*	0.0294	*(0.22)*
Expect finances to improve	0.1152	*(2.23)*	0.1729	*(2.82)*	0.2113	*(2.11)*
Expect no change in finances	0.0596	*(0.62)*	0.1399	*(1.44)*	0.1785	*(1.64)*
Wald chi squared (10), p value	57.06, *p=[0.000]*		61.12, *p=[0.000]*		59.17, *p=[0.000]*	
λ, *p value*	0.2003, *p=[0.000]*		0.2017, *p=[0.000]*		0.2199, *p=[0.000]*	
OBSERVATIONS	5,103					
PANEL B: Boys	BOTH PARENTS		FATHER		MOTHER	
	COEF	TSTAT	COEF	TSTAT	COEF	TSTAT
Child does not save$_{t-1}$	1.0228	*(2.73)*	0.9832	*(2.54)*	1.0465	*(2.77)*
Log child allowance	0.1019	*(1.92)*	0.1006	*(1.90)*	0.0945	*(1.81)*
Hours worked by child per week	-0.0083	*(0.36)*	-0.0076	*(0.33)*	-0.0107	*(0.46)*
Log savings	0.0220	*(0.82)*	0.0146	*(0.45)*	0.0165	*(0.54)*
Save for no specific reason	-0.3329	*(1.72)*	-0.3006	*(1.56)*	-0.1367	*(0.79)*
Expect finances to improve	0.2672	*(2.12)*	0.2882	*(2.29)*	0.2455	*(1.99)*
Expect no change in finances	0.1104	*(0.85)*	0.0986	*(0.75)*	0.1065	*(0.75)*
Wald chi squared (10), p value	22.13, *p=[0.009]*		19.44, *p=[0.022]*		21.35, *p=[0.011]*	
λ, *p value*	0.1069, *p=[0.000]*		0.0859, *p=[0.000]*		0.1056, *p=[0.000]*	
OBSERVATIONS	2,580					
PANEL C: Girls	BOTH PARENTS		FATHER		MOTHER	
	COEF	TSTAT	COEF	TSTAT	COEF	TSTAT
Child does not save$_{t-1}$	0.6718	*(3.15)*	0.6610	*(3.14)*	0.6661	*(3.16)*
Log child allowance	0.0877	*(1.90)*	0.0888	*(1.92)*	0.0882	*(1.92)*
Hours worked by child per week	-0.0254	*(1.17)*	-0.0069	*(1.17)*	-0.0237	*(1.09)*
Log savings	-0.0098	*(0.44)*	-0.0148	*(0.54)*	-0.0144	*(0.56)*
Save for no specific reason	-0.2257	*(1.43)*	-0.2155	*(1.36)*	0.1734	*(1.17)*
Expect finances to improve	0.0708	*(2.68)*	0.0848	*(1.81)*	0.1162	*(2.05)*
Expect no change in finances	0.0247	*(0.23)*	0.0368	*(0.35)*	0.1429	*(1.20)*
Wald chi squared (10), p value	22.73, *p=[0.007]*		22.85, *p=[0.007]*		23.08, *p=[0.000]*	
λ, *p value*	0.3088, *p=[0.057]*		0.3616, *p=[0.045]*		0.3142, *p=[0.000]*	
OBSERVATIONS	2,523					

Note: Additional controls throughout each specification are time varying covariates.

TABLE 5: Probability that child does not save, endogenous allowance and hours; dynamic panel probit model

PANEL A: All Children	BOTH PARENTS		FATHER		MOTHER	
	COEF	TSTAT	COEF	TSTAT	COEF	TSTAT
Child does not save$_{t-1}$	1.3358	*(5.58)*	1.3231	*(5.49)*	1.2876	*(5.23)*
Log child allowance	0.1983	*(1.79)*	0.2048	*(1.85)*	0.1942	*(1.74)*
Hours worked by child per week	-0.0060	*(2.79)*	-0.0060	*(2.79)*	-0.0060	*(2.78)*
Log savings	-0.0201	*(1.01)*	-0.0352	*(1.43)*	-0.0338	*(1.46)*
Save for no specific reason	-0.0298	*(0.22)*	0.0363	*(0.27)*	0.0369	*(0.29)*
Expect finances to improve	0.1124	*(2.22)*	0.1693	*(1.92)*	0.2039	*(2.07)*
Expect no change in finances	0.0587	*(0.63)*	0.1389	*(1.46)*	0.1729	*(1.62)*
Wald chi squared (10), p value	64.33, *p=[0.000]*		68.56, *p=[0.000]*		66.57, *p=[0.000]*	
λ, *p value*	0.1710, *p=[0.000]*		0.1717, *p=[0.000]*		0.1880, *p=[0.000]*	
OBSERVATIONS	5,103					
PANEL B: Boys	BOTH PARENTS		FATHER		MOTHER	
	COEF	TSTAT	COEF	TSTAT	COEF	TSTAT
Child does not save$_{t-1}$	0.9678	*(2.52)*	0.9443	*(2.42)*	0.9838	*(2.51)*
Log child allowance	0.0745	*(0.60)*	0.0691	*(0.56)*	0.0835	*(0.68)*
Hours worked by child per week	-0.0073	*(1.67)*	-0.0071	*(1.64)*	-0.0068	*(1.58)*
Log savings	0.0223	*(0.83)*	0.0156	*(0.48)*	0.0167	*(0.54)*
Save for no specific reason	-0.3367	*(1.72)*	-0.3053	*(1.57)*	-0.1409	*(0.80)*
Expect finances to improve	0.2650	*(2.08)*	0.2816	*(2.22)*	0.2453	*(1.92)*
Expect no change in finances	0.1081	*(0.82)*	0.0904	*(0.68)*	0.1137	*(0.80)*
Wald chi squared (10), p value	19.90, *p=[0.019]*		19.78, *p=[0.019]*		17.18, *p=[0.046]*	
λ, *p value*	0.1221, *p=[0.000]*		0.1187, *p=[0.000]*		0.1014, *p=[0.000]*	
OBSERVATIONS	2,580					
PANEL C: Girls	BOTH PARENTS		FATHER		MOTHER	
	COEF	TSTAT	COEF	TSTAT	COEF	TSTAT
Child does not save$_{t-1}$	0.6971	*(3.27)*	0.6860	*(3.26)*	0.6891	*(3.25)*
Log child allowance	0.3255	*(2.78)*	0.3271	*(2.79)*	0.3172	*(2.72)*
Hours worked by child per week	-0.0029	*(1.11)*	-0.0029	*(1.13)*	-0.0029	*(1.11)*
Log savings	-0.0081	*(0.37)*	-0.0137	*(0.51)*	-0.0129	*(0.51)*
Save for no specific reason	-0.2226	*(1.43)*	-0.2087	*(1.34)*	-0.1649	*(1.13)*
Expect finances to improve	0.0802	*(1.79)*	0.0938	*(1.91)*	0.1138	*(2.05)*
Expect no change in finances	0.0359	*(0.35)*	0.0487	*(0.47)*	0.1419	*(1.20)*
Wald chi squared (10), p value	30.72, *p=[0.000]*		30.63, *p=[0.003]*		30.61, *p=[0.000]*	
λ, *p value*	0.2788, *p=[0.097]*		0.2864, *p=[0.079]*		0.2861, *p=[0.086]*	
OBSERVATIONS	2,523					

Note: Additional controls throughout each specification are time varying covariates.