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Impact of Child-Directed TV Food Advertising Regulations on Pocket Money Allowances

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Abstract

Child advertising regulations, including both self-regulation and co-regulation, have been presented as possible interventions to improve the food environment at home, thus helping to curb the increasing occurrence of food-related diseases, especially those related to obesity. In this research, we explore the effect of TV advertising regulations on the interaction between household members, specifically, on pocket money allocations. Using a time series approach, we find that co-regulation, as opposed to self-regulation, leads to significant reductions in pocket money allocations. However, through quantile regression, we show that the actual policy effect highly depends on the extent of a household's pocket money allocations.

1 Introduction

Marketers view children as a lucrative target market, as children represent three markets in one (McNeal, 1992). Not only do children have their own savings and allowances available for expenditure, but they also influence parental purchasing decisions and will become future adult consumers. Perhaps as a result of the appeal of this market segment and the subsequent marketing directed at children, public authorities are concerned about increasing childhood obesity rates. In the context of insufficient physical activity (NHS, 2010), and increasing sugar and fat consumption (MacInnis and Rausser, 2005), more people are becoming obese (Hill et al., 2003). The United Kingdom (UK), in particular, has one of the highest obesity levels in the world (Mazzocchi et al., 2009). As indicated by the National Health Service (NHS) (NHS, 2010), 25% of adults and 17% of children are obese, an increase of four percentage points compared to 1995.

Since childhood obesity rates are rising (Veerman et al., 2009), the role of food marketing aimed at children has gained public attention (Moore and Rideout, 2007). In response, over the last fifteen years the UK has moved through three distinct phases of TV advertising regulations for programs directed at children: no regulation, self-regulation, and the current period of co-regulation. These regulations seek to reduce children's exposure to food advertising and, consequently, improve the home food environment.

The home food environment is a product of, among other things, the continuous interaction between family members and external conditions. Parents can mitigate media exposure, and, as the main food shoppers, can limit access to products high in fat, salt, and sugar (HFSS). However, children also want to express their food preferences, often through the use of their own pocket money. To a certain extent, children consult and negotiate some food choices with their parents. Parents are one of the largest influences

on children’s food preferences (Atik and Ozdamar Ertekin, 2013).

Considering households as a homogenous agent is too limiting (You and Davis, 2010). The intra-household decision making process is not neutral, and the negotiation process that ends in a pocket money allowance can be complex. Most of these intra-household interactions are unobservable and occur simultaneously. This may be one reason for the apparent lack of research on the impact of food advertising on pocket money allowances. Prior research has focused on the link between pocket money and obesity in children (Khader et al., 2009). HFSS consumption is also well documented as a factor that contributes to obesity and its related diseases (Veerman et al., 2009), and there is substantial evidence on the affect of advertising on children’s food choices (Galbraith-Emami and Lobstein, 2013; Boyland and Whalen, 2015; Marshall et al., 2007; Ng et al., 2015). It is likely that the relative lack of intra-household data and the challenge of linking food choices with a child-directed advertising event have been factors against more fruitful research.

The broad objective of this research is to provide empirical evidence on the impact of regulation on intra-household relations. Specifically, we focus on food advertising on pocket money allowances. With this objective in mind, we test the hypothesis of whether changes in child-directed advertising regulations are linked to pocket money allocations. We are able to test this hypothesis, as (i) we have a unique dataset of more than 60,000 households in the UK that includes household-level data on pocket money, and (ii) UK regulations explicitly regulate child-directed TV advertising. This way, we are able to link a change in child-directed advertising regulations with changes in pocket money allowances.

If child-directed TV advertising leads children to exert a significant and relevant influence on pocket money allocation, it would open the door to a new set of policies to influence household food choices. For instance, it may be effective to target children to inform them of the benefits of consuming fruits and vegetables or the risks of unhealthy eating behaviours. Moreover, evidence of the impact of food advertising on the use of pocket money could help design campaigns to inform parents of its ultimate consequences. It may be more appropriate for a parent to prepare a snack at home than to provide pocket money to their child.

The remainder of this article is organised in the following manner. Firstly, we present background information on pocket money. Secondly, we describe interrupted time series as an approach to identifying the effect of child advertising regulations on pocket money allocation, and characterise the selected dataset at the end of this section. Thirdly, we

present the estimation results. Fourthly, we discuss the determinants of pocket money allocation and its effect on advertising regulation changes and finally, we conclude with policy recommendations.

2 Background

Pocket money allowance is the intergenerational transfer of money within the household. According to Furnham (2001), 88.4% of parents favour the use of pocket money allowances, beginning at around six years of age. Considering that Barnet-Verzat and Wolff (2002) found that 74% of a large sample of parents give pocket money, it is likely to be a generalized practice, to some degree, in most parenting styles. Pocket money is seen as a way for children to develop their autonomy as a consumer (Palan et al., 2010). Consumer behavior is learned during childhood and continues to develop into adulthood; experience with pocket money helps to shape that consumer behavior (Doss et al., 1995; Swinyard and Sim, 1987).

Pocket money allocation may have several motives behind it. It can be a reward (Barnet-Verzat and Wolff, 2002), provide financial freedom (Feather, 1991), be payment for a home service, or altruism (Barnet-Verzat and Wolff, 2002). In this sense, pocket money allocation is a product of parenting style. The ultimate motivation behind pocket money conditions its effect (Barnet-Verzat and Wolff, 2002). Consequently, before analysing pocket money behaviours, it is recommended to distinguish between regular (e.g. every week) and irregular (one time only) money transfers (Barnet-Verzat and Wolff, 2002).

To some extent, the determinants of pocket money are consistent. Barnet-Verzat and Wolff (2002) found that marital status, type of employment, household income, number of children, and age of the children affect the probability of receiving pocket money allowances. Single (or divorced), white collar, and high-income parents are more likely to provide pocket money than married, blue collar, and low-income parents. Older children with few siblings are also more likely to receive pocket money than younger children with three or more siblings. With regard to the amount of pocket money, parents, in theory, express that allowances should increase linearly (Furnham, 2001). However, in practice, the empirical evidence shows that pocket allowances increase at an increasing rate (Barnet-Verzat and Wolff, 2002).

Even without significant differences in allocation, boys and girls use pocket money in different ways (Brusdal and Berg, 2010). Boys tend to spend more on video games,

hobbies and sports gear, while girls tend to spend more on clothes. With regard to candy purchases, there does not seem to be a significant difference by gender (Brusdal and Berg, 2010); however, younger children are more likely to spend their pocket money on sweets and toys, while older children are likely to spend more of their money on drinks and food /snacks (Farrell and Shields, 2007). TV watching time and pocket money have a strong positive correlation with a child's body mass index (Khader et al., 2009). Comparing male teenagers, Mohan et al. (2005) found that the prevalence of tobacco use was four times higher among those that received pocket money. Therefore, the empirical evidence suggests that pocket money may induce undesirable behaviour in children.

Children often chose to spend their allowances on consumables. Doss et al. (1995) found that more than 80% of the children in their study used pocket money for food purchases. In a study of pocket allowance spending among Chinese children, snacks were one of the most common spending categories among children under 12 (McNeal and Yeh, 1996). Children in the McNeal and Yeh (1996) study were receiving pocket money as early as four years of age, and spending on snacks was even more common among children between the ages of four and eight. Pocket money has been linked to consumption of food away from home and higher body mass indexes, and increased consumption of sweet snacks (Lachat et al., 2009; Punitha et al., 2014; Roberts et al., 2003). Further, adult efforts to limit foods deemed unhealthy are eroded through the autonomy children gain by being in control of their own pocket money allowances. Blinkhorn et al. (2003) showed this to be true particularly in the case of sweet snacks.

On one hand, children are influenced by food advertising, which promotes largely energy-dense and nutrient-poor food (Boyland and Whalen, 2015). The influence of that advertising depends on, at least, a child's age, gender, and TV habits (Ng et al., 2015). On the other hand, parents also shape children's food habits and teach their children about diet and nutrition while setting food-related practices (Marshall et al., 2007). Pocket money is the result of a parent-child bargaining process and leads to food purchasing decisions by children. This bargaining process is influenced by the pressures a child experiences on personal spending (Sato, 2011). As pressures (including advertising) increase, the child has more incentive to ask for additional monies and pocket-money allowances may increase.

Maybe due to the lack of data, pocket money allocation is a topic that has been under-considered by obesity-related research. With this research, we aim to add child-directed advertising regulations as an additional determinant to explain pocket money allocations. With this goal in mind, we extend our analysis beyond the average effect, using quantile regression to provide insights on the distribution of pocket money allocations. We expect

to provide a more complete picture of the actual policy effect of regulations on pocket money.

3 Methodology

We used interrupted time series analysis to identify the impact of two regulation events. The underlying assumption is that there would have been no intercept or slope shifts in pocket money allocations (the dependent variable) if child-directed advertising regulations had not taken place. We explain the variations in the dependent variable as a function of a set of sociodemographic variables and an intercept and slope shift per regulation event. Ideally, we would be able to have a control and treatment group. However, in the UK, 99% of households have a TV set and, thus, there is no possibility of defining a control group. Therefore, the change in TV advertising regulations needs to be interpreted as a campaign, in which all people are exposed to the treatment. Consequently, we rely on a before-after identification procedure.

We used the Living Costs and Food Survey, a continuous survey of household expenditures that includes food and non-food items, income sources, and demographics. The survey is commissioned by the Social Survey Division of the Office for National Statistics and by the UK Department for Environmental and Rural Affairs (DEFRA). Annually, a stratified random sample of around six thousand households is selected across the UK. By regularly changing the surveyed households, information is continuously obtained throughout the year, except for a break at Christmas.

The dataset contains general expenditures, food quantities, and food expenditures. The general expenditure data distinguishes between pocket money that was transferred to a child without any specific purpose (e.g. money as weekly allowance) and pocket money that was transferred to a child with a specific purpose (e.g. money for lunch). The data series corresponds to the weekly average pocket money allowance per month from April 2001 to December 2010, equivalent to 117 data points. The aggregated dataset contains data from 62,642 households. Of these, 19,971 (equivalent to 31.88%) of households have one or more children 17 years of age or younger living at home. With regard to money transfers to children, 3,307 households give regular pocket money allowances, 4,162 households give money for specific purposes, and 271 give money as a gift. Our analysis focuses on the 3,307 households that provide regular pocket money allowances to their children out of the 19,971 households with children 17 years old or younger. A data point corresponds to the average household weekly pocket money allowance in a particular month. All reported monetary values are English pounds that have been adjusted to

December 2010 values.

We controlled for confounding factors using sociodemographic data. However, more importantly, we divided the dataset into households with only children under 12 years of age and households with only children between 13 and 17 years of age. Children up to 12 years old are less skeptical about food advertising messages (Mills and Keil, 2005). We did not work with households that have a combination of children older and younger than 12 years of age. This way, we were able to better isolate the regulation effect on each of these household groups. We also distinguished three periods with regard to child-directed advertising regulations in the UK. In the first, until October 2004, food companies were subject to no regulation. In the second, from November 2004 to March 2007, food companies claimed that they had made an effort to regulate child-directed advertising without following any specific code, referred to as self-regulation. In the third, beginning in April 2007, food companies were required to follow a specific code of practice, which takes the form of a co-regulation framework between public and private agencies. Thus, we have the ability to work with three distinct regulation periods in our dataset, a pre-intervention period (April 2001 to October 2004) and two post-intervention periods: self-regulation (November 2004 to March 2007) and co-regulation (April 2007 onwards). The changes in advertising regulations have already been assessed with regard to changes in advertising expenditure and HFSS food expenditure (Silva et al., 2015). However, in our study, we pursue a more subtle and unstudied effect. For the first time changes in regulations with regard to pocket money allocations can be assessed.

4 Results and Discussion

In a broad sense, parents provide pocket money to their children to help them learn responsibility with money and as a way to cover their day-to-day expenses. In this sense, the older the child, the larger the expected pocket money allocation. Further, older children tend to have older parents. These expectations are supported by the data and depicted in the following tables. Table 1 shows the basic statistics of households with children up to 12 years old and Table 2 shows households with children between 13 and 17 years old.

Table 1: Basic Statistics of Households with Children up to 12 Years Old

variable	Obs	Mean	Std. Dev.	Min	Max
pocket money	1,449	7.348	8.467	.536	64.286
number of boys 12 years or younger	11,943	.884	.78	0	7
number of girls 12 years or younger	11,943	.823	.751	0	5
household income per month	11,943	3,061.098	3,176.188	0	22,530.4
gender reference member: 0=male, 1=female	11,943	.372	.483	0	1
age of reference member, limit 80 or more	11,943	36.608	8.365	18	80

Table 2: Basic Statistics of Households with Children 13-17 Years Old

variable	Obs	Mean	Std. Dev.	Min	Max
pocket money	855	16.89	14.219	.536	64.286
number of boys 17 years or younger	4,251	.673	.639	0	3
number of girls 17 years or younger	4,251	.657	.624	0	3
household income per month	4,251	3,384.393	2,064.774	0	22,367.43
gender reference member: 0=male, 1=female	4,251	.389	.487	0	1
age of reference member, limit 80 or more	4,251	46.819	7.371	18	80

Child-directed TV advertising regulations limit advertising directed at children 16 years or younger. We separated the analysis into households with children 12 years old or younger and households with children between 13 and 17 years old. We did not use households with a combination of siblings in both age groups, and there were enough households in both age groups for us to conduct our analysis. Taking the policy age target into account, we expected households with children aged 12 or younger to show more of the policy effect.

Households with children allocate between 0.5 and 64.3 pounds per month to pocket money, which corresponds to less than 1% of the total household income. As expected, households with older children provide a larger amount of pocket money. Even though this is a relatively small expenditure compared to other household expenses, the allowances are not trivial from the child's income perspective. On average, 12.1% of the

households with children up to 12 years old provide pocket money, which increases to 20.1% for households with children between 13 and 17 years old. Using data from 2001 to 2010, we test whether child-directed advertising regulation events have led to changes in pocket money allocations and the share of households that provide pocket money to their children.

In households with children up to 12 years old, Table 3 (and Figure 1 in the appendix) shows that self-regulation has led to a linear increase of 0.06 pounds of pocket money per week. In addition, as presented in Figure 2 and Figure 3 in the appendix, this effect has also led to gradually decreasing the number of households, or share of them, that provide pocket money to their children. After self-regulation, households increased their pocket money allocations. In the face of self-regulation, food advertisers may be responding to TV advertising regulations by shifting advertising to other medias (e.g. internet, cinema, advertising games). On the other hand, co-regulation has led to a decrease in the amount of pocket money, the number of households, and share of households that provide pocket money. Therefore, in households with children under 12 years of age, pocket money allowances experienced an increasing trend after self-regulation and a decreasing trend after co-regulation.

Table 3: Pocket-Money Allocation of Households with Children up to 12 years old

variables	amount	number of hh	share of hh
trend	0.0196 (0.0145)	-0.107*** (0.0339)	-0.000333 (0.000357)
self_regulation	-0.536 (0.611)	-1.653 (1.339)	-0.0208 (0.0127)
self_reg*trend	0.0579** (0.0259)	0.0618 (0.0455)	0.000368 (0.000479)
co_regulation	1.530 (1.188)	0.811 (1.031)	0.00499 (0.0132)
co_reg*trend	-0.148* (0.0774)	-0.188*** (0.0553)	-0.00201*** (0.000724)
constant	3.514*** (0.462)	18.70*** (1.052)	0.147*** (0.0113)
Observations	117	117	117

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1.

The results differ for households with children aged between 13 and 17 years old. Table 4 (and Figure 4 to Figure 6 in the appendix) shows that the effects of self-regulation and co-regulation on this age group are softer than those found on younger children and not significant. Self-regulation, meant to target children under 16 years, led to a small effect on the number and share of households that give out pocket money. Therefore, since older children are not explicitly targeted by the regulation, we found, as expected, less of an impact on households with older children.

The no policy effect on households with children between 13 and 17 years old is also informative. It is expected that older children would be influenced by a wider variety of sources, therefore, TV advertising regulation would have less influence than in younger children. In addition, older children would also be able to better discern the marketing messages being communicated and, thus, be less naive on the persuasive intent behind TV advertising. Nevertheless, we want to be cautious with these results. We are not testing the effect of TV advertising on children. We are testing the effect of child-directed advertising regulation on pocket money allocations.

Table 4: Pocket Money Allocation of Households with Children between 13-17 years old

variables	amount	number of hh	share of hh
trend	-0.0191 (0.0522)	-0.0741** (0.0318)	-0.00149** (0.000711)
self_regulation	1.886 (2.489)	0.0716 (0.977)	0.00209 (0.0266)
self_reg*trend	0.0289 (0.0937)	0.0413 (0.0398)	0.00110 (0.00118)
co_regulation	2.465 (4.092)	0.866 (1.261)	0.0246 (0.0430)
co_reg*trend	-0.0423 (0.306)	-0.0868 (0.0795)	-0.00231 (0.00271)
constant	13.27*** (1.497)	10.84*** (0.969)	0.262*** (0.0217)
observations	117	117	117

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Now, we want to go beyond the average effect and be able to say something about pocket money distribution. We want to see whether the regulation effect changed based on the amount of pocket money that parents provide to their children. For this purpose, we use a quantile regression with cutoff values at 0.1, 0.25, 0.5, 0.75, and 0.9. Tables 5 and 6 show the results.

Similar to the aggregated results, households with children under 12 years of age showed a larger effect on pocket money allocations. Households in the lower quantiles decreased pocket money allocations after co-regulation came into effect. However, for self-regulation, the highest quantile has the largest decrease in terms of trend. Therefore, using quantile regression, we find that self-regulation led to a smaller effect than coregulation. In addition, the quantile matters to understand the effect of regulation on money pocket allocations. While households in the highest quantile significantly decreased pocket money trends after self-regulation, households in other quantiles decreased it after co-regulation, which highlights the relevance of analyzing the distribution of the effect rather than just the average effect.

Table 6 shows that households with children 13-17 years old are not significantly impacted by the change in regulation. This lack of significance is still informative, as it shows that child advertising regulation does not play a significant role in changing pocket money allocations on households with older children.

Table 5: Pocket Money of Households with Children up to 12 Years Old per Quantile

variables	quantile_10	quantile_25	quantile_50	quantile_75	quantile_90
nboy17	1.343 (2.449)	2.840 (2.199)	0.439 (3.005)	-3.993 (5.032)	-2.042 (3.592)
ngirl17	3.488 (2.971)	0.328 (2.667)	-1.075 (3.644)	-2.263 (6.102)	3.593 (4.356)
hhincome	-0.000666 (0.000611)	-0.000732 (0.000549)	-0.000744 (0.000750)	-0.00119 (0.00126)	-0.00204** (0.000896)
gender	-5.015 (4.150)	1.818 (3.726)	0.699 (5.091)	-2.381 (8.526)	-1.457 (6.086)
age	-0.151 (0.261)	-0.185 (0.234)	-0.147 (0.320)	-0.0656 (0.536)	0.300 (0.383)
gdp	-0.246* (0.143)	-0.148 (0.129)	-0.167 (0.176)	-0.522* (0.295)	-0.627*** (0.210)
trend	0.0948** (0.0458)	0.0613 (0.0412)	0.0750 (0.0562)	0.199** (0.0942)	0.206*** (0.0672)
self_regulation	0.300 (0.870)	-0.0116 (0.781)	-0.305 (1.067)	-0.379 (1.787)	3.237** (1.276)
self_reg*trend	0.000536 (0.0349)	0.0325 (0.0313)	0.0123 (0.0428)	-0.0340 (0.0716)	-0.141*** (0.0511)
co_regulation	-1.077 (1.598)	-0.0871 (1.435)	1.611 (1.961)	-1.973 (3.283)	-1.927 (2.344)
co_reg*trend	-0.150** (0.0627)	-0.167*** (0.0563)	-0.237*** (0.0769)	-0.233* (0.129)	0.136 (0.0919)
constant	33.09 (19.97)	25.11 (17.93)	31.01 (24.51)	76.62* (41.03)	73.45** (29.29)
observations	117	117	117	117	117
pseudo R-squared	0.26	0.29	0.31	0.38	0.47

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 6: Pocket Money of Households with Children 13-17 Years Old per Quantile

variables	quantile_10	quantile_25	quantile_50	quantile_75	quantile_90
nboy17	17.10*** (5.541)	7.841 (8.054)	-2.504 (9.079)	1.873 (12.01)	-7.171 (12.16)
ngirl17	1.675 (5.284)	10.12 (7.680)	0.862 (8.657)	9.384 (11.45)	7.539 (11.59)
hhincome	-0.00155 (0.00116)	0.000440 (0.00169)	0.00153 (0.00190)	0.000763 (0.00252)	0.000252 (0.00255)
gender	-2.309 (5.335)	2.502 (7.755)	7.829 (8.741)	17.73 (11.57)	14.96 (11.71)
age	0.311 (0.349)	-0.281 (0.508)	0.0800 (0.572)	1.134 (0.757)	0.629 (0.766)
gdp	-0.132 (0.309)	-0.773* (0.449)	-0.540 (0.506)	-0.936 (0.670)	-1.693** (0.678)
trend	0.00275 (0.0969)	0.203 (0.141)	0.135 (0.159)	0.342 (0.210)	0.578*** (0.213)
self_regulation	1.163 (2.008)	1.549 (2.919)	3.765 (3.290)	0.276 (4.354)	-2.626 (4.406)
self_reg*trend	0.0145 (0.0729)	-0.00635 (0.106)	-0.0157 (0.119)	-0.134 (0.158)	-0.158 (0.160)
co_regulation	0.486 (3.438)	-7.439 (4.997)	-6.829 (5.633)	-15.35** (7.454)	-13.25* (7.543)
co_reg*trend	-0.0576 (0.132)	0.0375 (0.192)	0.140 (0.216)	0.406 (0.286)	-0.207 (0.290)
constant	-0.408 (40.22)	98.78* (58.46)	62.81 (65.89)	58.49 (87.19)	183.7** (88.23)
observations	117	117	117	117	117
pseudo R-squared	0.17	0.09	0.14	0.20	0.26

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

5 Conclusions

The increasing obesity rate in many countries has led to considerable interest in explaining the effects of obesity determinants and in implementing cost-effective interventions to curb this trend. Most of the related research has been done at the household level, treating the whole household as a black box. We argue that a household is a heterogeneous unit that contains different individuals in terms of gender, age, and education level (to name a few differences). Therefore, it can be informative to look at the effect of policy regulations on the relationships among household members.

The purpose of this research has been to show how obesity-related interventions may affect the relationship between members of a household. In particular, we focused on the effect of child-directed advertising regulations on pocket money. Pocket money is the result of the parent-child money bargaining process. Child advertising regulations have limited advertising broadcasts close to TV programs aimed at children; therefore, we were able to identify how advertising has led to a change in children's bargaining power to obtain pocket money. We can argue that is the child's influence, since the advertising regulations focus on child-directed food advertising. In this sense, this research helps to add a new dimension to consider when evaluating child-related interventions.

Our results show that self-regulation, as opposed to co-regulation, has led to an increase in pocket money allocations. However, both regulations tend to affect the trend (trend shift) more than result in an immediate change in magnitude (intercept shift). In addition, we found that regulation has a differential effect on the use of pocket money that cannot be seen in the average effect. For instance, after co-regulation, small pocket money users use it even less, while high pocket money users are not significantly affected by co-regulation. Therefore, we enhance the relevance of taking the amount of pocket money into account when explaining the determinants of pocket money.

The actual causal link between child advertising regulations, pocket money allocation and HFSS expenditure/obesity is a topic that unfolds little by little. In this article, we expect to help provide evidence to link child advertising regulations and pocket money allocation. Punitha et al. (2014) shows that pocket money is positively correlated with the number of visits to fast-food restaurants and to BMI, which suggest a possible path that explains the link between pocket money and obesity. However, it is likely that more than one path exists, which will depend on the characteristics of the child and the household, as well as on environmental conditions. For instance, we found that boys tend to receive more pocket money from their parents than girls. However, previous research has found that girls tend to be more obese than boys. In some cases, children rely on their

parents to buy their snacks, preferring to save their own money (Marshall et al., 2007).

This apparent contradiction shows that there is a nonlinear relationship between pocket money and obesity. The link between pocket money and HFSS expenditure/obesity continues to be an area of fruitful research. We also recognize that pocket money is just one of the results of the parent-child bargaining process. However, with this research, we argue that, if the data allows it, it can be informative to take a look at this black box at home to have a more complete picture of the actual effect of a given regulation on household behavior.

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6 Appendix

Figure 1: Median Amount of Pocket Money in Households with Children up to 12 years

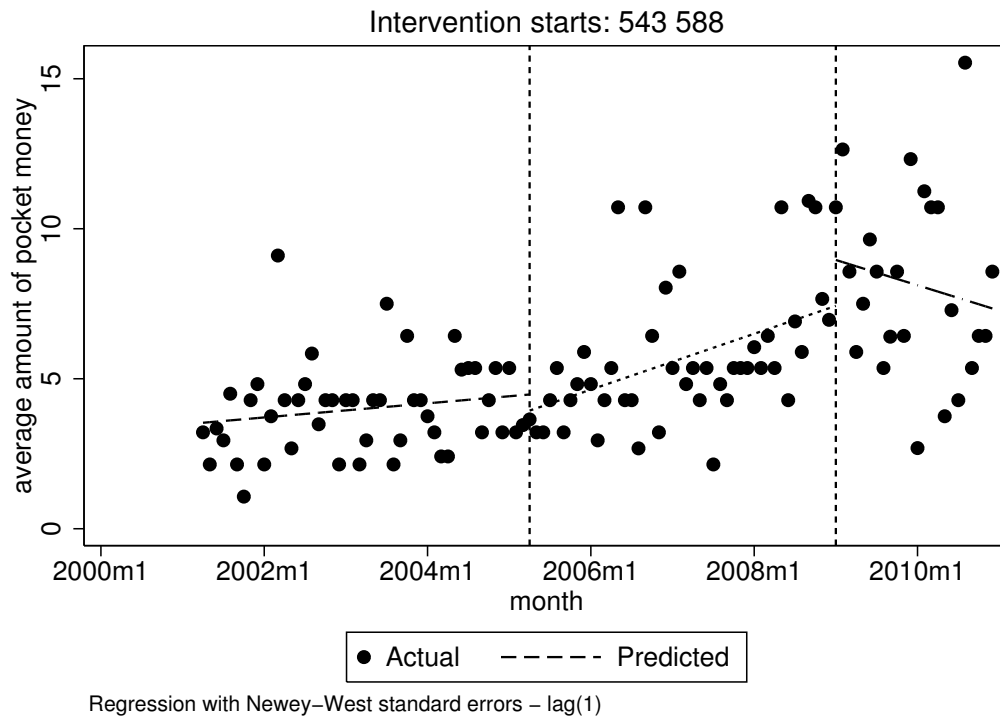


Figure 2: Share of Households using Pocket Money with Children up to 12 years

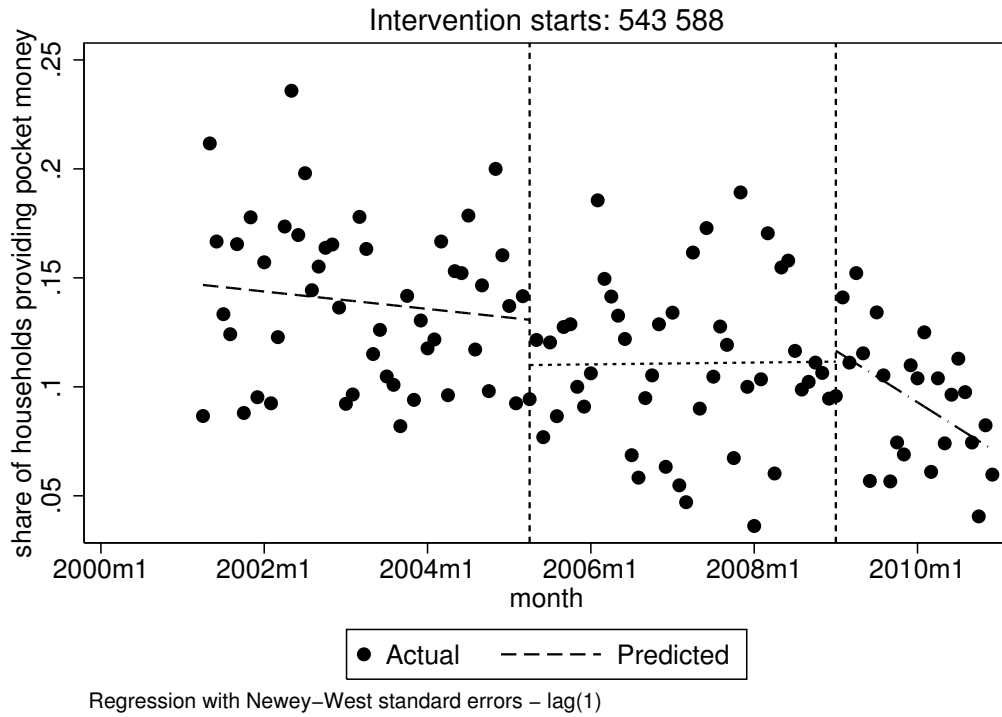


Figure 3: Number of Households using Pocket Money with Children up to 12 years

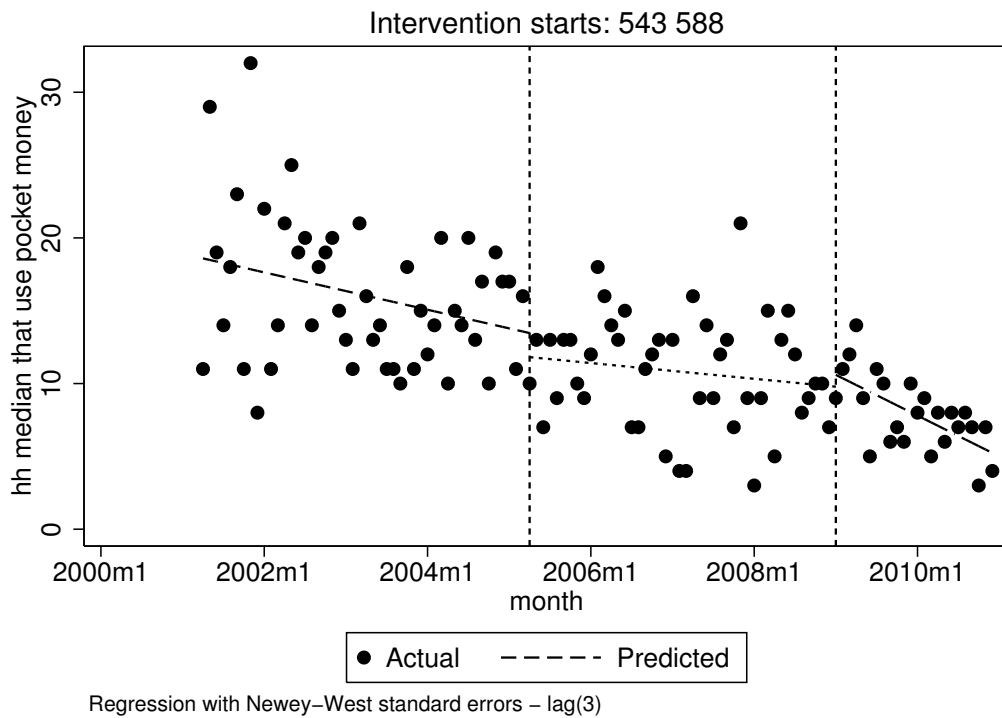


Figure 4: Median Amount of Pocket Money in Households with Children 13-17 years

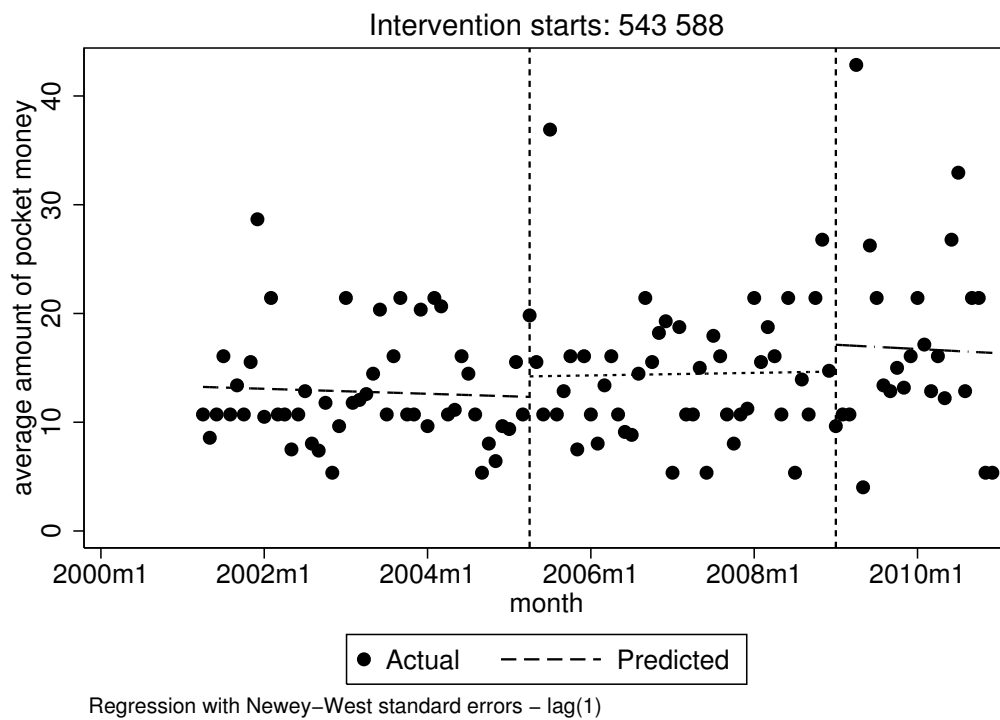


Figure 5: Share of Households using Pocket Money with Children 13-17 years

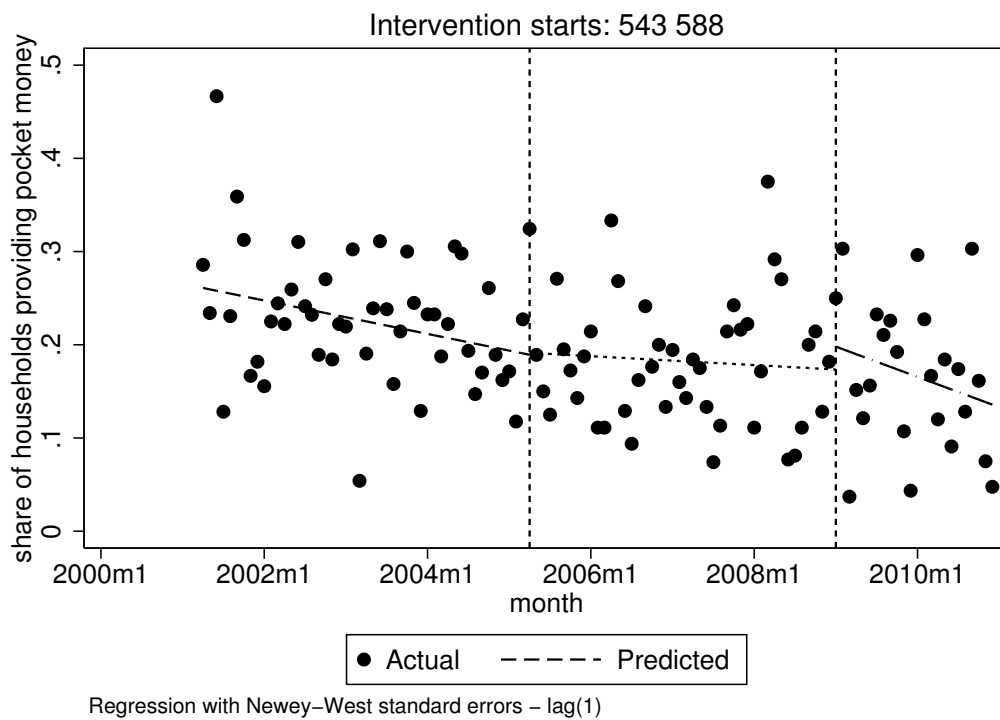
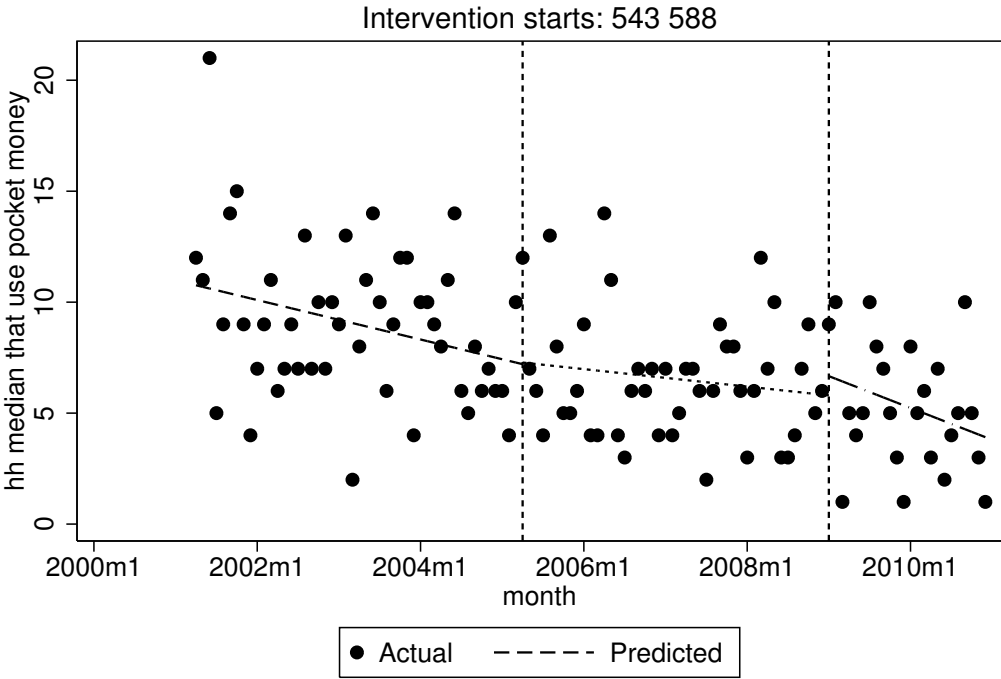


Figure 6: Number of Households using Pocket Money with Children 13-17 years



Regression with Newey–West standard errors – lag(3)