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Child Poverty and Allowances in Portugal: A simulation of the 2010 policy change

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Abstract

This work project analyses the impacts of a decrease in *Abono de Família*, the Portuguese Child Allowance, generated by a bonus cut legislated in 2010, on the poverty status and intensity of the poorest families. We implement a microsimulation analysis using EU-SILC microdata (2006-2014). We find that increases between 40% and 80% in *Abono* were needed to eliminate child poverty and between 12% and 18% of the eligible households did not receive it. The bonus' impacts are larger than the impacts of its cut due to the economic context and heterogeneity by type of family exists.

Keywords: Economics, Microsimulation, EU-SILC, child poverty, family allowances

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1 Introduction

Child poverty remains a major concern in developed countries, as children always present higher poverty rates than the overall population. For instance, in 2020, 24.2% of children in the EU were at risk of poverty, which contrasts with the 21.7% and 20.4% for working age[1] and older[2] individuals, respectively (Eurostat 2021).

Besides being overrepresented among the poor, children are more vulnerable due to their dependency on adults, the lack of decision power and the fragility of the early stages of development. Being a significant factor in chronic poverty, poverty spells in the early life impact the quality of the children's lives in the short, medium and long run (DeJong 2006). Thus, it seems important to create conditions to enable children raised in poor environments to escape the poverty cycle (Harper 2003). Additionally, child poverty prevention is more cost effective than the later remediation of the situation. In fact, adult programs present much lower returns than early interventions which prevent child poverty. Hence, the existence of high-quality interventions in children's early life is critical to promote development and better future outcomes, benefiting not only the individual but also the country (Arloc Sherman 2013, Heckman 2012).

Several countries implement child and family assistance programs that vary in terms of generosity and coverage. For instance, in 2021, the German universal child allowance paid 219€ per month for each of the first two children in the family (Bundesagentur für Arbeit 2021). Whereas *Abono de Família* in Portugal, had, in 2021, for the poorest families, a monthly transfer of 149.85€ for children with less than three years, 49.95€ for children between 3 and 6 years old and 37.36€ for children with more than 6 years old (Ministério do Trabalho, Solidariedade e Segurança Social 2021). In fact, the debate around implementing universal child related transfers in opposition to supplemental transfers targeting the poor is still ongoing. The Portuguese socialist government had planned for 2022 a step towards universality, nonetheless, targeting the poor. An

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[1]Working-age individuals are the ones between 18 and 64 years old, following the EU definition.
[2]Older individuals, following the EU definition, have more than 64 years old.

increase in the child allowance would secure a minimum of 50€ per month for every child in the country, combined with a supplement for children in poor households.

The Portuguese family and child allowance is called *Abono de Família para Crianças e Jovens*. This means-tested benefit also uses the educational enrolment as requirement and aims at compensating families for the costs of supporting and educating children. In 2010, the need for budget deficit and public debt reductions led the government to make several cuts in social benefit programs, including *Abono de Família*. In this context, some beneficiaries were no longer eligible and a bonus of 25% put in place in 2008 for the poorest households was removed. Hence, the following years were characterized not only by the bad economic scenario of the economic crisis, but also by the reduction of some social benefits. Moreover, when facing fiscal contractions and the need for deficit reductions, the literature enforces that it is important, for countries not to rule out critical transfers such as family and social assistance programs. The core safety nets should be kept, supporting the poor in the moments of hardship, such as in a crisis (Subbarao 1997).

Several authors, such as Teresa Sá Marques (2016), Paulo Pedroso (2014) and José Caldas (2013), have studied the economic crisis period (2009-2014 in Portugal), focusing on firms, consumption, investment, unemployment, and other macroeconomic variables. This work project aims at analysing the impact of a large cut in *Abono de Família* for the poorest families, and its effect in the status and intensity of their poverty situation. More precisely, we will address the following research question: How much does a decrease in a Child Allowance affects the poorest households' poverty situation? Therefore, to answer the research question, the objective of this paper is to implement a microsimulation analysis to measure the impacts of the child allowance cut legislated in the end of 2010 in the following poverty measures: poverty rate and poverty gap of households with children, in particular, the ones in the poorest income brackets. Additionally, we inspect the benefit's take-up and account for the importance of family composition, by looking at the results by type of family.

The remainder of the paper is organised as follows: Section 2 reviews the relevant literature. Section 3 introduces *Abono de Família*, how it works and its most important changes; and sets the economic context. Section 4 explains the methodology and data used in the analysis, for which the results will be reported in Section 5. Section 6 mentions further analysis. Finally, in section 7 the main results and the analysis will be discussed in a brief conclusion.

2   Literature Review

Sheila B. Kamerman (2003) and Bradbury, Jenkins, and Micklewright (2001) point out parent unemployment, low earnings, family size and composition, poverty situation of the family and the level of government income transfers, as crucial factors for children entering poverty (Bradbury 2001).

Many countries apply cash transfer programs to tackle child poverty and to support families with children. Family and child assistance programs can be implemented with different objectives such as to ensure horizontal equity between families with and without children, to ensure vertical equity in reducing and preventing poverty in households with children, to increase school participation and labour market participation for women (DeJong 2004). However, despite the effectiveness of well-designed programs, some concerns about the coverage of the social protection systems for children are raised (ODI and UNICEF 2020). Despite larger spending on family assistance programs being linked with lower absolute and relative child poverty rates, its effects depend on the structure and delivery of the benefits – size, coverage, and design of the program (ODI and UNICEF 2020).

In a paper about child poverty and family assistance in the Southern Europe, the authors argue that the social assistance systems for low-income households in the Southern European countries present a limited role, in contrast with the reliance on fiscal benefits such as tax credits targeting taxpayers. This combination leaves the poorest of the poor

unprotected, given that they usually are too poor to pay taxes (Matsaganis 2004). Additionally, family cash benefits are referred as "clearly too low" in Portugal (Kamerman 2003).

During the economic and social crisis, faced by Portugal from 2009 to 2014, children were largely affected, not only by the labour market conditions of adults, but also by the austerity program that forced severe cuts in social benefits and transfers and the increase in taxes (Manuel Jacinto Sarmento 2015). Additionally, the austerity measures are reported to have had larger impact on the poor, by making them more vulnerable. In fact, measures as the freezing of means-tested benefits created an unequal impact and regressive distribution effects in Portugal between 2009 and 2012. This combination of negative economic growth and decrease in social protection weakened the social support system (Hespanha 2018). This evidence is confirmed by other research article studying the impacts of austerity in child health in the European Countries. The authors found a negative relationship between austerity and child health and development, reporting larger impacts of the austerity measures in deprived groups (Rajmil 2020).

Additionally, the literature explores the idea of family composition being relevant for the risk of poverty. The decrease in the predominance of the "traditional family" and the increase of single-parent households exposes them to higher risk of living in poverty (Matsaganis 2004). This idea is confirmed for the European Countries, in which single-parent households are two to three times more likely to be poor, in comparison to the overall households (Popova 2016). Additionally, some studies report larger impacts of family assistance programs for large and single-parent families (Manos Matsaganis 2004, Sheila B. Kamerman 2003). This motivated the investigation of heterogeneity in the policy change impacts by type of family.

The Joint Research Centre of the European Commission, in partnership with the Eurostat develop a microsimulation model for tax-benefits called EUROMOD (European Commission 2021). This model allows the calculation of the effects on households' income of policy instruments as taxes, social contributions, family and housing benefits

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and social assistance, for the EU countries. The EUROMOD model inspired our microsimulation, provided that the effects are compared for different scenarios and policy changes, for actual, past and future policy options.

In a report from *Fundação Francisco Manuel dos Santos* coordinated by Carlos Farinha Rodrigues (2016), the authors analyse the distributive effects of social transfers and direct taxes in poverty and inequality, in particular in the economic crisis period (2009-2013). They compare the three poverty rates: after social transfers, before social transfers including old-age pensions, and before social transfers excluding old-age pensions, to check the relative importance of social transfers such as *Abono de Família*. They found a low relative weight of the benefit, yet with larger incidence for the poorest households ensuring a strong redistributive role. Moreover, they use EUROMOD to investigate the impact of several policy changes between 2009 and 2013, including changes in *Abono de Família*, for the households' income and its distribution. The analysis report that the large decrease in this social transfer reduced the role of *Abono de Família* in income redistribution and poverty alleviation (Rodrigues 2016).

3   *Abono de Família* and Economic Context

3.1   *Abono de Família*: History and Design

Abono de Família para Crianças e Jovens is a means-tested child and youth family benefit. The benefit is given to resident families in Portugal, to compensate them for the costs of sustaining and educating children and young people, protecting them from the risk of poverty[3]. In Portugal, *Abono de Família* was first created in 1942[4], as *Fundo Nacional do Abono de Família*. This social transfer intended to complement the head of the family's wage and compensate them for the burden of family expenses. Public workers and farmers were excluded from this benefit until 1980[5], when the benefit was

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[3]Established in *Decreto-Lei nº 176/2003*
[4]Established in *Decreto-Lei nº 32192, 1942*
[5]Established in *Decreto-Lei nº 170/80*

generalized and redirected towards children, for their well-being and protection. In 2003[6], income brackets were created to determine eligibility and the amount of the transfer. In 2008 the assistance program's generosity increased, since the surcharge of 20% for single-parent families[7] and additional amounts for families with 2 or more children[8] were set. In the same year a bonus of 25% of the monthly transfer was added for the poorest families.

As part of the eligibility criteria[9], the beneficiary must have up to 16 years old or between 17 and 24 years, when formally enrolled in the education system. Additionally, *Abono de Família* is not an automatic benefit, households need to apply and present documents that prove they fulfil the eligibility criteria to receive the transfer. The screening process takes place every year and involves proof of school enrolment, and the income declaration of the previous year for every household member. Hence, the fact that an application process exists implies that take-up may not be perfect.

Income brackets, that determine the amount of the transfer, are presented in A2. Equation (1) reports the formula for the reference income[10] which is calculated for each household in order to assign them to an income bracket:

$$Ref_i = (y_i - B_i)/(n_i + 1) \tag{1}$$

Where i is the household's identifier, y_i refers to the total gross income of all household's members, B_i represents both the disability and family/children benefits, and n_i is the number of children[11] in the household. The reference income used to assign households to *Abono*'s income brackets is not the same that determines the poverty status, since, for the latter, the equivalised disposable income is used. Hence, not all households of the

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[6]Established in *Decreto-Lei nº 176/2003*

[7]Established in *Decreto-Lei nº 87/2008*

[8]Established in *Decreto-Lei nº 308-A/2007*

[9]Established in *Decreto-Lei 176/2003*

[10]Established in *Decreto-Lei nº 176/2003*

[11]In this context, we refer to children as the individuals that qualify in the age and education criteria to receive *Abono de Família*: with up to 16 years old or between 17 and 24 years formally enrolled in the education system.

1ˢᵗ income bracket are poor.

The formula to calculate the income brackets[12] is presented in equation (2), where Ref_i is the reference income, IAS the value of *Indexante de Apoios Sociais*[13], a and b are the multipliers that set the several brackets. The formulas and values for the income brackets, including the multipliers, are reported in A1 and A2, respectively. Since income brackets' computation depends on the value of *Indexante de Apoios Sociais* (IAS), the ranges changed annually until 2009, the year IAS stopped being updated.

$$14 \times a \times IAS \leq Ref_i < 14 \times b \times IAS \quad , \qquad 0 < a < b \tag{2}$$

The values of the transfer are expected to be updated regularly to follow inflation, and also vary according to the age of the children. In the years considered in this analysis the value differs for children bellow and above one year old. In more recent years, the values can also vary for the 3 years old threshold, in particular for income brackets 4 and 5. For instance, a family in the 1ˢᵗ income bracket with one child below one year old received 140.76€ per month between 2011 and 2014, whereas a family of the 3ʳᵈ income bracket with one child the same age, received a monthly transfer of 92,29€. A3 and A4 display the monthly allowances.

3.2 *Abono de Família*: Expenditures and Caseload

Figure 1 presents the annual expenditure of *Abono de Família* and the number of beneficiaries (children) for each year. From 2006 to 2010 an average of 1,815,000 children were receiving the benefit, in contrast with the average of 1,308,000 children receiving it from 2011 to 2014. As observed in figure 1, from 2010 to 2011, there was a sizeable decrease in both variables, following the reform in *Abono de Família*. In fact, starting

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[12]Established in *Decreto-Lei nº 176/2003*

[13]IAS was created in December of 2006, stands for *Indexante dos Apoios Sociais* and is the reference value for the calculus of several social benefits. Before its creation the *Rendimento Mensal Mínimo Garantido* was the value used to allocate households into the income brackets. As predicted in the document of its constitution (*Lei n.º 53-B/2006*), IAS should be updated every year accounting for the value of GDP and inflation. However, from 2009 to 2016 the value did not change.

Figure 1: Expenditure and Beneficiaries official data
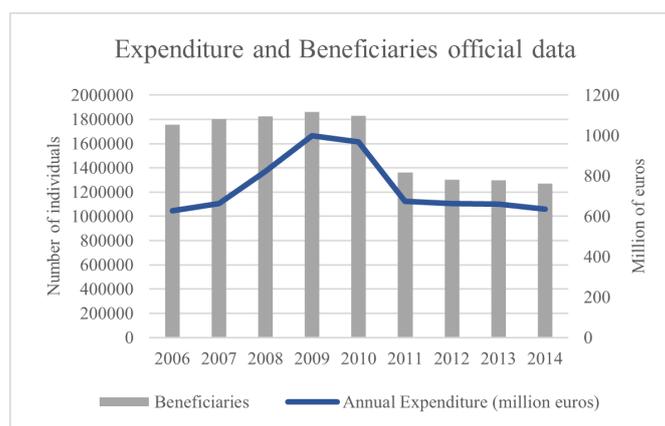
Note: The graph reports the official number of beneficiaries and the annual expenditure of *Abono de Família*, between 2006 and 2014. Source: INE

in November of 2010[14], two major changes occurred:

1. The transfer was suspended for the 4th and 5th income brackets;

2. The monthly value for the 1st and 2nd income brackets was reduced, since the 25% bonus set in July of 2008 was cut.

These policy changes only partially reversed the increase in the benefit's generosity set in 2008, given that, despite the decrease mentioned, the surcharges for single-parent and large families were maintained. The reduction of the transfer for the poorest households – 1st and 2nd income brackets - constitutes the focus of this analysis.

3.3   The Portuguese Economic Situation

In Portugal, the period between 2008 and 2009 was characterized by a recession with origin in the US financial crisis. The GDP decreased in 3.12% from 2008 to 2009, starting then to recover. The unemployment rate also started to increase from 2008 onwards, continuing to increase into the next period of crisis (Comité de Datação dos Ciclos Económicos Portugueses 2020). In fact, from 2010 to 2013, Portugal lived the Sovereign Debt Crisis (Comité de Datação dos Ciclos Económicos Portugueses 2020),

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[14]Established in *Decreto-Lei nº 116/2010*

in which the unemployment rate reached its maximum of 16.2% in 2013, and the GDP's growth rate had its largest decrease of 4.04%, from 2011 to 2012. It was in this context of deep crisis that the government, in the attempt of reducing budget deficits and the public debt, started to implement austerity measures with increase in taxes and budget cuts, including reductions in several social benefits that supported the poorest households (Ministério das Finanças e da Administração Pública 2010). Therefore, as the country found itself in an economic crisis, the role of social benefits in providing a safety net for the poorest households was reduced.

4 Data and methodology

4.1 Data

We rely on microdata from the EU Statistics on Income and Living Conditions (EU-SILC) for Portugal for the years between 2006 and 2015. The survey data contains information for 35 countries including the EU27 countries, regarding income, education, labour market situation of the families, poverty situation and benefits received. The descriptive statistics of the main variables is reported in A5. For the years between 2006 and 2014, we have 148152 observations. The use of weights has been made throughout the entire process to ensure the results are extrapolated for the population.

4.2 Methodology

In this work project we compare 4 different situations:

1. No *Abono* counterfactual – situation in which *Abono de Família* does not exist;

2. Baseline situation – situation that corresponds to the real chain of events, in which the 25% bonus was in place from July 2008 to November 2010 and was then suspended;

3. No Bonus counterfactual - scenario where the 25% bonus never existed;

4. Bonus counterfactual - scenario where the 25% bonus was not suspended and continued in place until 2014.

Therefore, to perform this analysis we calculate the baseline situation and generate simulations for the No *Abono* Counterfactual and the No Bonus and Bonus counterfactuals. The comparison between the baseline situation and the No *Abono* Counterfactual will provide answers for the role of *Abono de Família* in poverty reduction. The comparison between the No Bonus Counterfactual with the baseline situation will report the impacts of the bonus. Finally, the comparison between the Bonus Counterfactual with the baseline situation will report the impacts of the bonus' cut. The comparison is made for the overall households with children, for the ones in the 1st and 2nd income brackets and by type of household, to account for family composition.

In addition, we report results regarding take-up, by checking the percentage of households for which the computed value of *Abono* is positive but the value of the SILC variable Gross Family/Children related allowances is zero.

4.3 Methodology: Definitions

In this work project, Eurostat definitions in the Eurostat Statistics Explained Glossary are used (Eurostat 2019). The equivalised disposable income ($\hat{y}_i$) is reported in equation (3), where y_i denotes the total gross income of the household, Ti represents the taxes and S_i the equivalised household size. The equivalised household size uses the OECD modified equivalence scales to convert the number of household members into equivalised adults.

$$\hat{y}_i = (y_i - T_i)/S_i \tag{3}$$

Poverty status is a binary variable that states if the household's equivalised disposable income is below or above the poverty line (at 60% of the median equivalised income). The poverty rate conveys the proportion of individuals or households living in poverty,

and is reported in equation (4), where p is the number of households in poverty and H is the total number of households.

$$PovertyRate = p/H \tag{4}$$

When referring to the poverty gap we denote the sum of the differences between the poverty line and the equivalised disposable income of each household below the poverty line. This notion is presented in equation (5) in which g represents the poverty line and $\hat{H}$ poor households.

$$PovertyGap = \Sigma_i^{\hat{H}}(g - \hat{y}_i) \tag{5}$$

4.4 Methodology: Variables

We use the SILC variables for gross and equivalised disposable income of the households, current education activity, year of birth, equivalised household size and personal and household weights. To allocate households into income brackets calculated following Equation (2), a variable for the reference income was generated according to Equation (1).

In order to evaluate the change in the transfer of *Abono de Família* and observe its decrease, the amount of the allowance is needed. SILC data base has a variable for Family/Children related allowances (B_i), however, it contains several benefits such as birth grants, parental leave benefit, income maintenance benefit at birth and alimonies. Therefore, we do not have a specific variable for the transfer of *Abono de Família*, hence, we must calculate it. To compute the theoretical value of the transfer for each family (A_i), the individuals that qualify to receive the benefit were first identified. This involves creating a variable that identifies children with 16 years old or less, and those individuals between 17 and 24 years old that are studying, using the SILC variable Current Education Activity. The values of *Abono* for each household were then calculated based on the amounts for each year (A3 and A4). In order to validate our simulations,

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Figure 2: Binscatter Plot of the Gross Family/Children related Allowances and *Abono de Família*
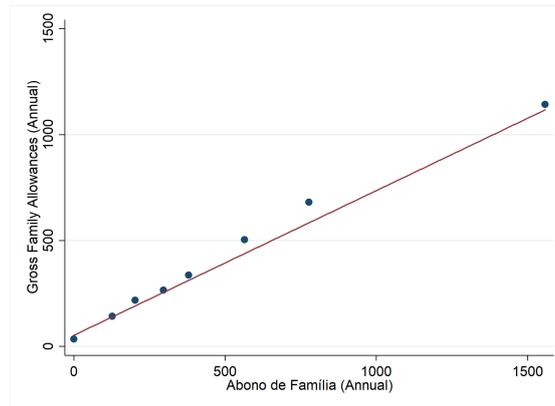
Note: This figure reports the correlation between the calculated theoretical value of the annual transfer of *Abono de Família* and the annual Gross Family/Children related Allowances variable from SILC. The binscatter computes the Gross Family Allowances average for each values of *Abono de Família*.

we plotted the the SILC variable Gross Family/Children related Allowances with the calculated values of *Abono de Família* on Figure 2. The positive correlation between them corroborates our approach.[15]

Provided that poverty status and intensity are evaluated through the equivalised disposable income and annually, several forms of the variable for the transfer were generated: the monthly and annual transfer per beneficiary, the total amount of the benefit received by each household (monthly and annually) and both the monthly and annual transfer divided by the equivalent size of the household. Moreover, a variable was generated to distinguish different types of households - single-parent, large, and classic families (A6). This will allow us to check the type of households most affected by the policy change.

4.5 Methodology: Simulations

To carry out the analysis of this work project, three simulations were set:

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[15]The bin reporting Gross Family/children related Allowances larger than 1000 euros and *Abono de Família* larger than 1500 euros, is formed by households of the first 2 income brackets with 2 or more children and households of the other income brackets with children with up to 1 year old or more than 3 children. The other benefits, other than *Abono de Família*, composing Gross Family/Children related Allowances also play a role in the differences reported.

The first simulation sets the No *Abono* counterfactual by subtracting the annual amount of *Abono* received by each household to their disposable income. The second simulation generates the No Bonus counterfactual. The amount of the 25% bonus is subtracted from the households' disposable income in the years in which it took place (half of 2008, 2009 and 2010). This creates a scenario where the increase in the transfer had never existed and the value of *Abono* is only updated as usually by the update percentages set in Portarias (A7). The comparison between the baseline situation and this counterfactual will allow us to observe the effect of the bonus in poverty. The third simulation generates the Bonus counterfactual, by adding to the households' disposable income the 25% bonus in the years next to its cease - from 2011 until 2014 (A8). This will allow us to estimate the effect of the end of the 25% bonus on the households and at the same time by how much the poverty rate and poverty gap would have been reduced if the policy would have stayed in place.

To measure the impact of the policy change, new income variables were generated, and are presented in equation (6), in which i and j are the household and simulation identifiers, respectively. The new income variable ($\hat{y}_{ij}$) subtracts to the baseline equivalised disposable income of the family ($\hat{y}_i$), the difference between the value of the baseline annual *abono* (A_i) and the new variable of the annual *Abono* for the counterfactual (A_{ij}) divided by the equivalised household size S_i.

$$\hat{y}_{ij} = \hat{y}_i - ((A_i - A_{ij})/S_i) \tag{6}$$

With these new income variables, new poverty lines were calculated for each counterfactual using the official rule (60% of the median equivalised income). The impact of the policy change, represented in equation (7), is computed as the absolute difference in the poverty measure of the baseline situation and each counterfactual, for period t, for the poverty rate, and as the percentage of the absolute difference for the poverty gap.

$$Impact_t = |povertymeasure_t - povertymeasure_j| \tag{7}$$

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The poverty rate and poverty gap from the counterfactuals are compared with the baseline situation for households with children. The results are also presented by type of households, to account for the importance of family composition, and making the distinction between income bracket 1 and 2 to check the impact on the poor vs the very poor.

5 Results

5.1 The impact and the take-up of *Abono*

When calculating the value of the transfer for each household, we assume that all households that fulfil the eligibility criteria receive the benefit. This assumption may compromise the degree of accuracy of the results relative to reality. Table 1, panel A compares the results for the total annual expenditure calculated in the analysis ($\widehat{Exp}$) with the official data from INE on expenditures on *Abono* (Exp). We observe that $\widehat{Exp}$ and Exp are similar, except for the years between 2011 and 2014 in which $\widehat{Exp}$ is around 12% smaller than Exp. Panel B reports the results regarding take-up, computed as explained in section 4.2, for the first three income brackets between 2006 and 2014 and for the 4th and 5th income brackets until 2010, since, after that year they stopped being eligible. The take-up, for the years considered, is 83% for the 1st and 5th income brackets, 87%, 85% and 88% for the 2nd, 3rd and 4th income brackets, respectively. This result suggests imperfect take-up in all income brackets, since between 12% and 18% of the elegible households do not receive the transfer. This may be caused by several factors that may discourage the take-up, such as the application process that takes place every year, in which several documents are required.

Evidence presented in this work project, through the No *Abono* counterfactual, corroborates the literature when stating that *Abono de Família* plays an insufficient role in reducing child poverty. As observed in Figure 3, the poverty rate for children is always between 2 percentage points (pp) and 4pp higher in the case where the transfer does

Table 1: Comparison between estimated expenditures (Panel A) and number of beneficiaries (Panel B) with official data

	Panel A: Comparison between calculated and official expenditures			
(1) Year	(2) INE Expenditures (million euros)	(3) Expenditures (million euros)	(4) Difference (million euros)	(5) Difference (%)
2006	626.31	763.66	137.35	21.93
2007	663.96	724.26	60.3	9.08
2008	823.27	901.16	77.89	9.46
2009	1000.02	968.7	-31.32	-3.13
2010	968.2	1006.57	38.37	3.96
2011	674.39	589.93	-84.46	-12.52
2012	663.92	614.17	-49.75	-7.49
2013	659.67	588.11	-71.56	-10.85
2014	635.15	536.72	-98.43	-15.50

|	Panel B: Take up by income bracket	
(1) Income bracket	(2) Households which do not take the benefit (%)	(3) Take-up (%)
1	17	83
2	13	87
3	15	85
4	12	88
5	17	83

Note: Panel A reports the comparison between estimated expenditures (column 3) with official data (column 2), presenting the absolute difference (column 4) and the difference in percentages (column 5). Panel B reports the estimated take-up by income bracket (column 3). Column 2 presents the percentage of households, within each income bracket, for which we attributed a positive value of *abono* but the value of the SILC variable of Family/Children Related Allowances is zero. Source: INE

not exist. Additionally, from 2011 onwards the distance between the curves is smaller than previously, revealing the reduction of the benefit's role in poverty alleviation. We estimate that *Abono de Família* generated an annual average decrease of 2.17pp in the poverty rate and of 38% in the poverty gap for households with children, between 2006 and 2014 (results reported in A9). Furthermore, the estimated average decrease in the poverty rate of the 2nd income bracket is 8.37pp, larger than the average decrease for the 1st income bracket of 2.84pp. Regarding the poverty gap, the 2nd income bracket presents again larger impacts, with an annual average decrease of 43.7%, which contrasts with the decrease of 35.6% for the 1st income bracket.

The 25% bonus was an attempt to target households in poverty. However, the annual increase of 10% the bonus brought in 2009 and 2010 (reported in A11), was far from the additional 40% of the transfer we estimate[16] to be needed to end poverty for households

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[16]Calculated when dividing the poverty gap of the poor households with children by the estimated annual expenditures with *abono*.

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Figure 3: Child Poverty Rate
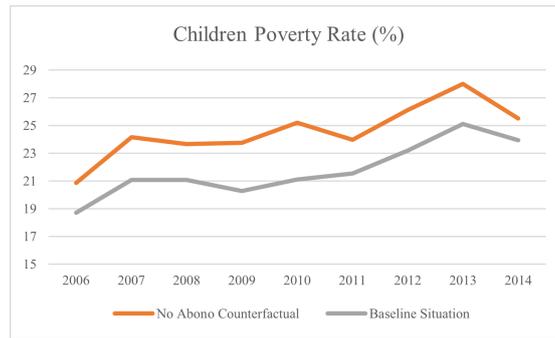
Note: This figure reports the estimated child poverty rate for the baseline situation and the No *Abono* counterfactual.

with children, in those years. In fact, in order to take the households with children out of poverty, the increase in *Abono de Família* needed to reach the 60% in 2011, 76% in 2012 and 80% in 2013.

5.2 Baseline Situation

The baseline situation is divided in two distinct periods. The first between 2008[17] and 2010 in which the 25% bonus was in place, and the second from 2011 to 2014 when the bonus was ceased. Hence, the absolute value of the difference between the poverty measures of the baseline situation and the No Bonus counterfactual reflects the impact of the 25% bonus from 2008 to 2010, and the absolute value of the difference between the poverty measures of the baseline situation and the Bonus counterfactual the impact of the Bonus' cease, from 2011 to 2014.

The estimated poverty rates and poverty gap of the Baseline situation are reported in A10, for the overall households with children, for the ones in the 1st and 2nd income brackets and by type of household. From 2006 to 2014, we estimate an average of 18% of the households with children living in poverty. For the 1st income bracket the average reaches the 93%, in contrast with the 46% for the 2nd income bracket. Small decreases in the poverty rates between 2008 and 2009 (for income bracket 2 until 2010) are observed.

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[17]For 2008, the 25% bonus only started in July.

However, from 2010 onwards, the poverty rates start increasing as a clear consequence of the economic crisis. In the 2nd income bracket, the poverty rate presents an increase of almost 3pp from 2010 to 2011 when the bonus was eliminated, decreasing again in the next year.
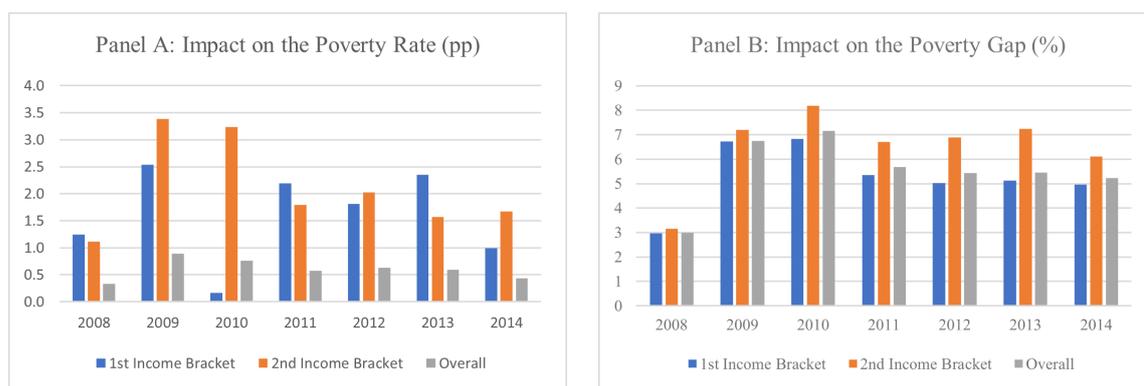
Furthermore, the computed poverty gap for the overall households with children starts increasing from 2011 onwards, the same pattern is observed for the 1st income bracket. However, the 2nd income bracket's poverty gap present decreases in the years between 2011 and 2013. Evidence from A12 may provide some clues regarding this pattern. A decrease in the number of households of the 2nd income bracket and an increase in the 1st, plus an increase in the poverty rate of the 2nd income bracket and a decrease in the poverty gap suggest that several households from the 2nd income bracket moved to the 1st.

The estimated increase in both the poverty rate and poverty gap is clearly larger for the 1st income bracket, starting in 2011. This shows a more severe aggravation of the poverty situation for the poorest households than the ones in the 2nd income bracket, as consequence of the economic scenario. These results may help us to understand and provide potential justifications for the results of the counterfactuals.

5.3   Simulation Results: Counterfactuals

The 25% bonus is a source of extra expenditure for the assistance program. Hence, A11 provides us information regarding the estimated necessary increase in annual expenditure on *Abono de Família* to implement the extra 25% bonus. We estimate that, between 2008 and 2010, the government had between 5% (for 2008) and 10% increase in the expenditure on *Abono de Família*, generated by the bonus. On the other hand, if the bonus had been maintained, the estimated expenditures on *Abono* would have been from 16% to 18% higher than the baseline situation, for the years between 2011 and 2014. The higher percentages in the second period reveal the increase in the number of households of the first two income brackets, computed in the analysis (A12).

Figure 4: Impact of the 25% Bonus in Poverty

As consequence of the microsimulation design, the computed poverty rates are higher in the No Bonus counterfactual for the years in which the bonus was in place (2008-2010) and equal to the baseline situation in the remaining years. The Bonus counterfactual presents smaller poverty rates from 2011 onwards, relative to the baseline situation since it adds the 25% bonus in the years it was suspended. This dynamic is observed in A13.

Figure 4 reports the estimated impacts of the 25% bonus (from 2008 to 2010) and its cease (from 2011 to 2014), in the poverty rate (panel A) and poverty gap (panel B), comparing the overall households with children with the two first income brackets. These results are reported in detail in A14 and A15.

For the overall households with children, the bonus decreased the poverty rate in 0.34pp in 2008, 0.89pp in 2009 and 0.76pp in 2010 and the poverty gap in 3% in 2008 and 7% in the 2009 and 2010. The 2nd income bracket reports larger impacts than the 1st, for both the poverty rate and poverty gap, with a decrease in the poverty rate of more than 3pp in 2009 and 2010 and a decrease in the poverty gap of 7% and 8%, for the same years. As for the 1st income bracket, the estimated decreases in the poverty

rate vary between 0.16pp in 2010 and 2.54pp in the year before, and in the poverty gap reached between 3% (2008) and 7% (2010). The smaller contribution of the bonus for the decrease in the poverty rate in 2010, for the 1st income bracket, can be partially explained by a large increase (6 pp) of the poverty rate for these families in the baseline situation, generating a decrease in the role of the bonus as a poverty instrument, due to the stable number of households in that year.

If the 25% bonus would be sustained, the estimated poverty rate could have decreased between 0.43pp and 0.63pp for households with children. Even though the bonus reports larger impacts for the 2nd income bracket, its cut present a more balanced effect when comparing the poverty rates for the two income brackets. In fact, the poverty rate increases with the end of the bonus in between 1pp and 2.35pp for the 1st income bracket, and between 1.57pp and 2pp for the 2nd. The bonus cut increased the overall estimated poverty gap between 5% and 6% and presents larger impact for the 2nd income bracket with increases between 6% and 7%. For the 1st income bracket the cease of the bonus could have decrease the poverty gap around 5%, between 2011 and 2014.

Overall, the 25% bonus presented larger impacts on the years it was in place, for both the poverty rate and the poverty gap. However, its maintenance after 2010 would have demanded a larger extra expenditure than the actual increase in expenditure between 2008 and 2010. This is in line with the increase in the number of households with children in the 1st income bracket and the increase in the poverty rates and poverty gap as consequence of the economic crisis. Moreover, the effects of the economic crisis in the households' disposable income and the poverty line - that changes every year with the median income – may have diminished the impact results for the bonus elimination. Hence, if the economic situation was more stable, the estimated impacts of the bonus cut would have been larger. In fact, if the household's income were more stable or the changes in disposable income were proportional across the population, the impacts of the bonus would be less impacted by the economic conditions affecting poverty. To cor-

roborate this, we apply a modification to the original simulations in which we consider a fixed poverty line on the 2010's median income value[18]. Despite the ability to change the poverty line, we cannot change the disposable income of the families, thus we did not check if the economic situation would be more stable but the oposite: a larger contrast between the poverty line (constant) and the disposable income of the households (decreasing). After recalculating the three simulations with the constant poverty line and comparing them as before, we observe smaller impacts of the elimination of the bonus. This confirms our previous rationale that the economic scenario plays an important role in influencing this analysis' results.

Finally, the 2nd income bracket presents clear larger impacts on the poverty rate between 2008 and 2010. However, the end of the bonus presented more even effects for the two income brackets. Regarding the poverty gap, the 2nd income bracket was more affected than the 1st, by both the introduction and elimination of the 25% bonus. This provides some clues regarding the design of the transfer and the determination of its amounts, meaning the program design is not accounting for the proportional size of the poverty gaps of each income bracket when deciding the amount of the transfer. Even though the transfer is larger for the poorest, the 25% bonus benefits more the income bracket with smaller poverty gap. The discrepancy of the impacts in the poverty gap between the 1st and the 2nd income brackets are larger after 2010, which can be potentially explained by the larger impact of the crisis in the 1st income bracket, observed on the baseline situation.

5.4   Simulation Results: Heterogeneity by type of family

Accounting for the importance of family composition for poverty, we compare the results for the poverty rate and poverty gap of the baseline situation and the counterfactuals for three types of households, defined in A6. The single-parent family includes

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[18]Estimated median income of 2010 is 8487.725€. We chose this year's value because it was the highest median income value in the years considered and it was equal for the baseline situations and both counterfactuals.

households with only one adult and either one or two children; the classic type is the one including two or more adults and one or two children, and the large family includes two or more adults and three or more children.

Results for the baseline situation (in A10), report that large families are more likely to live in poverty, with an average poverty rate, within the type of family,of 38%, for the years between 2006 and 2014, followed by the single-parent families (average poverty rate of 29%) and classic families (average poverty rate of 16%). However, the type of household that presents higher share of poor[19] (A16) is the classic, provided that in the total number of poor households, an annual average of 68% are classic families, 17% are single-parent families and 11% are large families, in the years between 2006 and 2014. Additionally, the share for the single-parent families is increasing since 2006 and for the large family since 2012, after a 3-year period of decrease. Moreover, the poverty gap is always higher for the classic households, with a large difference from the other type of households. The poverty gap for the single-parent families is larger than for the large families. The larger share of poor and poverty gap for the classic families is expected since it is still the type with larger number of households.

The estimated impacts of the 25% bonus and its cease by type of household, on the poverty rate (Panel A) and poverty gap (Panel B), are reported in Figure 5. The impacts for the poverty rate represent the change (in pp) of the proportion of poor households within each category of type of family. These results are reported in detail in A14 and A15.

The bonus of 25% reduced the poverty rate in 1.33pp for single-parent families and in 1.23pp for large families, between 2008 and 2010. If the bonus had not been suspended, the poverty rate would have been, on average, 1.6pp and 1.76pp lower for single-parent and large families, respectively, between 2011 and 2014. For the classic families, the impacts never reach 1 percentage point. Regarding the poverty gap, the 25% bonus decreased it in an average of 5.67% for single-parent families, 4.23% for

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[19]Share of poor reports the proportion of poor households of each type of family within the total number of poor households.

Figure 5: Impact of the 25% Bonus in Poverty by type of Household
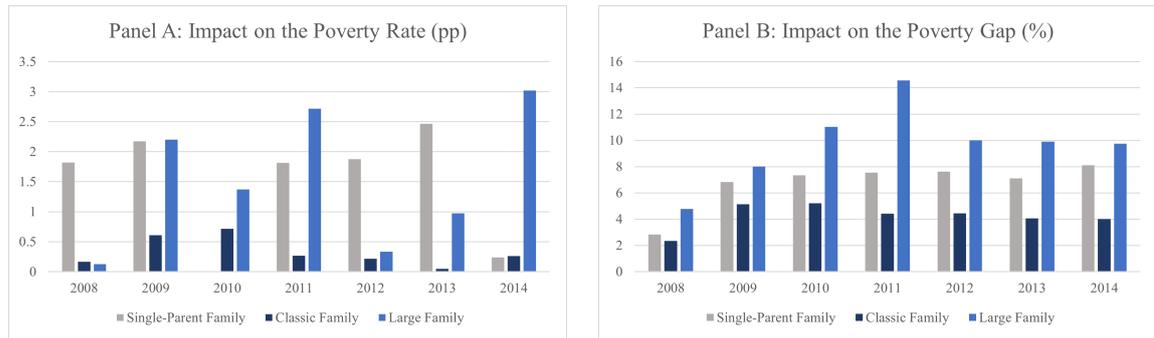
Note: Figure 5 reports the impact of the 25% bonus (from 2008 to 2010) and its cease (from 2011 to 2014) in the poverty rate (panel A) and poverty gap (panel B), for households with children by type of family. Impact on the poverty rate is calculated as the absolute value of the difference between the poverty measure of each counterfactual and the baseline situation. For the impact on the poverty gap, the impacts are the absolute value of the percentual difference between the poverty measure of each counterfactual and the baseline situatio. Constructed from tables 14 and 15.

classic families and 7.93% for large families, between 2008 and 2010. If it would have been maintained it would have reduced the poverty gap of the single-parent households by an average of 7.6%, by 4.22% for the classic families and by 11% for large families, between 2011 and 2014.

The results confirm evidence provided by the literature, large and single-parent families are more likely to be poor than classic households, the share of single-parent households is increasing and the large and single-parent households present larger impacts for family assistance programs. Hence, when accounting for family composition, the bonus impacted the most single-parent households in reducing the poverty rate from 2008 to 2010, and large families onwards. For the poverty gap, the effects were larger for large families.

6   Further Analysis

We now briefly investigate the impact of the child allowance changes in the following non-income outcomes: Ability to make ends meet, Ability to keep the house adequately warm, Ability to face unexpected expenses, and Capacity to afford a meal with meat or

proteins regularly. In order to do this, we investigated the evolution of the refered EU-SILC variables' mean for the years that mark the policy change: 2010 to 2011. Changes in the non-income outcomes from 2010 to 2011 are small (reported in A17) and rather inconclusive, as we do not observe a contrast between the evolution of the outcomes for the households affected by the policy change (1st and 2nd income brackets) and the ones not affected (3rd income bracket). Even if larger changes were observed, we could not isolate the effects of the bonus from the economic context to prove its cause. Furthermore, due to the non-existing parallel trends between the three first income brackets before the policy change, no causal analysis could be done.

7   Conclusion

This work project collects evidence from a microsimulation analysis of the impact of the *Abono de Família*'s 25% bonus and its cut, on the poverty status and intensity of the poorest households. Additional results regarding the take up of *Abono* and its role in poverty alleviation are reported.

   Abono de Família plays a limited role in reducing child poverty. Even though the 25% bonus was a supplement targeting the poorest households, increases in the amount of *Abono de Família* of 40% in the years between 2008 and 2010, and between 60% and 80% in the years between 2011 and 2014 would be needed in order to eliminate child poverty. Additionally, the economic crisis reduced the relevance of *Abono de Família* in poverty alleviation. While the contribution of the benefit is always larger for the 2nd income bracket, these households are also the ones most affected by the decrease in the role of this benefit from 2011 onwards. Moreover, the take-up is not perfect, since between 12% and 18% of the elegible households do not receive the transfer in the years considered.

   The overall results reveal that the 25% bonus decreased poverty status and intensity between 2008 and 2010 for the overall households, decreasing the poverty rate in 0.66pp

and the poverty gap in 6%. The maintenance of the bonus could have prevented poverty in more households than in the previous years, even though the reduction of the poverty rates would have been smaller, 0.56pp. At the same time, the estimated expenditures needed to maintain the bonus after its cut were larger. These results are in line with the economic situation of the country, reflecting the increase in severity of the crisis after 2010. In fact, the baseline situation clearly shows the economic crisis unfolding when observing the poverty rate and poverty gap evolutions, with a worsening of the poverty status and intensity for the households with children from 2011 onwards, in a larger extension for the 1st income bracket. The economic factors influencing poverty may have reduced the estimated impacts of the bonus and its cut, and may explain most of the dynamics observed in our results. The heterogeneity by type of households predicted in the literature is confirmed by our estimated results. In fact, the share of single-parent families is increasing, and both single-parent and large families are more likely to be poor. Using the simulations, we conclude that the average effect in the poverty rate is larger for the single-parent households between 2008 and 2010, and for the large families after that. For the impact on the poverty gap, the large families stand out. Finally, the impact for the classic families is always much lower.

The analysis presented on this paper was able to estimate results that confirm evidence mentioned in the literature regarding poverty, family allowances, austerity measures and family composition. It also contributes with new insights regarding the impacts of the introduction and elimination of the 25% bonus, targeting the poorest income brackets. Given the economic crisis, the elimination of the 25% bonus targeting the poorest households further agravated their poverty situation.

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Appendix

A1: Formulas for the calculation of the income brackets

Income Bracket	Formula
1	$Ref_i \leq 0.5*14*IAS$
2	$0.5*14*IAS < Ref_i \leq 1*14*IAS$
3	$1*14*IAS < Ref_i \leq 1.5*14*IAS$
4	$1.5*14*IAS < Ref_i \leq 2.5*14*IAS$
5	$Ref_i > 2.5*14*IAS$

Note: This table presents the formulas to calculate the income brackets. The reference income is compared with a multiplier of IAS in order to allocate each household to an income bracket. Source: (Decreto-Lei n.º 176/2003 2003)

A2: IAS, *Retribuição Mínima Mensal Guarantida* and Income brackets

Years	IAS (euros)	*Retribuição Mínima Mensal Guarantida (euros)*	Top Values Income Brackets (euros)			
			1st Income Bracket	2nd Income Bracket	3rd Income Bracket	4th Income Bracket
2006	-	385.9	2701.3	5402.6	8103.9	13506.5
2007	397.86	-	2785.02	5570.04	8355.06	13925.1
2008	407.41	-	2851.87	5703.74	8555.61	14259.35
2009-2016	419.22	-	2934.54	5869.08	8803.62	14672.7

Note: This table presents the values of IAS for each year. In 2006, IAS was not yet in place, hence, the reference value to calculate the income brackets was the *Retribuição Mínima Mensal Guarantida*. Additionally, reports the top values (in euros) of the income brackets for each income bracket. These values are calculated when applying the formulas in A1 using the values of IAS. As illustration, a family that, in 2006, had an annual reference income of 5000 euros would be placed in the 2nd income bracket. Source: (Direção-Geral da Administração e do Emprego 2020)

(1) Year	(2) Income Brackets	Monthly transfer (euros)		Surcharges			(8) Update (%)	(9) Starting date	(10) Observations
		(3) Children until 1 year old	(4) Children from 1 year old	(5) Single-parent family (%)	(6) Family with 2 children (euros)	(7) Family with more than 2 children (euros)			
2006	1	126.69	31.67	-	-	-	3	January 1st 2006	
	2	105.58	26.4	-	-	-	3		
	3	84.46	24.29	-	-	-	2.3		
2007	1	130.62	32.65	-	-	-	3.1	January 1st 2007	
	2	108.85	27.22	-		-	3.1		
	3	87.08	25.04	-	-	-	3.1		
2008A	1	135.84	33.96	20	33.96	67.92	4	January 1st 2008	First year of surcharges for single-parent and families with 2 or more children
	2	112.66	28.17	20	28.17	56.34	3.5		
	3	89.69	25.79	20	25.79	51.58	3		
2008B	1	169.8	42.45	20	42.45	84.9	25%	July 1st 2008	Introduction of na extra 25% of the transfer for the 1st and 2nd echelons
	2	140.83	35.21	20	35.21	70.43	25%		
	3	89.69	25.79	20	25.79	51.58	0		
2009	1	174.72	43.68	20	43.68	87.36	2.9	January 1st 2009	
	2	144.91	36.23	20	36.23	72.46	2.9		
	3	92.29	26.54	20	26.54	53.08	2.9		
2010	1	174.72	43.68	20	43.68	87.36	0	January 1st 2010	Until the start of November 2010
	2	144.91	36.23	20	36.23	72.46	0		
	3	92.29	26.54	20	26.54	53.08	0		
2011 - 2015	1	140.76	35.19	20	35.19	70.38	0.7	November 1st 2010	Ending of the extra 25% of the transfer for the 1st and 2nd echelons
	2	116.74	29.19	20	29.19	58.38	0.7		
	3	92.29	26.54	20	26.54	53.08	0		

Note: This table presents the monthly values of the transfer for families in the 1st, 2nd and 3rd income brackets. It also contains the surcharges for single-parent and large families. Column 8 shows the annual update of the transfer and the 25% bonus in starting in 2008. The values and dates from *Decretos-Lei* and *Portarias*.

(1) Year	(2) Income Brackets	Monthly transfer		Surcharges			(8) Update (%)	(9) Starting date	(10) Observations
		(3) Children until 1 year old	(4) Children from 1 year old	(5) Single-parent family	(6) Family with 2 children	(7) Family with more than 2 children			
2006	4	52.43	20.97	-	-	-	3	January 1st 2006	
	5	31.46	10.49	-	-	-	3		
2007	4	53.79	21.52	-	-	-	3.1	January 1st 2007	
	5	32.28	10.76	-	-	-	3.1		
2008	4	55.13	22.06	20	22.06	44.12	4	January 1st 2008	First year of surcharges for single-parent and families with 2 or more children
	5	33.09	11.03	20	11.03	22.06	3.5		
2009 -2010	4	56.45	22.59	20	22.59	45.18	2.4	January 1st 2009	
	5	33.88	11.29	20	11.29	22.58	2.4		

Note: This table presents the monthly values of the transfer for families in the 4th and 5th income brackets. It also contains the surcharges for single-parent families and for families with 2 or more children. Column 8 shows the update of the transfer. The values and dates from *Decretos-Lei* and *Portarias*.

A5: Descriptive Analysis				
Variable	Mean	Standard Deviation	Min	Max
Equivalised disposable income	10113.7	7989.92	80	209845.3
Total Household Gross income	25711.81	24129.63	288	468604.2
Current Education Activity	1.909968	.2862294	1	2
Equivalent Household Size	2.011886	.5908019	1	7.3

Note: This table reports the mean, standard deviation, minimum and maximum for the SILC variables used in the analysis.

A6: Type of Households		
(1) Type of Household	(2) Number of adults	(3) Number of children
Single-parent family	1	1 or 2
Classic Family	≥ 2	1 or 2
Large Family	≥ 2	≥ 3

Note: This table presents the type of families we consider for the analysis.

A7: Monthly transfer of *Abono de Família* by year for income bracket 1. 2 and 3 – No Bonus

		Counterfactual					
		Monthly transfer (euros)		Surcharges			
(1) Year	(2) Income Brackets	(3) Children until 1 year old	(4) Children from 1 year old	(5) Single-parent family (%)	(6) Family with 2 children (euros)	(7) Family with more than 2 children (euros)	(8) Update (%)
2006	1	126.69	31.67	-	-	-	3
	2	105.58	26.4	-	-	-	3
	3	84.46	24.29	-	-	-	2.3
2007	1	130.62	32.65	-	-	-	
	2	108.85	27.22	-	-	-	3.1
	3	87.08	25.04	-	-	-	
2008	1	135.84	33.96	20	33.96	67.92	4
	2	112.66	28.17	20	28.17	56.34	3.5
	3	89.69	25.79	20	25.79	51.58	3
2009-2010	1	139.78	34.94	20	34.94	69.89	2.9
	2	115.93	28.99	20	28.99	57.97	2.9
	3	92.29	26.55	20	26.55	53.08	2.9
2011-2015	1	140.76	35.19	20	35.19	70.38	0.7
	2	116.74	29.19	20	29.19	58.38	0.7
	3	92.29	26.54	20	26.54	53.08	0

Note: This table contains the values of the monthly transfer of *Abono* for the No Bonus Counterfactual simulation. The values were calculated by only applying the update of the original transfer values in each year (A3), and without increasing the size of the transfer of 2008 with the 25% bonus.

A8: Monthly transfer of *Abono de Família* by year for income bracket 1. 2 and 3 – Bonus

| (1) Year | (2) Income Brackets | Monthly transfer (euros) | | Counterfactual | Surcharges | | (8) Update (%) |
		(3) Children until 1 year old	(4) Children from 1 year old	(5) Single-parent family (%)	(6) Family with 2 children (euros)	(7) Family with more than 2 children (euros)	
2006	1	126.69	31.67	-	-	-	3
	2	105.58	26.4	-	-	-	3
	3	84.46	24.29	-	-	-	2.3
2007	1	130.62	32.65	-	-	-	
	2	108.85	27.22	-	-	-	3.1
	3	87.08	25.04	-	-	-	
2008A	1	135.84	33.96	20	33.96	67.92	4
	2	112.66	28.17	20	28.17	56.34	3.5
	3	89.69	25.79	20	25.79	51.58	3
2008B	1	169.8	42.45	20	42.45	84.9	25
	2	140.83	35.21	20	35.21	70.43	25
	3	89.69	25.79	20	25.79	51.58	0
2009-2010	1	174.72	43.68	20	43.68	87.36	2.9
	2	144.91	36.23	20	36.23	72.46	2.9
	3	92.29	26.54	20	26.54	53.08	2.9
2011-2015	1	175.94	43.99	20	43.99	87.97	0.7
	2	145.92	36.48	20	36.4	72.97	0.7
	3	92.29	26.54	20	26.54	53.08	0

Note: This table contains the values of the monthly transfer of *Abono* for the Bonus Counterfactual. The values were calculated by only applying the update of the original transfer values (A3) in each year and without taking the 25% extra from 2011 onwards.

A9: Decrease in the Poverty Rate and Poverty Gap – No Abono Counterfactual

Decrease in the Poverty rate and Poverty gap of Households with children because of Abono						
	Pov rate (pp)			Pov Gap (%)		
Year	Overall	1st Income Bracket	2nd Income Bracket	Overall	1st Income Bracket	2nd Income Bracket
2006	-1.59	-4.02	-5.84	-38.61	-35.67	-42.10
2007	-2.66	-0.66	-11.71	-34.71	-29.96	-40.43
2008	-1.98	-5.82	-6.41	-39.11	-37.19	-39.83
2009	-2.68	-4.40	-10.52	-43.54	-43.71	-43.17
2010	-3.17	-3.06	-12.08	-44.43	-43.59	-46.13
2011	-1.96	-2.95	-7.26	-35.33	-33.69	-37.63
2012	-2.01	-1.05	-7.64	-34.90	-32.92	-39.24
2013	-2.16	-2.57	-8.42	-34.22	-32.13	-40.49
2014	-1.27	-1.05	-5.49	-33.69	-31.80	-37.60

Note: This table reports the estimated decrease in the Poverty Rate (in percentage points) and in the Poverty Gap (in percentages), generated by *Abono de Família*. Calculated from the difference between the Poverty rate and Poverty gap of the baseline situation and the No Abono Counterfactual.

A10: Households with Children's Poverty Rates (panel A) and Poverty Gap (panel B) - Baseline Situation

Panel A: Poverty Rates for Households with Children (%) - Baseline Situation

(1) Year	(2) Overall	(3) 1st Income Bracket	(4) 2nd Income Bracket	(5) Single-parent Families	(6) Classic Families	(7) Large Families
2006	15.64	91.54	42.37	23.63	12.90	38.52
2007	18.58	91.04	51.35	30.45	15.67	34.41
2008	18.25	88.91	46.71	25.86	15.80	32.54
2009	17.07	89.76	45.60	30.14	13.19	38.44
2010	18.38	95.95	44.69	30.93	14.96	37.25
2011	19.66	91.41	47.36	27.03	16.87	39.59
2012	20.83	97.43	41.75	29.65	17.70	35.33
2013	21.65	96.01	44.59	34.38	17.14	42.94
2014	20.35	97.70	47.39	30.56	16.42	40.24

Panel B: Poverty Gap for Households with Children (million euros) - Baseline Situation

| (1) Year	(2) Overall	(3) 1st Income Bracket	(4) 2nd Income Bracket	(5) Single-parent Families	(6) Classic Families	(7) Large Families
2006	309.64	191.06	111.44	41.90	213.52	37.80
2007	372.85	217.37	145.56	62.39	246.73	51.64
2008	407.42	229.73	169.95	77.35	265.88	48.92
2009	368.97	217.84	142.40	65.70	212.88	67.12
2010	384.26	224.50	148.70	86.69	240.82	49.50
2011	455.27	298.12	147.58	77.65	325.93	35.77
2012	507.79	382.09	121.47	90.78	347.52	54.20
2013	559.94	438.17	112.41	119.49	352.70	69.32
2014	510.92	357.84	146.12	95.99	334.31	57.37

Note: This table reports estimated the poverty rates (panel A) and poverty gap (panel B) of the baseline situation, for the overall households with children, in particular the ones in the 1st and 2nd income brackets and by type of household. Poverty measures calculated from the equivalised disposable income of the households after identifying the poverty lines.

A11: Expenditure with *Abono de Família* - Counterfactuals

| (1) Year	(2) Expenditure No Bonus Counterfactual	(3) Difference from baseline expenditure (%)	(4) Expenditure Bonus Counterfactual	(5) Difference from baseline expenditure (%)
2008	853171640.8	-5.33	901160106.7	0
2009	870354468.1	-10.15	968696968.6	0
2010	901088407.9	-10.48	1006568495	0
2011	589931547.3	0	687171284.2	16.48
2012	614174654.1	0	718657613.4	17.01
2013	588111659.1	0	695830248.7	18.32
2014	536715085.2	0	632224880.2	17.80

Note: This table reports the estimated total annual expenditure with *Abono de Família* for each counterfactual (columns 2 and 4) and the percentage difference from the baseline annual expenditure for the benefit (columns 3 and 5). Values calculated after the attribution of the monthly values of abono of each counterfactual to the respective households.

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A12: Number of Households with Children by Income Bracket

Number of Households with Children by Income Bracket
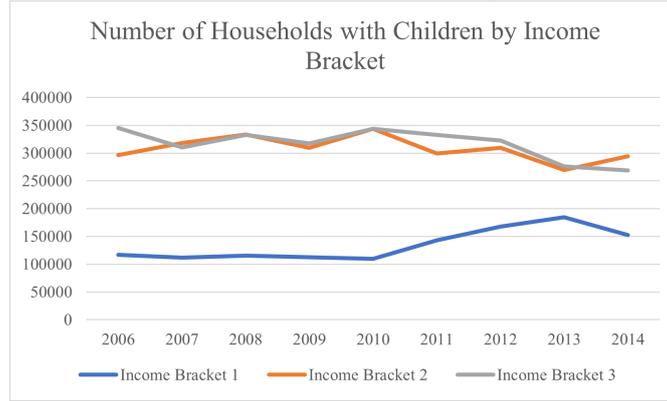
Note: This graph reports the estimated number of households with children in each of the first three income brackets, for the years between 2006 and 2014.

A13: Poverty Rate of Households with Children

Poverty Rate of Households with Children
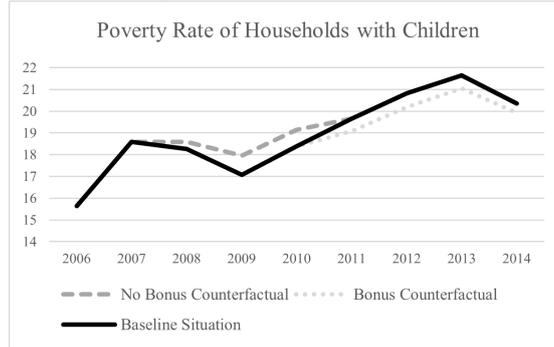
Note: This graph reports the poverty rates of households with children for the baseline situation and the counterfactuals, from 2006 to 2014. Constructed from A10, A14 and A15.

A14: Impact of the Bonus

		Panel A: Impact of the Bonus on the Poverty Rate of Households with children (pp)				
(1) Year	(2) Overall	(3) 1st Income Bracket	(4) 2nd Income Bracket	(5) Single-parent Families	(6) Classic Families	(7) Large Families
2008	0.34	1.24	1.11	1.82	0.17	0.13
2009	0.89	2.54	3.38	2.17	0.61	2.20
2010	0.76	0.16	3.24	0.00	0.72	1.37

		Panel B: Impact of the Bonus on the Poverty Gap of Households with Children (%)				
(1) Year	(2) Overall	(3) 1st Income Bracket	(4) 2nd Income Bracket	(5) Single-parent Families	(6) Classic Families	(7) Large Families
2008	2.99	2.97	3.15	2.83	2.35	4.77
2009	6.75	6.73	7.2	6.82	5.13	8.01
2010	7.16	6.83	8.17	7.35	5.21	11.01

Note: This table reports the impact of the 25% bonus on the poverty rate (panel A) and poverty gap (panel B) between 2008 and 2010. Results are presented for the overall households with children, for the 1st and 2nd income separately and by type of family. Calculated from the absolute value of the difference between the values of the baseline situation and the values of the No Bonus counterfactual. For this simulation, the monthly values of *abono* are calculated based on the values in A7, which subtracts the 25% bonus in 2008, 2009 and 2010, for the first two income brackets. Then, the difference between the estimated baseline value of *abono* and the value of the counterfactual is taken from the income. New poverty lines, poverty rates and poverty gaps are calculated and compared with the ones from the baseline situation.

A15: Impact of the end of the Bonu

Panel A: Impact of the End of the Bonus on the Poverty Rate Households with children (pp)

(1) Year	(2) Overall	(3) 1st Income Bracket	(4) 2nd Income Bracket	(5) Single-parent Families	(6) Classic Families	(7) Large Families
2011	0.58	2.19	1.8	1.81	0.27	2.72
2012	0.63	1.81	2.02	1.87	0.22	0.34
2013	0.59	2.35	1.57	2.46	0.05	0.97
2014	0.43	1.00	1.67	0.24	0.26	3.02

Panel B: Impact of the End of the Bonus on the Poverty Gap of Households with Children (%)

(1) Year	(2) Overall	(3) 1st Income Bracket	(4) 2nd Income Bracket	(5) Single-parent Families	(6) Classic Families	(7) Large Families
2011	5.67	5.34	6.7	7.55	4.40	14.57
2012	5.43	5.02	6.89	7.62	4.44	10.01
2013	5.46	5.12	7.24	7.10	4.05	9.90
2014	5.22	4.96	6.11	8.10	4.00	9.73

Note: This table 15 reports the impact of the end of the 25% bonus on the poverty rate (panel A) and poverty gap (panel B) between 2011 and 2014. Results are presented for the overall households with children, for the 1st and 2nd income separately and by type of family. Calculated from the difference between the values of the baseline situation and the values of the Bonus counterfactual. For this simulation, the monthly values of *abono* are calculated based on the values in A8, which maintains the 25% extra of the transfer from 2011 onwards (for the years in which it was ceased), for the first two income brackets. Then, the difference between the estimated baseline value of *abono* and the value of the counterfactual is taken from the income. New poverty lines, poverty rates and poverty gaps are calculated and compared with the ones from the baseline situation.

A16: Share of poor households with children per type of Household
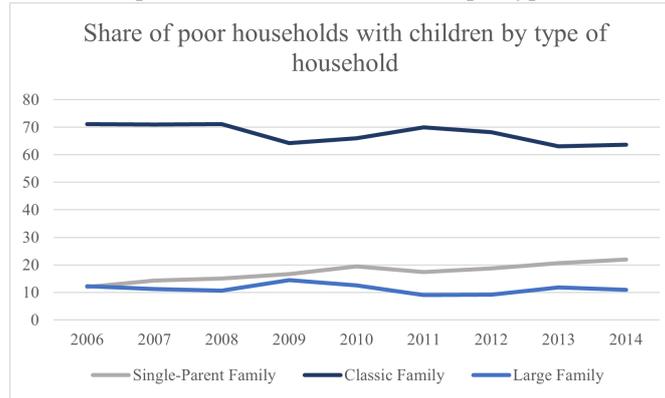
Note: This graph reports estimated share of poor households with children per type of Household. Calculated as the percentage of poor households of each type in the overall poor households with children.

A17: Changes observed in the mean of non-income variables from 2010 to 2011

Mean of non-income variables and its changes from 2010 to 2011

(1) Income Bracket	(2) Ability to keep the house warm			(3) Capacity to afford a meal with meat or proteins regularly			(4) Ability to face unexpected expenses			(5) Ability to make ends meet		
	2010	2011	Change (%)	2010	2011	Change (%)	2010	2011	Change (%)	2010	2011	Change (%)
1	0.47	0.46	-1.11	0.90	0.90	-0.02	0.31	0.32	1.67	1.50	1.73	14.99
2	0.52	0.60	15.63	0.93	0.94	1.25	0.49	0.46	-5.56	1.96	2.09	6.46
3	0.62	0.69	10.61	0.96	0.97	1.53	0.65	0.63	-2.31	2.32	2.41	3.96

This table reports the mean of EU-SILC non-income variables and its changes (%), for households with children eligible to receive *Abono de Família*, between 2010 and 2011. We changed the variables in columns 2, 3 and 4 in order to make 1 correspond to "yes" and 0 to "no", instead of the original correspondency of 2 to "no". The variable in column 5 varies between 1 and 6, where 1 corresponds to "with great difficulty" and 6 to "very easily". Hence, an increase in the mean reports an improvement in the living conditions regarding the variable in question.