

Rainer, Helmut et al.

Article

Child Benefit and Child Allowances in Germany: Their Impact on Family Policy Goals

CESifo DICE Report

Provided in Cooperation with:

Ifo Institute – Leibniz Institute for Economic Research at the University of Munich

Suggested Citation: Rainer, Helmut et al. (2014) : Child Benefit and Child Allowances in Germany: Their Impact on Family Policy Goals, CESifo DICE Report, ISSN 1613-6373, ifo Institut - Leibniz-Institut für Wirtschaftsforschung an der Universität München, München, Vol. 12, Iss. 1, pp. 37-45

This Version is available at:

<https://hdl.handle.net/10419/167153>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

CHILD BENEFIT AND CHILD ALLOWANCES IN GERMANY: THEIR IMPACT ON FAMILY POLICY GOALS

HELMUT RAINER, STEFAN BAUERNSCHUSTER,
NATALIA DANZER, ANITA FICHTL,
TIMO HENER, CHRISTIAN HOLZNER AND
JANINA REINKOWSKI¹

Introduction

Child benefit and child allowances represent a major pillar of monetary family benefits. As a part of the ex-post evaluation of monetary family benefits commissioned by the German Federal Ministry for Families, Senior Citizens, Women, and Youths and the Federal Ministry of Finance, a recent research study² by the Ifo Institute examines the impact of child benefit and child allowances on families and discusses the efficiency of such family policy benefits.

Research study: child benefit and child allowances

The research study considers both child benefit and child allowances and examines their effects on the following target areas: “compatibility of family and career”, “safeguarding the economic stability and social participation of families”, and “birth rates”. To identify the effects of child benefit and child allowances on these goals, the study draws on the child benefit reform of 1996, which significantly increased child benefit. The subsequent efficiency analysis estimates the direct and indirect costs of an increase in child benefit.

A key component of family policy

Child benefit and child allowances represent two major components of monetary family benefits within the diverse range of family policy instruments. Both benefits have existed since the 1950s and are very popular with the general public. The central importance of these benefits can also be measured by their financial volume, which is around EUR 39 billion annually and thus accounts for almost a third of the total volume³ of all family benefits (BMFSFJ 2012).

The integral goal of both regulations is to safeguard families, as stipulated in article 6 paragraph 1 of the German constitution. In their later working lives children earn income and pay taxes and social security contributions. Child benefit and child allowances can therefore be seen as a way of acknowledging the social contributions of families to economic wealth. Moreover, family benefits are a means of compensating for the reduced economic capacity of families – due to the demands of child care and education – and thus to establish horizontal equity (Lüdeke and Werding 1996).

Historical development

Since the introduction of child benefits in the German Federal Republic in 1954 and of the child allowance in 1949, they have been subject to a number of reforms. The rules for the possibility of combining these two benefits, as well as the financing, the size of the benefit and the circle of beneficiary children⁴ and/or their parents changed many times. From 1955 to 1995 child benefit and child allowances were granted at the same time with only one interruption and were referred to as a “dual system”.



¹ Ifo Institute (all), Stefan Bauernschuster: University of Passau.

² This article is based on the study Rainer et al. (2013). Please consult this study for more detailed information and results.

³ In 2010 the total volume of all family benefits was around EUR 125 billion, and that of marriage-related benefits was around EUR 75 billion.

⁴ The example of child benefit: this was paid out for the first time in 1954 for the third child and for every further child, from 1961 onwards it was paid out as of the second child and from 1975 it was paid out as of the first child.



Reform of 1996

The last major structural reform to date took place in 1996. The reform was based on the decisions of the German Constitutional Court (BVerfG) at the beginning of the 1990s.⁵ In the Court's opinion, the dual system at that time did not result in full tax exemption of the subsistence level of children. However, expenditure to cover the minimum subsistence level of adults *and* children has to be completely exempt from taxation. The legislator responded to judicial demands by incorporating child benefit law into income tax law. As a result, income amounting to the combined minimum subsistence level of the parents and the children is no longer taxed. For the parents this tax-free allowance is safeguarded by taking into account the basic income tax allowance. For the children this can, since the reform, be achieved either by the deduction of the corresponding allowances in the process of taxing the parents *or* alternatively via the payment of child benefit (the so-called "options model").⁶

Since the reform took effect child benefit in Germany has been paid out as a monthly tax rebate in the context of family benefit equalisation. Parents receive child allowances that are scaled according the number of children that they have. Tax authorities check whether the tax relief generated by the child allowance is greater than the amount of child benefit. In this case the child allowance comes into effect, which is then set off against the child benefit that has already been paid out. Due to the progressive tax rate in Germany, individuals are entitled to save more taxes through the child allowance the higher their income. That is why the tax saving via

the child allowance is only larger than the child benefit above a certain income level. The child allowance has no effect if the tax relief granted via the allowance is lower than the child benefit paid out. In this case this difference serves to support the family.

Overall, the option model implies that the total monetary relief generated by child benefit and child allowance are no longer income-dependent for most recipients, but only consist of the income independent fixed amount of child benefit, since the child allowance is only effective as of a high income level. The reform turned out to have the biggest overall effect on recipients with low incomes.

The child benefit reform significantly increased the nominal monetary benefits paid to families with children.⁷ The annual child allowance increased by over 50 percent from EUR 2,098 (DM 4,104) annually per child before the reform to EUR 3,203 (DM 6,246) as of 1996. Between 1997 and 1999 it was set at EUR 3,534 (DM 6,912) (see Table 1). While child benefit was paid for the first child regardless of income, but was income-dependent for all further children, the entitlement to child benefit for all children was no longer coupled with parental income after the reform. Child benefit prior to the reform amounted to at least EUR 36 (DM 70) and was scaled according to income earned and the number of children in a family to a maximum of EUR 123 (DM 240) per child. These amounts are shown in Table 1. Low-earners received a top-up benefit of EUR 33 (DM 65) via additional child benefit. The child benefit and child allowance taken together meant that no

⁵ Decisions by the German Constitutional Court of 29 May 1990 (BVerfGE 82, 60) and 12 June 1990 (BVerfGE 82, 198).

⁶ §§ 62-78 EstG since the version in German Annual Tax Act of 11.10.1995, BGBl. I p. 1250.

⁷ Until the end of 1999 child benefit was fully offset against the claim to social benefits, that is, social benefits were reduced by the corresponding amount of child benefit. Recipients of unemployment benefit and unemployment assistance received child benefit in addition to their other entitlements.

Table 1

Trends in child allowance and child benefit between 1992 and 1999

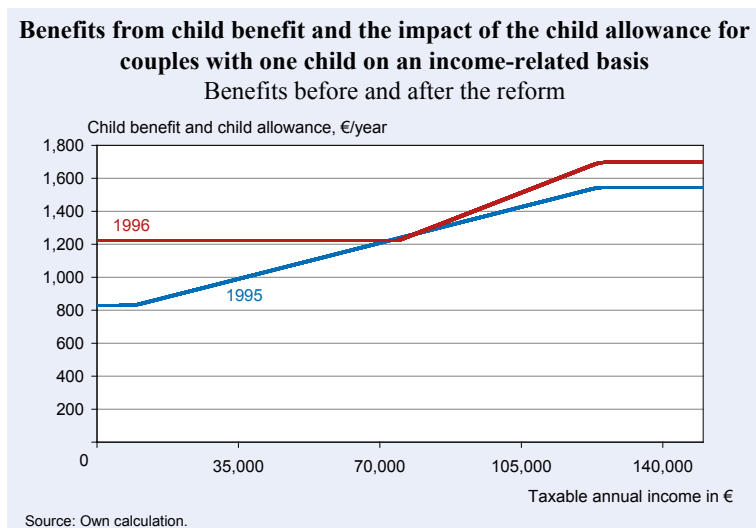
Year	Annual child allowance Per child	Monthly child benefit			
		Child 1	Child 2	Child 3	Child 4 and further children
1992-1993+	2.098 (4.104)	36 (70)	66-36 (130-70)*	112-72 (220-140)*	123-72 (240-140)*
1994-1995+	2.098 (4.104)	36 (70)	66-36 (130-70)*	112-36 (220-70)*	123-36 (240-70)*
1996	3.203 (6.246)	102 (200)	102 (200)	153 (300)	179 (350)
1997-1998	3.534 (6.912)	112 (220)	112 (220)	153 (300)	179 (350)
1999	3.534 (6.912)	128 (250)	128 (250)	153 (300)	179 (350)

Notes: benefit per year in EUR; DM amounts in brackets; *income dependent reductions to child benefit.

+ Additional benefit amounting to EUR 33 (DM 65) for recipients of low income.

Source: BMF (2007, 2008).

Figure 1



recipient received less than EUR 69 (DM 135) per child in monthly benefits (Lüdeke and Werding 1996). After the 1 January 1996 child benefit for the first two children increased to EUR 102 (DM 200), to EUR 153 (DM 300) for the third and EUR 179 (DM 350) for the fourth and any further children (see Table 1).

Figure 1 summarises the size of child benefits and the impact of child allowance in the case of couples with one child before (blue line) and after the 1996 reform (red line). The “dip” in the red curve at EUR 74,933 (DM 146,556) indicates the point where income independent child benefit is replaced by the child allowance, since the tax savings through the child allowance are greater than hypothetical child benefit.

Prior to the reform, couples with one child received at least EUR 828 (DM 1,619) per year through the combination of child benefit and additional child benefit. As of 1996 they received at least EUR 1,224 (DM 2,394) per year in child benefit. The reform gains can be seen from the vertical gap between the red and blue line. The increase in monetary family benefits was very high for low-income recipients at an annual EUR 396 (DM 775). It is clear that families with a very low income profited the most from the reform. The reform gain subsequently falls steadily with rising annual income. For families with an annual income of around EUR 75,000 the reform even brought a small loss in income, as shown by the marginal area in the figure in which the blue line is above the red line. After that point the advantage steadily increases with rising income. The benefit peaks when the top tax rate is reached.

Theoretical effects

According to the neoclassical labour supply model, a rationally acting household tries to maximise the individual benefit resulting from its consumption of goods and leisure time, by optimally distributing its time between leisure activities and labour. Labour is seen as a way of generating income that can be used for the consumption of goods.

From a theoretical viewpoint the increase in child benefit in 1996 could have had several effects. Since an increase in child benefit is equivalent to an income transfer,

which is paid out regardless of the labour status of the parents, one would expect it to have a negative impact on labour supply. The reasoning behind this expectation is that a given consumption plan can be implemented with fewer working hours thanks to the increase in child benefit. This should primarily benefit households with low and medium-sized incomes. For them the reform implied a considerable increase in child benefit, while the abolition of the “dual system” meant that the child allowance previously claimed was eliminated. This ultimately equalled an increase in taxation on earnings. The increase in income-independent transfer benefits, together with the discontinuation of child allowances, leads to a decrease in the number of hours worked.⁸ For high earners the child benefit reform has both positive and negative work incentives. The increase in the child allowances results in greater tax relief and thus, implicitly, in an increase in net wages. This wage increase may boost the labour supply, because an hour of leisure (measured by potential wage loss) becomes more expensive. On the other hand, it is also conceivable that the implicit increase in wages is partly used to reduce working time and enjoy leisure time. The number of hours worked falls or rises depending on which of the two effects (substitution effect or income effect) dominates.

Empirical studies

The only study to date on the evaluation of child benefit in Germany is by Tamm (2010). This analysis ex-

⁸ Both income and substitution effects also negatively impact their labour supply as a result.

amines the influence of child benefit on the employment of mothers with children over six years of age and a working partner. The author finds that the benefit has no impact on the basic decision of mothers to seek employment. However, the working time of mothers in employment drops by one hour. This effect is strongest for mothers with an intermediate level of education.

International studies

Two family and social policy instruments were closely scrutinised: “Earned Income Tax Credit” (EITC) in the USA and “Working Families’ Tax Credit” (WFTC) in Great Britain. However, both measures target disadvantaged groups and are conditional to employment in order to establish positive incentives to work.

The EITC represents a tax credit that grants low income parents an income-dependent transfer payment (paid in addition to their wages) up to a given income ceiling. Studies show that the EITC increases the labour supply of single mothers (Eissa and Liebman 1996; Meyer and Rosenbaum 2001). In the phase-out region of the EITC reducing earnings is partly compensated by increased transfers. This is noticeable for married couples, resulting in a lower labour supply of married mothers, but not of fathers (Eissa and Hoynes 2004). The impact of the EITC on birth rates was also examined, yielding rather sobering results. Although the effects tended to be positive, their impact was very limited (Baughman and Dickert-Conlin 2003, 2009).

International studies based on British data evaluate the “Working Families’ Tax Credit” (WFTC) that existed from 1999 to 2003. The benefit mainly represented a tax credit for families with children in which at least one parent worked. This parent had to be employed for at least 16 hours per week. It is therefore unsurprising that Francesconi, Rainer and van der Klaauw (2009) found positive incentives to work for those who worked less than 16 hours per week and thus did not satisfy the minimum requirement for WFTC. For secondary earners, whose partners were already entitled to WFTC, there were, by contrast, negative incentives to work. Francesconi and van der Klaauw (2007) conclude that the introduction of the WFTC increased the likelihood of single mothers working by 5.1 percent. Blundell, Brewer and Shephard (2005) add evidence regarding single fathers, who also react to WFTC with higher employment rates. Brewer, Ratcliffe and Smith (2011) examine the impact of the introduction of WFTC on birth

rates. After controlling for potential individual trends in groups they find a 15 percent higher fertility rate among couples who were affected by the reform. The effect is most pronounced for first-born children and is lower for couples who already have children.

Method and impact analyses

The study presented here analyses the child benefit reform of 1996 described above and examines its impact on the compatibility of family and career, on the fertility decisions of families and – unlike existing studies – on the social participation of families and their financial stability. In this impact analysis the 1996 reform is treated as an experiment, which grants couples with children higher benefits, but denies them to childless couples. The data basis for the analyses is the longitudinal German Socio-Economic Panel, and specifically the waves of 1992 to 1998 that include the reform year of 1996, as well as a few years before and after.

The reform of child benefit and the child allowance in 1996 fulfils the basic condition for a quasi-experimental identification strategy in a difference-in-differences model (DID model): the unanticipated introduction of a measure for a specific group, or at least a substantial change in benefits at a certain point in time.⁹ The size of the calculated effects of the 1996 reform cannot be directly applied to today’s situation due to structural changes in the labour market. Thanks to the identification strategy, the basic reaction of families towards an increase in child benefit, which one can expect to be similar today, can be traced in a methodically sound manner. The large increase in child benefit for its recipients makes it possible, in a first step, to compare the variable of interest before and after the reform within the group of eligible claimants. However, this simple difference (first difference) cannot be causally interpreted, since it cannot be explicitly attributed to the reform of the law, but is just as likely to have been caused by a contemporary trend that was completely unrelated to the reform. Moreover, other changes could have occurred in the reform year that may have caused a leap in the variable of interest.

⁹ The correct identification of the point in time of its impact is crucial to a before-and-after comparison, which is also part of the DID model. The law took effect as of 1 January 1996. Since the law was not approved by German parliament until 11 October 1995, it can be assumed that the majority of the population was not familiar enough with the reform early enough for the law to lead to reactionary behaviour prior to 1 January 1996.

To eliminate these confounding factors that are unrelated to the reform a second difference is used in the DID model in contrast to the naive before-and-after model. This second difference is the difference in the before-and-after differences (first differences) between the subsidised (parents) and the non-subsidised (childless) groups. The development of the variable of interest in the treatment group is compared with the development of the variable of interest in the control group. Under the assumption that trends in the variable of interest of both groups would have been similar without the reform, this second difference – the difference between group-specific differences over time – enables a clear attribution of effects to the child benefit reform. Using this method the effects of the child benefit reform on the various target areas is examined and presented below.

Compatibility of family and job

The first target examined is the compatibility of family and a career. There is a special focus on the changes to labour supply of mothers resulting from the reform.

As already explained above, child benefit was massively increased thanks to the child benefit reform of 1996 and the child allowance only remained relevant for the high-income earners. The scope for decision-making of families was boosted by the increase in benefits. As a result, mothers spent less time in the labour market. The design of the child benefit reform theoretically creates diverging effects along the income distribution. While high-income earners only marginally benefit from higher child allowances, the reform represents significant increases in income for low-income earners; and this has strong negative income effects on the labour supply.

The empirical results suggest that the negative employment effects of the child benefit increase are mainly materialised at the intensive margin of labour supply by mothers. Mothers with partners tend to switch from a full-time to a part-time position, with participation ratios remaining largely stable. The increase in part-time employment is statistically significant and robust. Although the decline in full-time employment is not statistically significant in all specifications, the partial results of the various heterogeneity analyses and the size of the average effects clearly suggest that the increase in part-time employment is primarily due to the decrease in full-time employment.

The pattern of a switch from full-time to part-time employment is particularly marked in households with a low-income potential, and thus particularly among families that benefitted to a large extent from the reform and can therefore be theoretically expected to suffer strong negative labour supply effects. Moreover, it emerges that mothers with two or three children in particular, who presumably no longer plan to have any further children, are responsible for the negative labour market reaction. The labour supply of fathers is not affected by the reform. No reduction in the labour supply of single mothers was found either. The less robust results (due to the smaller sample size) even point to a slight increase in employment.

A model calculation clarifies the scale of the results. Increasing child benefits by one euro per month and per child on average,¹⁰ leads to a decrease of 0.34 percent in the full-time employment of mothers and an increase of 0.4 percent in part-time employment. This corresponds to a decline in the number of fully-employed mothers of 17,100 and a 20,300 increase in the number of mothers employed part-time.¹¹ The average weekly working time would fall by 0.09 hours, which would lead to an overall decline of 434,400 working hours per week.

Economic stability of families

In the empirical analysis of the effects of the child benefit reform on the economic stability of families' we use monthly gross and/or net income from earnings, annual net household income, the per capita equivalent income, as well as two poverty indicators as dependent variables. Compared to the results for the effect on labour supply, the empirical results are far less obvious, but some trends nevertheless emerge.

Generally, the financial situation of families could be expected to improve significantly through an increase in child benefit. Surprisingly, however, this is not the case. In nearly all specifications the point estimators are not significantly different from zero and thus indicate that there was no statistically meaningful reform effect on the average earnings of mothers as well as on the economic stability of households. This may partly be due to a possible estimation error. It is, however, con-

¹⁰ In political reality an increase in child benefit typically amounts to more than one euro per month, and the corresponding effects on labour market distribution are greater. If the results are extrapolated by the actual amount of the increase, the labour supply is reduced to a far greater extent.

¹¹ This extrapolation applies if based on all mothers with children aged between six and under 18 years.

ceivable that own earnings adjustments and transfers work against each other in the course of the reform such that the average overall effects barely differ from zero. Various variations of the basic analysis do not yield any statistically significant results in most cases. Careful interpretations of the results of quantile regressions in gross earnings indicate that the reform tends to have a negative impact on the earnings of mothers in the lower area of income distribution.

The only heterogeneity analysis that reveals significant group differences in the reform effect is the separate analysis of single mothers. The labour supply analysis already showed that the labour supply of single mothers tended to increase as a reaction to the reform. Even if this expansion is not reflected significantly and robustly in an increase in the monthly earnings of single parents, it is nevertheless true that both average household income and the equivalent income of families with single mothers rose significantly thanks to the reform. The results thus seem to indicate an improvement in the economic stability of families with single mothers.

Social participation

The additional leisure time resulting from the reduction of labour supply could be used by mothers to participate more fully in social and societal life, to spend more time with their children, to engage in further education or simply to enjoy sufficient resting periods that have a positive effect on their life satisfaction. The study examines the social participation of families using three groups of variables.

The first group of indicators is related to use of time during leisure. The dependent variables measure the frequency of seven different leisure time activities. These include participation in cultural events (for example, concerts, theatre and talks), going to the cinema, pop concerts, dance events; active sports, socialising with friends, family and neighbours; political activity (participation in citizens' initiatives, political parties and local politics); voluntary activities in clubs, associations or social services and helping out friends, family and neighbours (neighbourly assistance).

The second group of variables contains the following seven target dependent variables: time for hobbies and other free time activities; time for doing jobs around the house, for working on the car and in the garden, time

for training, further education and learning (including school and studies); for housework (washing, cooking and cleaning); time for a career or apprenticeship (times include journey to work including secondary professional activities); time for looking after children and for running errands (shopping, purchases and visiting authorities).

The last variable group complements the previous information on leisure time activities and time allocation in daily life by providing information on the subjective well-being of the individuals surveyed, which is measured by satisfaction with their current life, health, work, household activity, household income, apartment, leisure time and with their overall standard of living.

It can be stated that the child benefit reform of 1996 had no robust and significant effects on the various measures of social participation, use of time or satisfaction with certain areas of life. Positive effects were only found on sporting and cultural activities, although the latter made no impact on basic satisfaction with life. As with the analysis of economic stability, it is conceivable that this finding is due to the complexity of the individual responses to the reform.

Time spent with children is an important dependent variable in relation to the evaluation of family policy measures. In general, mothers seem to spend more time on caring for their children, which is partly due to the transfer from full to part-time work and an additional reduction in free time. However, these effects cannot be rigorously attributed to the child benefit reform due to the lack of an adequate control group, since the pattern emerging could also be explained by a general contemporary trend towards more time spent on childcare. It would naturally be of further interest how the possible increase in time mothers spend with their children impacts their well-being.

Birth rates

An increase in specific family policy benefits like the increase in child benefit in 1996 leads to incentive effects that can potentially increase birth rates. Additional financial resources for families reduce the additional costs of having more children. An increase in such benefits should therefore theoretically lead to a rise in birth rates. Empirically there is a difference between a short-term increase in the total fertility rate (calculated according to period patterns) and a real

long-term increase in the actual number of children (calculated according to cohort patterns). An increase in incentives can also result in births that were already planned being brought forward. This pure tempo effect of births may increase the total fertility rate in the short-term, but not the completed number of children. At least some indication of potential tempo effects may be given by the age of mothers at the birth of their children. That is why monitoring the age of mothers at the birth of their children plays an important role in analysing the impact of an increase in child benefit on fertility. Since the child benefit reform theoretically provides fertility incentives for families both with and without children the differential impact of the child benefit reform across the income distribution is used here to define treatment and control groups. As already mentioned, low-income earners benefit more from the child benefit reform than high-earners, which is why they are also expected to show stronger behavioural reactions. However, since income itself can be influenced by the child benefit reform, the position of a family in the income distribution is approximated using the education level of both partners. Families in which at least one partner has limited education are used as a treatment group in the DID model (in a further specification families are used in which both partners have a medium level of education at most). All other couples act as a control group. The birth rates of both groups are subsequently observed over time. The implicit assumption is that both groups would have followed the same trend in birth rates without the child benefit reform. If this assumption is valid, differences in the development of birth rates in both of these groups over time can be attributed to the child benefit reform, and more specifically to the stronger increase in monetary benefits for the treatment group than for the control group.

Overall, only the results of some specifications indicate that the child benefit reform had a positive influence on birth rates. The reform was only found to have a statistically significant positive effect on the probability of a birth for the first treatment group (couples in which at least one partner has a low level of education). The result is most strongly affected and statistically significant for couples without children. No change in the age of mothers at childbirth is detected, which is why a pure tempo effect can be excluded as the cause of the impact on birth rates. However, since no significant results can be found for the specifications with the alternative treatment group (couples in which both partners have a medium level of education), the overall results should be interpreted with caution.

Efficiency analysis

After the impact analysis an efficiency analysis was carried out. This complemented the direct costs of the child benefit reform with the fiscal effects of the overall economic effects established in the impact analysis to determine which direct and indirect costs result for the state from the child benefit reform.

Direct costs include additional government expenditure per child in the form of increased child benefit. Indirect costs are follow-up costs like, for example, falling government revenue from taxes and social security contributions due to lower employment. Minimum expenditure for social transfers reduces the indirect costs. The direct and indirect costs were calculated using a hypothetical child benefit reform, which provides for an increase in child benefits of EUR 12 per child per year and/or EUR 1 per child per month. The results of these calculations are shown in detail in Table 2.

The direct costs of this hypothetical child benefit reform increase according to the number of children for whom child benefit is either paid out or an allowance is claimed. In 2010 around 17.5 million children qualified for child benefit. Based on corresponding increases in child benefit the hypothetical reform would generate annual additional costs of roughly EUR 210 million (1st line of Table 2).

The additional indirect costs of a hypothetical child benefit reform, based on the estimated results of the impact analysis, were calculated in two scenarios. In the first scenario the effects of the impact analysis are only expected to apply to mothers of 6 to 17 year-olds. In the second scenario it is presumed that the effects can be transferred to the mothers of 0 to 17 year-olds. Finally the total costs including indirect costs, which arise due to a reduction in tax revenues and social security contributions (due to the reduction in working time), as well as through lesser or greater expenditure for transfer payments, are compared to the direct costs (increase in child benefit). The resulting statistics can be seen in the last lines of Table 2. The quotient of 2.0 for the group of mothers with children aged between 6 and 17 years indicates that in the scenario of a child benefit reform whereby child allowances are increased by an average of EUR 1 per child, the costs of such a reform are around EUR 2 per child. If all mothers with children under the age of 18 are taken as a basis, the total costs of a EUR 1 increase

in child benefit are between EUR 1.20 per child (lower limit) and EUR 4.10 per child (upper limit).¹²

The large range of the quotient from von 1.1 to 2.9 and/ or 1.2 to 4.1 clearly illustrates how difficult it is to estimate the exact costs of such a reform. Moreover, the fact that the quotient is greater than one in the best case scenario (lower limit) suggests that the state will incur indirect costs. On average, estimates of these indirect additional costs are at around the same level as the direct costs of an increase in child benefit. This implies that the total costs of an increase in child benefit are on average twice as high as the direct costs.

It is worth mentioning, however, that the lower work participation of mothers resulting from the child benefit reform creates time gains in families, which could help to improve welfare under certain circumstances. However, since these potential effects cannot be quantified, they could not be considered in the efficiency analysis.

Closing remarks

The results of the impact analysis show that an increase in child benefit can generate negative employment ef-

¹² Upper and lower limits are stipulated by the 90 percent confidence interval of the estimates.

fects for mothers, which are reflected in a reduction in working hours. Mothers with partners – especially in low income households – tend to reduce their full-time employment in favour of part-time employment. Labour force participation rates remain largely stable. The economic situation of families does not change significantly through the increase in child benefit, since the adjustments in labour supply reduce the earned income of families and thus mitigate the child benefit increase. This compensation effect does not seem to apply to single mothers, and child benefit improves their financial situation. Moreover, the impact analysis shows no significant effects on various measures of social participation, use of time or satisfaction with certain areas of life. There was no conclusive evidence on the effects of a child benefit increase on birth rates since the reform either.

The efficiency analysis shows, however, that the actual costs of a child benefit increase are around twice as high as the nominal costs. Where other family policies like investment in childcare induce self-financing effects due to increases in labour supply of parents, monetary transfers like child benefit incur additional costs. The reduced working time of mothers resulting from the increase in child benefit creates indirect costs for the state: since mothers reduce their working hours if child benefit is increased, the state loses tax and social security con-

Table 2

Direct and indirect costs of a fictional child benefit reform						
	Direct and indirect costs (€12 per child and per year / €1 per child and per month)					
	Mothers (children 6-17)			Mothers (children 0-17)		
	Lower limit	Average value	Upper limit	Lower limit	Average value	Upper limit
Direct costs*	210.4	210.4	210.4	210.4	210.4	210.4
Lower tax revenues and social security contributions by employers*	0.0	194.9	387.7	0.0	318.5	633.5
Lower social security contributions from employers*	- 29.3	63.7	156.8	- 47.9	104.2	256.2
Additional transfer payments excluding child allowances*	53.7	- 45.6	- 144.9	87.7	- 74.6	- 236.8
Total costs (in millions of euros per year)*	234.8	423.4	610.0	250.2	558.5	863.4
Total costs / direct costs	1.1	2.0	2.9	1.2	2.7	4.1

* In millions of euros per year.

Source: Own calculations.

tributions. On average these additional indirect costs are estimated to be as high as the direct costs of an increase in child benefit.

A conclusive overall evaluation of the effects of child benefit and child allowances is beyond the scope of this study. Such an evaluation should consider additional aspects like the effects of child benefits on the well-being of children. Moreover, the weighting of the targets behind the reform cannot be objectively analysed even when compared to other uses of funding. It essentially remains a question of political considerations how the targets should be weighted and whether public expenditure is utilised in the most desired way. Impact analysis, however, can guide the search for the most efficient policies to reach the politically established goals.

References

- Baughman, R. and S. Dickert-Conlin (2003), “Did Expanding the EITC Promote Motherhood?”, *American Economic Review* 93, 247–51.
- Baughman, R. and S. Dickert-Conlin (2009), “The Earned Income Tax Credit and Fertility”, *Journal of Population Economics* 22, 537–63.
- Blundell, R., M. Brewer and A. Shephard (2005), *Evaluating the Labour Market Impact of Working Families’ Tax Credit using Difference-in-Differences*, technical report.
- BMF (2007), *Datensammlung der Steuerpolitik 2007*, Berlin.
- BMF (2008), *Datensammlung der Steuerpolitik 2007*, Neuauflage Juli 2008, Berlin.
- BMFSFJ (2012), *Familienreport 2012: Leistungen, Wirkungen, Trends*, Berlin.
- Brewer, M., A. Ratcliffe and S. Smith (2011), “Does Welfare Reform Affect Fertility? Evidence from the UK”, *Journal of Population Economics* 25, 245–66.
- Eissa, N. and H. W. Hoynes (2004), “Taxes and the Labor Market Participation of Married Couples: The Earned Income Tax Credit”, *Journal of Public Economics* 88, 1931–58.
- Eissa, N. and J. B. Liebman (1996), “Labor Supply Response to the Earned Income Tax Credit”, *The Quarterly Journal of Economics* 111, 605–37.
- Francesconi, M., H. Rainer and W. van der Klaauw (2009), “The Effects of In-Work Benefit Reform in Britain on Couples: Theory and Evidence”, *Economic Journal* 119, 66–100.
- Francesconi, M. and W. van der Klaauw (2007), “The Socioeconomic Consequences of In-Work Benefit Reform for British Lone Mothers”, *Journal of Human Resources* 42, 1–31.
- Gathmann, C. and B. Saß (2012), “Taxing Childcare: Effects on Labor Supply and Children”, *IZA Discussion Paper* Nr. 6440.
- Lüdeke, R. and M. Werding (1996), “Die Reform des Dualen Familienlasten- bzw. Familienleistungsausgleichs 1996: Wirkungen und Ziele einkommenssteuerlicher Kinderfreibeträge und des Kindesgelds nach altem und neuem Steuerrecht”, *Journal of Economics and Statistics (Jahrbücher für Nationalökonomie und Statistik)* 215, 419–43.
- Meyer, B. D. and D. T. Rosenbaum (2001), “Welfare, The Earned Income Tax Credit, And The Labor Supply Of Single Mothers”, *The Quarterly Journal of Economics* 116, 1063–114.
- Rainer, H., S. Bauernschuster, N. Danzer, T. Hener, C. Holzner and J. Reinkowski (2013), *Kindergeld*, ifo Forschungsbericht Nr. 60.
- Tamm, M. (2010), “Child Benefit Reform and Labor Market Participation”, *Journal of Economics und Statistics (Jahrbücher für Nationalökonomie und Statistik)* 230, 313–27.