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Effects of the Introduction of Family Bonus and Supplementary Child Benefit, the New Tax Relief for Families in Austria

A Microsimulation Study

Effects of the Introduction of Family Bonus and Supplementary Child Benefit, the New Tax Relief for Families in Austria. A Microsimulation Study

This paper analyses the effects of the introduction of the tax relief for families family bonus (Familienbonus) and supplementary child benefit (Kindermehrbetrag) on household income in Austria, using the WIFO-Micromod microsimulation model that is based on the EU-SILC data. The average yearly (person-weighted) equivalised household income increases by 320 €, which corresponds to a relative increase of 1.4 percent. For the families concerned, the reform leads to an increase in the corresponding income by 733 € or 3.1 percent and to a reduction in the average yearly income tax burden by 1,556 €. The effects are most pronounced in the medium range of the household income distribution. The total personal income tax revenue decreases by 1.5 billion € per year.

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1. Introduction

The financial relief for families via the introduction of the family bonus plus is one of the major early reform moves planned by the federal government in office since December 2017. The measure, announced before the last general election and included in the government programme, was initiated with a Council of Ministers proposal on 10 January 2018[1]. The aim is to provide financial relief for parents who are employed while bringing up their children.

To this end, the draft bill for the amendment of the Income Tax Act 1988[2] provides for the introduction of the family bonus (Familienbonus) in the form of a tax credit. At the same time, two indirect monetary transfers, i.e. the child tax allowance (Kinderfreibetrag) and the tax deductibility of child care cost shall be abolished. In addition, low-income single-earner families and single parents who would benefit from the family bonus only partially or not at all shall be able to apply for a supplementary child benefit (Kindermehrbetrag). The measure shall take effect from 1 January 2019.

[1] GZ: BKA-510101/0003-V/1/2018 BMF-280806/0003-I/4/2018.

[2] https://www.bmf.gv.at/steuern/Text_Familienbonus_BegE.pdf?6cphk5.

The impact assessment in the context of the ex-ante evaluation of the draft bill estimated the cost of the new measure at 1.5 billion € per year. Offsetting the extra revenue from the expiry of the earlier tax allowances reduces the expected additional budgetary cost to 1.2 billion €[3].

By means of the WIFO-Micromod microsimulation model, we estimate the distributional effects of the reform on the income tax burden and on private household disposable income, as well as the impact on average income, inequality and poverty for different types of households. We also take into account the partial counter-financing via the abolition of the tax deductibility of child care cost and of the child tax allowance. The additional effect of the introduction of a supplementary child benefit is at each stage being dealt with separately. The macroeconomic effects of the reform are investigated in *Baumgartner et al.* (2018).

2. Key elements of the reform of family benefits

The planned measures include three key elements: introduction of a family bonus, coupled with the abolition of the tax deductibility of child care cost and of the child tax allowance; introduction of a supplementary child benefit; indexation of the existing family-related tax benefits, of the family bonus and the supplementary child benefit.

2.1 Introduction of the "family bonus plus"

The "family bonus plus"[4] shall, as tax credit, reduce the tax burden per child and year by up to 1,500 €. It will be granted up to the child's age of 18, provided that the child is entitled to family allowance (Familienbeihilfe) and lives in Austria. Children beyond that age receiving family allowance shall be entitled to a family bonus of 500 € per year.

The family bonus cannot be claimed via negative income tax, given its purpose of exonerating working parents. However, due to its design, the bonus will only partially meet its objective, since the group of beneficiaries will be confined to those working parents whose earnings carry a sufficiently high tax liability[5]. Moreover, the family bonus is not linked to the employment status, but to the income tax liability of the applicant. Hence, non-working persons with sufficiently high income from wealth (e.g., from rent and lease, interest and dividends) may benefit from the tax relief offered by the family bonus. In a two-person household the tax credit may be claimed either by one parent entitled to the family allowance only or shared fifty-fifty between that person and his or her partner. The decision whether one parent will claim the entire bonus or whether the partners share it equally shall hold for at least one year and is taken for each child separately.

2.1.1 Abolition of the child tax allowance and of the tax deductibility of child care cost

The existing child tax allowance and the income tax deductibility of child care cost as "extraordinary burdens" shall be cancelled entirely, for the sake of simplification and transparency. The child tax allowance, granted parents paying wage or assessed income tax, is limited to 440 € per child and year if claimed by only one parent, and to 300 € for each parent per child and year if claimed by both. For each child up to the age of ten, a maximum of 2,300 € may be claimed as allowance for institutional child care or by a similarly-qualified private person. This tax allowance may also be shared between parents. Single parents may claim child care cost above 2,300 € via "extraordinary burdens", albeit reduced by an income-dependent deductible. The age limit of 10 years for the child does not apply in this case.

[3] 24/ME XXVI. GP – *Ministerialentwurf – Vorblatt* and WFA (impact assessment).

[4] The present analysis uses the terms "familiy bonus", "familiy bonus plus" and "bonus" synonymously.

[5] Dependent employees with one child will be able to experience a tax relief in the amount of the family bonus (1,500 €) if their monthly gross earnings equal or exceed approximately 1,700 €. Two-parent families may fully benefit already at lower individual earnings levels, due to the divisibility of the family bonus.

The cancellation of the two tax allowances raises the income tax base. However, the resulting higher tax liability of the households concerned will be offset by the family bonus. From the fiscal point of view, the extra income tax revenue will in part counter-finance the shortfall from the family bonus.

Unlike tax credits, which lower the tax liability, tax allowances reduce taxable income (i.e. the tax base). Hence, the size of the tax relief from an allowance depends on the marginal tax rate for an individual taxpayer. The progressive scale of Austria's income tax schedule implies that high-income earners subject to higher marginal tax rates benefit more from tax allowances than persons with lower earnings and lower marginal tax rates (degressive effect of tax allowances). The abolition of tax allowances therefore entails distributional effects (see chapter 5)[6].

Hence, the often-heard criticism that the family bonus would privilege parents with high incomes is not entirely justified, especially not when compared with the tax benefits that will be abolished. As the level of the family bonus is higher than the tax allowances that will cease to exist, it carries greater weight[7]. In principle, the family bonus, designed as tax credit, would provide equal benefit (in absolute terms) for all families, regardless of their income, if it could be claimed also via negative income tax.

2.2 Introduction of a supplementary child benefit

The amendment of the income tax code also provides for the introduction of a supplementary child benefit of up to 250 € per child and year for low-income-earning single parents and single-earner families, which may be claimed in full via negative income tax. Parents whose tax liability before the deduction of the family bonus is below 250 € per year are deemed low-income earners. They receive the difference to 250 € as supplementary child benefit[8] via their income tax assessment.

The Ministerial proposal had originally not foreseen the introduction of a supplementary child benefit; the latter was incorporated into the draft bill in response to public criticism of the impossibility of low-income earners to (fully) benefit from the tax credit. Low-income-earning single parents and single-earner families shall thereby have the opportunity to receive a subsidy of at least 250 € per child and year. Persons receiving year-long unemployment insurance or assistance benefit or substitutes like needs-based minimum or subsistence benefits for asylum seekers are, however, not eligible for supplementary child benefit.

Conceptually, the supplementary child benefit ties up with the sole earner and single parent tax credit (Alleinverdiener- and Alleinerzieherabsetzbetrag, respectively). The latter amounts to an annual 364 € per child, plus a child supplement of 130 € for the first, 175 € for the second and 220 € for the third and each following child. The sole earner tax credit is granted only if any secondary earnings of the other parent do not exceed 6,000 € per year[9]. Eligibility for all child tax allowances and tax credits referred to is contingent upon a minimum benefit period of more than six months for Child Tax Credit or family allowance for that child.

2.3 Indexation

The government's intention to tie the level of family benefits to a child's place of residence – as already decided for the family allowance by the Ministerial Council on 2 May 2018 – is also reflected in the plans for the family bonus and the supplementary child benefit. Both instruments, as well as the existing tax benefits for single parents and single-earner families and the tax credit for maintenance payments

[6] *Schratzenstaller* (2018) offers an up-to-date overview of family benefits in Austria.

[7] The annual tax relief from the child tax allowance in the top income tax bracket is currently 242 € per child, that from the deductibility of child care cost is 1,265 € for two-parent families with one (non-handicapped) child.

[8] If the annual tax liability before the deduction of the family bonus is, for example 200 €, the beneficiary receives 200 € as family bonus plus a supplementary child benefit of 50 €. If the tax liability is zero, the supplementary child benefit of 250 € replaces the family bonus of which in this case nothing can be claimed as tax credit.

[9] Until 2010, childless couples with low secondary earnings of one partner also qualified for the sole earner tax credit.

(Unterhaltsabsetzbetrag) shall be adjusted to the price level of the child's place of residence.

For children whose permanent residence is Austria the amounts cited above shall apply; children living in other EU countries, in the EEA or Switzerland will receive an indexed amount; children living in other (third) countries shall not be eligible for any of the family-related tax benefits.

On this differential approach, concerns have been voiced from the European legal perspective – as has already been the case with the indexation of the family allowance. Thus, the unequal treatment of children living in Austria and those living in other EU or EEA countries of parents liable to income tax in Austria may imply an illegal discrimination and a violation of EU law[10].

Table 1: Changes in the tax assessment due to the introduction of family bonus and supplementary child benefit

Status quo	After reform
Gross earnings after social security contributions	Gross earnings after social security contributions
– Income-related expenses	– Income-related expenses
– Special expenses	– Special expenses
– Extraordinary burdens (*with child care cost*)	– Extraordinary burdens *(without child care cost)*
– *Child tax allowance*	
= Taxable income	= Taxable income
	– *Family bonus plus*
	– *Supplementary child benefit*
– Sole earner, single parent tax credit	– Sole earner, single parent tax credit
– Maintenance tax credit	– Maintenance tax credit
– (augmented) Commuter tax credit or retirees tax credit	– (augmented) Commuter tax credit or retirees tax credit
– Commuter Euro	– Commuter Euro

Source: WIFO. Italics . . . difference between status quo and reform.

Each of the measures shall enter into force on 1 January 2019. The family bonus will either be credited via the company-based payroll accounting during 2019 or ex-post via the tax assessment procedure. The supplementary child benefit shall for the first time be disbursed in the context of the tax assessment for 2019.

In a schematic representation, Table 1 shows the changes in the income tax assessment vis-à-vis the current legal situation, taking into account the correct sequence of deductions pursuant to the Income Tax Act.

3. Data and method

By means of the WIFO-Micromod model, we have simulated the effects of the envisaged reform of income taxation with the introduction of a family bonus and a supplementary child benefit, along with the abolition of the child tax allowance and the deductibility of child care costs. The model uses data from the European Union Statistics on Income and Living Conditions (EU-SILC) for Austria. Besides information on the composition of households, the data set includes socio-demographic characteristics and data on employment, earnings, other income sources and hours worked of individual household members (*Statistics Austria,* 2017). For the analysis we have used the EU-SILC wave of 2016 recording the incomes for 2015[11]. For Austria, the data set includes 13,049 persons, of which 2,501 children under the age of eighteen. Extrapolated on the basis of the household weights from EU-SILC, this corresponds to 8.6 million persons and 3.9 million households. In order to establish a data base for 2019, the incomes were extrapolated with the observed and projected[12] consumer price index

[10] Irrespective of the issue of EU legal compliance, the data base for our analysis does not allow to include households with children living abroad.

[11] Wages, salaries and a large part of transfer incomes are gathered from administrative data. Incomes not captured in this way have been identified through surveys.

[12] WIFO forecast of October 2018 (*Scheiblecker,* 2018).

(CPI) for the years from 2016 to 2019. This extrapolation rests on the implicit assumption of unchanged demographic, labour force participation and income structures since 2015-16. The simulations take into account the legal provisions for the Austrian tax, social security and transfer system in 2019[13].

WIFO-Micromod maps the major elements of the Austrian tax, transfer and social security system[14]. Apart from the social contributions for different occupational groups, the model simulates for each person in the data set wage and income tax liabilities, taking into account tax allowances and tax credits, and monetary social transfers. The simulation of tax allowances, tax credits and social transfers also accounts for the household context of each person. Finally, the results are multiplied by the household weights and thereby calculated for the total population. For distributional studies, the household level is deemed more relevant than the personal level, since individual living standards depend not only on a person's own income, but also on his household context, in particular on all other income sources of the household and the number and age of its members. For this reason, all results of our study refer to the household level.

For the income variable, we consider a household's total disposable income, which includes earnings from employment, retirement income and social transfers, net of taxes and social security contributions of the household members. In order to make the welfare level of households of different size and composition comparable, we convert the disposable household income into equivalent or need-weighted per-capita income[15]. The household income weighted that way is also termed equivalised household income. For the illustration of the distributional effects, persons are ranked according to the size of their equivalised annual disposable income in the status quo and divided into ten groups with the same number of individuals in each (deciles). Assuming that household income is shared equally between all members of the household, the equivalised values are person-weighted throughout the present paper[16]. The effects of the reform are identified at the household level by comparing the status quo results with those of the reform scenario.

A household is considered being "affected by the reform" if its disposable income changes by at least 1 € per year as a result of the reform[17]. Possible effects on labour supply are neglected in the present simulation. Nevertheless, as the later results will show, for certain population groups the reform generates income effects of a size that make such reactions of labour supply likely.

4. Implementation of the reform in the WIFO-Micromod model

The WIFO-Micromod simulation model maps the major elements of the Austrian tax, transfer and social security system, in order to translate at the micro level gross income into net disposable income. In this regard, we make two key assumptions: first, all persons submit an income tax declaration or are subject to wage tax assessment; second, all persons fully exploit the tax benefits for which they are eligible ("full take-up"). The calculated effects are thereby overstated, depending on the degree of actual take-up. The possibility of employees' tax benefits being directly credited to current earnings by their employers, an option foreseen in the draft proposal, is not taken into consideration.

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[13] Social security contributions were simulated on the basis of preliminary reference values published in *NÖGKK* (2018).

[14] For details on the structure of the WIFO microsimulation model see *Grünberger* (2009) and *Rabethge* (2009). The model is being expanded on a regular basis; it has recently been used inter alia in *Rocha-Akis* (2017) and *Ederer et al.* (2017).

[15] The weighting scheme follows the modified OECD scale or EU scale. The first adult person in the household is assigned the weight of 1, every other person of 14 years and above in the household a weight of 0.5, and children below 14 a weight of 0.3 each.

[16] Household income weights are multiplied by the number of people in each household to derive person weights (*OECD*, 2013). A conceptually different approach yielding per household per capita estimates of the effects is taken in *Fink – Rocha-Akis* (2018).

[17] Simulation on the basis of an alternative definition, whereby a household is considered affected if its disposable income changes by at least 1 percent, yields similar results.

The simulation of family benefits on the basis of EU-SILC can only include families where parents and children share the same household. In the case of parents living separately, the new measures can be assigned to only one of them; for children no longer living with their parents, they cannot be taken into account at all. The latter will largely apply for students above the age of eighteen.

Apart from the measures referred to, the WIFO-Micromod model simulates a number of other family-related transfers and tax benefits: family allowance, child tax credit, school start allowance (Schulstartgeld), multiple-child supplement (Mehrkind-zuschlag), child tax allowance, single parent and sole earner tax credit, and the deductibility of child care cost. The child care cost as well as the total disbursements of child care benefit (Kinderbetreuungsgeld) are gathered from the data. Due to lack of data, the model does not capture provisions for handicapped children.

For benefits that are divisible between parents we have assumed a limited (sequentially) optimal splitting procedure: at each stage of the tax assessment, benefits are split in the way that minimises the joint tax liability. No allowance is made for the fact that the decision on one component may depend on the subsequent component in the tax assessment process[18]. We also abstract from the possibility of taking decisions separately for each child. Both limitations may lead to a sub-optimal tax assessment outcome in the simulation exercise. The optimal splitting alternatives for the family bonus in accordance with the draft legal proposal are shown in Table 2.

Table 2: Optimal splitting of claims to family bonus plus per child in two-parent households

Individual tax liability (*IT*) as a percentage of family bonus claim per child		Optimal splitting
Parent *i*	Parent *j*	
≥100	≥100	*50 : 50*, 100 : 0, 0 : 100
≥100	≥50 and <100	*50 : 50*, 100 : 0
≥100	<50	100 : 0
≥50 and <100	≥50 and <100	50 : 50
≥50 and <100	<50	[1]
<50	<50	50 : 50

Source: WIFO. – [1] 50 : 50, if $IT_i - IT_j \leq 50$ percent of family bonus, otherwise 100 : 0. If more than one splitting version would be optimal, the values in italics were entered into the microsimulation.

5. Results of the model simulation

5.1 Distribution of households by different characteristics with regard to family benefits

The effects of the reform depend importantly on the number and distribution of households with children as well as on the number and age of the children. 26.3 percent of the 3.9 million households (i.e. 1.0 million households) are eligible for family allowance. With the exception of the 1st and the 10th decile, the distribution of the beneficiaries is fairly equal among the deciles. Between the 2nd and the 9th decile, 28 to 32 percent of the households in each decile include persons entitled to family allowance. To simplify matters, these households will henceforth be named "households with children". In the bottom and the top decile, only 17 percent respectively 20 percent of the households are households with children. The share of households with at least one child under the age of 10 (13.5 percent of all households), i.e. those which in the status quo can claim tax deduction of child care cost (see section 2.1), rises from 11 percent in the 1st to 20 percent in the 2nd decile, hovering from the 3rd to the 6th decile between 16 and 18 percent and moderating gradually thereafter down to

[18] The decision on how to split the cost of child care, for example, does not depend on the splitting of the child tax allowance. However, the splitting of the child tax allowance is based on the decision on how to share the tax-deductible child care cost.

8 percent in the 10th decile. Households with at least one child under age 18 (23 percent of all households) are also represented most strongly from the 2nd to the 6th decile (25 percent to 31 percent of all households) and least in the upper deciles (10th decile 15 percent)[19]. In nearly 7 percent of all households there is at least one child of 18 years and above eligible for family allowance and thus for the reduced family bonus. These households are represented above-average in the middle and upper third of the income distribution (specifically between the 4th and 9th decile). The highest share is found in the 8th decile with over 11 percent, the lowest one in the 1st decile with only 2 percent of households. In addition, the number and distribution of households with persons entitled to single parent and sole earner tax credit are relevant for the analysis, as such households may receive supplementary child benefit. Single-parent households and single-earner families are concentrated in the bottom half of the income distribution. The group of single-earner households, accounting for 8 percent of all households, is nearly twice as large as the one of single-parent households. Both types are most strongly represented in the 2nd decile (shares of 18 percent and 8 percent respectively) and least in the 10th decile (respectively 2 percent of households).

Table 3: Distribution of household types by characteristics relevant for family benefits 2019

	FBH	FBH	K10	K18	K18+	AEAB	AVAB	K10	K18	K18+	AEAB	AVAB
	In 1,000s		As a percentage of all households					As a percentage of all households receiving family allowance				
Deciles												
1	87	*17.2*	11.2	16.7	*2.4*	4.5	10.4	*64.8*	*96.8*	13.8	26.0	*60.2*
2	117	*32.2*	*20.3*	*30.8*	5.3	*8.4*	*18.4*	62.9	95.5	16.3	*26.0*	57.1
3	*129*	29.4	18.3	27.7	3.8	6.0	12.9	62.3	94.2	*13.0*	20.4	43.9
4	117	29.7	17.1	26.0	7.6	3.9	12.7	57.7	87.5	25.6	13.1	42.8
5	109	29.3	16.3	26.3	7.2	5.3	7.9	55.5	89.8	24.5	18.1	27.1
6	101	28.9	15.6	25.0	8.2	3.8	6.5	53.9	86.6	28.4	13.1	22.3
7	98	28.7	10.5	23.6	10.0	2.7	4.0	36.7	82.1	34.7	9.3	14.0
8	93	28.1	10.4	22.0	*11.0*	3.0	3.8	37.0	78.3	39.3	10.6	13.7
9	83	23.6	*7.7*	15.7	10.6	2.5	2.4	*32.7*	*66.7*	*44.9*	10.5	*10.2*
10	*83*	19.9	*7.7*	*15.0*	6.5	*1.6*	*2.1*	38.5	75.5	32.6	*8.2*	10.7
Total	1,016	26.3	13.5	22.7	6.9	4.2	8.3	51.4	86.2	26.3	16.0	31.7

Source: Statistics Austria, EU-SILC 2016; WIFO-Micromod. Persons are ranked according to equivalised disposable household income and grouped into deciles. Equivalisation on the basis of the EU scale i.e. normalisation according to household composition. Extrapolated with CPI (base year 2015) according to WIFO forecast of October 2018 (*Scheiblecker,* 2018) assuming unchanged structure of demography and labour force participation. A household corresponds to a defined household type if at least one person in the household meets the criterion for that type. FBH . . . receiving family allowance, K10, K18 . . . child or children up to age 10 respectively 18, K18+ . . . receiving family allowance, child or children of age 18 and above, AEAB . . . entitled to single parent tax credit, AVAB . . . entitled to sole earner tax credit. Italics . . . maxima and minima.

5.2 Income effects

5.2.1 All households

The reform analysed here, i.e. the introduction of a family bonus and a supplementary child benefit, coupled with the abolition of the child tax allowance and the tax deductibility of child care costs, would raise family household income in all deciles, as shown by the model simulations for 2019. On average, it would lead to an increase in equivalised annual household disposable income of 320 € or 1.4 percent. Households in the middle of the income range (between the 2nd and the 7th decile, where the share of households with children under age 18 is highest) would benefit most, with an annual gain of between about 370 € to 440 € (Table 4). The lowest nominal relief is found in the 1st decile (+110 €) and the 10th decile (+192 €). The relative income gain is highest in the 2nd and 3rd decile, at +2.3 percent respectively; it is lowest at upper part and the lower margin of the income distribution, at +0.4 percent and +0.6 percent in the 10th and 9th decile respectively and +0.9 percent respectively in the 1st and the 8th decile. As could be expected, the introduction of the supplementary child benefit raises income almost exclusively in the bottom deciles; the gain is +0.9 percent in the 1st decile (as compared with +0.6 percent by the family bonus

[19] In interpreting the results by type of household one should bear in mind that the categories are not mutually exclusive: households with one child below 10 plus one of 18 years and above are included in both categories.

without the supplementary child benefit) and the relative gain is still smaller in the 2nd to 5th decile.

In essence, the distributional effects of the new measures are determined by the following variables: the distribution of households eligible for family allowance, the number and age of children per household entitled to the family bonus and the supplementary child benefit, and the size of taxable income of the parents qualifying for the new measures. The impact of the reform is weak in the lower deciles where many persons are retirees or receive social transfers and have no or very low earnings. In the lower deciles many low-earnings households with children have a tax liability that is so low that they benefit only from the supplementary child benefit or partially from the family bonus (see section 5.3). The equivalised yearly (monthly) household disposable income of the 1st decile is no higher than 10,121 € (843 €). As taxable income increases, a greater share of households can fully exploit the family bonus. In the upper half of the income distribution, the decline of the average effect with rising income is explained by the lower share of households with children and of households with children under 18, or accordingly by a higher share of households with children above the age of 18 (Table 3).

Table 4: Equivalised disposable household income of all households 2019

	Status quo	Reform with supplementary child benefit		Reform without supplementary child benefit	
	Annual amount	Difference between reform scenario and status quo			
	In €	In €	Percent	In €	Percent
Deciles					
1	*10,121*	+ *110*	+ 0.9	+ *77*	+ 0.6
2	16,080	+ 368	+ 2.3	+ 339	+ 2.1
3	19,168	+ *436*	+ 2.3	+ 427	+ 2.2
4	22,033	+ 435	+ 2.0	+ *428*	+ 1.9
5	24,619	+ 405	+ 1.7	+ 401	+ 1.6
6	27,332	+ 367	+ 1.3	+ 365	+ 1.3
7	30,393	+ 371	+ 1.2	+ 371	+ 1.2
8	33,813	+ 315	+ 0.9	+ 315	+ 0.9
9	38,549	+ 226	+ 0.6	+ 226	+ 0.6
10	*57,970*	+ 192	+ *0.4*	+ 192	+ *0.4*
Total	27,622	+ 320	+ 1.4	+ 311	+ 1.3

Source: Statistics Austria, EU-SILC 2016; WIFO-Micromod. Persons are ranked according to equivalised disposable household income and grouped into deciles. Equivalisation on the basis of the EU scale i.e. normalisation according to household composition. Extrapolated with CPI (base year 2015) according to WIFO forecast of October 2018 (*Scheiblecker*, 2018) assuming unchanged structure of demography and labour force participation. Italics . . . maxima and minima.

5.2.2 Relief for families

For families with children, the equivalised annual disposable household income rises on average by 733 € or 3.1 percent (Table 5). The largest annual income gains are achieved between the 3rd and the 7th decile, with amounts ranging from 806 € (6th decile) to 854 € (3rd decile; Table 5). The average income tax liability of the households affected by the reform is 1,556 € lower than without the reform, their average (non-equivalised) household disposable income therefore increases by the same amount (Table 8). The relative income gain rises from 3.3 percent in the 1st decile to 4.5 percent in the 3rd decile, before abating for higher incomes to around 1 percent in the 10th decile.

Between the 6th and 10th decile, the distribution of households concerned by the reform corresponds almost exactly to that of families with children (Table 3) and is between 20 percent and 29 percent in this range. In the lower deciles some households with children do not benefit from the reform. In line with expectations, the difference is largest in the 1st decile (17 percent of households are eligible for family allowance, but only 15 percent profit from the introduction of the family bonus and the supplementary child benefit) and narrows to almost zero by the 6th decile. With the addition of the supplementary child benefit to the family bonus, the share of beneficiaries more than doubles in the 1st decile (14.8 percent vs. 5.7 percent; Table 5). The difference stands for about 46,100 households (Table 6). Also in the 2nd decile, the introduction of the supplementary child benefit raises markedly the number of benefitting households. As from the 3rd decile, the increase becomes significantly lower (+10,400 households). Altogether, almost about 107,000 households would be entitled to receive supplementary child benefit (Table 6).

Since in the reform scenario including the supplementary child benefit the number of households concerned is higher and these households benefit less from the reform than those which due to the family bonus enjoy a tax relief of at least 250 €, the average effects are comparatively lower in the reform scenario including the supplementary child benefit.

The average difference in financial gain between the scenarios with and without supplementary child benefit is 256 € per year in the 1st decile and declines to 48 € in the 3rd decile. In the upper half of the income distribution, the average annual additional benefit is negligible, even if households eligible for supplementary child benefit can be found up to the top income brackets (Table 5).

Table 5: Equivalised disposable household income of the households benefitting from the reform 2019

	Reform with supplementary child benefit				Reform without supplementary child benefit			
	Status quo	After reform			Status quo	After reform		
	Annual amount	Percent-age shares of all households	Difference from status quo		Annual amount	Percent-age shares of all households	Difference from status quo	
	In €		In €	Percent	In €		In €	Percent
Deciles								
1	11,913	14.8	+ 399	+ 3.3	12,902	5.7	+ 655	+ 5.0
2	16,164	31.4	+ 658	+ 4.1	16,260	22.8	+ 810	+ 5.0
3	19,200	28.7	+ 854	+ 4.5	19,219	26.3	+ 903	+ 4.7
4	22,085	29.0	+ 849	+ 3.8	22,112	26.9	+ 895	+ 4.1
5	24,641	28.6	+ 810	+ 3.3	24,645	27.0	+ 847	+ 3.5
6	27,359	28.9	+ 806	+ 3.0	27,363	27.8	+ 833	+ 3.1
7	30,348	28.4	+ 832	+ 2.8	30,348	28.4	+ 832	+ 2.8
8	33,755	28.1	+ 721	+ 2.1	33,768	27.7	+ 729	+ 2.2
9	38,583	23.6	+ 629	+ 1.6	38,597	23.4	+ 633	+ 1.7
10	55,728	19.9	+ 577	+ 1.1	55,728	19.9	+ 577	+ 1.1
Total	26,784	25.7	+ 733	+ 3.1	28,019	22.9	+ 793	+ 3.3

Source: Statistics Austria, EU-SILC 2016; WIFO-Micromod. Persons are ranked according to equivalised disposable household income and grouped into deciles. Equivalisation on the basis of the EU scale i.e. normalisation according to household composition. Extrapolated with CPI (base year 2015) according to WIFO forecast of October 2018 (*Scheiblecker*, 2018) assuming unchanged structure of demography and labour force participation. A household is deemed benefitting from the reform if its annual disposable income is raised by more than 1 euro. Italics . . . maxima and minima.

Table 6: Number of households benefitting from the reform 2019

	Households receiving family allowance	Households concerned		Difference
		Reform with supplementary child benefit	Reform without supplementary child benefit	
	In 1,000s			
Deciles				
1	87.5	75.1	29.0	46.1
2	117.0	114.0	82.9	31.1
3	129.2	125.8	115.4	10.4
4	116.5	113.6	105.6	8.0
5	108.7	106.3	100.3	5.9
6	100.7	100.7	96.9	3.8
7	97.8	96.6	96.6	0.0
8	92.5	92.5	91.2	1.3
9	83.5	83.5	82.7	0.7
10	82.7	82.7	82.7	0.0
Total	1,016.1	990.8	883.4	107.4

Source: Statistics Austria, EU-SILC 2016; WIFO-Micromod. Persons are ranked according to Deciles of equivalised disposable household income and grouped into deciles. Equivalisation , equivalised on the basis of the EU scale i.e. normalisation according to household composition. Extrapolated with CPI (base year 2015) according to WIFO forecast of October 2018 (*Scheiblecker*, 2018) assuming unchanged structure of demography and labour force participation.

5.3 Change in families' tax liabilities and revenue effects

The income gains illustrated also include the impact of the abolition of the child tax allowance and the tax deductibility of child care cost, as part of the reform. In this instance also, the level of parents' taxable income plays a role, apart from the distribution of households with children and the number and age of children per household. The effect of the tax deductibility of child care cost is nearly two and a half times higher in the 10th decile than in the 1st decile (Table 7), while the share of households with children under 10 is almost twice as high in the 1st decile as in the 10th decile (Table 3). The reason, apart from the degressive effect of tax allowances (section 2.1.1), are the markedly higher outlays that people in higher income brackets spend on child care[20].

Table 7: Impact of the abolition of tax allowances on the (non-equivalised) annual tax liability of the households concerned by the reform 2019

	Abolition of deductibility of child care cost	Abolition of child tax allowance	Abolition of deductibility of child care cost and of child tax allowance
		Difference from status quo in €	
Deciles			
1	+ *365*	+ *285*	+ *404*
2	+ 369	+ 313	+ 423
3	+ 593	+ 311	+ 477
4	+ 524	+ 326	+ 527
5	+ 516	+ 328	+ 489
6	+ 614	+ 319	+ 529
7	+ 618	+ 337	+ 505
8	+ 703	+ *344*	+ 508
9	+ 834	+ 331	+ 546
10	+ *897*	+ 359	+ *663*
Total	+ 609	+ 327	+ 512

Source: Statistics Austria, EU-SILC 2016; WIFO-Micromod. Persons are ranked according to equivalised disposable household income and grouped into deciles. Equivalisation on the basis of the EU scale i.e. normalisation according to household composition. Extrapolated with CPI (base year 2015) according to WIFO forecast of October 2018 (*Scheiblecker,* 2018) assuming unchanged structure of demography and labour force participation. A household is deemed benefitting from the reform if its annual disposable income is raised by more than 1 euro. Italics . . . maxima and minima.

Due to the lower ceiling, the exoneration offered by the child tax allowance is more evenly distributed across deciles. The lowest annual average tax relief is claimed by households in the 1st decile, the highest one in the 8th decile.

Table 8 maps the impact of the reform (with and without supplementary child benefit) on the non-equivalised annual tax liability of the households concerned. In the 1st decile, the share of households without or with very low taxable annual income is highest and therefore the relief in absolute figures (with the supplementary child benefit) lowest. In the status quo, the average tax liability in the 1st decile is negative (it amounts to –249 €) which the reform expands to –1,047 €. The households concerned in the 2nd decile will on average benefit by 1,466 € per year and hence nearly twice as much. The relative relief declines with rising income and amounts to only 2.5 percent in the top decile. In absolute terms, the annual exoneration increases from the 1st to the 4th decile to an amount of 1,833 €, before diminishing for higher incomes to eventually 1,204 € in the 10th decile.

The reform effects shown in Table 8 are not need-weighted, i.e. they do not take the household composition into account. The equivalised change in the tax liability on average across deciles and across all households concerned corresponds to the gains in equivalised household disposable income as presented in Table 5.

The introduction of the supplementary child benefit would impact on households' relative and absolute tax liability mainly up to the 3rd decile, as shown by the comparison of the effects with and without supplementary child benefit in Table 8. In line with expectations, in the scenario with supplementary child benefit the average relief in absolute terms is lower than in the scenario without supplementary child benefit. Overall, the annual average tax relief granted by the reform in the scenario with supplementary child benefit of 1,556 € or 14.5 percent of the tax liability of affected

[20] According to information provided by eligible parents in households with children under 10, such outlays amount to almost 49 € per month and per child under 10 in the 1st decile, as compared with 196 € in the 10th decile.

households in the status quo is around 140 € lower than in the scenario without supplementary child benefit.

Table 8: Annual (non-equivalised) tax liability of the households concerned by the reform 2019

	Reform with supplementary child benefit				Reform without supplementary child benefit			
	Status quo	After reform	Difference from status quo		Status quo	After reform	Difference from status quo	
	In €	In €	In €	Percent[1]	In €	In €	In €	Percent[1]
Deciles								
1	*– 249*	*– 1,047*	*– 798*	*– 320.5*	*771*	*– 672*	*– 1,444*	*– 187.3*
2	1,096	– 370	– 1,466	– 133.8	1,883	31	– 1,852	– 98.4
3	2,770	971	– 1,799	– 64.9	3,092	1,174	– 1,919	– 62.1
4	4,619	2,786	*– 1,833*	– 39.7	4,974	3,034	*– 1,939*	– 39.0
5	6,058	4,280	– 1,776	– 29.3	6,169	4,307	– 1,862	– 30.2
6	8,725	7,043	– 1,680	– 19.3	8,867	7,131	– 1,736	– 19.6
7	10,878	9,100	– 1,778	– 16.3	10,878	9,100	– 1,778	– 16.3
8	14,893	13,345	– 1,547	– 10.4	15,152	13,585	– 1,567	– 10.3
9	20,025	18,727	– 1,292	– 6.5	19,885	18,584	– 1,301	– 6.5
10	*48,795*	*47,577*	– 1,204	*– 2.5*	*48,781*	*47,578*	*– 1,203*	*– 2.5*
Total	10,732	8,288	– 1,556	– 14.5	12,058	10,361	– 1,696	– 14.1

Source: Statistics Austria, EU-SILC 2016; WIFO-Micromod. Persons are ranked according to equivalised disposable household income and grouped into deciles. Equivalisation on the basis of the EU scale i.e. normalisation according to household composition. Extrapolated with CPI (base year 2015) according to WIFO forecast of October 2018 (*Scheiblecker*, 2018) assuming unchanged structure of demography and labour force participation. A household is deemed benefitting from the reform if its annual disposable income is raised by more than 1 euro. Italics . . . maxima and minima. – [1] On the basis of decile averages.

For the government budget, the reform implies 1.5 billion € in additional expenditure (Table 9). The extra revenue of 460 million € from the cancellation of the tax allowances will partly counter-finance the total cost of the reform. With approximately 40 million €, the supplementary child benefit accounts for only a small fraction of the cost. The bulk of the extra cost generated by the two new tax relief instruments will accrue in the medium range of the income distribution, whereas such cost will be lowest at the margins.

Table 9: Impact of the reform on the overall (non-equivalised) income tax liability 2019

	Status quo	Abolition of deductibility of child care cost and of child tax allowance	Reform with supplementary child benefit		Reform without supplementary child benefit	
	Income tax revenue	Difference from status quo	Income tax revenue	Difference from status quo	Income tax revenue	Difference from status quo
	Million €					
Deciles						
1	*15*	*+ 13*	*– 45*	*– 60*	*– 27*	*– 42*
2	284	+ 36	116	– 167	130	– 154
3	884	*+ 57*	658	*– 226*	663	*– 221*
4	1,463	*+ 57*	1,255	– 208	1,259	– 205
5	1,766	+ 49	1,577	– 189	1,579	– 187
6	2,331	+ 51	2,162	– 169	2,163	– 168
7	2,866	+ 49	2,694	– 172	2,694	– 172
8	3,627	+ 47	3,484	– 143	3,484	– 143
9	5,132	+ 45	5,024	– 108	5,025	– 108
10	*15,184*	+ 55	*15,085*	– 100	*15,085*	– 99
Total	33,553	+ 459	32,011	– 1,542	32,054	– 1,499

Source: Statistics Austria, EU-SILC 2016; WIFO-Micromod. Persons are ranked according to equivalised disposable household income and grouped into deciles. Equivalisation on the basis of the EU scale i.e. normalisation according to household composition. Extrapolated with CPI (base year 2015) according to WIFO forecast of October 2018 (*Scheiblecker*, 2018) assuming unchanged structure of demography and labour force participation. Italics . . . maxima and minima.

5.4 Effects by type of household

Thanks to the reform, the group of all households eligible for the family allowance (FBH in Table 10) enjoys a gain of 3.1 percent in disposable income. Households with children under 10 benefit most (+3,7 percent), due to their generally lower household income, whereas households with children above 18 profit least (+2,0 percent) as they can only claim the reduced family bonus. Single-parent households which are concentrated in the lower third of the income distribution (Table 3) stand to benefit below-average, whereas single-earner families can expect gains substantially above the average. Although the latter also find themselves more often in the lower part of the income distribution, single-earner families have a sufficiently high taxable income even in the lower deciles to exploit the family bonus to a high degree. Couples with one child will benefit below the average, while those with two and more children will be the "winners" of the reform.

The differences between the average effects of the reform with and without supplementary child benefit are largely confined to those types of households that are represented to an above-average degree in the lower income deciles.

Table 10: Equivalised disposable household income of the households concerned by the reform by type of household 2019

	Reform with supplementary child benefit			Reform without supplementary child benefit		
	Status quo	After reform		Status quo	After reform	
	Annual amount	Difference from status quo		Annual amount	Difference from status quo	
	In €	In €	Percent	In €	In €	Percent
FBH	26,784	+ 733	+ 3.1	28,019	+ 793	+ 3.3
K10	24,502	+ 814	+ 3.7	25,811	+ 900	+ 4.0
K18	25,887	+ 789	+ 3.4	27,160	+ 862	+ 3.6
K18+	29,397	+ 543	+ 2.0	29,964	+ *567*	+ 2.1
AEAB	23,787	+ 522	+ 2.3	28,246	+ 751	+ 3.0
AVAB	*21,001*	+ 752	+ 3.9	*22,175*	+ 849	+ *4.3*
Single with 1 child	24,124	+ *419*	+ *1.9*	28,525	+ 643	+ 2.7
Single with 2 or more children	23,475	+ 618	+ 2.7	28,009	+ 843	+ 3.3
Couple with 1 child	*29,570*	+ 482	+ 1.9	*30,665*	+ 509	+ *1.9*
Couple with 2 or more children	25,890	+ *906*	+ 3.9	26,596	+ *946*	+ 4.0

Source: Statistics Austria, EU-SILC 2016; WIFO-Micromod. Persons are ranked according to equivalised disposable household income and grouped into deciles. Equivalisation on the basis of the EU scale i.e. normalisation according to household composition. Extrapolated with CPI (base year 2015) according to WIFO forecast of October 2018 (*Scheiblecker*, 2018) assuming unchanged structure of demography and labour force participation. A household corresponds to a defined household type if at least one person in the household meets the criterion for that type. FBH . . . receiving family allowance, K10, K18 . . . child or children up to age 10 respectively 18, K18+ . . . receiving family allowance, child or children of age 18 and above, AEAB . . . entitled to single parent tax credit, AVAB . . . entitled to sole earner tax credit. Italics . . . maxima and minima.

6. Inequality and poverty

For the analysis of the impact of the reform on income inequality and poverty we have calculated the Gini coefficient and the poverty risk ratio using the equivalised household incomes on an individual basis. As threshold for poverty risks we have used the reference value of 60 percent of the median of the equivalised household disposable income; our definition of poverty risk is the share of persons with an equivalised household disposable income below that threshold.

Since many low-income households are without children (such as retired-person households), the poverty risk ratio for all households is higher than for the sub-group of households with children (Table 11). In the status quo, the households with children above 18 feature a poverty risk ratio significantly below the average. In the group of households with children, independent of their age, the reform slightly reduces income inequality and lowers the poverty risk ratio. The introduction of the supplementary child benefit contributes only marginally to these changes.

Single-parent households exhibit the highest degree of income inequality of all considered household types and an above-average poverty risk ratio. Income inequality is below-average in the group of single-earner families. The poverty risk ratio, however, is highest. The strongest reform-induced reduction in the poverty risk ratio is experienced by the households with the highest risk of poverty in the status quo, namely sole earner, single parent households and households with children under 10. On average for all households, the impact of the reform on income inequality and poverty is, however, modest.

Table 11: Inequality and poverty by type of household 2019

	Gini coefficient			Poverty risk ratio		
	Status quo	Reform with supplementary child benefit	Reform without supplementary child benefit	Status quo	Reform with supplementary child benefit	Reform without supplementary child benefit
Total	*25.97*	*25.67*	*25.70*	13.43	12.91	12.98
FBH	22.89	22.38	22.45	10.77	9.62	9.77
K10	22.39	21.88	21.97	13.27	11.74	11.99
K18	22.82	22.36	22.43	11.99	10.73	10.90
K18+	*19.28*	*18.99*	*19.02*	*6.63*	*6.49*	*6.49*
AEAB	23.69	23.61	23.86	17.58	16.30	*17.17*
AVAB	19.91	19.49	19.59	*19.41*	*16.78*	16.92

Source: Statistics Austria, EU-SILC 2016; WIFO-Micromod. Persons are ranked according to equivalised disposable household income and grouped into deciles. Equivalisation on the basis of the EU scale i.e. normalisation according to household composition. Extrapolated with CPI (base year 2015) according to WIFO forecast of October 2018 (*Scheiblecker*, 2018) assuming unchanged structure of demography and labour force participation. Gini coefficient . . . indicator for the degree of inequality of the income distribution, Poverty risk ratio . . . share of persons whose household income is less than 60 percent of the median of the equivalised household disposable income in percent. FBH . . . receiving family allowance, K10, K18 . . . child or children up to age 10 respectively 18, K18+ . . . receiving family allowance, child or children of age 18 and above, AEAB . . . entitled to single parent tax credit, AVAB . . . entitled to sole earner tax credit. Italics . . . maxima and minima.

7. Summary and discussion

The draft proposal of the federal government provides for the introduction of a family bonus and a supplementary child benefit and the abolition of the child tax allowance and the tax deductibility of child care cost. Simulations by means of the WIFO-Micromod model suggest that such reform would raise the equivalised annual household disposable income of the households concerned by 733 € or 3.1 percent on average. These households would thereby enjoy an average (non-equivalised) reduction of their tax burden by 1,556 € per year. The annual budgetary cost of the reform is estimated at 1.5 billion €. On average for all households, the equivalised annual household disposable income would increase by 320 € or 1.4 percent.

In the medium range of the distribution of the equivalised household disposable income (by deciles), the simulated effects are most pronounced: in the 4th decile, the households concerned benefit the most in absolute terms, with a financial relief of 1,833 € per year. The relative gain in the equivalised household disposable income is strongest in the 2nd and 3rd decile, at +2.3 percent. The size of the effects depends on the taxable income of the parents and the composition of households. Thus, the effects of the reform are comparatively small at the lower and upper end of the distribution. At lower deciles, despite the higher number of children the parents' earnings in many cases do not carry a sufficiently high tax liability to reap the full amount of the family bonus. At higher deciles the effects of the reform are weaker due to the lower number of children and their relatively higher age.

Overall, the draft reform proposal is likely to meet its objective of providing financial relief primarily for economically active and income-tax-paying families. Considering the financial scope of the reform, its impact on income inequality and poverty of families is rather limited. Families in need with low earnings draw little benefit from the reform, as they do not belong to the prime target group. Alternative reform approaches like the creation of new and affordable child care facilities or the increase in the family allowance would provide greater relief for such families. Among the major winners of the reform are couples with two and more children as well as single-earner families. The latter point deserves a critical note from the perspective of gender equity and the encouragement of female labour force participation.

A broader assessment of the distributional effects of the new measures would require additional analysis of their implicit incentives on labour supply as well as of the – still undisclosed – plans on how the reform is to be financed.

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