The Effects of COVID-19 on Poverty and Material Deprivation of Children in Austria

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1 Introduction and scientific objectives

As in other countries, the COVID-19 crisis and the responsive health and protection measures taken have led to a tremendous labour market and (primary) income shock. The number of employed persons declined by 4.9% or more than 180,000 within only a few days of the incipient crisis in early 2020, representing the steepest drop in employment in about 70 years (Bock-Schappelwein et al., 2021). The seasonally adjusted unemployment rate increased from below 5% in February 2020 to a peak of 8% in June of the same year following the 1st lockdown (Eurostat Database, 2024). In a complementary view of annual averages of the main activity, from 2019 to 2020, the number of persons being employed full-time over the entire year decreased by more than 220,000 (-8.0%) (Statistik Austria, 2021a, 2022).

The extensive use of the specific short-term work scheme offset an even steeper increase in unemployed persons, as described above, with the highest level of registered persons - over 1.3 million persons - recorded in May 2020 (Statista, 2022). In addition, in 2020, around 200,000 persons received support from the hardship fund for self-employed (Rechnungshof, 2021).

Given the general recovery of the labour market – although still interrupted by further lockdowns – a gradual upward trend was observed for 2021. The unemployment rate reached the pre-COVID-19 level of 5% by the end of 2021 (Eurostat Database, 2024). Looking at the second crisis year of 2021, compared to 2019, full-time employment over the entire year decreased by “only” 90,000 persons (-3.2%) (Statistik Austria, 2021a, 2023). In December 2021, almost 180,000 persons were still registered for short time work (Statista, 2022), while throughout 2021, more than 160,000 persons received support from the hardship fund for self-employed (own calculations based on EU-SILC [EU Survey on Income and Living Conditions] 2022).

For many households, the loss of earned income caused by unemployment, short-time work and reduction in self-employment triggered by the lockdowns had profound consequences for their disposable incomes (Heitzmann/Rapp, 2023).

The objective of the study at hand is to generate new knowledge concerning the impact of the COVID-19-related labour market and income shock on monetary poverty and material deprivation, particularly of children below 18 years of age, taking a comprehensive approach. It starts with a literature analysis discussing to-date available data on the outcomes of the labour market and income shock caused by the crisis and the cushioning effect of policy measures on disposable incomes, poverty and material deprivation in Austria as well as in other EU countries.

Employing secondary analysis of the latest available EU-SILC data and tax-benefit microsimulation, the focus of the study is on the analysis of different aspects of crisis outcomes related to child poverty in Austria. It addresses different indicators and characteristics, including monetary poverty and indices on material deprivation and

social exclusion, and assesses related socio-economic characteristics. In addition, the poverty-combating effect of automatic stabilizers and discretionary crisis-related policy measures is studied in detail. Finally, additional actual and hypothetical policies are tested for their potential effect on reducing child poverty further and enhancing support for children in times of crisis.

We aim to answer the following four main research questions (RQs):

- RQ1: How did the prevalence of at-risk-of-poverty (AROP) and material deprivation of children in Austria develop during the COVID-19 crisis?
- RQ2: To what extent did the socio-economic background of affected children change due to the crisis?
- RQ3: How effective was the Austrian tax-benefit system (COVID-19 policies and automatic stabilizers) in preventing an increase in child poverty due to COVID-19?
- RQ4: How would additional policies to counter child poverty have performed during the COVID-19 crisis?

By using the latest available micro-data (EU-SILC 2020-2022 with the corresponding income reference period 2019 up until 2021) with additional disaggregated income variables provided by Statistics Austria as input data, our analysis captures the income situation before as well as during the crisis.

We assess how disposable incomes, monetary poverty, and material deprivation evolved (RQ1) and whether and to what extent the socio-economic characteristics of children concerned remained stable or changed during the pandemic (RQ2). The prevalence of poverty and material deprivation during the crisis is measured by traditional indicators related to monetary poverty as well as by three indices:

- Eurostat: Severe Material and Social Deprivation,
- Eurostat: Material and Social Deprivation of Children, and
- an innovative index on material deprivation and social exclusion (employing the following six dimensions: debts and arrears, financial capacity, health, social interaction and personal relationships, housing and local environment quality, and education and care), which the European Centre compiled in a former research project for the City of Vienna.

Using the tax-benefit microsimulation model EUROMOD (see Sutherland/Figari, 2013), we investigate how tax and transfer systems performed in reducing outcomes induced by the COVID-19 market shock. By providing a decomposition analysis, we analyse the effects of market incomes, COVID-19-induced discretionary measures, and automatic stabilizers. In addition, we estimate the effects of child-supporting benefits (RQ3). Finally, to combat child poverty more effectively, the impact of additional actual and hypothetical general policies is tested in the COVID-19 scenario (RQ4). We simulate the following additional policies to combat child poverty more effectively:

- (1) an increase in the replacement rate for unemployment benefits and unemployment assistance, including an increase in family supplements,
- (2) a monthly transfer of € 60 to every child under 18 years in low-income households,

- (3) a more progressive configuration of the tax credit family bonus (situation 2022 vs. 2021), and
- (4) an increase in the universal family allowance (including age supplements).

By relating budgetary expenditure for each additional measure to the associated decrease in the AROP rate of children, we also investigate their "value for money."

Specifically, the study addresses the following hypotheses:

- Hypothesis 1: We anticipate that both monetary poverty and material deprivation of families with children increased during the COVID-19 crisis.
- Hypothesis 2: We anticipate that the situation worsened for traditional vulnerable children like children from single parent families and large families and that new groups of children (e.g., with self-employed parents) were affected.
- Hypothesis 3: We anticipate that while COVID-19-induced policies and automatic stabilizers were relatively effective in preventing child poverty, children were not fully supported due to insufficiently targeted compensation measures.
- Hypothesis 4: We anticipate that additional policies to counter child poverty would have increased the poverty-reducing effect of actual policies during the COVID-19 crisis.

2 Consolidated literature analysis

2.1 Short overview of child poverty in general

2.1.1 Impact on children's living conditions

Poverty considerably affects the living conditions of children and youth. Frequently, poor children experience multiple disadvantages and are confronted with complex social and material problems (Laubstein et al., 2016). Furthermore, as early childhood and adolescence are particularly important stages of life to build up foundations for later development, exposure to poverty and material hardship during this period can have far-reaching consequences for the entire life course (ÖKSA, 2023; Neu/Stichnoth, 2020). The longer children are exposed to poverty, the higher the risks that it will lead to adverse consequences and multiple deprivation in later life (Bäcker, 2019).

Social and economic disadvantages may even cause poverty to pass from one generation to the next (OECD, 2018). Although child poverty does not automatically translate into poverty in young adulthood, structural factors may hinder affected persons from escaping the situation (ÖKSA, 2023; Neu/Stichnoth, 2020). Still, every third child who lived in a poor family at the age of six was still living in poverty around 25 years of age (ISS, 2023).[1]

For the classification of the relevance of poverty, the literature (see, for example, Laubstein et al., 2016; Neu/Stichnoth, 2020; ISS, 2023; ÖKSA, 2023; Volkshilfe, 2019) frequently differs between four central domains. In young adulthood, poverty is primarily associated with a severely limited ability to provide for basic material needs and poor mental health. Even though social and cultural constraints are less pronounced, they accumulate among individuals, who, in turn, often live in poverty (ISS, 2023).

- Material Situation: The income situation of families with children impacts most significantly on material supply. Financial shortages lead to considerable material deprivation, such as inadequate housing conditions, a lack of adequate clothing, toys or leisure activities or an inability to go on a holiday. Young adults who have experienced poverty in childhood or youth often face persistent integration problems that start at the beginning of secondary school and lack orientation in the career choice phase. They often do not successfully transition to the labour

[1] The quantitative and qualitative ISS-long-term study investigates the correlations between family income, poverty and the life situations of children at critical transitions from the age of six to young adulthood around 25 years since 1997. It started with data on 893 children of pre-school age in 60 day-care centres throughout Germany (ISS, 2023).

market until around the age of 25. Basic income support from monetary transfers – if available and taken up at all – ensures only a minimum subsistence level.

- Social participation: Social relationships are considered an important resource for both daily routines and special challenges in life. Child poverty also means disadvantages in age-appropriate development and a lack of social contacts. Most poor children have a small to medium network of friends. Often, they cannot go on school trips or invite friends. A crowded housing situation, few joint familial activities, parents with low language skills and a disadvantaged family climate can have a cumulative impact. Being less integrated into social networks frequently coincides with lower self-esteem and challenging behaviour.
- Cultural participation: Factors for inadequate participation in education include an education-distant family and low work intensity of the parents. In addition, there is the risk that financial poverty and a family climate characterised by stress and multiple strains negatively impact the entire development of the child. Children who grow up in poverty achieve significantly lower educational attainment and are more likely to have a problematic biography (early school dropout, NEETs, etc.). They have less interest in cultural activities and are, in most cases, also unable to afford them.
- Health: Poor children and youth tend to be in poorer physical and mental health and engage in more negative health-related behaviour. Children living in difficult social circumstances are more likely to have poor diets. Common phenomena are problematic eating habits, overweight, akinesia, chronic diseases, and mental health problems. Health limitations that start at a young age have a negative impact on physical and mental well-being throughout life. They are particularly characterised by depressive symptoms, low levels of physical activity, tobacco consumption and prolonged illness.

2.1.2 Cost of child poverty

There are significant human and economic long-term costs resulting from poverty and disadvantage in childhood, which represent a serious problem for both individuals and society (Laubstein et al., 2016). Effects on social participation and cohesion, in turn, have a negative impact on educational and labour market opportunities. They are associated with a loss of human capital (Bäcker, 2019) in terms of poorer access to educational opportunities, lower educational qualifications and limited career prospects. In sum, this leads in the long term to a lack of tax and social contributions, requiring at the same time higher social state benefits. However, costs are difficult to quantify and measure in monetary terms as they often occur with delay at the end of complex causal relationships (DIW, 2023).

Using monetisation techniques from the literature, Bonnet et al. (2022) estimated the total value of the labour market and health penalties associated with social and economic disadvantages in childhood. On average, across 24 European OECD countries, resulting costs among 25- to 59-year-olds amount to 3.4% of GDP each year. On average, more than half of these overall costs (54%) relate to poorer health. In Austria, the situation is close to the European OECD average: while the negative

health effects amount to 2.0%, the negative effects on the labour market amount to 1.6% of GDP annually.

2.1.3 Strategies to combat child poverty

Investing in child welfare to combat child poverty and promote equity among families is a focus of the EU's social policy (Bornukova et al., 2024). At the social summit of Porto held in May 2021, the European Union Member States committed to reducing by 5 million the number of children at risk of poverty and material deprivation by 2030 (European Commission, 2021).

The current Austrian government programme also focuses on combating child poverty. When families are unable to provide financial security through employment on their own, it is imperative to ensure this through social transfers. Strengthening low-income families should also be achieved via reforms in the tax system (Republik Österreich, 2020).

In reality, poverty is a complex phenomenon, and a lot of effort and collective programmes are devoted to its combating (ÖKSA, 2023). It requires taking policy action for the prevention and early intervention in childhood (Eurocities, 2020; Glasgow Centre for Population Health, 2016; Neu/Stichnoth, 2020) and mitigating its consequences throughout the life course (OECD, 2023). A major challenge in combating child poverty has to do with creating integrated approaches that address different challenges related to the overall improvement of the family situation (e.g., labour market integration, adequate income and housing, and social services) at the same time (Eurocities, 2020; Glasgow Centre for Population Health, 2016; Neu/Stichnoth, 2020).

Comprehensive strategies play a key role in combating and providing equal opportunities for children. In addition to labour market integration measures for parents, most countries apply a mix of a universal approach of family support with means-tested measures to comply with the specific needs of vulnerable children (Eurocities, 2020). In addition to monetary benefits, improving access to benefits in kind and public services such as permeable high-quality education, healthcare, decent housing, and other social infrastructure is of utmost importance (OECD, 2023; ÖKSA, 2023).

EMPLOYMENT

Child poverty is closely associated with limited employment of parents (Deutsche Bundesregierung, 2017; Glasgow Centre for Population Health, 2016). In Austria, a relatively small number of mothers with young children are employed. Nearly one-third are on leave, while another third are outside the labour force altogether. When these mothers return to work, most of them do so in part-time positions. Taking steps to support better-paid, full-time parental employment, especially among mothers, could help address low family income. Potential policies could relate to the availability of high-quality early childhood education, the revision of the parental leave scheme, or the reconfiguration of regulations within the tax system (e.g., single earner tax credit) to increase financial incentives for second earners (OECD, 2023).

The improved division of care responsibilities between parents can not only support mothers in remaining employed but can also promote children's socio-emotional and cognitive development (BMSGPK, 2024).

MONETARY BENEFITS AND TAX CREDITS

In a comparative analysis of the impact of child-contingent cash support across the EU-27 in 2019-2022 using the microsimulation model EUROMOD, it was found that the support ranges from 3.2% of GDP per capita in Ireland to 12.0% in Austria. Of those 12.0% of GDP in Austria, 7.3% was attributed to child benefits, 3.5% to tax reliefs, and 1.3% to other benefits. Correspondingly, the impact of reducing child at-risk-of-poverty rates varies from 4.7 p.p. in Portugal to 16.1 p.p. in Slovakia. In Austria, the rate is reduced by 14.4 p.p. (from 30.6% to 16.1%). To this poverty alleviation in Austria, child benefits contribute by -9.1 p.p., tax reliefs by -4.5 p.p. and other benefits by -0.8 p.p. Looking only at benefits (in total -9.9 p.p.), universal benefits play the major role (-8.0 p.p.) compared to means-tested benefits (-1.9 p.p.) (Bornukova et al., 2024).

Correspondingly, Austria has a wide range of child and family-related state benefits. In addition to more or less universal monetary benefits like family or childcare allowance, there are also several specific benefits for income-poor families or families in certain life circumstances, like maternity benefits, maintenance advancement, and income-tested benefits, such as family hardship compensation, family supplements by the federal states or specific standard rates within social assistance/ minimum income benefit. The extent of universal benefits (particularly the family allowance and the child tax credit) depends on factors such as age and the number of children in the household (AK, 2024).

The tax law considers maintenance obligations via tax shields for parents with children (e.g., the child tax credit) and compensations for additional family-related burdens. This also includes the single-parent and single-earner tax credits. These three tax credits are also remitted as a negative tax. In 2019, the *Family Bonus Plus* was newly introduced as a tax credit, which, however, can only be fully utilised with correspondingly higher incomes (AK, 2024).

Since 2010, Austria has substantially increased monetary benefits for families (Schratzenstaller, 2022). Recent reforms have also targeted low-income families to offset the cost of raising children (OECD, 2023),[2] thereby reducing the disparity in living standards between families with children and other households (Statistik Austria, 2021b). However, the current system, above all the family bonus, tends to benefit more high-income families (BMSGPK, 2022; WIFO, 2021).

There is also a relationship between child poverty and certain family types. For example, in Austria, as in other European countries, poverty is more prevalent among children of single parents and children in households with three or more children that show lower household incomes on average. Furthermore, families with migration

[2] Child costs in one-adult households are typically higher than in two-adult households as fixed costs, such as for housing or energy, are distributed among fewer people in smaller households (OECD, 2023). For Austria, it is estimated that family cash transfers cover around two-thirds of the costs of a child in a couple-family, but only about one third for single-parent families (Statistik Austria, 2021b).

backgrounds or families with members who have special needs face higher risks (Deutsche Bundesregierung, 2017; Glasgow Centre for Population Health, 2016; Statistik Austria, 2021a, 2022, 2023). Thus, improving the specific support for low-income and/or single-parent families could help reduce children's exposure to income poverty (BMSGPK, 2024).

IN-KIND BENEFITS (EDUCATION AND CARE, HEALTH, HOUSING AND INFRASTRUCTURE)

Austria performs particularly well in ensuring children have access to basic material necessities like nutrition and clothing. Although prices have increased in recent years, housing costs are also relatively low for most households, not least due to the comparatively high share in the provision of social housing.

Nonetheless, it is imperative to promote the availability of high-quality early childhood care, specifically for children under the age of three.

This benefits both the cognitive and health development of disadvantaged children and supports parental employment. Despite recent increases, the public spending on Early childhood education and care (ECEC) in Austria (0.5% of GDP) is still below 50% of OECD leaders like Sweden, Denmark and France. It is also important to tackle inequalities in the education sector to ensure that disadvantaged children receive equitable support to prevent school dropouts and help their transition from school to work.

Appropriate family-related support services (e.g., intensive family care, socio-educational family help, parent training and individual care) can be provided for children with educational and other familial and social needs as well (BMSGPK, 2024; OECD, 2023). To guarantee the successful development of children and youth, it is essential to coordinate various stakeholders and institutions responsible for multiple support mechanisms. Existing services and networks for children and their families need to be linked and prioritised for planning and adjusting related support (Glasgow Centre for Population Health, 2016; Stadt Mönchengladbach, 2018).

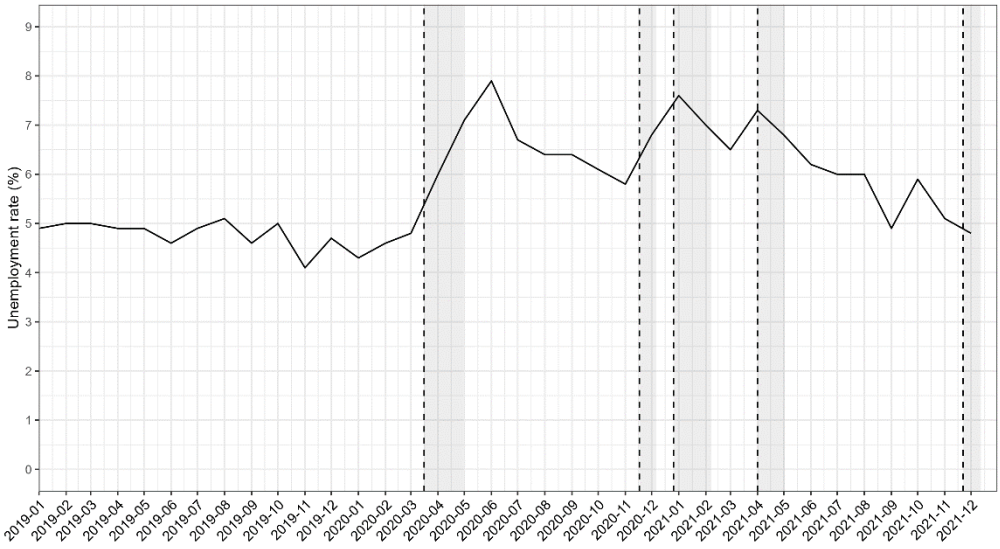
2.2 Impact of the COVID-19 crisis on children in Austria

2.2.1 Labour market developments

As in other countries, the COVID-19 crisis and the responsive health and protection measures led to a tremendous labour market and (primary) income shock. The number of employed persons declined by 4.9% or more than 180,000 within only a few days of the incipient crisis in early 2020, which represented the steepest drop in employment in about 70 years (Bock-Schappelwein et al., 2021). As shown in Figure 2.1 below, the seasonally adjusted unemployment rate increased from below 5% in

February 2020 to a peak of 8% in June of the same year following the first lockdown. After declining to below 6% by November 2020, it increased again in December 2020 and January 2021 to 7.5%, coinciding with the second and third "hard" lockdown. Restaurants, schools, and other institutions were reopened in May 2021, with the remaining restrictions mostly being abolished over the following months. During this period, the unemployment rate dropped again, reaching the pre-COVID-19 level of 5% by the end of 2021, only interrupted by a brief re-increase to 6% in October 2021 in anticipation of the fourth lockdown.

Figure 2.1: Monthly unemployment as a percentage of the labour force (seasonally adjusted), 2019-2021; AT



dashed lines indicate lockdowns in Austria
Source: Eurostat - Unemployment by sex and age – monthly data [UNE_RT_M]

Comparing the change in reported main activity between 2019 and 2020, the number of persons employed full-time over the entire year decreased by 223,000 (-8.0%), thereof 161,000 men (-8.6%) and 62,000 women (-6.7%). For persons in households with children, this employment pattern decreased by 80,000 (-7.6%). Single parents were by far the most concerned in relative terms (-30.0%/ 12,000).

Given the labour market recovery, a slightly revised trend was observed in the second crisis year of 2021. Compared to 2019, full-time employment over the entire year decreased by 90,000 persons (-3.2%), thereof 52,000 women (-5.6%) and 38,000 men (-2.0%). For persons in households with children, it decreased by 18,000 (-1.7%). Particularly affected were single parents (-20.0%/8,000) and multiple-person households with two children (-7.6%/30,000)[3] (Statistik Austria 2021a, 2022, 2023).

An even steeper increase in unemployment, as shown above, was offset by the extensive use of the short-term work scheme. In April 2020, around 1 million or 30%

[3] For multiple person households with three and more children (+3.5%/5,000) and with one child (+2.9%/ 14,000) this employment pattern even increased compared to the situation before the crisis.

of all employees joined the short-term work scheme (Bock-Schappelwein et al., 2021). The highest level was recorded in May 2020, with more than 1.3 million registered persons. In the following months, the use of short-term work mirrored the general economic development, with the number of people in the scheme declining from May onwards and increasing again during the lockdowns in late 2020 and early 2021. The 2021 peak occurred in February, with nearly 0.5 million registered short-term workers. In December 2021, 177,000 persons were still registered for short-term work (Statista, 2022).

In addition, in 2020 and 2021, around 200,000 and 160,000 persons, respectively, received support from the hardship fund for self-employed (Rechnungshof, 2021; secondary analysis EU-SILC 2022; see also below).

2.2.2 Discretionary crisis-related policy measures

The Austrian government reacted to the COVID-19-related labour market shock with several support measures for employees at risk of losing their jobs, the self-employed, the unemployed and families with children. In addition, the (earlier) reduction of the marginal tax rate for the first income bracket represented an overall income-supporting measure (see Budgetdienst, 2023; European Commission et al., 2024). Below, the most important discretionary policy measures in 2020 and 2021 (in addition to existing automatic stabilizers) are listed:

- Short-time work: From March 2020 until after the end of 2021, the government launched an expanded short-time work scheme called *Corona-Kurzarbeit* to bridge the economic slump during the COVID-19 crisis and keep employees employed. In the initial phase from March to September 2020, a minimum average working time of 10% and a maximum average working time of 90% were applied (for the period of an imposed ban on entering the premises, even 0% work performance was possible). Depending on the income level, recipients received a net replacement rate of 80-90% for the forfeited working time. In later phases, the minimum average working time was increased, and the maximum average working time decreased.

- Hardship funds for the self-employed and farmers: The funds were set up from March 2020 until after the end of 2021 to support the solo self-employed, freelancers and owners of micro-enterprises as well as farmers who experienced a decline in turnover and income due to COVID-19.

- Income-supporting measures for the unemployed: two one-off payments of up to €450 in 2020 and 2021 each and an increase in unemployment assistance to the level of unemployment benefits from March 2020 until September 2021.

- Extra payments for children: Parents with children entitled to family allowance received an additional lump-sum payment of €360 per child in September 2020 ("child bonus"). In 2021, €300 per child was paid out as a one-off payment to all families receiving social assistance benefits.

- In addition, all students and children in vocational training receiving family allowance were entitled to approximately six months of prolonged benefit

payment. The family hardship fund was enlarged for parents affected by short-term work, unemployment, or shortfall of self-employed activity due to the crisis (however, both measures could not be simulated in EUROMOD).

- Reduction of the personal income tax rate from 25% to 20% for incomes between €11,000 and €18,000 (first tax bracket) as part of the eco-social tax reform due to the COVID-19 crisis already implemented in 2020.

In addition, in 2020, the government increased the commuter's tax credit, the pensioner's tax credit and related social insurance bonuses (negative tax). Further related increases followed in 2021.

For a categorisation of the additional measures in 2020/21 (see Table 2.1), all measures except the income-tax-related measures in 2021 (part of the eco-social tax reform) can be attributed to COVID-19-related measures.

In terms of income- or expenditure-side, in 2020, 60% can be subsumed under the expenditure-side; in 2021, 43%. The higher share in 2020 is due to the higher volume of COVID-19 one-off payments.

In 2020, 43% of the measures targeted low incomes; in 2021, 60%. The lower share in 2020 results both from the universal extra family allowance and the lower volume of tax credits, including negative tax and targeted support for the self-employed and farmers. However, low incomes also benefited from broad or universal measures like the extra family allowance or the reduction of the marginal tax rate in the first tax bracket.

In 2020, 97% of the measures can be subsumed under temporary measures; in 2021, only 43%. This is again due to the higher volume of COVID-19 one-off payments in 2020 (Budgetdienst, 2023).

Table 2.1: Discretionary income-supporting policy measures in 2020 and 2021, in million €; AT

Measure	Category*	2020	2021
Family/children			
Child bonus (family allowance)	C E nT S	690	-
Extended family allowance entitlement**	C E nT S	70	40
Children in social assistance households	C E T S	-	20
Expanded family hardship fund**	C E T S	160	-
Unemployed			
One-off payments	C E T S	380	100
Increase in unemployment assistance	C E T S	80	80
Support for self-employed and farmers	C E T S	1000	1460
Income tax			
Pre-drawing decrease in marginal tax rate for 1st bracket (25% to 20%)	C I nT L	1500	-
Increased supplemental commuter's tax credit, pensioner's tax credit, social insurance bonuses (negative tax)	C I T L	110	100
Decreased marginal tax rate for 1st bracket (25% to 20%)	Ö I nT L	-	1570
Increased supplemental commuter's tax credit, pensioner's tax credit, social insurance bonuses (negative tax)	Ö I T L	-	610
Total		3990	3990
Total in % GDP		1.0	1.0

* Categories: Reason for benefit: C=Covid, Ö=ÖSSR (eco-social tax reform); Expenditure/Income: E=Expenditure side, I=Income side; Targeted: T=Targeted, nT=not targeted; Duration: S=Short/temporary, L=Long/permanent; ** not simulated in EUROMOD

S: Budgetdienst, 2023

2.2.3 Impact on disposable income and poverty of children

Quantitative studies related to the consequences of the COVID-19 crisis on the income situation of private households and the distributional consequences of COVID-induced policy measures in Austria are mainly based on EU-SILC data applying microsimulation techniques, for example, employing a counterfactual scenario without COVID-19 crisis, a shock-scenario with the COVID-19 crisis but without responsive policy measures and a real-world scenario with the COVID-crisis and responsive policy measures. Partly, the analyses are based on income data before the crisis, with nowcasting techniques applied in addition. However, also other data sources, as well as subjective questions in surveys, were used.

An analysis based on Household Finance and Consumption Survey (HFCS) data and assumptions on monetary crisis-related consequences for households from the Austrian Corona Panel Project by the University of Vienna concluded that during the lockdown in April 2020, household income losses averaged about 12%. Short-time work had a clear preventative effect, as it was estimated that income losses would have doubled if one-third of the short-time workers had become unemployed. Households already in a difficult situation before the crisis, like low-income households and households with an unemployed reference person and single parents, were mentioned as groups with a particularly low financial margin (Albacete et al. 2021).

Using EU-SILC 2017-2019 as input data for the microsimulation model of the Fiscal Advisory Council, Maidorn/Reiss (2021) found that more than a third of households were at least temporarily affected by unemployment, short-time work or loss of self-employment income in 2020. However, fiscal measures prevented a sharp drop in household income. Both low-income households (vertical accuracy addressed by measures aimed at low incomes, like enlargement of family hardship fund or one-off payments specifically paid in the event of unemployment) and households severely hit by the economic shock (horizontal accuracy addressed by measures aimed at compensating crisis losses like short-time work and hardship fund for self-employed) benefited. The child bonus (extra payment of €360 per child added to family allowance in September 2020) was estimated to be relatively well targeted, as it accounted for a higher proportion of income in the lower quintiles and because families with children were hit harder by the crisis than, for example, pensioner households (without children).

Fink et al. (2020) and Rocha-Akis et al. (2020) reported that inactive people and unemployed, who were less affected by crisis-related income losses, were clearly overrepresented in the lowest income quintile. In addition, the majority of crisis measures (particularly child bonuses, one-off payments for the unemployed, and temporary increases in unemployment assistance) had slightly positive effects on their disposable income (in the median +0.7 %). With rising income quintiles, income losses increased (top quintile median: -0.2%).

The effect of the increase in disposable incomes was mainly driven by the advanced decrease of the lowest marginal income tax rate and, to a lesser extent, by the hardship fund for the self-employed. However, around half of their volume went to households in the upper-income third. For households in the lower tercile, the child

bonus – dependent children are above average found in middle and lower income-thirds – and the enlarged support for the unemployed (one-off payments, increase of unemployment assistance) played a crucial role. Of those benefits, about 37% were received by households in the lower- and middle-income groups. Of all measures excluding short-time work, 23% went to the lower, 32% to the middle and 45% to the upper income-third. In terms of relative gains in disposable income, the strongest effects were observed pertaining to households in the lower-income third (+3.1%) (Baumgartner et al. 2020a, 2020b).

Christl et al. (2022) also suggest that due to less crisis-related market income losses in the lowest income quintile and lower net replacement rates for both short-time work and unemployment benefits in higher quintiles, changes in disposable income were rather in favour of those with low income. Except for single parents, an increase in at-risk-of-poverty rates could be largely avoided by the COVID-19 compensation measures.

The Budgetdienst (2023) used EUROMOD based on EU-SILC 2020 data updated with actual macroeconomic information to evaluate the development of real income during the crisis years. Both in 2020 and 2021, automatic stabilizers and support measures, including short-time work, have offset real income losses caused by the economic situation, particularly in lower and middle-income deciles. Compared to 2019, real disposable incomes increased by 1.6% in 2020 and by 1.4% in 2021 on average. The comparatively small income loss from 2020 to 2021 was mainly the result of declining volumes of targeted COVID-19 measures.

For the lowest three income deciles, it was shown that in 2020 (compared to 2019), higher increases were recorded for households with children, while in 2021 (again compared to 2019), increases for households with children were lower than for households without children. The reason is that in 2021 (vs. 2020), measures for households with children, especially one-off payments, were discontinued, or their volume declined. In both years, income gains for couples with children were higher than for single parents (see Table 2.2).

Table 2.2: Increases of real disposable income in the lowest three income deciles according to family type, 2019-20, 2019-21, in %; AT

Family-type	2019-20	2019-21
Couples with children	6.5	2.5
Single parents	4.3	0.3
Couples without children	2.1	3.6
Singles	3.4	5.0

S: Budgetdienst, 2023

In terms of progressivity, targeted measures (e.g., COVID-19 one-off payments to the unemployed, increase in commuter's tax credit supplement and social insurance

bonus) were especially relevant in the first income decile but less significant in volume. The child bonus is largely distributed equally across deciles. The relief from the anticipated reduction of the marginal tax rate in the 1st income bracket was strongest in middle-income segments. In total, the Gini coefficient featured a slight but insignificant decline after 2019. The at-risk-of-poverty rate remained constant, with the COVID-19 packages having a preventative effect.

Using counterfactual simulation methods based on EUROMOD, Gasior et al. (2023) quantify the role of tax–benefit policies in mitigating the shock of the COVID-19 pandemic on household income in the European Union for the year 2020. For Austria, average losses in equivalised market incomes due to the COVID-19 shock were estimated at 6%. 1/5 of the population was affected by a severe loss in market income (a drop of more than 11%). With 17%, the respective share was lower among those below the poverty line (given low earnings already before the crisis). According to age groups, a severe loss in market income most likely occurred for those aged 25 to 49 (25%) and 50 to 64 (24%). Children (under the age of 15), teens and young adults (aged 15 to 24) with a share of 16% each, and persons aged 65 and older (10%) were affected below average. The share of those severely affected was higher among employees (25%) than among the self-employed (18%).

Due to the role of mainly automatic stabilizers (most notably taxes and social insurance contributions, less so unemployment benefits and social assistance) but also COVID-19 work compensation schemes (short-term work and schemes for self-employed) and COVID-19-related reforms to taxes and benefits, mean disposable incomes even slightly increased (+0.4% on average). Income protection by monetary compensation schemes was higher at the bottom of the income distribution: mean disposable income increased by as much as almost 1% in all quintiles except the top one and for those below the poverty line. In terms of age, both children as well as youth and young adults saw an increase in disposable income of more than 1%, while those aged 50 to 64 years faced a drop of 0.5% (65+: +0.7%, 25-49: +0.4%). A higher drop in disposable income was observed among the self-employed (-2.3%), whereas disposable income for employees increased (+0.4%). Gender differences were not considered due to the concept of equivalised incomes.

A (retrospective) look at the development of equivalised household income based on the EU-SILC table volumes (Statistik Austria 2020, 2021a, 2022) reveals that between 2019 and 2020, income within the total population both on average and for low-income households (1st decile) increased by 1.8% and thus, above the consumer price index (CPI) (1.4%). However, for households with children, while income on average rose by 5.0%, for low-income households (1st decile), the increase (+1.0%) was even below the CPI.

In both crisis years taken together, between 2019 and 2021, the low-income groups (1st decile) faced income development below the CPI (+4.2%), while on average, it was higher. For the total population, income increased by +3.1% at the first decile (on average: +4.4%). For persons in households with children, income increased by +1.5% at the first decile (on average: +5.0%).

Table 2.3: Increases of nominal equivalised household income according to household type, 2019-20, 2019-21, in %; AT

Household-type	2019-20	2019-21
All households, average	1.8	4.4
All households, 1st decile	1.8	3.1
Households with children, average	5.0	5.0
Households with children, 1st decile	1.0	1.5
CPI	1.4	4.2

S: Statistik Austria, 2021a, 2022, 2023; own calculations

In addition to the consequences in terms of employment and disposable incomes, households with children were assumed to belong to the groups significantly affected by the crisis due to partly or completely closed care and school infrastructure and impeded reconciliation of work and family life (Bergmann et al., 2020).

For a crisis-related survey, 3,000 people between 16 and 69 years of age were interviewed repeatedly every quarter by Statistics Austria to measure changes during the crisis. During 2021, around one-third (just over 2 million persons) were affected by a loss of income. The main causes were reduced working hours and wage losses, job losses and cuts in social benefits. Some 14% reported (major) difficulties in making ends meet, 7% payment arrears. The groups most affected by financial difficulties consisted of unemployed persons as well as employed persons in the low-wage segment. Additional risk factors included low education levels, not being born in Austria, and – relevant to the study at hand – a high number of children in the household or being a single-parent family (Mühlböck et al., 2022).

2.3 Impact of the COVID-19 crisis on children in European countries

Analyses of COVID-19-related effects on income losses and distributive consequences for European countries were mainly carried out with the European tax-benefit microsimulation model EUROMOD for the year 2020. Again, those studies are mainly based on EU-SILC data applying different scenarios (counterfactual, shock, real-world).

In the study already mentioned for Austria (counterfactual simulation methods based on EUROMOD quantifying the role of tax–benefit policies in mitigating the COVID-shock), Gasior et al. (2023) found a large heterogeneity between EU-27 countries in terms of earnings losses and the effect of tax-benefit policies in 2020. In most countries, the largest contribution to cushioning the economic shock came from

monetary compensation schemes. Automatic stabilizers also played a role, mainly through the effects of social insurance contributions, taxes, and unemployment insurance benefits. Social assistance benefits played an important role for the poorest quintiles, but only in selected countries.

The share of those severely affected by a loss of market income (drop of more than 11%) amounted to 16% (unweighted average) across the EU-27 Member States. The respective share was lower among those below the poverty line. Nevertheless, the important role of tax-benefit policies in protecting the income of low earners was demonstrated by the fact that in all countries mean disposable income for this group dropped less (or increased more) than on average (EU-27 unweighted: -1-1%).

According to age groups, the prevalence of those severely affected by a drop in market incomes was high among those aged 15 to 24 and 25 to 49. For children under the age of 15 (19%), it was slightly above the average. While disposable income among those aged 15 to 24 in most countries was less affected compared to other age groups, it dropped above average among those aged 25 to 49. This could reflect that tax-benefit systems were less effective in cushioning the income shock for the latter group. For children, disposable incomes decreased by 1.2% (unweighted average) across the EU-27 Member States.

In terms of a severe drop in market incomes, no clear pattern was observed between employees and the self-employed. However, in terms of changes in mean disposable income, in 19 countries, a higher drop was faced by the self-employed.

In an analysis of Belgium, Spain, Italy and the United Kingdom for 2020, Sanchez et al. (2021) conclude that differences between these countries in terms of the crisis impact are due to 1) the asymmetric dimension of the shock in each country, 2) dissimilar basic protection offered by each tax-benefit system (automatic stabilizers), 3) the diverse design of discretionary crisis-measures and 4) differences in household characteristics of individuals at risk of income loss. What is common across the four countries is that around 40% of those affected by the earnings shock live in a family with children and that children are adversely affected by the crisis.

Despite additional crisis-related state benefits, the loss of disposable income for families is estimated to be around 4% and 5% in Belgium, Italy and Spain and to around 8% in the United Kingdom. The study also suggests increasing poverty rates, especially for children (see Table 2.4).

Table 2.4: Share of workers affected by COVID-19-related earnings losses, pre-(2019) and post-(2020) crisis AROP rates; BE, ES, IT and UK

Country	% of workers affected		AROP all		AROP children	
	All	With children	2019	2020	2019	2020
BE	30	42	12.6	13.8	12.3	14.2
ES	29	39	21.1	22.2	26.3	28.1
IT	20	39	20.1	23.6	26.1	32.6
UK	37	42	16.5	18.8	21.5	24.5

S: Sanchez et al., 2021

In a study for Austria, Belgium, Germany, Finland, France, Italy and Portugal based on HFCS-data for early 2020, it was found that the COVID-19 employment protection schemes were quite effective in reducing the number of vulnerable individuals. However, the analysis suggested that 19% of the 243 million persons living in those countries were unable to cover three months of basic expenses like rent, energy and food without an earned income. Among children under 13 years old, this figure increased to as high as 30%. This means that, on average, in the seven countries, children were more likely to live in a vulnerable household by a factor higher than 1.5 compared to the total population. While the relative risk for children was highest in Italy, followed by Germany and Portugal, it was lowest in Belgium, with Austria, Finland and France in between (Midoes/Sere, 2020).

For Italy, Figari/Fiorio (2020) compiled counterfactual micro-simulation scenarios based on actual information on the likelihood of workers to be affected by the lockdown in March 2020. Starting from a pre-crisis at-risk-of-poverty rate of 19% for the total population and 23% for children, and considering compensation measures by the government, the rate for the total population increased to 27% and 36% for children. Without compensation measures, the related rates would have more than doubled (to 38% for the total population and 50% for children).

In Ireland, the COVID-19 shock in early 2020 was measured by using four microsimulation scenarios related to announced government measures: (1) no policy response, (2) introduction of the flat-rate Pandemic Unemployment Payment (PUP) of €350 per week plus extension of the fuel allowance for retirees, (3) PUP plus the Temporary Wage Subsidy Scheme (TWSS), (4) PUP plus TWSS plus employers providing the maximum additional top-up payment allowed under the TWSS-scheme (Beirne et al., 2020).

In scenario (1), without policy changes and assuming a medium unemployment scenario (600,000 job losses) for around 400,000 families, disposable income decreased by more than 20%, with proportionately larger losses for those in higher-

income households. Working age lone parents and retirees lost the least, as they were less likely to be employed and more likely to receive benefits already before the shock. The COVID-19-related policy measures – particularly the PUP – reduced the number of persons exposed to such high-income losses by about a third. However, in scenario (3), poverty prevention was lower than in scenario (2) as many persons eligible for TWSS received less than if they were unemployed and received PUP. The highest poverty prevention was achieved in scenario (4), with lone parents and pensioners still coming off best (see Table 2.5).

Table 2.5: Change in disposable income in early 2020 in %, according to family type and scenario; IE

	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Working age, lone parent	-4.9	-0.6	-3.0	-1.6
Working age, couple with children	-15.9	-12.7	-13.1	-10.2
Working age, single	-15.1	-8.7	-10.2	-7.0
Working age, couple without children	-14.4	-10.7	-11.4	-8.4
Retirement age, single	-2.2	0.0	-0.2	-0.1
Retirement age, couple	-3.6	-0.9	-1.2	-0.9

S: Beirne et al., 2020

The United Kingdom analyses for April/ May 2020 suggest that earnings subsidies in the form of the Coronavirus Job Retention Scheme significantly supplemented household incomes. In addition, COVID-19-related increases in state benefits (e.g., increase in means-tested universal credit [UC] targeting the bottom segment of the income distribution), as well as automatic stabilizers, played an important role in mitigating income losses. According to Brewer/Tasseva (2020), households lost, on average, 7% of net income, while relative losses were largest for higher-income families. However, the overall impact on income inequality seemed to be minor. Bronka et al. (2020) estimate that the government's COVID-19 package even limited the reduction in household disposable income to 1 pp.

For the poorest income decile, the analyses calculated an average gain in equivalised net income of 2.8% (Brewer/Tasseva, 2020), with the assumption that the progressive effect due to the increased generosity of the UC reduced the poverty rate by 1.1 pp (Bronka et al., 2020). Brewer/Tasseva (2020) estimate that the stabilisation effect of the UC and the UC stimulus package benefited most households with children, particularly single parents, one-earner families and those in privately rented or social housing. Bronka et al. (2020) suggest that changes in equivalised incomes were particularly positive for inactive people of working age and single parents. Here,

many persons concerned were without market incomes and already relying on the UC while becoming net beneficiaries from the increased system generosity.

Finally, based on subjective responses to surveys, it can be assumed that single parents were particularly severely hit by crisis-related income losses caused by the triple handicap due to dismissals, increased expenses because of children staying at home and reduced or abandoned maintenance payments (Eurofound, 2020; ISER, 2020).

3 RQ 1: How did the prevalence of AROP and material deprivation of children develop during the COVID-19 crisis in Austria?

3.1 Methodology

3.1.1 Concepts, indicators

Poverty does not represent a directly observable phenomenon but is rather based on a discrete and normatively defined concept. Thus, to make *poverty* – and particularly *child poverty* – understandable and comparable, operationalisation is required. The literature provides different theoretical and normative concepts of poverty, in which the separating line between aspects of poverty and aspects of social inequality is not always clear (Laubstein et al., 2016). Key approaches for measuring poverty include the following (see, for example, Bäcker, 2019; Bertelsmann, 2016; Eurocities, 2020; Laubstein et al., 2016; Stadt Mönchengladbach, 2018):

- Monetary poverty, particularly the concept of relative income poverty or statistical risk of poverty (AROP) is typically defined using a poverty threshold set at 60% of the median net equivalised household income.
- Living standards (material and social deprivation): A lack of essential goods or falling short of a social-cultural baseline in specific aspects of life. Possible indicators include, for example, children who lack technical devices (TV, computer, mobile phone) that their peers have, cannot buy new clothing, reside in substandard or overcrowded housing conditions, are unable to invite friends home or engage in leisure, cultural, or sports activities, among others.
- Stratification indices (e.g., socio-economic status): Relevant factors such as household income, education level, occupational status, and migration background are combined and evaluated together.
- Political-normative approach (particularly relevant for assessing the poverty potential of children and youth at the communal level). This includes measuring poverty based on the social welfare-defined minimum level of subsistence and

the number of children or youths in families receiving social assistance or other (means-tested) welfare benefits, including living in social housing. [4]

- Subjective poverty: Subjective self-assessment in surveys.

Given the fact that the approaches are most widely used for scientific purposes because of their comparability across countries and that the core of the analysis for the study at hand is based on EU-SILC-data, we relate to the first two approaches, financial or monetary poverty (AROP) as well as material and social deprivation.

To analyse the development of child poverty during the COVID-19 crisis (from 2019 to 2021) from those two perspectives, we use national SILC-data 2020-2022 (incomes 2019-2021) provided by Statistics Austria. As the AROP indicators are based on income, they relate to the year preceding the survey (e.g., SILC 2020 = AROP-rate 2019), while indicators for material and social deprivation relate to the survey year (e.g., SILC 2020 = deprivation 2020).

The samples are representative of private households in Austria[5] and provide a broad range of socio-economic characteristics and detailed information on income sources. They include register data for income from employment, pensions, and numerous benefits (survey data is still used for self-employment income and social assistance/ minimum income benefits). They also allow for an analysis of the impact of the COVID-19 crisis according to different family types and to investigate correlations with socio-economic characteristics on the micro-level, relevant for RQs 1&2.

As the definition of children is a sensitive one, and there is no official definition available either by Eurostat (see, for example, Eurostat 2023a; Eurostat 2023b) or by Statistics Austria (see, for example, Statistik Austria 2023), we use the following definition: dependent persons under 18 years of age. However, due to the SILC-survey concept, for the Eurostat Child Deprivation Index, persons under 16 years of age must be used instead.

3.1.2 Monetary poverty or at-risk-of-poverty rate (AROP)

> *"Individuals, families and groups in the population can be said to be in poverty when they lack the resources to obtain the type of diet, participate in the activities and have the living conditions and the amenities which are customary, or at least widely encouraged or approved in the societies to which they belong. Their resources are so seriously below those commanded by the average family that they are in effect excluded from the ordinary living patterns, customs, and activities" (Townsend, 1979, p. 31).*

[4] Resulting rates are strongly dependent on regional differences like stipulated standard rates for children, potential non-take-up, costs of housing and daily living, etc. (Bertelsmann, 2016; Stadt Mönchengladbach, 2018).

[5] Each sample comprises a total of more than 12,000 persons in around 6,000 households (Statistik Austria, 2021-2023).

This definition highlights the essential components necessary for understanding poverty, which must be considered during the development of policies and their monitoring and evaluation.

The at-risk-of-poverty rate (AROP) is a relative measure that sets a household's income in relation to the national poverty line. The AROP rate measures low income in comparison with the national median. It does not measure poverty per se and does not necessarily imply a low standard of living for those households identified to be at risk of poverty. The indicator's advantage lies in its straightforward interpretation and comparability between countries.

Crisis as well as policy effects are measured in terms of total disposable household income as the base for calculating AROP rates of children (i.e., children living in households below the AROP threshold in % of all children). The at-risk-of-poverty rate is calculated using equivalised disposable household income following the modified OECD scale (Hagenaars et al., 1994). Disposable income refers to a market income with deduced contributions and taxes and added monetary transfers. To be able to compare households of different sizes and structures, an equivalised disposable household income is calculated by applying the OECD's modified equivalisation scale. The equivalisation scale assigns different weights to household members: 1 for the household head, 0.5 for each household member aged above 14 and 0.3 for children under 14. Hence, to obtain equivalised incomes, the total disposable household income is divided by household members in such a way that the household size and related economies of scale are accounted for. The at-risk-of-poverty threshold is set at 60% of the national median of the equivalised disposable household income. If a household's equivalised disposable household income is below this line, the household and its members are to be considered at risk of poverty.

The outcomes of policies aimed at combating monetary child poverty can also be estimated by comparing AROP rates before and after social transfers. For this purpose, the poverty line (after social transfers) is kept constant but set in relation to equivalised disposable household incomes before social transfers. In addition, we will also look at the risk-of-poverty rate before and after social transfers.

3.1.3 Material deprivation

The risk of financial poverty, i.e., the share of children living in income-poor households, is only one aspect of poverty. It represents a common state of knowledge that monetary measures alone do not fully map the potential disadvantages of children. The equivalence scales employed to standardise household incomes according to the different number and composition of its members suggest a specific share of total household resources allocated to children. However, it is unclear whether this theoretical allocation is adhered to in practice and whether children participate in discussions on what purposes household income is to be spent. Finally, monetary resources do not suffice to meet all the requirements of children, like health, education and sanitation (Chzhen et al., 2018).

Thus, non-monetary aspects of poverty, which refer to a lack of resources in terms of being deprived of a broad range of various goods and services and of being unable to

participate in various activities, constitute an essential additional measure of poverty. The importance of considering non-monetary aspects in poverty analysis also draws on the classic poverty definition of Townsend (1979; see above) and, more recently, on Sen's capability approach (1992), and is based on the understanding that poverty has to be viewed in a multidimensional way. In this context, poverty is often referred to as material deprivation, which can be measured by a set of non-monetary indicators. Deprivation indicators measure exclusion directly (i.e., lack of durables or basic needs), thus capturing a state of actual exclusion (Ringen, 1988; Nolan/Whelan, 1996).

Moreover, while indicators based on income are affected by transitory shocks, non-monetary indicators can compensate for such limitations as they tend to be more stable over time and reflect the underlying circumstances of individuals and households. However, non-monetary indicators also have limitations. For example, they may fail to distinguish between outcomes resulting from financial constraints (inability to afford) and those influenced by personal preferences or lifestyles (choice) and, therefore, between situations which are the legitimate target of policy and between those which are not.

When using composite measures or deprivation indices, these may be too sensitive to the particular items selected, which can be avoided by covering a large number of different aspects (Gordon/Pantazis, 1997), although in practice, this choice is often constrained by the data available. A related and equally important issue concerning the selection of indicators is whether they provide a broad representation of the underlying concept of deprivation.

Having those aspects in mind, we broaden our approach to child poverty by using three indices of material deprivation and social exclusion. Throughout the monitored period, it applies to all three indices that some deprivation items are directly impacted by the COVID-19 crisis due to lockdowns or school closures, for example, socialising with friends, extending invitations, or participating in school excursions.

I EUROSTAT: SEVERE MATERIAL AND SOCIAL DEPRIVATION

The severe material and social deprivation rate (SMSD) is defined as the proportion of the population experiencing an enforced lack of at least seven out of 13 deprivation items. Three items (holidays, leisure, friends) relate to social deprivation, and the other 10 items relate to material deprivation. Seven out of the 13 deprivation items relate to the household level and apply equally to all household members. The remaining six items are only collected for people aged 16 or over (on the individual level), allowing us to measure the intra-household sharing of deprivation.[6] Thus, they have to be distributed to children below the age of 16. If at

[6] The 13 deprivation items are: 1. The household cannot face unexpected expenses; 2. The household cannot afford a one-week annual holiday away from home; 3. The household cannot avoid arrears (in mortgage or rent, utility bills or hire purchase instalments); 4. The household cannot afford a meal with meat, chicken or fish every second day; 5. The household cannot afford keeping the home adequately warm; 6. The household cannot afford having a car/van for personal use; 7. The adult does not replace worn-out clothes with some new ones; 8. The adult does not have two pairs of properly fitting shoes; 9. The adult does not spend a small amount of money each week on him/herself (pocket money); 10. The adult does not have regular leisure activities; 11. The adult does not get together with

least half the number of adults for which the information is available in the household lacks an item, then the children living in that household are considered deprived of that item.

Basically, the same set of 13 items and the same threshold (seven+ items for being considerably deprived according to the definition for Europe 2030 targets) is used for both children and adults. However, to avoid making the indicator too sensitive to adult deprivations, among the deprivations required for a child, there need to be at least three household deprivation items (out of the seven household deprivations items included in the list). Hence, the indicator provides information on the proportion of children living in (materially and socially) deprived households.

As the previous nine-item indicator,[7] the revised indicator is based on the unweighted sum of the 13 items for each person. The scale ranges from zero (no deprivation) to 13 (enforced lack of all items) (Guio et al. 2017, Eurostat 2023d).

II EUROSTAT: MATERIAL AND SOCIAL DEPRIVATION OF CHILDREN

This EU child-specific deprivation indicator covers both material and social aspects of deprivation (MSD) for regular social monitoring. It draws on Townsend's theory of Relative Deprivation and adopts a sociological Consensual Deprivation approach (Chzhen et al., 2018; Guio et al., 2020). The index represents a unidimensional structural model which slightly outperforms the simplified Townsend model assuming two sub-dimensions (Guio et al., 2018).

The index covers children aged below 16 years of age and includes a set of 17 items with age-appropriate child-specific information from the EU-SILC. However, five of the items, such as housing quality, are measured at the level of the household.[8] Only children lacking an item for affordability reasons (and not by choice or due to any other reasons) are considered deprived of this item (Chzhen et al., 2018; Guio et al., 2020).

friends/family for a drink/meal at least monthly; 12. The adult does not have an internet connection at home; 13. The household does not replace worn-out furniture.

[7] Severe material deprivation if four out of the following nine items apply: 1. The household cannot face unexpected expenses; 2. The household cannot afford a one-week annual holiday away from home; 3. The household cannot avoid arrears (in mortgage or rent, utility bills or hire purchase instalments); 4. The household cannot afford a meal with meat, chicken or fish every second day; 5. The household cannot afford keeping the home adequately warm; 6. The household cannot afford having a car/van for personal use; 7. The household cannot afford having a colour TV; 8. The household cannot afford having a washing machine; 9. The household cannot afford having a (mobile) phone.

[8] The 17 deprivation items are: 1. Some new (not second-hand) clothes; 2. Two pairs of properly fitting shoes; 3. Fresh fruits and vegetables daily; 4. Meat, chicken, fish or vegetarian equivalent daily; 5. Books at home suitable for children's age; 6. Outdoor leisure equipment; 7. Indoor games; 8. Regular leisure activities; 9. Celebrations on special occasions; 10. Occasional invitations to friends to play and eat together; 11. Participation in school trips and school events; 12. One week annual holiday away from home; 13. Replacement of worn-out furniture; 14. Arrears (in mortgage or rent, utility bills or purchase instalments); 15. Access to the Internet; 16. Keeping the home adequately warm; 17. Access to a car for private use. Items 13-17 are measured on the household level.

The Indicator is based on the unweighted sum of the 17 MSD items for each child. (Guio et al., 2018). The scale officially adopted in March 2018 sets the threshold at three items. Both approaches analyse the full scale of deprivation (ranging from zero, i.e. no items lacked, to 17, i.e. all items lacked) and the proportion of children lacking at least three items, i.e. the child-specific deprivation intensity and the child-specific deprivation rate (Guio et al., 2020).

III CHILD POVERTY-INDEX "VIENNA"

The index compiled by the European Centre in a former research project for the City of Vienna (Fuchs et al., 2022) is inspired by and based on the EU-2020 indicators and the global Multidimensional Poverty Index (MPI) (UNDP/OPHI, 2020). It relates to the Alkire Foster methodology, which does not only consider the spread of poverty (headcount) but also its intensity, i.e., the number of applicable indicators (Alkire/ Foster, 2007). It offers a complex evaluation by investigating the child poverty profile and assessing sub-dimensions of deprivation.

Deviating from the original Vienna-Index, as for the *Severe Material and Social Deprivation*-Index by Eurostat, children are defined as dependent persons under 18 years of age. Due to the structure of the data that does not envisage separate questions for children under the age of 16, household-based indicators and parents' individual questionnaires are used as a substitute. If at least half the number of adults for which the information is available in the household lacks an item, then the children living in that household are considered deprived of that item.

The index is based on several indicators that measure (or provide proxies for) specific aspects of material deprivation and social exclusion. Those indicators are covered by one or more questions in the EU-SILC survey. By thematically grouping the 42 indicators, the prevalence and depth of material deprivation and social exclusion of children are evaluated by employing six domains of interest related to key policy areas, the so-called domains:

- *Unmanageable debts and arrears* (7 items): Evaluate the occurrence of arrears on mortgage or rental payments, utility bills and hire purchase instalments or other loan payments.

- *Financial capacity* (14 items): Multidimensional evaluation of the economic situation distinguishing three sub-domains: General self-evaluation, availability of most necessary clothing and footwear, as well as material deprivation in terms of internet and household appliances.

- *Health* (3 items): covers the aspects of health status, nutrition, and access to necessary health services (medical treatment and dental care).

- *Social interaction and personal relationships* (5 items):[9] Evaluate social contacts (abilities to afford a get-together with friends and family, an annual holiday, and to invite friends and have a celebration on special occasions).
- *Housing and local environment quality* (9 items): Includes sub-domains on minimal dwelling quality, overcrowding, and local environment quality.
- *Education and care* (4 items): As items related to goods and services necessary for education are not included in EU-SILC, items related to the availability of leisure activities as well as indoor and outdoor equipment, the capacity to afford school events and the availability of an appropriate place for homework are used instead.

While the domains of *debts and arrears*, *financial capacity*, *housing and the local environment* are covered rather well, information on *health*, *social interactions, personal relations* and particularly *education and care* are rather limited or insufficient in the EU-SILC data.

Again, deviating from the original Vienna index, the items for which the household reports hardship are summed up for each domain expressing the depth of deprivation: Not deprived (0 items), deprived with at least 1 item, deprived with more than 1 item.

3.2 Results

3.2.1 Monetary poverty

The effect of the COVID-19 crisis, which hit Austria in 2020, is clearly visible when looking at the evolution of the at-risk-of-poverty rate of children over the income years 2019-2021 (Table 3.1). The increase was already evident in 2020, which saw a relatively sharp rise in the poverty risk of children. Considering the change in the years after, with almost 20%, the proportion of children at risk of poverty was 1.4 percentage points larger in 2020 than in 2019 and showed only a small decrease in 2021. The risk of poverty among children was clearly higher than for the population as a whole already in the pre-pandemic year of 2019. Moreover, in 2020, the increase among children was considerably larger than among the total population, indicating that children were disproportionately affected in the first year of the crisis.

[9] Originally, the dimension *Social interaction & personal relationships* consisted of six items, and thus, the total index of 43 items. However, the only item in subdimension 1 *Social Exclusion*, PQOL0100 from the SILC-module *Excluded from Society* is only available in SILC 2022 but not in SILC 2020 and 2021.

Table 3.1: At-risk-of-poverty rate of children and the total population, 2019-2021 (%)

	2019	2020	2021	% point change	
				2019-2020	**2019-2021**
Children (<18)	18.4	19.9	19.2	1.4	0.8
Total population	14.0	14.7	14.8	0.7	0.8
Difference, children rel. to total	4.5	5.2	4.4	0.7[a]	0.0[a]

Note: Years displayed refer to the income year (y-1) and not the survey year (y). [a] Refers to the change in the percentage point difference between the proportion of children and the total population.

S: Own calculations based on EU-SILC

Comparing the at-risk-of-poverty rates before and after social transfers shows the effect of social transfers on poverty, underscoring their important role in reducing children's and their families' exposure to poverty after the COVID-19 shock. Without accounting for social transfers, the poverty risk of children was significantly larger, almost twice as high as after receiving social transfers (Table 3.2). The increase in the incidence of poverty after social transfers, however, also suggests that both automatic stabilizers and discretionary COVID-19-related benefits were only partially effective in protecting families with children from the likelihood of falling into poverty.

Table 3.2: At-risk-of-poverty rate of children before and after social transfers (excluding pensions), 2019-2021 (%)

	2019	**2020**	**2021**
Before social transfers	34.7	36.8	36.0
After social transfers	18.4	19.9	19.2

Note: Years displayed refer to the income year (y-1) and not the survey year (y).

S: Own calculations based on EU-SILC

Families with children were also more likely to have an increased risk of poverty between 2019 and 2021 compared to households without dependent children, whose poverty rate remained stable during the same period (Table 3.3). Yet, families with children were not equally affected. Single-parent households had the highest rate of relative poverty among families with children before the crisis in 2019, and their poverty rate further increased in 2020 and 2021. Couple households with three or more children, with almost a third of all children living in such families in Austria, had likewise a very high poverty risk in 2019 (30.6%). They also remained the most likely, after single-parent households, to experience poverty during the pandemic –

although on a slightly decreasing level. Shifts also occurred between two adults with one (decrease in 2020) or two children (increase in 2020) and other families with dependent children. While the at-risk-of-poverty rate of three or more adults with children was the lowest among all family types in 2019, they saw the largest change with a threefold increase in both crisis years 2020 and 2021.

Table 3.3: At-risk-of-poverty rate by household type and share of children by type of household, 2019-2021 (%)

	At-risk-of-poverty rate			Share of children		
	2019	**2020**	**2021**	**2019**	**2020**	**2021**
Households without children	*13.2*	*13.1*	*13.1*	-	-	-
Households with children	*14.8*	*16.6*	*16.8*	*100*	*100*	*100*
Single parent, at least 1 child	32.1	34.9	35.5	7.2	6.8	7.5
2 adults, 1 child	11.4	9.2	11.4	16.0	16.8	18.6
2 adults, 2 children	10.5	12.6	10.4	36.4	37.1	36.6
2 adults, 3 or more children	30.6	27.7	28.2	28.0	29.7	27.4
3 or more adults with children	5.2	14.3	16.7	12.1	9.6	9.6

Note: Years displayed refer to the income year (y-1) and not the survey year (y).

S: Own calculations based on EU-SILC

The multivariate analysis, which accounts for confounding variables, e.g. changes in labour market or health status occurring during the COVID-19 crisis, confirms the results above. Although most results are statistically non-significant, they show that families with children were definitely more severely affected than those without children. Particularly, families made up of three adults with one or more dependent children showed a big and significant increase in poverty risk vis-à-vis other groups. Compared to the year before the pandemic, their poverty risk rose by more than 6 percentage points in 2020, and they had a significantly higher probability (+8.0 percentage points) of falling into poverty in 2021.

Table 3.4: Change in the probability of being at risk of poverty (percentage point difference), 2019-2020 and 2019-2021

	2019-2020	2019-2021
Households with children	2.5*	3.5**
Single parent, at least 1 child	17	3.7
2 adults, 1 child	-2.9	0.7
2 adults, 2 children	2.3	-0.6
2 adults, 3 or more children	-1.5	-2.4
3 or more adults with children	6.6**	8.0***

Notes: The years displayed refer to the income year (y-1) and not the survey year (y). Results refer to the average marginal effects at the sample level. Significance level: ***p<0.001; **p<0.01; *p<0.05. For households with children, the reference group is households without children. For each household type, the comparator used is all other household types with and without children. The analysis employs a weighted logistic model and controls for age, gender, marital status, country of birth, health, education, place of residence (rural/urban), and labour market attachment. All calculations were performed using STATA 15 software.

S: Own calculations based on EU-SILC

3.2.2 Material deprivation

SEVERE MATERIAL (AND SOCIAL) DEPRIVATION BASED ON THE STANDARD EUROSTAT INDICATORS

The relative number of children living in households measured as being either severely materially deprived or severely materially and socially deprived (i.e., the new deprivation indicator used for those at risk of poverty or social exclusion [AROPE]) is larger than for the total population. This means that children tend to live disproportionately often in deprived households. As shown in Table 3.5, the proportion of children affected by severe material deprivation increased from 3.5% in the year prior to the COVID-19 crisis to 4.5% in 2020, before returning to its pre-pandemic level in 2021. The same inverted U-shape pattern of increase (from 2019 to 2020) and decrease (between 2020 and 2021) is observed in the severe material and social deprivation indicator.

Table 3.5: Proportion of children and total population affected by severe material deprivation and by severe material and social deprivation, 2019-2021 (%)

	2019	2020	2021	% point change 2019-2020	% point change 2019-2021
Severe material deprivation					
Children (<18)	3.5	4.5	3.5	1.0	0.0
Total pop	2.6	2.7	2.4	0.1	-0.2
Difference, children rel. to total	1.0	1.8	1.2	0.8	0.2
Severe material and social deprivation					
Children (<18)	4.4	5.5	2.7	1.1	-1.7
Total pop	2.7	3.0	1.8	0.3	-0.9
Difference, children rel. to total	1.7	2.5	0.9	0.8	-0.8

Note: Years displayed refer to the survey year.

S: Own calculations based on EU-SILC

Considering those items that are included in both of the two abovementioned deprivation indicators (Table 3.6), we can see that between 2019 and 2021, an increasing proportion of families faced economic strain, such as the inability to deal with unexpected expenses, for example, arrears, or to heat their homes properly. While the number of families who reported a lack of basic needs, such as food, decreased over the crisis period, between 2% and 4% of these families still reported being unable to afford a meal with meat, fish or equivalent every other day. Over a quarter of children were living in a household that was unable to meet unexpected expenses in 2021, and 15% in a family that could not afford a one-week annual holiday. Also, there were 10% of children living in a household that could not afford to buy new furniture, 7% of those households had difficulties settling arrears, and 6% had no access to a car.

Table 3.6: Proportion of households with children unable to meet/cannot afford selected deprivation items and proportion of children living in such families, 2019-2021 (%)

	2019		2020		2021	
	Proportion of					
	Fami-lies	Child-ren	Fami-lies	Child-ren	Fami-lies	Child-ren
Capacity to face unexpected expenses	21.6	23.3	20.6	22.9	23.3	25.3
Capacity to afford one-week annual holiday	13.9	16.6	11.8	16.4	11.1	15.1
Capacity to settle payment arrears	6.2	6.4	7.0	7.7	6.8	7.3
Capacity to afford a meal with meat	4.0	4.5	3.5	3.3	2.4	2.7
Ability to keep home adequately warm	1.8	1.9	1.8	1.8	2.1	2.1
Have access to a car/van for personal use	5.5	6.3	5.9	7.6	5.1	5.5
Having internet connection	1.2	1.4	0.8	0.8	0.3	0.3
Replacing worn-out furniture	7.3	8.2	7.4	8.3	8.5	10.0

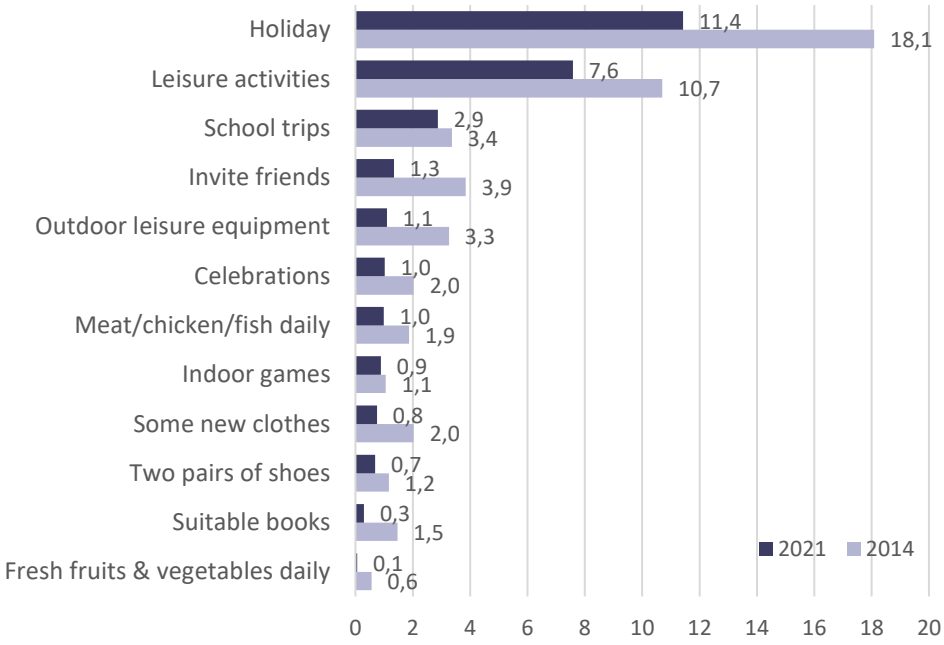
Note: Years displayed refer to the survey year. Items included in both the severe material and severe material and social deprivation indicator: Capacity to face unexpected financial expenses, to afford a one-week annual holiday away from home, to settle arrears (on mortgage/rental payments, utility bills, hire purchase instalments or other loan payments), to afford a meal with meat/chicken/fish/vegetarian equivalent every second day; ability to keep home adequately warm; have access to a car. Items included only in the severe material and social deprivation indicator: replacing worn-out furniture, having internet connection.

S: Own calculations based on EU-SILC

CHILD-SPECIFIC MATERIAL DEPRIVATION

The child-specific material deprivation indicator includes items related to children, providing an extra dimension to the analysis of their material deprivation. This is especially important because the indicator addresses aspects such as social interactions and leisure activities outside of the home, which children were likely denied due to the physical restrictions imposed by the COVID-19 pandemic, particularly during the first year of 2020. Figure 3.1 presents the 12 child-specific items featured in the index for 2021 and 2014, the two EU-SILC survey years for which this information is available (since 2021, data has been collected as part of a three-year rotational module) (Eurostat, 2024a). The items that children lacked the most both in 2021 and 2014 were holiday and leisure activities (in 2021, 11.4% and 7.6% of children, respectively). Less than 1% of children were reported to lack access to basic needs such as food and clothing. Notably, the deprivation rate — the percentage of children without access — decreased in all 12 child-specific items compared to 2014. However, due to a lack of data from the years 2015 to 2020, we do not have information on how these figures may have been impacted by the COVID-19 crisis.

Figure 3.1: Percentage of children experiencing child-specific deprivation in 12 child-specific material deprivation items, 2014 and 2021 (%)

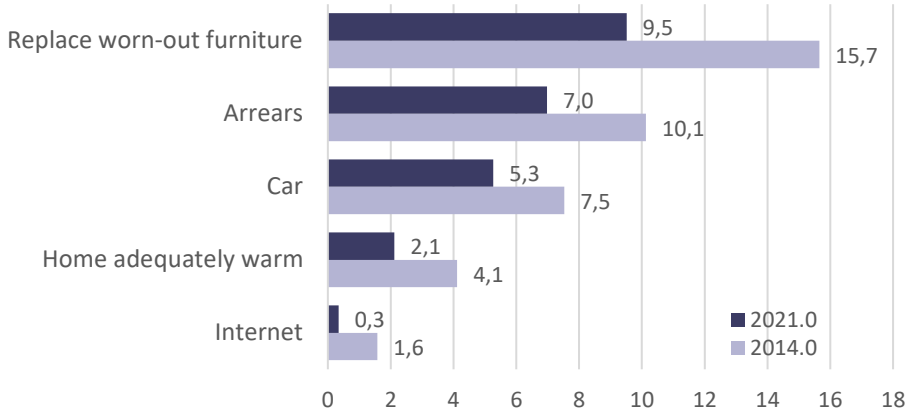


Note: Years displayed refer to the survey year. Deprivation is defined as living in a household where at least one child has no access to a given item. Data refer to children below 16 years.

S: Own calculations based on EU-SILC

In addition to the above 12 items, there are five household-level items in the child-specific indicator (Figure 3.2), which are also part of the standard material deprivation indicators (see Table 3.6). Adding up the 17 items yields a child-specific deprivation rate, which in 2021 was just below 8% and in 2014 stood at a significantly higher rate of 13.6%. Again, we have no information on COVID-19-related developments.

Figure 3.2: Percentage of children experiencing child-specific deprivation in the five household-level material deprivation items, 2014 and 2021 (%)



Note: See Figure 3.1

S: Own calculations based on EU-SILC

CHILD POVERTY INDEX "VIENNA"

Table 3.7 shows the results for the six areas that were initially developed for the Vienna Child Poverty Index. Among these, housing and the local environment, as well as financial capacity, were the areas where households with children most frequently reported issues. This trend was observed both before (in 2019) and during the pandemic. Additionally, financial capacity was one of the areas where deprivation increased. In 2021, almost a third of families (32%) experienced some financial strain (i.e., at least in one item included in this domain) compared to 29% in 2019. The share of those with deprivation in more than one item also slightly increased between 2019 and 2021. Further analysis of the items within this domain reveals that this increase was driven by a growing number of families struggling to make ends meet (11% in 2019 vs. over 12% in 2021) and cover unexpected expenses (20% in 2019 compared to 23% in 2021). Constraints on meeting basic needs, such as buying new clothes or shoes, also became more evident, especially during the height of COVID-19 (in 2020, 6% reported inability to buy new clothes or two pairs of shoes, up from 3% in 2019).

Table 3.7: Deprivation among families with children in the five domains in Austria (%), 2019-2021

	Not deprived	Deprived (min 1 item)	Deprived (>1 item)
2019			
Housing and the environment	53.4	46.6	19.7
Financial capacity	70.8	29.2	15.9
Social interactions and personal relationships	84.2	15.8	5.4
Education and care	89.2	10.8	0.0
Health	95.4	4.6	0.4
Unmanageable debts and arrears	98.1	1.9	1.0
2020			
Housing and the environment	56.9	43.1	16.2
Financial capacity	70.6	29.4	16.9
Social interactions and personal relationships	83.2	16.8	6.3
Education and care	89.5	10.5	0.0
Health	96.2	3.8	0.0
Unmanageable debts and arrears	96.5	3.5	0.9
2021			
Housing and the environment	55.8	44.2	18.6
Financial capacity	68.1	31.9	16.5
Social interactions and personal relationships	83.9	16.1	4.4
Education and care	92.2	7.8	0.0
Health	97.4	2.6	0.0
Unmanageable debts and arrears	96.1	4.0	1.1

Note: Years displayed refer to the survey year.

S: Own calculations based on EU-SILC

Social interactions and personal relationships, as well as unmanageable debts and arrears, were two other areas where deprivation among families increased, albeit to a lesser extent than in the case of financial capacity. Still, the prevalence observed in the latter domain doubled (from 2% in 2019 to 4% in 2021) mainly due to higher

shares reporting arrears with mortgage and rent payments and utility costs. For social interactions, the increase between 2019 and 2020 (from 16% to 17%) was mostly linked to the households being less able to afford to invite guests and friends, including friends of children.

As for the other three domains, namely housing and the environment, health, as well as education and care, no increase in deprivation can be observed during the crisis period. On the contrary, we see a decreasing trend in issues related to health (i.e., the capacity to afford meat, fish or a vegetarian alternative every second day, and unaffordability of medical or dental care) and in the education and care domain, which covers unaffordability of participating in leisure activities, school activities and outdoor sport and leisure equipment. Likewise, reported problems with housing show a declining trend. Note, however, that this domain covers mainly aspects related to housing quality; housing costs are not included here as that indicator is covered under the financial capacity domain (see Appendix for the list of items covered in each area).

4 RQ 2: To what extent did the socio-economic background of affected children change due to the crisis?

Poverty (as well as material deprivation of children) is related to a myriad of factors. EU-SILC data allow for analysis of the relationship between child poverty and various socio-economic characteristics.

From an academic as well as a policy-making perspective, it is important to understand whether the groups of children at the (highest) risk of living in poverty or being materially deprived remained the same during COVID-19 or whether this unprecedented situation created new groups of particularly vulnerable children. For example, recent research for Austria suggests that there are "new" risk groups, for example, the self-employed (Heitzmann, 2020) or, in more general terms, the lower middle class (Heitzmann/Staudinger, 2023) who particularly suffered from the lockdown and its consequences.

In the United Kingdom, for example, it was found that most affected by the crisis were employees who were forced to reduce their working hours – only a minority completely lost their jobs – or the self-employed who lost work orders (Baumberg-Geiger et al., 2021). Results also suggest that the socio-demographic profile of new benefit claimants differs considerably from those who claimed benefits already before the COVID-19 crisis: the new cohort of claimants are more likely to be younger, men, not experiencing disability, from higher social grade, university graduates, and owner occupiers (Edmiston et al., 2020).

4.1 Methodology

Following the analysis of associated socio-demographic characteristics of children affected by AROP or material deprivation before and during the crisis, we investigate to what extent the group of children concerned has changed during the pandemic in Austria. The aim is to verify whether the family characteristics associated with child poverty and material deprivation remained relatively stable and "traditional" in times of crisis or whether new social groups were among the ones being at risk.

We explored changes in the poverty and material deprivation profiles of families with dependent children during the COVID-19 crisis by using regression analyses. The regression outputs in this chapter are from linear (OLS) regression models. Linear regressions have frequently been used on binary outcomes and are also easier to interpret than logit or probit (Hellevik, 2009; Mood, 2010). However, we ran both a logistic and a probit regression on our sample as a sensitivity analysis. These models

are presented in the Appendix (see Tables A2.3 through A2.6) and yield similar results. We carried out separate analyses for monetary poverty and material deprivation measures. For the former, the dependent variable is a binary variable using the Eurostat at risk of poverty (AROP) indicator (1 if the family's equivalized household income is below 60% of the national median income and 0 if it is above this threshold). For material deprivation, we used the severe material deprivation indicator (defined as the inability to afford at least 4 out of 9 deprivation items) as the dependent variable (1 for being severely materially deprived, and 0 for not meeting this condition). Due to the small sample of the severely deprived, and as a sensitivity test, we employed a separate model where the previous nine-item indicator by Eurostat with a lower cut-off (3 out of 9 deprivation items) was used as the dependent variable.[10] In all regressions, the unit of analysis is families with dependent children defined as households with at least one dependent child below the age of 18 years.

We included the same independent variables in the two sets of analysis for AROP and deprivation, which were selected based on the reviewed literature. They include family characteristics relating to family type and size, such as being a single-parent family, number of children, and presence of child(ren) below 3 years of age in the family. Lone-parent households and families with more children, who were already economically vulnerable pre-pandemic, were disproportionately affected by financial strain during COVID-19, as documented mainly in the international literature (Natili et al., 2021 for various EU countries; Gouveia et al., 2021 for Portugal; Steiber et al, 2022 for Austria; Blundell et al., 2022 for the United Kingdom; Kärkkäinen et al, 2022 for Finland; Monteduro et al, 2023 for Italy). Labour market characteristics are measured by the work intensity of the household, defined as the ratio of the total number of months that adult household members have worked during the income reference year and the total number of months the same household members theoretically could have worked in the same period (Eurostat, 2024b). In our model, it is operationalised with a categorical variable ranging from very low (household working time was equal to or less than 20 % of the full potential) to very high (working time was more than 85 % of the full potential) with the latter used as the reference category. Additionally, we include a binary variable for unemployed adults in the household and another one for self-employed (i.e., if there is any adult with such status in the family). Self-employment has been identified as a potential risk factor for income loss arising from an inability to work because of the pandemic, which likely affected those families (Schneck, 2023; Monteduro et al., 2023). Socio-demographic characteristics also include the highest attained education level among adults in the household (a categorical variable with tertiary as the reference category), migration background based on country of birth (a binary variable for EU immigrant and non-EU immigrant status), as well as the existence of health-related limitations (i.e., if there is at least one adult with a chronic or long-standing illness or activity limitation in the family). Tenure status (owner as a reference group) and area of residency (a binary variable 'rural' referring to thinly populated areas with an urban area being

[10] However, in the framework of the transition to the new severe material and social deprivation rate (SMSD; at least 7 out of 13 items) also some of the underlying items changed. Thus, some of the items included in the previous nine-item indicator are no longer available in the Austrian EU-SILC 2021-data. Thus, the previous nine-item indicator could only be calculated for 2019 and 2020.

the reference category) are also included in the final model.

4.2 Results

Tables 4.1 and 4.2 display the descriptive statistics for our sample for the two sets of analysis (descriptive statistics for the total sample are shown in the Appendix). As expected, single parent families are more prevalent among households with children who are at risk of poverty or who are (severely) materially deprived than in those with an income above the national median or with no deprivation. Families affected by low income or material deprivation are more likely to have a higher number of children, have an immigrant, especially non-EU immigrant, background, lower education and lower work intensity and a higher probability of unemployment in the household than their non-poor counterparts. This is particularly so in the case of materially deprived households, who additionally have a higher probability of poor health. Families at risk of poverty, in contrast, have a higher tendency of having children below 3 years of age in the household. Regarding tenure status and area of residence, we find private renting and city-dwelling families to be overrepresented among households affected by both poverty and material deprivation. Interestingly, we do not find a particularly large difference regarding self-employment between those at risk and those not at risk of poverty. Statistically significant changes in the crisis years we describe within the regression analyses below.

Table 4.1: Descriptive statistics for AROP, families with children <18, % (mean)

	Not at risk of poverty			At risk of poverty		
	2019	**2020**	**2021**	**2019**	**2020**	**2021**
Single parent	12.47	11.12	11.02	33.71	26.82	31.06
No. of children, mean	1.60	1.62	1.62	1.87	1.94	1.86
s.d.	0.69	0.69	0.68	1.06	1.05	0.98
Child<3 yrs	24.65	25.92	25.90	32.00	37.43	30.43
EU-born	12.84	12.82	11.94	21.14	19.55	21.12
Non-EU born	12.93	11.69	12.95	38.86	43.58	34.78
Health limitation	44.47	45.24	45.18	49.71	44.13	47.20
Highest education						
Primary	1.12	2.26	1.56	18.86	18.99	15.53
Secondary	36.56	37.51	37.10	45.14	43.58	43.48
Tertiary	62.33	60.23	61.34	36.00	37.43	40.99
Work intensity						
Very low	2.05	3.30	2.20	23.43	24.58	16.77
Low	3.53	4.62	4.32	12.57	14.53	11.80
Medium	16.65	15.46	15.24	24.57	24.58	16.15
High	33.86	35.44	33.52	21.14	21.23	31.68
Very high	43.91	41.19	44.72	18.29	15.08	23.60
Unemployed	9.58	7.73	5.97	29.14	29.05	21.12
Self-employed	16.09	15.46	14.60	18.01	14.53	18.01
Tenure status						
Owner	66.79	66.45	67.49	30.29	28.49	29.19
Rent market price	23.63	22.90	22.13	53.14	55.31	55.90
Rent reduced/free	9.58	10.65	10.38	16.57	16.20	14.91
Area of residence						
Rural	42.05	43.64	42.24	26.86	22.35	31.06
Urban	57.95	56.36	57.76	73.14	77.65	68.94
N	1,075	1,061	1,089	175	179	161

Note: Years displayed refer to the income year (y-1) and not the survey year (y).

S: Own calculations based on EU-SILC

Table 4.2 Descriptive statistics for severe deprivation, families with children <18, % (mean)

	No severe deprivation			Severe deprivation		
	2019	2020	2021	2019	2020	2021
Single parent	14.52	14.93	13.11	45.16	35.48	25.93
No. of children, mean	1.65	1.63	1.66	1.77	2.03	1.96
s.d.	0.77	0.73	0.74	1.06	1.47	1.26
Child<3 yrs	29.28	25.92	27.70	22.58	16.13	22.22
EU-born	14.44	14.11	13.60	3.23	9.68	22.22
Non-EU born	15.15	15.26	15.09	61.29	67.74	70.37
Health limitation	46.62	44.63	44.68	67.74	67.74	62.96
Highest education						
Primary	3.06	2.87	4.20	41.94	32.26	25.93
Secondary	39.72	37.49	38.33	41.94	48.39	40.74
Tertiary	57.22	59.64	57.46	16.13	19.35	33.33
Work intensity						
Very low	4.55	4.35	5.19	51.61	32.26	40.74
Low	3.53	4.35	5.61	12.90	22.58	22.22
Medium	16.72	17.56	16.82	9.68	25.81	14.81
High	35.95	32.49	33.80	9.68	16.13	7.41
Very high	39.25	41.26	38.58	16.13	3.23	14.81
Unemployed	7.77	10.83	9.48	48.39	70.97	70.37
Self-employed	16.01	16.82	15.33	6.45	0.00	14.81
Tenure status						
Owner	61.62	59.64	57.46	16.13	19.35	33.33
Rent market price	28.41	26.66	26.38	64.52	70.97	81.48
Rent reduced/free	9.97	10.34	11.38	29.03	19.35	14.81
Area of residence						
Rural	43.17	40.61	41.06	12.90	12.90	18.52
Urban	56.83	59.39	58.94	87.10	87.10	81.48
N	1,274	1,219	1,213	31	31	27

Note: Years displayed refer to the survey year.

S: Own calculations based on EU-SILC

Tables 4.3 and 4.4 present the results of the regression analyses. Starting with the poverty risk, in all three years, very low work intensity and having only a primary education as the highest completed educational level are the factors most significantly associated with being in relative poverty. Their explanatory weight

somewhat decreased during the COVID-19 crisis, but families with such characteristics still had a considerably higher probability of being at risk of poverty compared to households with higher work intensity and education levels. Higher education thus appears to be a strong protective factor even after all other factors are controlled for. As expected, lone parenthood was significantly linked to a low-income profile in 2019, with this connection further intensifying in 2020 and in 2021. Contrary to 2019, the risk of poverty has increased with the number of children and this effect was significantly pronounced stronger in the first COVID-19 year compared to 2021. On the other hand, the presence of small children in the household was not statistically significant across all years observed. There was, however, a statistically significant difference by country of birth. Families with one or more adult members born outside Austria, especially those from non-EU countries, were more likely to fall into poverty already in 2019 and more so in the peak year of the pandemic. Self-employment was significantly associated with households being at risk of poverty in 2019. Interestingly, this connection weakened in 2020, but its significance as a predictor increased again in the following year. Previous studies found a strong association between poor health and relative poverty (see e.g., Atkinson/Marlier, 2010). Surprisingly, in our model, the relationship with the outcome variable appeared to be in the opposite direction, with significance at the 5% level only in 2020.

Table 4.3: Regression analysis for poverty risk (coefficients from OLS regression), 2019-2021

	2019	2020	2021
Single parent	0.158***	0.168***	0.172***
	(0.035)	(0.039)	(0.039)
No. of children	0.023	0.051***	0.038**
	(0.012)	(0.012)	(0.013)
Child<3 yrs	0.018	0.019	-0.011
	(0.024)	(0.024)	(0.023)
EU-born	0.086**	0.062*	0.073*
	(0.031)	(0.030)	(0.031)
Non-EU born	0.105**	0.146***	0.082*
	(0.034)	(0.037)	(0.034)
Health limitation	-0.005	-0.036*	-0.016
	(0.017)	(0.018)	(0.018)
Highest education (Ref=Tertiary)			
Primary	0.396***	0.204**	0.272***
	(0.074)	(0.070)	(0.082)
Secondary	0.049**	0.034	0.018
	(0.018)	(0.018)	(0.018)
Work intensity (Ref= Very high)			
Very low	0.405***	0.338***	0.247***
	(0.066)	(0.060)	(0.077)
Low	0.172**	0.173***	0.156**
	(0.061)	(0.053)	(0.052)
Medium	0.113***	0.119***	0.043
	(0.031)	(0.031)	(0.030)
High	0.030	0.041*	0.058**
	(0.018)	(0.018)	(0.020)
Unemployed	0.027	0.024	0.055
	(0.036)	(0.041)	(0.048)
Self-employed	0.094***	0.059*	0.082**
	(0.026)	(0.025)	(0.027)
Tenure status (Ref=Owner)			
Rent market price	0.049*	0.067*	0.123***
	(0.025)	(0.026)	(0.027)
Rent reduced /free	0.074*	0.030	0.072*
	(0.031)	(0.031)	(0.033)
Rural	0.011	-0.026	0.022
	(0.018)	(0.018)	(0.018)
Constant	-0.134**	-0.201***	-0.175***
	(0.047)	(0.049)	(0.052)
Observations	1,250	1,240	1,250
Adj. R-sq	0.266	0.242	0.189

Notes: Robust standard errors in parentheses. Significance level: *** p<.001, ** p<.01, * p<.05. Years displayed refer to the income year (y-1) and not the survey year (y).

S: Own calculations based on EU-SILC

As we saw in Chapter 3.2.2, an increasing number of families with children reported to have fallen behind with payments in the two years of the pandemic, including payments for rent and utilities. Our regression results show that families renting in the private market were more likely to be at risk of poverty than homeowners, including those with a mortgage, and those with a reduced rent or rent-free. While the magnitude and the strength of the relationship were still relatively moderate (significant only at the 5% level) in 2019 and 2020, in 2021, it was one of the strongest predictors of income poverty in our model (along with single parenthood, low education level and low work intensity). Finally, we found no significant evidence of families living in urban areas being more affected by poverty as opposed to those living in rural areas.

The effects of household characteristics for deprivation are broadly similar, although some (e.g., single-parent status, number of children, self-employed) lack statistical significance (Table 4.4). On the other hand, a notable difference concerns the close relationship between deprivation and the existence of unemployment in the household. Families with such characteristics were significantly more likely to be severally materially deprived during the COVID-19 years than in 2019. The results also clearly show that non-EU immigrant households had an increasingly higher probability of being (severely) deprived during the pandemic. A rather opposite pattern in severe material deprivation emerges among households characterized by (very) low work intensity and low education levels, which lose its statistical significance during the crisis years. This could be partly due to discretionary crisis measures, particularly supporting low-income households (see Chapters 2.2.3 and 5.3). As with the risk of poverty, the probability of being (severely) deprived is considerably higher among families who do not own their home, here including those paying no or reduced rent, and their situation worsened in 2020 and 2021.

Table 4.4: Regression analysis for severe material deprivation (4 out of 9) and material deprivation (3 out of 9) (coefficients from OLS regression), 2019-2021

	2019	2020	2021	2019	2020
	Severe material deprivation			*Material deprivation*	
Single parent	0.014	0.026	0.004	0.047	0.025
	(0.018)	(0.018)	(0.020)	(0.027)	(0.025)
No. of children	0.000	0.009	0.002	0.008	0.005
	(0.006)	(0.009)	(0.007)	(0.009)	(0.009)
Child<3 yrs	-0.006	-0.018	-0.014	-0.017	-0.031*
	(0.008)	(0.010)	(0.011)	(0.012)	(0.015)
EU-born	-0.018**	-0.008	0.011	-0.009	-0.024
	(0.007)	(0.011)	(0.013)	(0.016)	(0.018)
Non-EU born	0.029	0.038*	0.046*	0.041	0.047*
	(0.017)	(0.018)	(0.021)	(0.023)	(0.024)
Health limitation	0.002	0.008	0.006	0.005	0.012
	(0.007)	(0.008)	(0.008)	(0.011)	(0.011)
Highest education (Ref=Tertiary)					
Primary	0.162**	0.117	0.018	0.265***	0.205**
	(0.058)	(0.066)	(0.043)	(0.066)	(0.074)
Secondary	0.009	0.002	-0.008	0.020	0.014
	(0.007)	(0.007)	(0.007)	(0.012)	(0.011)
Work intensity (Ref= Very high)					
Very low	0.136**	0.071	0.076	0.244***	0.246***
	(0.047)	(0.048)	(0.040)	(0.058)	(0.062)
Low	0.050	0.058	0.038	0.130**	0.082
	(0.036)	(0.037)	(0.030)	(0.052)	(0.050)
Medium	-0.001	0.026*	0.002	0.016	0.021
	(0.010)	(0.013)	(0.011)	(0.017)	(0.018)
High	-0.005	0.008	-0.003	-0.001	-0.000
	(0.006)	(0.006)	(0.006)	(0.010)	(0.010)
Unemployed	0.047	0.083**	0.083**	0.103**	0.149***
	(0.030)	(0.026)	(0.028)	(0.040)	(0.033)
Self-employed	0.010	-0.007	0.016	-0.001	-0.001
	(0.008)	(0.004)	(0.011)	(0.010)	(0.011)
Tenure status (Ref= Owner)					
Rent market price	0.003	0.012	0.025*	0.008	0.038**
	(0.008)	(0.010)	(0.010)	(0.015)	(0.015)
Rent reduced /free	0.033	0.021	0.006	0.043	0.047*
	(0.020)	(0.015)	(0.013)	(0.025)	(0.022)
Rural	-0.004	0.000	0.010	-0.006	-0.003
	(0.006)	(0.006)	(0.007)	(0.010)	(0.010)
Constant	-0.007	-0.049	-0.021	-0.033	-0.033
	(0.021)	(0.033)	(0.028)	(0.035)	(0.035)
Observations	1,305	1,250	1,240	1,305	1,250
Adj. R-sq	0.170	0.144	0.117	0.241	0.267

Notes: Robust standard errors in parentheses. Significance level: *** p<0.001, ** p<0.01, * p<0.05. Year refers to the survey year. S: Own calculations based on EU-SILC

5 RQ 3: How effective was the Austrian tax-benefit system in preventing an increase in child poverty due to COVID-19?

After analysing how child poverty and material deprivation of children developed in Austria during the COVID-19 pandemic, this chapter relates to the performance of the Austrian tax-benefit system (automatic stabilizers and discretionary counteracting policy measures taken; see Chapter 2.2.2) in preventing an increase in child poverty due to the labour market shock caused by the pandemic.

The analysis of the tax-benefit system's performance proceeds in three steps. First, we estimate the effect of the labour market changes due to COVID-19 (see Chapter 2.2.1) on the market income and the disposable income of households with children and on the AROP rates of children. Second, we estimate the extent to which the Austrian tax-benefit system counteracted those developments. Third, we perform a decomposition analysis to estimate the extent to which certain components of the tax-benefit system contributed to the counteraction.

This chapter presents the results of the analyses and provides a brief description of the methods used.[11] A more extensive description of methods and data is provided in the appendix.

5.1 Methodology

To analyse the effect of the COVID-19 labour market shock on incomes and poverty and the effectiveness of the Austrian tax-benefit system and certain components in limiting the effect of the shock, we apply a decomposition analysis following Paulus/Tasseva (2020) as well as Bargain/Callan (2010).[12] This analysis allows us to decompose the total change in incomes and poverty rates between two points in time according to the following four effects :

- The gross **market income/population effect** records changes in income and poverty due to changes in incomes from (self-) employment, capital income and private pensions as well as changes in the composition of the population, for

[11] The description of the decomposition method and the code to conduct the analysis build on the work of Tamara Premrov for the project *Study on Intergenerational Fairness* (see Raitano et al., 2021).

[12] We thank Iva Tasseva for kindly providing information on the application of the decomposition method.

example, due to demographic changes or variation in the survey samples used for different periods. The market income and population effect is used to estimate the effect of the COVID-19 labour market shock on disposable incomes and poverty rates.

- The **policy effect** shows the contribution of discretionary policy changes. Specifically, it indicates the effects of all taxes and benefits introduced in 2020 and 2021, as well as changes to policy parameters, like income tax thresholds or eligibility criteria, and changes to benefit levels that deviate from changes in CPI. We use the policy effect to capture the effects of the policies introduced by the Austrian government in response to the COVID-19 labour market shock.
- The **automatic stabiliser** effect represents the contribution of changes in benefit eligibility, benefit amounts or effective tax rates due to changes in market incomes. It captures, for example, gaining (or losing) eligibility for a means-tested benefit due to a decline (or increase) in market income. We use this effect to capture the contribution of automatic stabilizers, including unemployment benefits, to income and poverty changes between the observation periods.
- The **nominal effect** is a scaling effect. It reflects the change in price level between the observation periods and can be used to interpret the other effects in real terms.[13]

This analysis allows us to decompose changes in the income of families with children and child poverty between 2019 (before the crisis) and 2020 and 2021 into the described components.

5.1.1 Decomposition

Mathematically, the decomposition starts from the observation that household net incomes can be expressed as a function of the tax-benefit parameters p, a matrix with information on individual and household characteristics including gross market incomes y, and the structure of the tax-benefit policies d, which turns p and y into net household incomes (Paulus/Tasseva, 2020). A population-level statistic I – for example, average disposable income or the poverty rate – can be described as a function of household net incomes. By extension, a change in I between two periods (t= 0,1) can be described as the difference between the I derived from net household incomes in periods 0 and 1, as in equation 1 below.

$$\Delta I = I[d_1(p_1, y_1)] - I[d_0(p_0, y_0)]$$

(1)

The total change ΔI can then be decomposed into the average policy effect ($\overline{PE}$), market income and population effect ($\overline{ME}$) and automatic stabiliser effect ($\overline{AE}$) and

[13] The policy, automatic stabiliser as well as market income and population effects are calculated in real terms. The sum of these effects is equal to the total change (total effect) between the observation periods in real terms. By adding the nominal effect, we receive the total change in nominal terms.

the average nominal effect ($\overline{N}$). For population statistics that are *independent* of price and wage levels (scale-invariant), such as the AROP rate, the nominal effect is zero, and the other effects can be calculated using the following equations:

$$\overline{PE} = \frac{1}{2}[B_1 - C_1 + C_0 - B_0] \quad (2)$$

$$\overline{ME} = \frac{1}{2}[C_1^* - B_0^* + B_1^* - C_0^*] \quad (3)$$

$$\overline{AE} = \frac{1}{2}[C_1 - B_0 - (C_1^* - B_0^*) + B_1 - C_0 - (B_1^* - C_0^*)] \quad (4)$$

Thereby, B_t denotes what Paulus and Tasseva (2020) call the *baseline scenario* for the period t, which is defined as a scenario in which the statistic of interest is calculated based on household disposable incomes derived from tax-benefit policies (d), parameters (p) and income and population data (y) from the same period ($B_t = I[d_t(p_t, y_t)]$). In contrast, C_t denotes the *counterfactual scenario* in which tax-benefit policies and parameters from one period are applied to income and population data from the other period. In other words, it describes a scenario in which I is derived from disposable incomes calculated based on the tax-benefit policies in the period 0 and the market income and population data for the period 1, or the other way around. To control for different price levels, market incomes are adjusted by α, the change in CPI between the two periods. Mathematically, this can be expressed as $C_t = I[d_{1-t}(p_{1-t}, \alpha^{1-2t} y_t)]$. B_t^* and C_t^* respectively describe the value of I calculated based on the pre-tax incomes in the baseline scenario ($B_t^* = I[y_t]$) and the counterfactual scenario (($C_t^* = I[\alpha^{1-2t} y_t]$).

For *scale variant* statistics like average or median incomes, equations 2 to 4 must be adapted to control for the difference in price levels between the two periods through the parameter α. The resulting equations to calculate the average values of the different effects are as follows:

$$\overline{PE} = \frac{1}{6}\left[\left(\frac{1}{\alpha} + 2\right)(B_1 - \alpha C_1) + (2 + \alpha)\left(\frac{1}{\alpha} C_0 - B_0\right)\right] \quad (5)$$

$$\overline{ME} = \frac{1}{6}\left[(2 + \alpha)(C_1^* - B_0^*) + \left(\frac{1}{\alpha} + 2\right)(B_1^* - C_0^*)\right] \quad (6)$$

$$\overline{AE} = \frac{1}{6}\left[(2 + \alpha)(C_1 - B_0 - (C_1^* - B_0^*)) + \left(\frac{1}{\alpha} + 2\right)(B_1 - C_0 - (B_1^* - C_0^*))\right] \quad (7)$$

$$\overline{N} = \left(\frac{\alpha - 1}{3}\right)\left(B_0 + C_1 + \frac{1}{\alpha} B_1\right) \quad (8)$$

The decomposition can be conducted in different orders, resulting in six different, strictly symmetrical permutations for scale-variant decompositions and two permutations for scale-invariant decompositions. Following Paulus and Tasseva (2020), we calculate the average effects across all permutations as displayed in equations 2-7, as there is no reason to prefer one decomposition order over another.

5.1.2 Simulations in EUROMOD

Like Tasseva/Paulus (2020), we use the tax-benefit micro-simulation model EUROMOD to simulate the baseline and counterfactual income distributions. EUROMOD simulates taxes, benefits and disposable incomes for a representative sample of the Austrian population based on data from the EU-SILC. For the baseline scenarios, we simulate disposable income distributions based on the tax and benefit structure and rules, or 'systems' as they are called in EUROMOD, for 2019 (B_{19}), 2020 (B_{20}) and 2021 (B_{21}) with income data for the same years. For the counterfactual scenarios, we simulate disposable income distributions with the 2020 (C_{20}) and 2021 (C_{21}) systems with income data for 2019 and for the 2019 system with income data for 2020 ($C_{19;20}$) and 2021 ($C_{19;21}$).

One complication related to the COVID-19 years 2020 and 2021 is that several discretionary benefits introduced in those years are not featured as separate variables in EU-SILC, but rather included in other income variables. Specifically, short-time work (STW) payments (*Kurzarbeitsgeld*) are included in employment income, payments from the hardship fund for self-employed (*Härtefallfonds*) in self-employment income and extra payments for unemployed in unemployment benefit and unemployment assistance.

This creates two problems. First, the expansion of STW and the introduction of hardship fund payments represent discretionary policy changes, but the EU-SILC data treats them as gross market incomes. Left unaddressed, those payments would strengthen the reduction (or the increase) of market incomes between 2019 and 2020 and 2021, respectively, which would result in an *overestimation* of the market income and population effect and, conversely, an *underestimation* of the income-protecting effect of the Austrian tax-benefit system. Secondly, as described above, the decomposition requires the simulation of counterfactual scenarios using income data for one year and the policy rules and parameters from another. In this respect, leaving the respective benefit payments included in other income variables (as described in the paragraph above) is problematic as they incurred in the year in which the data was collected but not in all years for which the analysis is carried out.

To address these problems and isolate the payments for our decomposition analysis, we simulate STW payments, benefits from the hardship funds and extra payments for recipients of unemployment benefits and unemployment assistance and subtract them from the variables in which they were originally included. We simulate the respective benefit amounts with the existing EUROMOD policy functions only for those individuals who stated in the SILC survey data they have received them. In the baseline scenarios B_{20} and B_{21}, the simulated values are then added to the disposable income so that total disposable income does not change, only its composition. In the counterfactual scenarios $C_{19;20}$ and $C_{19;21}$, the simulated values are subtracted from the original income variables but not added to disposable income because they represent benefits which did not exist in 2019.

5.1.3 Key measures and concepts

For the analysis, children are defined as persons under the age of 18. In line with the EUROMOD modelling conventions, market income is defined as monthly income from employment and self-employment, investments, property and private pensions (JRC-EUROMOD team, 2023). Disposable income is defined as all incomes after taxes, social insurance contributions, and benefits.[14]

Related to the equivalisation of incomes and the at-risk-of-poverty-rate (AROP), we refer to Chapter 3.1.2. However, following Paulus and Tasseva (2020), we use 'floating' instead of 'fixed' poverty thresholds, which means the thresholds are always calculated based on the distribution of equivalised household income in the respective scenario. We use the concept of 'floating' thresholds also for the definition of income deciles. Income deciles are calculated through the distribution of equivalised disposable incomes in each scenario seperately.

5.1.4 Limitations

One limitation of using the EUROMOD tax-benefit microsimulation model is that the simulations for Austria tend to underestimate poverty rates due to benefit non-take up in reality and other unaccounted simulation inaccuracies that influence incomes around the poverty threshold. For example, the EUROMOD simulation for Austria for 2020 underestimates the AROP rate by 1.35 percentage points (European Commission et al., 2024). We address this problem in two ways. First, to address benefit non-take up as well as inaccuracies in simulating unemployment benefits, we use original EU-SILC records for social assistance (*Sozialhilfe*), unemployment benefit (*Arbeitslosengeld*) and unemployment assistance (*Notstandshilfe*) and simulate only top-ups and additional benefits introduced in 2020 and 2021 which are required for the decomposition analysis. As mentioned above, these top-ups and additional benefits are already included in certain EU-SILC variables. We, therefore, simulate these benefits and subtract their amount from the 2020 and 2021 EU-SILC input data. This does not alter the total amount of benefits but disaggregates their distribution. For counterfactual scenarios with 2019 input data, these benefits are calculated in addition on top since they are not included in the 2019 EU-SILC values. Second, we address the underestimation of the AROP rate in the micro-simulation model by focusing on *relative* changes between the observation periods rather than absolute levels.

A second limitation relates to the representativeness of the results for (small) population subsamples. We report results on developments during the pandemic for different household types with children because groups like children of single parents or children who are third-country nationals feature an increased poverty risk in Austria. However, highly disaggregated results must be interpreted with caution: as

[14] We use the EUROMOD variables *ils_origy* for market income and *ils_dispy* for disposable income.

we do not use panel data, small sample sizes increase the risk that observed effects are caused by spurious sample effects from year to year rather than effective changes in market incomes, taxes or benefits. The sample of the EU-SILC data is representative of the Austrian population at large in terms of demographics and incomes but is not equally representative for each population subgroup. We state the sizes of all subsamples in the appendix.

5.2 The effect of the COVID-19 labour market shock

To estimate the effect that the COVID-19 labour market shock would have had on the incomes of households with children and child poverty in the absence of any (counteracting) taxes and benefits, we calculate the market income and population effects to compare the situation in 2019 with that in 2020 and 2021, indicating how incomes before taxes and benefits developed between the different points in time.

Table 5.1 shows the market income and population effects (ME) on the change in monthly mean and median equivalised gross market incomes of households with and without children for both crisis years in absolute values and percentage changes relative to 2019. The second column shows the number of individual observations for each sample for the 2019 data. For the Austrian population at large, we find a stronger decline in household incomes in the first year of the pandemic than in 2021, showing that market incomes already partly recovered in 2021.

The results also show that households with children were less negatively affected than those without children.

Table 5.1: Effect of the labour market shock on monthly mean and median incomes of households with and without children, in EUR and percent

		2019 vs. 2020				2019 vs. 2021			
		Mean		Median		Mean		Median	
Household type	N (2019)	ME (€)	ME (%)	ME (€)	ME (%)	ME (€)	ME (%)	ME (€)	ME (%)
Household with children	4612	-103.1	-4.6	-134.3	-6.4	-12.8	-0.6	-91.8	-4.4
Household without children	7632	-201.8	-7.9	-203.4	-8.7	-161.3	-6.3	-189.4	-8.1
Total	12244	-162.0	-6.7	-179.8	-8.1	-99.0	-4.1	-131.4	-5.9

Note: ME (%) describes changes in percent relative to 2019 values

S: Own calculations based on EUROMOD outputs

The stronger effect on median than on mean incomes observed in Table 5.1 suggests that market incomes above the median increased more (or declined less) than below the median. The results on the market income and population effects on the incomes of households with children by income deciles in Table 5.2 confirm this interpretation. We can see that for both periods, the mean and median incomes of individuals in the lower five deciles were more negatively affected than those of individuals in income deciles six to ten.

Table 5.2: Effect of the labour market shock on monthly mean and median incomes of households with children by income decile in EUR and percent

		2019 vs. 2020				2019 vs. 2021			
		Mean		Median		Mean		Median	
Income deciles	N (2019)	ME (€)	ME (%)	ME (€)	ME (%)	ME (€)	ME (%)	ME (€)	ME (%)
1	413	-108.2	-12.5	-175.4	-18.5	14.6	1.7	46.5	4.9
2	467	-138.4	-9.8	-185.0	-13.2	-86.6	-6.2	-116.2	-8.3
3	481	-101.2	-6.0	-176.5	-10.4	-59.7	-3.5	-198.1	-11.6
4	533	-168.6	-8.8	-159.2	-8.3	-90.7	-4.7	-22.0	-1.2
5	554	-224.1	-10.6	-282.6	-13.3	-218.7	-10.3	-274.4	-12.9
6	538	-45.4	-2.0	-73.8	-3.2	-141.7	-6.1	-186.3	-8.1
7	509	-152.9	-5.9	-89.2	-3.4	82.5	3.2	34.3	1.3
8	414	-84.2	-2.9	-31.8	-1.1	20.7	0.7	70.2	2.4
9	347	-209.3	-6.2	-201.0	-6.0	-193.4	-5.7	-182.8	-5.5
10	356	-725.3	-14.0	-163.7	-3.7	-322.0	-6.2	349.4	8.0
Total	4612	-103.1	-4.6	-134.3	-6.4	-12.8	-0.6	-91.8	-4.4

Note: Income deciles are calculated individually for each year based on equivalized disposable incomes for the full sample. ME (%) describes changes in percent relative to 2019 values

S: Own calculations based on EUROMOD outputs

Table 5.3 disaggregates the results according to different household compositions, the household's main source of income and citizenship. The second column shows sample size, i.e. the number of individual observations for each group in the 2019 data. First, not all family types were affected equally by the COVID-19 labour market shock: Single parents, as well as households with at least two adults and three children, experienced a higher market income shock in 2021. On the contrary, dual-parent households with one child experienced a significant shock in 2020. Finally, households with at least two adults and two children experienced a moderate increase in median incomes, while the mean and median incomes of households with

four or more children were significantly higher in the crisis years than in 2019. In sum, there is no clear relation between the size of the shock and family type and/or the number of children.

Table 5.3: Effect of labour market shock on monthly mean and median incomes of households with children by demographic groups, in EUR and percent

		2019 vs. 2020				2019 vs. 2021			
		Mean		Median		Mean		Median	
Group	N (2019)	ME (€)	ME (%)	ME (€)	ME (%)	ME (€)	ME (%)	ME (€)	ME (%)
Household composition									
single-parent, at least 1 child	455	28.8	1.7	-33.0	-2.1	-190.4	-11.2	-178.4	-11.2
min. 2 adults, 1 child	1649	-261.9	-10.7	-302.8	-13.3	-65.4	-2.7	-190.7	-8.4
min. 2 adults, 2 children	1811	-5.1	-0.2	103.8	5.0	35.5	1.6	124.9	6.0
min. 2 adults, 3 children	545	-60.5	-2.9	-73.8	-3.8	-124.1	-6.0	-190.3	-9.7
min. 2 adults, 4+ children	152	178.1	13.4	303.4	24.6	491.3	36.9	540.7	43.8
Main source of income									
Employment	3665	-77.9	-3.4	-118.7	-5.5	-13.1	-0.6	-100.9	-4.6
Self-employment	436	199.4	7.8	138.0	6.5	136.8	5.3	-12.7	-0.6
Benefits excl. pensions	363	-28.5	-2.5	-25.0	-2.3	82.8	7.2	150.6	13.9
Pensions or private income	148	-1020	-45.3	-29.8	-1.6	-650.1	-28.9	-45.6	-2.5
Citizenship									
Austrian	3931	-103.8	-4.4	-97.9	-4.5	42.3	1.8	-17.4	-0.8
Other EU	328	-108.8	-5.5	-385.3	-20.1	-135.3	-6.9	-319.2	-16.7
Non-EU	353	-31.2	-2.1	12.7	0.9	86.2	5.9	141.3	10.2
Total	4612	-103.1	-4.6	-134.3	-6.4	-12.8	-0.6	-91.8	-4.4

Note: ME % describes changes in percent relative to 2019 values.

S: Own calculations based on EUROMOD outputs

Households with children in which income from employment or pensions and private income contributed most to total household income experienced a negative market income and population effect in both crisis years. Those primarily receiving income from benefits experienced a negative effect in 2020 and a positive effect in 2021. While households with the main source of income from self-employed activity experienced a positive market and population effect, households with children

primarily receiving income from pensions or private income (capital income, rent or private pensions) experienced a strong income decline. The finding for self-employed may at least be partially due to population effects: those at the lower end of the income distribution likely saw their market income further reduced during the crisis, while simultaneously becoming entitled to benefits like the hardship fund or social assistance. The consequent transition from the "self-employment" to the "benefit" group could have caused the income of the remaining self-employed to rise. The results for the "private income" group might, in turn, have been affected by the small sample size of only 148 observations and related changes in the sample population from year to year.

Households with Austrian and non-EU citizenship experienced a negative effect in 2020 and a positive effect in 2021. Households with children from other EU countries, in contrast, saw market incomes significantly decrease in both crisis years.

Table 5.4 indicates the effect of the COVID-19 labour market shock on the AROP rate for children in Austria. The simulated rates for pre-crisis year 2019 show that poverty risks are the highest among single-parent households, children in families where the main source of income is from benefits like unemployment benefits or social assistance, and non-EU citizens. Overall, disregarding the Austrian tax-benefit system, changes in market incomes would have increased the AROP rate for children by 2.5 percentage points in 2020 and by 2.0 percentage points in 2021 compared to 2019. The negative market income and population effect would have affected all types of household compositions except large families with at least two adults and four or more children, households where the primary income source was from self-employment as well as benefits excluding pensions, and households with non-EU citizenship.

Complementary to the income changes displayed in Table 5.3, the market income and population effect for households with the main income source from employment, the labour market shock would have increased child poverty within this group by 2.2 percentage points in the first period of the crisis and by 3.3 percentage points in the second. In contrast, households mainly receiving income from self-employment even experienced a *decrease* in the AROP rate, disregarding taxes and benefits. As described above, this result may at least be partially due to population effects. The effect on the child AROP rate for households primarily receiving income from benefits is very small: those households receive limited labour market income, a situation that hardly changed due to the COVID-19labour market shock.

Regarding citizenship, the results mirror those displayed in Table 5.3 with the strongest poverty-increasing effect experienced by households whose members are citizens of another EU country, while for Austrian citizens a moderate poverty-increase is shown. In contrast, for non-EU citizens, one of the groups basically most vulnerable to child poverty in Austria, our results indicate a decline in the child AROP rate for both crisis years (see Table 5.4).

Table 5.4: Effect of the labour market shock on child poverty by demographic groups in percentage points and percent

		2019 vs 2020		2019 vs 2021	
Group	Child AROP rate 2019	ME	ME (%)	ME	ME (%)
Household composition					
single-parent, at least 1 child	33.2	0.0	0.0	7.7	23.2
min. 2 adults, 1 child	10.0	4.0	40.0	1.3	13.0
min. 2 adults, 2 children	8.8	4.0	45.5	2.7	30.7
min. 2 adults, 3 children	18.0	1.7	9.4	7.5	41.7
min. 2 adults, 4+ children	56.9	-4.9	-8.6	-18.0	-31.6
Main source of income					
Employment	7.7	2.2	28.6	3.3	42.9
Self-employment	15.7	-2.2	-14.0	-4.2	-26.8
Benefits excl. pensions	67.3	-0.4	-0.6	-0.7	-1.0
Pensions or private income	22.9	22.2	96.9	23.0	100.4
Citizenship					
Austrian	9.4	2.0	21.3	1.1	11.7
Other EU	17.7	11.5	65.0	9.4	53.1
Non-EU	62.9	-3.0	-4.8	-9.1	-14.5
Total	16.1	2.5	15.5	2.0	12.4

Note: ME relates to a change in poverty rates in percentage points, ME% to a change in poverty rates in %.

S: Own calculations based on EUROMOD outputs

5.3 The effect of the Austrian tax-benefit system in preventing a decline in income and an increase in poverty

To estimate the effect of the Austrian tax-benefit system in preventing a decline in income among families with children and an increase in the child AROP rate during the COVID-19 crisis, we consider how far discretionary policy changes and automatic stabilizers counteracted the market income and population effect.

The results in Table 5.5 show the market income effect (ME), the policy effect (PE), the automatic stabiliser effect (AE) and the total effect (TE) on real changes in mean and median incomes for households with as well as without children. As described above, the policy effect shows the effect of the policy reforms implemented by the Austrian government in 2020 and 2021 in response to the pandemic, which are listed in Chapter 2.2.2. Note that the policy effect also covers *changes* in the benefit level or eligibility rules within traditional automatic stabilizers like, for example, the extra payments for the unemployed and the increased unemployment assistance. The automatic stabiliser effect captures the contribution of changes in benefit eligibility, benefit amounts granted or effective tax rates due to changes in market incomes. The policy and automatic stabiliser effects combined display the effect of the Austrian tax-benefit system. The total effect in real terms is the sum of ME, PE and AE without the nominal effect.

Inspired by Dolls et al. (2010),[15] we calculate an Income Stabilisation Coefficient (ISC) to show how far the change in market incomes translates into a change in disposable incomes, which is calculated as $ISC = 1 - \frac{TE}{ME}$. A value of 1 means the change in market income was fully absorbed by the tax-benefit system. Values smaller than 1 show that market income changes were partially absorbed by the tax-benefit system, and values larger than 1 indicate that the tax-benefit system overcompensated market income changes. Lastly, negative values indicate that the tax-benefit system reinforced, rather than countervailed, changes in market incomes.

Table 5.5: Decomposed effects on mean equivalised household incomes

	2019 vs 2020					2019 vs 2021				
Household type	TE%	PE%	AE%	ME%	ISC	TE%	PE%	AE%	ME%	ISC
Household with children	2.0	3.4	3.2	-4.6	1.43	0.0	0.6	0.0	-0.6	1.00
Household without children	-0.5	2.8	4.5	-7.9	0.94	-1.4	1.4	3.6	-6.3	0.78
Total	0.4	3.0	4.1	-6.7	1.06	-0.9	1.1	2.1	-4.1	0.78

Note: TE (%), PE (%), AE (%) and ME (%) describe changes in percent relative to 2019 values.

S: Own calculations based on EUROMOD outputs

The results indicate that the Austrian tax-benefit system strongly counteracted the decline in mean market incomes for the Austrian population at large. While real market incomes (ME) declined by 6.7% from 2019 to 2020, real disposable income *increased* by 0.4% (TE). This effect is primarily due to the role of automatic stabilizers

[15] Our measure differs from Dolls et. al. who calculated their coefficient by dividing the sum of changes in individual disposable incomes by the sum of changes market incomes ($ISC = 1 - \frac{\sum \Delta Y^D}{\sum \Delta Y^M}$). This measure is not available to us.

(AE), which worked in the opposite direction of the market income and population effect and increased mean disposable household incomes by 4.1%. Discretionary policy changes (PE) contributed another 3.0%. The ISC value of 1.06 means that the Austrian tax-benefit system increased disposable incomes by more than the decline in market incomes during this period. In the second period (2019 vs 2021), both the policy effect (1.1%) and the automatic stabiliser effect (2.1%) were weaker but still very significant: the 4.1% decline in mean market incomes was reduced to a 0.9% decrease in mean disposable incomes. As the ISC shows, this represents a 78% reduction in the market income negative effect's impact on mean disposable incomes.

Households with children experienced a smaller decline in market incomes in the first period and benefited less from automatic stabilizers than childless households but more from discretionary policy changes. The ISC value of 1.43 indicates that the Austrian tax-benefit system *overcompensated* the market income and population effect and transformed a 4.6% *decline* in mean market incomes into a 2% *increase* in mean disposable incomes. In the second period, the households with children experienced only a small decline in mean market incomes and no automatic stabiliser effect. However, even the small decline in mean market incomes was fully compensated by increased expenditure on discretionary policies. Table 5.6 (related to median incomes) are largely similar to those in Table 5.5 except for the stronger market income and automatic stabiliser effect on households with children in the second period which, as discussed already in the last section, seems to be due to market incomes of households above the median increasing more rapidly than for the poorer half of the population. In the following, we report only effects on mean incomes, effects on median incomes are reported in the appendix.

Table 5.6: Decomposed effects on median equivalised household incomes

	2019 vs 2020					2019 vs 2021				
Household type	TE%	PE%	AE%	ME%	ISC	TE%	PE%	AE%	ME%	ISC
Household with children	1.9	3.9	4.4	-6.4	1.30	-1.8	1.0	1.6	-4.4	0.59
Household without children	2.0	3.7	6.9	-8.7	1.23	0.2	1.9	6.4	-8.1	1.02
Total	2.3	4.0	6.4	-8.1	1.28	-0.6	1.4	3.9	-5.9	0.90

Note: TE (%), PE (%), AE (%) and ME (%) describe changes in percent relative to 2019 values.

S: Own calculations based on EUROMOD outputs

Looking at the effects on households with children by income decile, it is obvious from the reported policy effects that poorer households benefited relatively more from the anti-COVID-19 measures introduced by the Austrian government in 2020. Regarding income changes between 2019 and 2021, households in the lower quintiles experienced a minor positive policy effect, while the effect was negative for higher earners. In both periods, there is a clear negative relationship between income

and the size of the policy effect, with lower-income deciles benefiting more and higher deciles benefiting less. This finding is not surprising because those measures include lump-sum payments, most importantly the € 360 per child additional family allowance in 2020 ("child bonus"), € 300 per child in social assistance receiving households in 2021, and the lump-sum payments for the unemployed and the increase of unemployment assistance in both years.

For the automatic stabiliser effect, a negative correlation between the size of the market income and the population effect can be observed. Between 2019 and 2020, the lower income quintiles saw a stronger negative market income effect and a stronger positive automatic stabiliser effect than the higher income deciles. Comparing 2019 and 2021, the picture is more varied, but the negative correlation between both effects is clearly visible as well.

Overall, looking at the first period, the Austrian tax-benefit system as a whole seems to have overcompensated (ISC >1) the COVID-19 labour market shock on the mean income of households with children across all income deciles, except deciles 2 and 10. In the second period, the buffering effect of the tax-benefit system across income deciles was more varied, ranging from 0.37 for the third decile to 1.71 for the first.

Table 5.7: Decomposed effects on mean equivalised disposable incomes of households with children by deciles

	2019 vs 2020					2019 vs 2021				
	TE%	PE%	AE%	ME%	ISC	TE%	PE%	AE%	ME%	ISC
Income deciles										
1	1.8	6.0	8.3	-12.5	1.14	-1.2	3.3	-6.1	1.7	1.71
2	-0.6	5.3	4.0	-9.8	0.94	-3.1	2.8	0.3	-6.2	0.50
3	1.2	4.6	2.6	-6.0	1.20	-2.2	2.1	-0.7	-3.5	0.37
4	0.9	4.4	5.3	-8.8	1.10	-1.7	2.0	1.0	-4.7	0.64
5	1.2	3.8	8.0	-10.6	1.11	-1.0	1.8	7.5	-10.3	0.90
6	2.9	3.3	1.5	-2.0	2.45	0.7	1.7	5.2	-6.1	1.11
7	1.8	3.1	4.6	-5.9	1.31	0.1	1.0	-4.1	3.2	0.97
8	0.9	2.6	1.2	-2.9	1.31	0.2	1.0	-1.5	0.7	0.71
9	0.1	2.2	4.1	-6.2	1.02	-1.1	0.6	4.1	-5.7	0.81
10	-5.4	1.0	7.6	-14.0	0.61	-1.7	0.1	4.4	-6.2	0.73
Total	2.0	3.4	3.2	-4.6	1.43	0.0	0.6	0.0	-0.6	1.00

Note: Income deciles are calculated individually for each year based on equivalized disposable incomes. TE (%), PE (%), AE (%) and ME (%) describe changes in percents relative to 2019 values.

S: Own calculations based on EUROMOD outputs

Table 5.8 shows the decomposed effects on mean equivalised disposable incomes of households with children by demographic groups. The results show limited variation in the policy effects across different household types for both periods. Interestingly, the size of the policy effect does not seem to be related to the number of children. In other words, there is no indication that the countermeasures taken by the Austrian government were biased towards large or small families. In contrast, there is considerable variation regarding the automatic stabiliser effect mostly linked to stronger or weaker changes in market incomes.

Table 5.8: Decomposed effects on mean equivalised disposable incomes of households with children by demographic groups

	2019 vs 2020					2019 vs 2021				
Group	TE%	PE%	AE%	ME%	ISC	TE%	PE%	AE%	ME%	ISC
Household composition										
single-parent, at least 1 child	4.7	3.4	-0.4	1.7	-1.76	-7.2	0.9	3.0	-11.2	0.36
min. 2 adults, 1 child	-0.1	3.3	7.4	-10.7	0.99	0.1	1.1	1.7	-2.7	1.04
min. 2 adults, 2 children	3.9	3.5	0.6	-0.2	20.50	0.5	0.3	-1.4	1.6	0.69
min. 2 adults, 3 children	1.5	3.5	1.0	-2.9	1.52	-3.2	0.0	2.8	-6.0	0.47
min. 2 adults, 4+ children	10.4	4.4	-7.4	13.4	0.22	16.4	0.9	-21.4	36.9	0.56
Main source of income										
Employment	2.6	3.7	2.2	-3.4	1.76	0.0	1.0	-0.4	-0.6	1.00
Self-employment	10.6	3.3	-0.4	7.8	-0.36	2.7	-1.8	-0.9	5.3	0.49
Benefits excl. pensions	1.4	7.4	-3.6	-2.5	1.56	-0.8	1.0	-9.0	7.2	1.11
Pensions or private income	-11.0	3.3	30.9	-45.3	0.76	-8.4	-0.2	20.6	-28.9	0.71
Citizenship										
Austrian	2.5	3.2	3.6	-4.4	1.57	1.8	0.5	-0.5	1.8	0.00
Other EU	1.3	4.3	2.6	-5.5	1.24	-3.1	1.1	2.7	-6.9	0.55
Non-EU	0.5	4.9	-2.2	-2.1	1.24	-0.7	1.6	-8.1	5.9	1.12
Total	2.0	3.4	3.2	-4.6	1.43	0.0	0.6	0.0	-0.6	1.00

Note: TE (%), PE (%), AE (%) and ME (%) describe changes in percent relative to 2019 values.

S: Own calculations based on EUROMOD outputs

Turning again to poverty, Table 5.9 shows the total change in the AROP rate for children (TE) between the observation periods, the policy effect (PE) and the automatic stabiliser effect (AE) in addition to the market income and population effect (M&PE) already discussed above. The results show that from 2019 to 2020, a strong increase in child poverty due to changes in market incomes by 2.5 points was reduced to only 0.2 points owing to the policy and automatic stabiliser effects. As indicated by the CPPC,[16] this amounts to a 92% reduction of the market income effect's impact on the child poverty rate.

When comparing 2019 and 2021, we find that the policy effect slightly counteracted the increase in child poverty caused by a change in market incomes. Surprisingly, however, when looking at all households with children, the automatic stabiliser effect was zero in this second period and thus did not contribute to preventing an increase in child poverty. In sum, the Austrian tax-benefit system only reduced the increase in the child poverty rate by 10%. The comparison of household types again shows some variation in the automatic stabiliser effect but less so in the policy effect.

[16] Similar to the ISC, we calculate a Child Poverty Prevention Coefficient (CPPC) which shows the extent to which the market income effect translated into a change in the child poverty rate. It is calculated as CPPC = 1 – TE/ME. Like with the ISC, a value of 1 means the change in market income was fully absorbed by the tax-benefit system.

Table 5.9: Decomposed effects on the child AROP rate by demographic groups in percentage points

	2019 vs 2020					2019 vs 2021				
Group	TE	PE	AE	ME	CPPC	TE	PE	AE	ME	CPPC
Household composition										
single-parent, at least 1 child	1.9	-1.7	3.6	0.0	-Inf	4.8	0.0	-2.8	7.7	0.38
min. 2 adults, 1 child	1.3	-1.0	-1.7	4.0	0.68	1.2	-0.3	0.2	1.3	0.08
min. 2 adults, 2 children	2.3	-1.1	-0.6	4.0	0.43	4.9	0.1	2.0	2.7	-0.81
min. 2 adults, 3 children	-2.3	-0.6	-3.4	1.7	2.35	1.8	0.9	-6.6	7.5	0.76
min. 2 adults, 4+ children	-8.8	0.0	-3.9	-4.9	-0.80	-14.3	-3.1	6.8	-18.0	0.21
Main source of income										
Employment	-0.5	-1.0	-1.7	2.2	1.23	3.9	0.0	0.6	3.3	-0.18
Self-employment	-7.6	-1.6	-3.8	-2.2	-2.45	-4.9	1.0	-1.7	-4.2	-0.17
Benefits excl. pensions	4.0	-3.8	8.1	-0.4	11.00	-5.7	-1.9	-3.1	-0.7	-7.14
Pensions or private income	1.1	-1.3	-19.8	22.2	0.95	16.1	0.1	-7.0	23.0	0.30
Citizenship										
Austrian	1.0	-0.4	-0.6	2.0	0.50	2.3	0.0	1.2	1.1	-1.09
Other EU	2.4	-3.7	-5.4	11.5	0.79	9.0	0.8	-1.2	9.4	0.04
Non-EU	-9.7	-2.5	-4.2	-3.0	-2.23	-15.0	-1.2	-4.7	-9.1	-0.65
Total	0.2	-0.9	-1.4	2.5	0.92	1.8	-0.1	0.0	2.0	0.10

Note: TE (%), PE (%), AE (%) and ME (%) describe changes in percents relative to 2019 values.

S: Own calculations based on EUROMOD outputs

5.4 The effect of child benefits

Finally, we address the effect of benefits specifically targeted at children and how they changed incomes from 2019 to 2020 and 2021 and prevented child poverty. As "child benefits", we consider the total effect of the following benefits simulated in EUROMOD:

- **Family allowance** (*Familienbeihilfe*) is the main child benefit in Austria. It consists of a basic amount depending on the age of the child and a supplemental amount depending on the number of children in the household. The benefit is not means-tested except for a supplement for three or more children, which is paid only to families with a taxable income of up to € 55,000 in the previous year. The income

of children aged 20 or older reduces the allowance if the child earns more than € 15,000 (in 2019, €10,000) per year.

- The **child tax credit** (*Kinderabsetzbetrag*) is an additional universal monthly payment per **child,** which is paid out jointly with the family allowance.
- The **childcare benefit** (*Kinderbetreuungsgeld*) is a family benefit aimed at (partly) reimbursing parents for their efforts in caring for young children. The benefit is paid as a flat rate but flexible in duration and the resulting monthly amount (option 1) or in relation to the parent(s) prior incomes (option 2).
- The **supplement to the childcare benefit** for lone parents and families with lower incomes (*Beihilfe zum pauschalen Kinderbetreuungsgeld*) is an additional minor benefit per child paid for up to 12 months.
- The **Viennese Family Supplement** (*Wiener Familienzuschuss*) is an income-tested supplement for families with young children. It is paid out for up to two years and amounts to between €50.87 and €152.61 per month. The Viennese Family Supplement is simulated in EUROMOD across the whole country (instead of the respective supplements in the other Federal States).
- As part of the **package of anti-COVID-19 measures**, for every child for whom family allowance was received, an additional lump sum payment of €360 was paid out in 2020. In 2021, families receiving social assistance received an additional payment of €300 per child.[17]

In terms of volume, the family allowance, the child tax credit and the childcare benefit are by far the most important measures (European Commission et al., 2024). The total cost for the Austrian government, hence the total value of these benefits in the EUROMOD simulation, was around €5.5 billion in 2019. Including the anti-COVID-19 measures, this value increased nominally to €6.3 billion in 2020. From 2020 to 2021, the total nominal value decreased to €5.8 billion.

Table 5.10 shows the policy and automatic stabiliser effects in total (PE_t, AE_t) and for the listed child benefits (PE_{ch}, AE_{ch}). From 2019 to 2020, the policy effect of child benefits increased the monthly incomes of households with children by €22.7 in real terms on average. Thus, about one-third of the total policy effect on households with children over this period can be attributed to child benefits. This effect is mostly driven by the additional lump sum payment of €360 per year (€30 per month) to all children receiving family allowance. Results related to this lump-sum payment indicate that the incomes of lower-income households increased slightly more in total values (children are rather situated in lower-income deciles) and significantly more in relative terms (the flat-rate transfer is relatively higher for low incomes). The effect of measures targeted at children across income deciles mirrors the total policy effect discussed above (see discussion related to Table 5.7).

The automatic stabiliser effect of child benefits was more limited during this period, contributing only an € 8.3 increase to the mean monthly disposable incomes of households with children, or about 12.5% of the total AE with, with an ambiguous

[17] Not covered by our analysis are the maternity benefit (*Wochengeld*) and the COVID-19 family hardship funds (*Familienhärtefonds*) as they are not simulated in EUROMOD.

pattern across income deciles. This is not surprising because the analysed benefits are mostly universal and independent of (prior) income. Among the larger benefits, only the benefit level of option 2 of the childcare benefit varies with prior received income, and only the comparatively minor supplements (supplement to the childcare benefit, the Viennese family supplement) are means-tested. Thus, the eligibility for and the payment of most child benefits do not change with market incomes. Hence, they do not work as automatic stabilizers.

Between 2019 and 2021, PE_{ch} was negative, reducing monthly mean incomes by € 8.3 in real terms with no clear pattern across income deciles. This negative effect on real incomes can be explained by the fact that levels of child-related benefits were generally not indexed, which results in the decrease of their real value with inflation over time. AE_{ch} was very small (€ 2.0) for this period, with some variation across income deciles but no clear pattern emerging.

Table 5.10: Effect of benefits targeted at children on the change in monthly mean disposable incomes of households with children by income deciles in EUR

	2019 vs. 2020				2019 vs. 2021			
	PE_t (€)	AE_t (€)	PE_{ch} (€)	AE_{ch} (€)	PE_t (€)	AE_t (€)	PE_{ch} (€)	AE_{ch} (€)
Income deciles								
1	51.7	72.1	28.2	-6.5	28.7	-53.0	-5.3	-6.9
2	74.1	56.4	26.9	20.0	39.4	3.8	-6.1	-12.6
3	78.2	43.3	23.0	22.5	35.2	-12.4	-14.4	17.6
4	83.8	101.5	19.8	-15.9	38.5	19.4	-9.5	-7.7
5	80.3	170.0	25.8	26.5	39.0	158.5	-3.0	33.0
6	76.9	35.1	16.1	11.5	38.7	119.7	-10.7	2.0
7	81.3	119.2	27.4	17.6	25.5	-105.0	-16.8	5.2
8	75.5	33.6	19.8	-19.6	29.4	-44.6	-6.5	-27.2
9	73.8	139.2	16.2	18.0	20.5	138.4	-7.3	4.5
10	51.6	396.6	21.2	2.1	3.6	226.3	-9.9	2.2
Total	76.7	71.4	22.7	8.4	14.0	-0.2	-8.3	2.0

S: Own calculations based on EUROMOD outputs

As expected, the results strongly indicate that households with more children experienced a stronger policy effect from benefits targeted at children between 2019 and 2020. Apart from that, PE_{ch} is remarkably consistent across different family types for both periods. Similarly, there are no obvious patterns with respect to variation in the AE_{ch} across different household compositions for both crisis periods.

Table 5.11: Effect of benefits targeted at children on the change in monthly mean disposable incomes of households with children by demographic groups in EUR

	2019 vs. 2020				2019 vs. 2021			
	PE_t (€)	AE_t (€)	PE_{ch} (€)	AE_{ch} (€)	PE_t (€)	AE_t (€)	PE_{ch} (€)	AE_{ch} (€)
Household composition								
single-parent, at least 1 child	58.0	-7.4	27.4	31.6	15.8	51.4	-5.3	9.5
min. 2 adults, 1 child	81.0	179.4	15.1	1.5	26.5	42.1	-5.9	-5.7
min. 2 adults, 2 children	79.5	13.4	24.1	8.4	7.8	-32.1	-8.6	9.6
min. 2 adults, 3 children	71.6	20.3	30.8	-2.0	-0.7	57.9	-14.1	0.7
min. 2 adults, 4+ children	58.7	-98.4	37.5	19.9	11.4	-285.3	-8.3	2.0
Main source of income								
Employment	86.1	50.9	21.7	13.5	24.1	-9.7	-8.1	6.5
Self-employment	84.0	-11.2	23.8	-11.8	-46.4	-22.1	-5.7	-11.8
Benefits excl. pensions	85.5	-41.2	23.9	-7.7	11.8	-103.3	-13.2	-0.4
Pensions or private income	75.1	696.8	19.4	-41.3	-4.2	464.8	-7.5	-39.9
Citizenship								
Austrian	76.8	85.4	22.3	10.8	11.6	-11.5	-8.7	3.3
Other EU	83.8	51.5	21.4	-5.8	20.6	53.9	-8.1	5.1
Non-EU	70.8	-31.6	26.4	0.8	22.9	-118.3	-5.5	-18.4
Total	76.7	71.4	22.7	8.4	14.0	-0.2	-8.3	2.0

S: Own calculations based on EUROMOD outputs

In sum, the results show that child benefits, especially the €360 lump sum payment to family allowance recipients, played an important role in counteracting the decline in market incomes between 2019 and 2020 and, relative to their incomes, benefited households in the lower income quintiles the most. Moreover, this finding likely underestimates the true effect because we did not consider the effect of the family hardship fund in our analysis, as it was not modelled in EUROMOD. From 2019 to 2021, the total effect of PE_{ch} and AE_{ch} on the mean incomes of households with children was slightly negative (-€ 8.3), which seems to have been primarily driven by the non-indexation of benefits in a moderate inflationary context.

However, even though those benefits did not increase real disposable incomes between 2019 and 2021, it is important to note that they still contributed significantly to household incomes. As shown in Table 5.12, child benefits accounted for up to 32% of the mean monthly disposable incomes in households with children, with poorer households benefiting the most. This is also visible in the effect of the benefits on the

AROP rate of children, which without those benefits would have been 10.9 percentage points higher in 2020 and 10.5 percentage points higher in 2021 according to our calculations.

Table 5.12: Composition of mean monthly disposable incomes of households with children in 2020 by income decile

	Disposable income	Market income	Taxes	Social insurance contributions	Benefits	Benefits directed at children	
Income deciles	€	€	€	€	€	€	% of disposable
1	892.6	336.8	-43.5	54.9	567.3	286.2	32%
2	1,419.4	961.6	-28.8	176.2	605.2	299.1	21%
3	1,731.2	1,438.2	29.2	266.9	589.1	267.9	15%
4	1,956.5	1,811.3	74.8	320.5	540.5	237.7	12%
5	2,175.7	2,199.3	156.6	406.8	539.7	230.9	11%
6	2,420.2	2,654.6	244.9	486.1	496.7	232.0	10%
7	2,674.1	2,981.3	348.2	535.4	576.5	235.6	9%
8	2,962.2	3,680.8	538.3	623.6	443.3	214.8	7%
9	3,417.2	4,407.9	765.4	697.6	472.3	216.6	6%
10	4,988.6	7,338.8	2,006.6	862.0	518.4	209.2	4%
Total	2,301.0	2,492.2	321.8	409.0	539.6	246.2	11%

Note: Disposable incomes are calculated as market incomes plus benefits minus taxes minus social insurance contributions. Child benefits are one component of total benefits. Benefits targeted at children are expressed in total Euros and as a share of disposable income.

S: Own calculations based on EUROMOD outputs

Table 5.13: Composition of mean disposable incomes of households with children in 2021 by income decile

	Disposable income	Market income	Taxes	Social Insurance contributions	Benefits	Benefits directed at children	
Income deciles	€	€	€	€	€	€	% of disposable
1	891.1	494.3	-48.4	80.2	428.5	259.2	29%
2	1,422.2	1,102.1	-23.1	198.1	495.2	239.8	17%
3	1,720.0	1,504.4	4.5	271.5	491.6	231.7	13%
4	1,959.6	1,978.7	106.0	352.1	439.0	222.5	11%
5	2,187.0	2,240.6	158.5	421.5	526.4	213.9	10%
6	2,435.0	2,702.8	220.6	471.4	424.2	201.0	8%
7	2,701.6	3,337.1	431.0	586.6	382.2	183.8	7%
8	3,023.6	3,853.0	542.4	670.1	383.1	186.0	6%
9	3,472.3	4,582.5	786.7	732.8	409.4	184.3	5%
10	5,318.6	8,026.5	2,237.3	894.4	423.8	183.0	3%
Total	2,318.9	2,643.2	342.2	427.6	445.5	214.4	9%

Note: Disposable incomes are calculated as market incomes plus benefits minus taxes minus social insurance contributions. Child benefits are one component of total benefits. Benefits targeted at children are expressed in total Euros and as a share of disposable income.

S: Own calculations based on EUROMOD outputs

6 RQ 4: How would additional policy measures to mitigate child poverty have performed during the COVID-19 crisis?

The previous chapter has illustrated how the automatic stabilizers and ad-hoc policy responses during COVID-19 affected the financial situation of households with children and thus also children's equivalised income and at-risk-of-poverty rates. This chapter simulates four additional policy responses that could have been implemented during COVID-19 to mitigate its effect on child poverty. The four potential additional policies are either (still hypothetical) policy proposals that have been part of the Austrian policy discourse or that have been implemented only after the COVID-19 pandemic to mitigate the effects of the subsequent cost-of-living crisis in Austria.

- Policy reform 1 (R1) simulates an increased unemployment benefit replacement rate of 70% (current replacement rate between 55% and 60% depending on income, including family supplements up to 80%) and an increased daily family supplement of €2 per child and per dependent family member (the current supplement is €0.97 per day). The reform of unemployment benefits also increases the replacement rate of unemployment assistance and the related family supplement.
- Policy reform 2 (R2) addresses children living in households that receive social assistance, unemployment benefits, unemployment assistance, minimum pension top-up or in single-parent and single-earner households with low incomes. The reform implements an actual reform in Austria that has been in place since July 2023. For each child below 18 living in one of the listed households, the state disburses a monthly payment of €60.
- Policy reform 3 (R3) deviates from the other three policies by addressing the financial situation of children through income taxation. Austria reformed its family tax credit (*Familienbonus Plus*) in 2022, which had been advanced already to the COVID-19 years in the policy reform. By increasing the maximum amount of the income tax credit by €500 to €2000 per year and child below 18 and by increasing the related negative tax (*Kindermehrbetrag*) by €300 to € 550, the reformed family tax credit is intended to provide higher financial benefits to families and to be more progressive.
- Policy reform 4 (R4) is influenced by the idea of a basic security for children, which is currently implemented or discussed in Germany and Austria. Its universal component providing a basic benefit for each child is implemented through an increased universal family allowance at the level of the social assistance benefit for children (27% of the rate for a single adult) while

keeping the proportional age-related increase of the current family allowance (and the means-tested social assistance benefit for children).

6.1 Methodology

The following sections analyse the effect of each hypothetical policy reform on the disposable income of households with children and children's at-risk-of-poverty rate by socio-economic characteristics. The analysis applies the same methodology that has been used in the previous chapter to disaggregate the effect of the Austrian tax-benefit system of compensating for the market income effect of COVID-19. We disaggregate the effect of the Austrian tax system, including the respective additional policy reform, into the policy effect and the automatic stabiliser effect. These effects are set in relation to the market income and population effects caused by COVID-19 and the demographic changes recorded in 2019, 2020 and 2021, respectively.

We used EUROMOD to simulate the four additional policy reforms. In addition to the scenarios of Research Question 3 (B_{19}, B_{20}, B_{21}, C_{20}, C_{21}, $C_{19;20}$, $C_{19;21}$), we simulated for each additional policy reform additional baseline scenarios (B_{20S}, B_{21S}) and counterfactual scenarios (C_{20S}, C_{21S}). B_{20S} represents the 2020 Austrian tax-benefit system, including the hypothetical policy reform and income data from 2020 (with the COVID-19 labour market effect). B_{21S} replicates the same for 2021. C_{20S} represents the 2020 Austrian tax-benefit, including the hypothetical policy reform and uprated income data from 2019 (without the COVID-19 labour market effect). C_{21S} replicates the same for 2021.

For the subsequent analysis, the decomposition method of Research Question 3 is applied to the hypothetical baseline (B_{20S}, B_{21S}) and counterfactual scenarios (C_{20S}, C_{21S}) with the scenarios based on the pre-COVID-19 tax-benefit system without any discretionary and additional policy reforms (B_{19}, $C_{19;20}$, $C_{19;21}$). The results of the decomposition analysis with the additional policy reforms are annotated with the suffix "s" (ME_s, TE_s, PE_s, AE_s, ISC_s, $CPPC_s$).

The following tables cover the additional effect of each additional policy reform compared to the existing effects of the Austrian tax-benefit system, which have been presented in the tables of the previous chapter. The additional effect is defined as the difference between the hypothetical system of 2020 and 2021 and the existing system of 2020 and 2021, both in relation to 2019, to extract the compensating policy effect in relation to the COVID-19 effect.

- Additional market income and population effect: $\Delta\overline{ME} = \overline{ME_s} - \overline{ME}$
- Additional total effect: $\Delta\overline{TE} = \overline{TE_s} - \overline{TE}$
- Additional policy effect: $\Delta\overline{PE} = \overline{PE_s} - \overline{PE}$
- Additional automatic stabiliser effect: $\Delta\overline{AE} = \overline{AE_s} - \overline{AE}$
- Additional Income Stabilisation Coefficient: $\Delta\overline{ISC} = \overline{ISC_s} - \overline{ISC}$
- Additional Childhood Poverty Prevention Coefficient: $\Delta\overline{CPPC} = \overline{CPPC_s} - \overline{CPPC}$

Depending on the unit of the original coefficient, the additional coefficients are either in percentage points or in Euros.

The change in disposable income is based on equivalised disposable incomes, taking the number and age of all household members into consideration.

The market and population effects between COVID-19 and pre-COVID-19 years (ME_s) remain identical to the analysis in the previous chapter (ME). The additional market effect (ΔME) remains zero because the hypothetical benefit reforms affect the disposable income and not the market income. Differences in the market effect between the hypothetical reforms and the actual Austrian tax-benefit system of 2020 and 2021 (ΔME) occur only for groups defined by their disposable incomes, e.g., income deciles and main source of income. Similarly, the market effect on the at-risk-of-poverty rate also fluctuates since the hypothetical reform alters the income distribution and the at-risk-of-poverty threshold.

There are some important limitations in our analysis, which should be considered when formulating potential policy recommendations: First, only a limited section of government expenditure and revenue can be adequately analysed and modelled based on EU-SILC data and the tax-benefit microsimulation model EUROMOD (only social insurance contributions, income taxes and monetary benefits but not for example, indirect and non-monetary transfers in the areas of labour market integration, public education and childcare, public health services, and housing).

Second, EUROMOD provides static simulation results omitting behavioural changes, which can occur in response to policy changes. For example, reforms to unemployment benefits may influence the level of (un)employment and working time, which in turn would affect individuals' incomes. As no projections are made, the analysis cannot be used to assess the fiscal impact in the future. A dynamic model would require many additional assumptions regarding labour market integration or demographic developments and is beyond the scope of this study. This also refers to second order effects such as wage and employment effects and the impact on the general economic situation.

6.2 R1: unemployment benefit & assistance - increased replacement rate and family supplement

6.2.1 Background

An increase in the unemployment benefit replacement rate to 70% has been discussed in Austria for several years. Parties and interest groups have proposed different configurations. For example, commissioned by the Federal Ministry of Labour and Economy, Bittschi et al. (2023) evaluated an increase to 70% with a degressive replacement rate after 10 or 12 weeks, an increase in family supplements and the abolishment of minimum-level supplement (*Ergänzungsbetrag*). In contrast, our reform retains the functioning of all standard benefits and supplements and

focuses on increasing the standard replacement rate and the family supplement. Replicating the simulated policy reform by Premrov et al. (2022) for the years 2021 and 2022, this resembles a simple policy reform, which the Austrian government could have implemented to additionally mitigate the loss in income due to the COVID-19 pandemic.

The current unemployment benefit system consists of a 55% replacement rate and a minimum-level supplement in the event of the unemployment benefit being lower than the defined minimum level related to the minimum pension top-up. Families are also entitled to a daily family supplement of €0.97 for each child and under certain conditions for their dependent partner. However, the sum of the benefit and the minimum-level supplement must not exceed 60% (80% in the case of families receiving the family supplement) of the previous net income. While the minimum-level supplement has been increased annually, the amount of the family supplement has remained unaltered since 2001.

The subsequent unemployment assistance amounts to 92% or 95% of the unemployment benefit if the amount is above or below the minimum level. The same family supplement is also paid out to unemployment assistance recipients (for a detailed overview, see European Commission et al., 2024).

6.2.2 Reform parameters

The simulated additional policy reform increases the standard replacement rate to 70% and the daily family supplement to €2. The other parameters, such as the 80% ceiling for families, have not been altered. By altering the replacement rate of the unemployment benefit and the family supplement, the unemployment assistance is also increased accordingly. The additional reform is simulated on top of all existing tax-benefit policies (incl. the implemented COVID-19 ad-hoc policies, which temporarily increased the unemployment assistance level to that of the unemployment benefit and provided one-off payments to recipients of both benefits). The calculated policy effects do not consider any potential behavioural changes in response to the reform.

6.2.3 The effect of the Austrian tax-benefit system, including the additional reform

Keeping in mind that the Austrian tax-benefit system already offset the decline in market incomes resulting from the COVID-19 crisis for the Austrian population at large (see Table 5.5), the additional reform of the unemployment benefit and assistance would have further increased the disposable income in 2020. The additional effect of the reform would have been an increase of 0.6pp in disposable income compared to 2019 and thus 0.09 additional points in the ISC (Table 6.1). In 2021, the additional effect would have amounted to 0.4pp and an increase of the ISC by 0.10 points. In contrast to 2020, in 2021, the Austrian tax-benefit system, including

the reform of the unemployment benefits, would not have overcompensated for the COVID-19 labour market effect.

The additional effect of the unemployment benefits reform would have benefited households with and without children to a similar degree in both years. While households with children would have benefited purely from an additional policy effect, households without children would have benefited from an additional policy effect and additionally from the automatic stabilizers and thus the interaction between the additional reform and the existing tax-benefit system. Households with children experienced lower market effects caused by the COVID-19 pandemic, which would have led to an overcompensation in both years. Especially in 2021, the additional reform would have overcompensated a small decline in market incomes due to COVID-19.

Table 6.1: R1: Decomposed additional effects on mean equivalised household income – percentage points

	2019 vs. 2020					2019 vs. 2021				
House-hold type	ΔTE	ΔPE	ΔAE	ΔME	ΔISC	ΔTE	ΔPE	ΔAE	ΔME	ΔISC
With children	0.6	0.6	0.0	0	0.14	0.4	0.4	0.0	0	0.67
Without children	0.5	0.4	0.2	0	0.06	0.5	0.3	0.1	0	0.08
Total	0.6	0.5	0.1	0	0.09	0.4	0.3	0.0	0	0.10

S: Own calculations based on EUROMOD outputs

For 2020, the effect on the median disposable income would have been comparable to the mean disposable income. However, for 2021, the negative total effect on the median disposable income of households with children (see Table 5.6) would have been reduced by the unemployment benefit reform (Table 6.2). This would have increased the ISC by 0.18 points and thus improved the compensatory function of the Austrian tax-benefit system. The difference in the effect on mean and median disposable incomes indicates differences by income levels. We disaggregate the additional effect by income deciles and other socio-economic characteristics in the following tables.

Table 6.2: R1: Decomposed additional effects on median equivalised household incomes – percentage points

	2019 vs. 2020					2019 vs. 2021				
House-hold type	ΔTE	ΔPE	ΔAE	ΔME	ΔISC	ΔTE	ΔPE	ΔAE	ΔME	ΔISC
With children	0.7	0.8	0	0	0.10	0.8	0.8	0.1	0	0.18
Without children	0.7	0.7	0	0	0.08	0.2	0.2	0.0	0	0.03
Total	0.4	0.4	0	0	0.05	0.7	0.5	0.2	0	0.12

S: Own calculations based on EUROMOD outputs

The additional total effect on the disposable income would have been strongest in the first income decile (Table 6.3). In 2020, households with children in the first income decile would have benefited from an additional 2.5pp increase in their disposable income, while those in the 10th income decile would have benefited from an additional 0.1pp increase. The reform of the unemployment benefit would have had a clear progressive policy effect, while the automatic stabilizers would have decreased the progressive effect to a limited extent. In 2021, the additional effect would have been lower for the first income deciles. However, the progressive effect, as well as the moderating effect of the automatic stabilizers, would have remained. The change in the market effect indicates a change in the distribution of income deciles. Particularly, the first income deciles would have experienced a lower negative effect in 2020 and a stronger positive effect in 2021 on their market income. This indicates that low-income households would have profited from the reform and thus would have moved to a higher-income decile.

Table 6.3: R1: Decomposed additional effects on mean equivalised disposable incomes of households with children by deciles – percentage points

	2019 vs 2020					2019 vs 2021				
	ΔTE	ΔPE	ΔAE	ΔME	ΔISC	ΔTE	ΔPE	ΔAE	ΔME	ΔISC
Income deciles										
1	2.5	2.0	-0.6	1.1	0.24	1.5	1.2	-1.1	1.3	-0.81
2	1.6	1.3	0.2	0.1	0.16	0.8	0.7	-1.3	1.4	0.02
3	1.2	1.2	-0.8	0.7	0.25	1.0	0.9	1.5	-1.5	0.39
4	1.1	0.8	0.9	-0.6	0.11	0.6	0.5	0.2	-0.1	0.13
5	0.7	0.5	-0.6	0.7	0.08	0.3	0.3	-0.7	0.8	0.03
6	0.5	0.4	-0.3	0.5	0.82	0.4	0.2	0.4	-0.3	0.06
7	0.4	0.3	0.2	-0.1	0.06	0.4	0.2	-0.4	0.6	-0.10
8	0.4	0.3	0.0	0.0	0.14	0.3	0.3	0.1	0.0	-0.42
9	0.3	0.3	0.2	-0.1	0.04	0.4	0.2	0.0	0.1	0.07
10	0.1	0.0	-0.1	0.3	0.00	0.0	0.0	0.0	-0.1	0.00
Total	0.6	0.6	0.0	0.0	0.14	0.4	0.4	0.0	0.0	0.67

S: Own calculations based on EUROMOD outputs

In terms of family type, households with at least two adults and four or more children would have benefited the most from the unemployment benefits reform (Table 6.4). In 2020, they would have experienced a 2.7pp additional increase, and in 2021, a 1.4pp increase. These households were affected the least by COVID-19 and even saw an increase in their market income. The other household categories would have benefited to a comparable degree from the policy reform in both years. However, the unemployment reform would not have compensated for the unequally distributed market effect of COVID-19.

Related to main source of income, households with benefits would have benefited the most. The reform would not have contained a change of eligibility criteria, and thus, households who already received unemployment benefit or assistance would have received more.

The additional effect according to citizenship would have been shifted towards non-Austrians. This can be explained by the higher share of unemployment benefit and assistance recipients in those groups.

Table 6.4: R1: Decomposed additional effects on mean equivalised disposable incomes of households with children by demographic groups (R1) – percentage points

	2019 vs 2020					2019 vs 2021				
Group	ΔTE	ΔPE	ΔAE	ΔME	ΔISC	ΔTE	ΔPE	ΔAE	ΔME	ΔISC
Household composition										
single-parent, at least 1 child	0.6	0.7	-0.1	0.0	-0.36	0.4	0.5	-0.1	0.0	0.03
min. 2 adults, 1 child	0.6	0.5	0.1	0.0	0.06	0.4	0.3	0.1	0.0	0.15
min. 2 adults, 2 children	0.4	0.4	-0.1	0.0	2.00	0.3	0.4	-0.1	0.0	-0.19
min. 2 adults, 3 children	0.7	0.7	-0.1	0.0	0.24	0.6	0.6	0.0	0.0	0.10
min. 2 adults, 4+ children	2.7	2.5	0.2	0.0	-0.20	1.4	1.7	-0.4	0.0	-0.04
Main source of income										
Employment	0.5	0.6	0.1	-0.1	0.13	0.4	0.4	0.0	0.0	0.67
Self-employment	0.0	0.2	-0.2	-0.1	-0.02	0.1	0.1	0.0	0.0	-0.02
Benefits excl. pensions	7.5	7.3	0.4	-0.1	2.86	4.6	3.6	0.5	0.4	-0.61
Pensions or private income	0.2	0.2	0.0	0.0	0.00	0.0	0.1	0.0	0.0	0.00
Citizenship										
Austrian	0.4	0.4	0.0	0.0	0.09	0.3	0.3	0.0	0.0	-0.17
Other EU	1.2	1.0	0.1	0.0	0.21	0.7	0.6	0.1	0.0	0.10
Non-EU	1.7	1.7	0.0	0.0	0.81	1.0	1.2	-0.2	0.0	-0.17
Total	0.6	0.6	0.0	0.0	0.14	0.4	0.4	0.0	0.0	0.67

S: Own calculations based on EUROMOD outputs

As for the change in at-risk-of-poverty rates among households with children, the Austrian tax-benefit system with the additional unemployment benefit and assistance reform would have changed the 2.5pp AROP rate increase due to COVID-19 market changes into a -0.3pp decrease and in 2020, the 1.9pp increase of 2021 would have been reduced to a 1.5pp increase (see Table A4.5). The additional effect of the hypothetical reform would have been a decrease of 0.5pp in 2020 and 0.3pp in 2021 (Table 6.5). The strongest additional policy effect would have been experienced by households with at least two adults and four or more children. However, this group also would have experienced the strongest additional counter-effect by the automatic stabilizers. The interaction between the additional policy reform and the automatic stabilizers would have offset the additional policy effect for larger households. Households with at least two adults and three children would

have benefited from the strongest additional total effect (-1pp AROP in 2020, -1.5pp AROP in 2021).

As expected, households with benefits as the main source of income would have profited the most from the unemployment benefit and assistance reform (-6.3pp AROP in 2020, -2.7pp AROP in 2021). In 2020, Austrian and other EU citizenship households would have benefited from a 0.6pp reduction in poverty rates, while non-EU citizens would have experienced the strongest policy effect but also an equal offsetting effect of the automatic stabilizers. In 2021, the automatic stabilizers would not have offset the policy effect for non-EU citizens, and thus they would have benefited from the unemployment benefit and assistance reform.

Table 6.5: R1: Decomposed additional effects on the child AROP rate by demographic groups – percentage points

	2019 vs 2020					2019 vs 2021				
Group	ΔTE	ΔPE	ΔAE	ΔME	ΔCPPC	ΔTE	ΔPE	ΔAE	ΔME	ΔCPPC
Household composition										
single-parent, at least 1 child	-0.8	-0.4	-0.4	0.0		-0.3	-0.2	-0.2	0.0	0.04
min. 2 adults, 1 child	-0.9	-0.5	-0.5	0.0	0.22	0.0	0.0	0.0	-0.1	-0.08
min. 2 adults, 2 children	0.0	0.0	0.1	0.0	0.00	0.0	0.1	0.0	0.0	0.00
min. 2 adults, 3 children	-1.0	-0.9	-0.1	0.0	0.59	-1.5	-0.8	-0.7	0.0	0.20
min. 2 adults, 4+ children	0.0	-3.1	3.1	0.0	0.00	0.0	0.0	0.0	0.0	0.00
Main source of income										
Employment	-0.1	-0.1	-0.2	0.2	0.02	-0.2	-0.3	0.1	0.0	0.06
Self-employment	0.6	0.1	0.3	0.3	-0.23	0.0	-0.2	0.3	0.0	0.00
Benefits excl. pensions	-6.3	-7.0	1.3	-0.5	-12.56	-2.7	-0.5	-1.9	-0.3	-0.26
Pensions or private income	0.0	0.0	0.0	0.0	0.00	0.0	0.0	0.0	0.0	0.00
Citizenship										
Austrian	-0.6	-0.5	-0.1	0.0	0.30	-0.1	-0.1	0.0	0.0	0.09
Other EU	-0.6	-0.3	-0.3	0.0	0.05	0.0	0.5	-0.5	0.0	0.00
Non-EU	0.0	-2.1	2.1	0.0	0.00	-1.7	-0.9	-0.8	0.0	-0.19
Total	-0.5	-0.6	0.1	0.0	0.20	-0.3	-0.1	-0.2	-0.1	0.11

S: Own calculations based on EUROMOD outputs

6.2.4 The effect of child benefits

The following Tables present the absolute effect of policies and automatic stabilizers targeted at children. However, the reformed unemployment benefits and assistance are not considered to be benefits targeted at children. They are primarily targeted at unemployed adult workers and only indirectly at their families, including children. Thus, the increased replacement rate and family supplement would not have touched the policy effect of child benefits. The average increase in child benefits would have been close to zero in both years. This can be observed when looking at the policy effect change for the distinct household categories. In contrast to the income decile and main source of income classification, household categorisation does not change when the amount of disposable income changes. This explains the policy effect change by income deciles in Table 6.6.

In 2020, households with children would have received, on average, €12.4 in additional benefits and €0.5 in benefits from the automatic stabilizers per month. Households with children in the fourth decile would have received an additional € 32.70 and thus the most among income deciles. Families in the tenth income decile would have experienced a decrease of €9.5 in their disposable income without market effect. The distribution of the additional effect of the automatic stabilizers does not seem to follow a specific pattern. In 2021, households with children would have received €9 from the policy effect and €0.1 from automatic stabilizers. Households with children in the third income decile would have benefited the most from the reform by an additional € 40.5 per month.

Table 6.6: R1: Additional effect of benefits targeted at children on the change in monthly mean disposable incomes of households with children by income deciles - EUR

	2019 vs. 2020				2019 vs. 2021			
	ΔPE_t	ΔAE_t	ΔPE_{ch}	ΔAE_{ch}	ΔPE_t	ΔAE_t	ΔPE_{ch}	ΔAE_{ch}
Income deciles								
1	17.2	-5.8	*0.2*	*-3.8*	9.8	-9.2	*1.0*	*-1.5*
2	18.4	2.6	*2.8*	*8.2*	9.2	-17.4	*-3.4*	*6.3*
3	19.8	-12.4	*-3.1*	*-4.8*	15.4	25.1	*3.3*	*-3.5*
4	15.8	16.9	*-3.9*	*-9.0*	8.4	3.5	*1.4*	*0.6*
5	11.6	-12.1	*5.8*	*10.4*	5.9	-15.2	*-3.4*	*-1.7*
6	9.5	-8.0	*-2.7*	*-2.7*	4.9	10.9	*-0.4*	*2.3*
7	8.0	5.4	*2.6*	*0.4*	6.8	-12.4	*2.1*	*-1.9*
8	9.1	1.6	*-5.4*	*1.5*	7.0	4.3	*0.8*	*-0.2*
9	9.4	4.5	*1.6*	*-0.5*	7.4	-0.3	*-1.3*	*-0.9*
10	-1.9	-7.6	*0.4*	*-0.4*	4.1	2.0	*0.1*	*-0.1*
Total	12.4	0.5	*-0.1*	*-0.2*	9.0	0.1	*0.0*	*0.1*

S: Own calculations based on EUROMOD outputs

Households with at least two adults and four or more children would have benefited from an additional € 35.8 per month in 2020 and € 18.4 in 2021 (Table 6.7). The other household categories would have profited less from the reform. Families with benefits as the main source of income would have faced a monthly increase of €87.7 in 2020 and €47.1 in 2021. Non-Austrian households would have benefited more from the reform than Austrian households.

Table 6.7: R1: Additional effect of child benefits on the change in monthly mean disposable incomes of households with children by demographic groups (R1) - EUR

	2019 vs. 2020				2019 vs. 2021			
	ΔPE_t	ΔAE_t	ΔPE_{ch}	ΔAE_{ch}	ΔPE_t	ΔAE_t	ΔPE_{ch}	ΔAE_{ch}
Household composition								
single-parent, at least 1 child	11.2	-1.1	*-0.3*	*-0.2*	8.1	-1.1	*0.0*	0.0
min. 2 adults, 1 child	11.5	3.4	*-0.4*	*-0.4*	7.5	1.8	*0.0*	0.0
min. 2 adults, 2 children	9.4	-1.2	*0.0*	*0.0*	7.2	-0.7	*-0.1*	0.1
min. 2 adults, 3 children	15.5	-2.0	*-0.1*	*-0.1*	13.5	-0.7	*0.0*	0.0
min. 2 adults, 4+ children	33.6	2.2	*0.0*	*0.0*	22.9	-4.5	*0.0*	0.0
Main source of income								
Employment	14.2	2.3	*-0.7*	*0.3*	9.4	-0.5	*-0.6*	0.2
Self-employment	5.3	-3.6	*-0.2*	*-0.5*	3.1	-0.2	*0.0*	0.0
Benefits excl. pensions	83.7	4.0	*-3.4*	*-1.3*	41.3	5.8	*1.5*	-0.7
Pensions or private income	4.5	-0.4	*0.0*	*0.0*	2.4	-1.4	*0.0*	0.0
Citizenship								
Austrian	9.5	0.6	*-0.2*	*-0.3*	7.1	0.4	*0.0*	0.0
Other EU	19.7	2.2	*0.0*	*0.0*	13.1	0.2	*-0.3*	0.3
Non-EU	24.8	-1.1	*0.0*	*0.0*	17.2	-3.0	*-0.2*	0.2
Total	12.4	0.5	*-0.1*	*-0.2*	9.0	0.1	*0.0*	0.1

S: Own calculations based on EUROMOD outputs

Households with children would have enjoyed a monthly €12.9 increase in disposable income in 2020 (Table 6.8). The source of the increase in disposable income would have exclusively been the increase in benefits with a minor deduction by an increase in taxes. The change in child benefits would have been around 0pp. The first income decile would have experienced a strong increase in their disposable income of €21.4 per month. However, the source of the increase would have been a change in market income and not in benefit income. The fourth income decile would have benefited the most from the increase in benefits and would have been most affected by a reduction in market income. This indicates that a large share of households who

would have profited from the reform would have moved into a higher-income decile, thereby decreasing the average market income of that decile.[18]

Table 6.8: R1: Change in composition of mean monthly disposable incomes of households with children in 2020 by income decile - EUR

	Δ Disposable income	Δ Market income	Δ Taxes	Δ Social insurance contributions	Δ Benefits	*Δ Benefits directed at children*	
Income deciles	Total	Total	Total	Total	Total	*Total*	*pp (% of disposable)*
1	21.4	24.4	-0.4	5.5	2.0	*-3.6*	*-1*
2	22.2	-7.4	1.8	-2.3	29.1	*11.0*	*1*
3	19.8	68.5	6.8	10.9	-31.1	*-7.9*	*0*
4	21.0	-56.4	-7.4	-3.9	66.1	*-13.1*	*-1*
5	14.1	15.1	3.4	-1.9	0.6	*16.3*	*0*
6	11.7	8.8	2.2	0.6	5.6	*-5.4*	*-1*
7	10.7	-14.7	3.2	-7.0	21.4	*2.9*	*0*
8	12.0	20.4	4.0	9.6	5.1	*-4.0*	*0*
9	11.1	-9.1	-2.2	-2.9	15.1	*1.1*	*0*
10	4.6	0.0	0.1	0.0	4.7	*0.0*	*0*
Total	12.9	0.0	0.1	0.0	13.1	*-0.4*	*0*

Note: Disposable incomes are calculated as market incomes plus benefits minus taxes minus social insurance contributions. Benefits direct at children are one component of total benefits.

S: Own calculations based on EUROMOD outputs

In 2021, the reform effect would have remained similar (Table 6.9). Those households with children who would have benefited the most from an increase in benefits (third income decile) face the strongest additional decrease in their average market income. As in 2020, this indicates that households with lower market income would have profited from the reform. In 2021, the average increase in disposable income (€9.2) would have been smaller than in 2020. This can be attributed to a lower increase in benefits (€10.3) and a stronger increase in taxes (€1).

[18] Note that the change in market income is caused by the change in income decile assignment.

Table 6.9: R1: Change in composition of mean monthly disposable incomes of households with children in 2021 by income decile - EUR

	Δ Disposable income	Δ Market income	Δ Taxes	Δ Social insurance contributions	Δ Benefits	*Δ Benefits directed at children*	
Income deciles	Total	Total	Total	Total	Total	*Total*	*pp (% of disposable)*
1	12.4	16.4	1.7	3.5	1.3	*-0.5*	*0*
2	11.6	47.2	3.3	8.6	-23.8	*2.9*	*0*
3	15.4	-30.6	3.8	-5.7	44.1	*-0.2*	*0*
4	11.2	-21.1	-3.2	-2.5	26.7	*2.0*	*0*
5	7.6	11.2	7.2	1.1	4.6	*-5.2*	*0*
6	8.4	-19.1	-4.0	-4.6	18.8	*1.9*	*0*
7	10.0	14.5	7.0	3.1	5.5	*0.2*	*0*
8	10.6	7.0	3.6	0.6	7.8	*0.6*	*0*
9	13.5	1.5	1.6	0.1	13.6	*-2.3*	*0*
10	1.1	0.0	0.2	0.0	1.2	*0.0*	*0*
Total	9.2	0.0	1.0	0.0	10.3	*0.0*	*0*

Note: Disposable incomes are calculated as market incomes plus benefits minus taxes minus social insurance contributions. Child benefits are one component of total benefits.

S: Own calculations based on EUROMOD outputs

6.2.5 Summary of reform effect

The increased replacement rate of the unemployment benefit, and thus, also of unemployment assistance and the increased family supplement would have increased the total effect on the mean disposable income of households with children by 0.6 pp in 2020 and by 0.4 pp in 2021 compared to 2019. This would have raised the monthly disposable income by €12.9 in 2020 and by €9.2 in 2021. Since unemployment benefits are not targeted at children, the reform would not have increased the share of benefits targeted at children. The at-risk-of-poverty rate of households with children would have decreased by additionally 0.5pp in 2020 and by 0.3pp in 2021.

Households with at least two adults and four or more children would have benefited the most from the reform. However, the reform effect does not linearly increase with the number of children. Since the share of unemployment benefit recipients is greater among non-Austrian households, they would have also benefited to a greater degree than Austrian households. In terms of main income source, households with benefits as the main source of income would have profited the most from the reform. At the same time, the increase in disposable income would have moved several

households to this category. Consequently, the first-income deciles would not have benefited the most from the reform, but households in the third- or fourth-income decile would. This indicates that households in the lower income deciles would have gained from the additional reform and then been classified in a higher income decile.

The reform would have cost an additional €1.0 billion in 2020 and €0.8 billion in 2021.

6.3 R2: €60 monthly allowance for children below 18 in low-income households

6.3.1 Background

The policy reform was implemented in July 2023, and it is currently still in place.[19] The reform aims to decrease poverty among children, which increased during the cost-of-living crisis in 2022. For each child below the age of 18 living in households receiving unemployment benefit, unemployment assistance, social assistance or minimum pension top-up and children living in single-parent or single-earner low-income households a monthly allowance of €60 is granted.

6.3.2 Reform parameters

The modelling is based on the 2023 and 2024 modelling of the inflation compensation for families in EUROMOD (European Commission et al., 2024). Households receiving social assistance, unemployment benefit, unemployment assistance, minimum pension top-up, and single-parent and single-earner households with incomes below a certain income threshold receive a monthly allowance of €60 per child. The original annual income threshold for single parents and single earners was €23,300 in 2023 and €24,500 in 2024. Using CPI, we calculated the analogue income thresholds for 2019, 2020, and 2021. The remaining parameters and eligibility conditions are identical to the actual 2023/2024 benefit.

6.3.3 The effect of the Austrian tax-benefit system, including the additional reform

The additional reform of the monthly €60 allowance for children in benefit-receiving and low-income households would have increased the total effect of the Austrian tax-

[19] For more information on the 2023 policy, see https://www.buchhaltungsagentur.gv.at/lwa-g/ or the latest EUROMOD country report for Austria (European Commission et al., 2024)

benefit system on the average disposable income of households with children by 0.5pp in 2020 and by 0.6 pp in 2021 compared to 2019 (Table 6.10). In contrast to the above unemployment benefit reform, the €60 monthly benefit would have exclusively increased the disposable income of households with children. It would have increased the ISC in 2020 by 0.11 points and by 1 point in 2021. This would have increased the crisis-overcompensating effect of the Austrian tax-benefit system, especially in 2021. In 2021, the negative market effect caused by COVID-19 would have been compensated twice by the reformed Austrian welfare state. The reform would have exclusively increased the policy effect, while the automatic stabiliser effect would not have been affected by the reform.

Table 6.10: R2: Decomposed additional effects on mean equivalised household income – percentage points

	2019 vs. 2020					2019 vs. 2021				
House-hold type	ΔTE	ΔPE	ΔAE	ΔME	ΔISC	ΔTE	ΔPE	ΔAE	ΔME	ΔISC
With children	0.5	0.5	0.0	0	0.11	0.6	0.5	0	0	1.00
Without children	0.0	0.0	0.1	0	0.00	0.0	0.0	0	0	0.00
Total	0.2	0.2	0.0	0	0.03	0.1	0.2	0	0	0.02

S: Own calculations based on EUROMOD outputs

The reform effect on the median disposable income would have been similar to the mean disposable income (Table 6.11). Households with children would have benefited from a 0.2pp increase in the median disposable income in 2020 and 2021. The policy effect would have been slightly stronger in 2021 than in 2020, and in both crisis years, the automatic stabilizers would have reduced the effect. In contrast to the effect on the mean disposable income, the increase in ISC of the median disposable income would have been smaller. In 2021, the median disposable income would not have been crisis-overcompensated by the reformed Austrian tax-benefit system.

Table 6.11: R2: Decomposed additional effects on median equivalised household incomes – percentage points

	2019 vs. 2020					2019 vs. 2021				
House-hold type	ΔTE	ΔPE	ΔAE	ΔME	ΔISC	ΔTE	ΔPE	ΔAE	ΔME	ΔISC
With children	0.2	0.4	-0.3	0	0.03	0.2	0.5	-0.2	0	0.05
Without children	0.1	0.1	0.0	0	0.01	0.0	0.0	0.0	0	0.00
Total	0.1	0.0	0.0	0	0.01	0.0	0.0	0.0	0	0.00

S: Own calculations based on EUROMOD outputs

The additional effect of the policy reform is clearly targeted at low-income households. Households in the first income decile would have benefited from a 3.9pp increase in disposable income in 2020 (Table 6.12). The additional total effect would have consisted of a 4.4pp additional policy effect and a 1pp additional decrease by the automatic stabilizers. This would have increased the ISC of the first income decile by 0.33 points and thus overcompensated the crisis-market effect by 1.47. Other income deciles would have profited to a much lower degree, and from the eighth income decile up, not at all. We don't observe major changes in income decile classifications as was the case in R1. This indicates that the reform is much more targeted at households with children and thus does not affect the income decile categorisation of households.

In 2021, the additional effect of the reform would have been comparable to 2020. The first income decile would have benefited from an additional 3.3pp increase in disposable income, consisting of a 3.8pp additional policy effect and a 1pp decrease by the automatic stabilizers. This would have led to a strong decrease in the ISC by 1.71 points and, thus, no market income compensation at all. However, in 2021, the first income decile households with children were not negatively impacted by COVID-19 and instead experienced an increase in market incomes. The additional reform effect would have remained strongly progressive.

Table 6.12: R2: Decomposed additional effects on mean equivalised disposable incomes of households with children by deciles – percentage points

	2019 vs 2020					2019 vs 2021				
	ΔTE	ΔPE	ΔAE	ΔME	ΔISC	ΔTE	ΔPE	ΔAE	ΔME	ΔISC
Income deciles										
1	3.9	4.4	-1.0	0.4	0.33	3.3	3.8	-1.0	0.4	-1.71
2	0.8	1.0	0.1	-0.3	0.08	0.3	0.6	-1.0	0.7	-0.01
3	0.2	0.2	1.1	-1.1	0.00	0.0	0.1	1.4	-1.6	0.20
4	0.2	0.2	-0.4	0.4	0.03	0.4	0.2	0.3	-0.2	0.09
5	0.2	0.1	0.2	-0.1	0.02	0.1	0.2	0.0	0.0	0.01
6	0.1	0.1	-0.2	0.3	0.31	0.1	0.0	-0.3	0.2	0.03
7	0.1	0.1	0.1	-0.1	0.01	0.0	0.0	0.0	0.1	0.00
8	0.0	0.0	-0.2	0.1	0.01	0.0	0.0	0.1	-0.1	-0.04
9	0.0	0.0	0.2	-0.2	0.00	0.1	0.1	0.0	0.0	0.01
10	0.0	0.0	0.0	0.0	0.00	0.0	0.0	0.0	0.0	0.00
Total	0.5	0.5	0.0	0.0	0.11	0.6	0.5	0.0	0.0	1.00

S: Own calculations based on EUROMOD outputs

Households with at least two adults and four or more children would have benefited the most from the reform (Table 6.13). In 2020, their disposable income would have increased by an additional 2.9pp and in 2021 by an additional 2.5pp. The automatic stabilizers would have decreased the strong policy effect in both years. The second group profiting from the additional reform would have been single-parent households. They would have received an additional increase in their disposable income of 2.3pp in 2020 and 2.5pp in 2021. In contrast to the larger households, automatic stabilizers would not have affected the policy effect to a major degree.

Comparable to R1, the eligibility of the second reform mostly addresses households who already receive benefits, except for low-income single-parent and single-earner households. Thus, the main beneficiaries of the reform are households with benefits as their main source of income. They would have profited from an additional 4.3pp increase in disposable income in 2020 and an additional 4.4pp increase in 2021. Households with non-EU citizens would have also gained the most from the additional increase in disposable income. However, the differences by citizenship would have been much smaller than from the unemployment benefits reform.

Table 6.13: R2: Decomposed additional effects on mean equivalised disposable incomes of households with children by demographic groups – percentage points

	2019 vs 2020					2019 vs 2021				
Group	ΔTE	ΔPE	ΔAE	ΔME	ΔISC	ΔTE	ΔPE	ΔAE	ΔME	ΔISC
Household composition										
single-parent, at least 1 child	2.3	2.3	-0.1	0.0	-1.36	2.5	2.5	0.1	0.0	0.22
min. 2 adults, 1 child	0.3	0.2	0.0	0.0	0.03	0.2	0.2	0.0	0.0	0.07
min. 2 adults, 2 children	0.3	0.3	0.0	0.0	1.50	0.3	0.4	0.0	0.0	-0.19
min. 2 adults, 3 children	0.7	0.6	0.0	0.0	0.24	0.9	0.8	0.1	0.0	0.15
min. 2 adults, 4+ children	2.9	3.6	-0.7	0.0	-0.21	2.5	3.5	-1.0	0.0	-0.07
Main source of income										
Employment	0.7	0.5	-0.1	0.3	0.30	0.4	0.4	0.1	-0.1	0.57
Self-employment	0.2	0.9	0.4	-1.2	-0.28	0.9	1.3	0.3	-0.5	-0.24
Benefits excl. pensions	4.3	4.6	0.1	-0.3	1.48	4.4	4.6	0.9	-1.1	-0.70
Pensions or private income	0.6	2.2	0.9	-2.5	0.02	2.5	3.4	1.3	-2.1	0.10
Citizenship										
Austrian	0.3	0.3	0.0	0.0	0.07	0.3	0.3	0.0	0.0	-0.17
Other EU	0.7	0.7	0.0	0.0	0.12	0.9	0.7	0.1	0.0	0.13
Non-EU	2.1	2.2	-0.2	0.0	1.00	2.0	2.3	-0.4	0.0	-0.34
Total	0.5	0.5	0.0	0.0	0.11	0.6	0.5	0.0	0.0	1.00

S: Own calculations based on EUROMOD outputs

The reform would have additionally decreased the at-risk-of-poverty rates of households with children by 1.2pp in 2020 and by 1.1pp in 2021 (Table 6.14). This would have resulted in a total reduction of poverty rates by 1pp in 2020 despite the COVID-19 labour market effect of a 2.5pp increase (see Table A4.14). In 2021, the total effect would have been an increase of 0.7pp, thus mitigating the market effect of a 2pp increase.

Looking at at-risk-of-poverty rates of households with children who would have experienced the strongest decrease in 2020, single-parent households would have experienced an additional 3.9pp decrease in poverty rates. The additional policy effect of -5.3pp would have been moderated by the automatic stabilizers (1.4pp). In 2021, the additional total effect on poverty rates of these households would have been 3pp, consisting of a -5.9pp additional policy effect and a 2.9pp additional automatic stabilizers effect. In 2021, households with at least two adults and three

children would have benefited the most from the reform, with an additional 4.1pp decrease in poverty rates. In 2020, the poverty rate of these households would have decreased additionally by 2.7pp. Despite the additional policy effect, these households would have experienced in both years an increase in poverty rates. Households with at least two adults and four or more children would have benefited from the strongest at-risk-of-poverty rates reduction (2020 -8.8pp, 2021 -14.3 pp) (see Table A4.14). The additional policy reform would not have altered the strong reduction.

In 2020, households with benefits as the main source of income would have benefited from an additional 4.6pp decrease in poverty rates and in 2021 from an additional 2pp decrease. In contrast to R1, households with other main sources of income would have also profited from the reform. In 2021, the reform effect would have affected all income source types, and, in particular, self-employed households. By including single-earner and single-parent low-income households in the group of eligible households, non-benefit-receiving households would have also derived advantages from the reform.

Relative to citizenship, the additional policy effect would have been comparable between the groups in 2020. In 2021, households with non-EU citizenship would have benefited the most from the reform.

Table 6.14: R2: Decomposed additional effects on the child AROP rate by demographic groups – percentage points

	2019 vs 2020					2019 vs 2021				
Group	ΔTE	ΔPE	ΔAE	ΔME	ΔCPPC	ΔTE	ΔPE	ΔAE	ΔME	ΔCPPC
Household composition										
single-parent, at least 1 child	-3.9	-5.3	1.4	0.0	Inf	-3.0	-5.9	2.9	0.0	0.39
min. 2 adults, 1 child	-0.8	-0.5	-0.2	0.0	0.20	-0.4	-0.4	-0.1	0.0	0.30
min. 2 adults, 2 children	-0.2	-0.2	0.0	0.0	0.05	0.0	-0.3	0.4	0.0	0.00
min. 2 adults, 3 children	-2.7	-2.4	-0.3	0.0	1.59	-4.1	-2.8	-1.3	0.0	0.55
min. 2 adults, 4+ children	0.0	-3.1	3.1	0.0	0.00	0.0	0.0	0.0	0.0	0.00
Main source of income										
Employment	-1.3	-1.0	-0.1	-0.2	0.67	-1.1	-1.0	-0.2	0.1	0.36
Self-employment	0.0	-2.5	1.5	1.0	-2.88	-2.5	-4.4	1.5	0.3	-0.73
Benefits excl. pensions	-4.6	-6.4	1.8	0.1	-12.00	-2.0	-3.4	1.4	0.0	-2.86
Pensions or private income	0.0	1.4	-4.5	3.0	0.01	-1.5	0.0	-4.8	3.3	0.14
Citizenship										
Austrian	-1.2	-1.0	-0.1	0.0	0.60	-0.4	-0.6	0.2	0.0	0.36
Other EU	-0.9	-0.5	-0.5	0.0	0.08	-0.4	-1.0	0.5	0.0	0.05
Non-EU	-1.1	-4.3	3.3	0.0	-0.37	-5.5	-5.2	-0.2	0.0	-0.60
Total	-1.2	-1.4	0.2	0.0	0.48	-1.1	-1.2	0.0	0.0	0.55

S: Own calculations based on EUROMOD outputs

6.3.4 The effect of child benefits

The additional benefit of €60 for each child in benefit-receiving and low-income households is categorised as a child benefit. Thus, the reform also altered the share and policy effect of regular benefits targeted at children. The additional reform increased specifically the disposable incomes of households with children and thus was strongly targeted at children (Table 6.15). The average sum of additional monthly benefits and automatic stabilizers targeted at children would have been €10.2 in 2020 and €11.4 in 2021. Families in the first income decile would have received an additional €51.3 in benefits targeted at children in 2020 and €53.2 in 2021. The policy effect is clearly progressive, and the child benefit amounts decrease with income deciles.

Looking at the total policy and automatic stabiliser effect, the pattern remains, but the amount is lower. The reform would have increased the benefits for households with children per month by €10.90 in 2020 and by €11.40 in 2021. In particular, households in the first income decile would have profited from an additional €29.10 in 2020 and €24.70 in 2021. The change in disposable income is based on equivalised disposable incomes, taking the number and age of all household members into consideration. Thus, the average increase is lower than the €60 despite the fact that the majority of households in the first income decile receive the benefit. The policy effect is strongly progressive. However, the total effect is less progressive due to the change in the automatic stabilizers.

Table 6.15: R2: Additional effect of child benefits on the change in monthly mean disposable incomes of households with children by income deciles - EUR

	2019 vs. 2020				2019 vs. 2021			
	ΔPE_t	ΔAE_t	ΔPE_{ch}	ΔAE_{ch}	ΔPE_t	ΔAE_t	ΔPE_{ch}	ΔAE_{ch}
Income deciles								
1	38.1	-9.0	51.3	-0.8	32.7	-8.0	53.2	-1.5
2	13.9	0.9	18.0	-5.8	9.0	-14.2	15.9	3.2
3	3.5	18.5	13.2	6.7	1.8	23.6	16.8	-1.2
4	3.8	-7.4	6.2	-1.0	4.0	6.3	7.5	2.2
5	3.2	3.2	2.2	-1.1	2.8	1.2	1.7	-0.2
6	1.9	-4.5	2.1	1.1	0.9	-5.4	1.3	-0.1
7	0.7	2.1	0.8	-0.2	0.3	-2.0	0.7	0.0
8	0.2	-3.2	-0.8	-1.1	0.0	2.8	0.5	0.2
9	0.1	4.9	2.1	1.2	1.9	0.9	2.0	1.0
10	0.6	0.3	0.6	0.2	0.7	0.4	0.7	0.4
Total	10.6	0.3	10.3	-0.1	11.0	0.4	11.0	0.4

S: Own calculations based on EUROMOD outputs

Per month, single-parent households with at least one child would have received an average additional €38.60 in 2020 and €44 in 2021 (Table 6.16). This would have been the result of increased child benefits (+ €38.7 and + €41.7). Households with at least two adults and four or more children would have received an additional €38.90 in 2020 and €34.60 in 2021. They would have received an additional €47.7 and €47.1 in child benefits. Together with the strong increase in disposable income for first-decile households, the reform would have clearly benefited lower-income families.

Households with pensions or private incomes as the main sources of income would have experienced the greatest increase in disposable income. However, as the number of households with children in this group is small, the results need to be interpreted with caution. Households with benefits as the main source of income would have experienced the second-strongest additional rise in disposable income (€52.90 in 2020, €63.20 in 2021). Similarly to R1, in terms of citizenship, non-Austrian households would have experienced the strongest absolute income increase, excluding the market effect.

Table 6.16: R2: Additional effect of child benefits on the change in monthly mean disposable income for households with children by demographic groups - EUR

	2019 vs. 2020				2019 vs. 2021			
	ΔPE_t	ΔAE_t	ΔPE_{ch}	ΔAE_{ch}	ΔPE_t	ΔAE_t	ΔPE_{ch}	ΔAE_{ch}
Household composition								
single-parent, at least 1 child	39.2	-0.6	*38.7*	*-1.0*	41.8	2.2	*41.7*	*2.2*
min. 2 adults, 1 child	5.0	1.1	*4.4*	*0.5*	4.0	0.2	*4.0*	*0.1*
min. 2 adults, 2 children	6.7	0.8	*6.4*	*0.5*	6.9	1.1	*6.9*	*1.1*
min. 2 adults, 3 children	13.0	0.7	*12.8*	*0.3*	16.6	2.9	*16.6*	*2.9*
min. 2 adults, 4+ children	48.0	-9.1	*47.7*	*-9.3*	47.1	-12.5	*47.1*	*-12.5*
Main source of income								
Employment	11.9	-2.6	*4.0*	*0.1*	9.2	1.9	*4.7*	*1.2*
Self-employment	24.0	12.3	*5.6*	*-0.3*	33.3	6.1	*6.3*	*0.3*
Benefits excl. pensions	52.3	0.6	*51.2*	*-5.7*	52.9	10.3	*56.9*	*-4.0*
Pensions or private income	48.0	20.1	*8.2*	*4.4*	77.2	28.9	*11.5*	*8.1*
Citizenship								
Austrian	6.8	1.0	*6.4*	*0.6*	6.5	0.8	*6.5*	*0.8*
Other EU	13.5	-0.6	*13.0*	*-1.2*	15.4	1.5	*15.4*	*1.5*
Non-EU	32.8	-3.7	*32.4*	*-4.1*	33.7	-5.3	*33.7*	*-5.4*
Total	10.6	0.3	*10.3*	*-0.1*	11.0	0.4	*11.0*	*0.4*

S: Own calculations based on EUROMOD outputs

In 2020, the additional increase in benefits would have been clearly progressive. Households with children would have received, on average, an additional €10.30 per month in benefits specifically targeted at children (Table 6.17). The change in disposable income would have been still progressive. However, to a lesser degree, due to the unequally distributed market effect and change in taxes and social insurance contributions. The average increase in disposable income for households with children would have been €11 per month. The first income decile would have received a €50.9 increase in child benefits resulting in a 4pp increase in the share of child benefits in their disposable income. On average, for all households with children, the share of child benefits would not have changed despite the monthly €10.3 increase. This can be explained by the benefit eligibility criteria and its higher relative effect in lower-income deciles.

Table 6.17: R2: Change in composition of mean monthly disposable income of households with children in 2020 by income decile - EUR

	Δ Disposable income	Δ Market income	Δ Taxes	Δ Social insurance contributions	Δ Benefits	*Δ Benefits directed at children*	
Income deciles	Total	Total	Total	Total	Total	*Total*	*pp (% of disposable)*
1	33.3	-4.2	-0.8	0.3	36.8	*50.9*	*4*
2	11.3	-12.2	1.3	-2.5	22.4	*12.4*	*1*
3	3.4	-24.1	-2.6	-4.4	20.6	*20.1*	*2*
4	3.9	-6.6	-4.5	-2.2	4.0	*5.1*	*0*
5	3.6	-0.2	-0.3	0.0	3.7	*1.2*	*0*
6	3.1	2.2	0.7	0.8	2.4	*3.2*	*0*
7	0.3	-4.9	-3.0	-1.3	0.9	*0.5*	*0*
8	-0.1	6.1	0.5	0.7	-5.1	*-2.0*	*0*
9	-0.8	-11.4	-3.2	-1.2	6.2	*3.3*	*0*
10	1.0	0.0	-0.2	0.0	0.8	*0.7*	*0*
Total	11.0	0.0	-0.7	0.0	10.3	*10.3*	*0*

Note: Disposable incomes are calculated as market incomes plus benefits minus taxes minus social insurance contributions. Child benefits are one component of total benefits.

S: Own calculations based on EUROMOD outputs

In 2021, households with children would have received an additional €11.60 per month in benefits and thus in disposable income (Table 6.18). The extra amounts would have been exclusively directed at children. However, the increase would have altered the average share of child benefits in disposable income only by 1pp. The increase in benefits remains progressive, however, with a deviating decrease in benefits in the second income decile. This is caused by an interaction between benefits since the change in child benefits remains progressive. The positive market effect offsets this decrease in disposable income of the second income decile. In both years, households with children in the first income decile are the clear beneficiaries of the policy reform, with an increase in their disposable income amounting to €33.3 per month in 2020 and €28.7 per month in 2021. In 2021, they would have benefited from a €52.8 increase and thus a 5pp increase in the share of child benefits.

Table 6.18: R2: Change in composition of mean monthly disposable incomes of households with children in 2021 by income decile - EUR

	Δ Disposable income	Δ Market income	Δ Taxes	Δ Social insurance contributions	Δ Benefits	*Δ Benefits directed at children*	
Income deciles	Total	Total	Total	Total	Total	*Total*	*pp (% of disposable)*
1	28.7	-17.1	0.7	-1.8	44.7	*52.8*	*5*
2	3.8	16.1	1.3	2.0	-9.1	*19.5*	*1*
3	-0.9	-59.3	-4.2	-10.1	44.0	*15.9*	*1*
4	6.5	-10.4	-4.2	-1.6	11.2	*9.9*	*1*
5	3.6	-0.5	1.9	-1.3	4.7	*1.4*	*0*
6	1.0	-0.1	-0.1	-0.1	1.0	*1.2*	*0*
7	0.0	3.4	0.9	-0.2	-2.9	*0.5*	*0*
8	-0.2	-6.2	-1.5	-0.2	4.4	*0.7*	*0*
9	2.9	0.0	0.0	0.0	2.9	*2.9*	*0*
10	1.2	0.0	0.0	0.0	1.2	*1.2*	*0*
Total	11.6	0.0	0.0	0.0	11.6	*11.6*	*1*

Note: Disposable incomes are calculated as market incomes + benefits – taxes – social insurance contributions. Benefits directed at children are one component of total benefits.

S: Own calculations based on EUROMOD outputs

6.3.5 Summary of reform effect

The additional monthly €60 per child living in households receiving benefits or in single-earner and single-parent households with low incomes would have increased the mean disposable income of households with children by additionally 0.5pp in 2020 and by 0.6pp in 2021, both compared to 2019. The policy reform would have exclusively benefited households with children and thus would have been specifically directed at them. Households with children would have profited on average from an additional €11 per month in 2020 and €11.6 per month in 2021. The main beneficiaries would have been households in the first income decile, single parents, and families with at least two adults and four or more children. The policy reform would have overcompensated for the COVID-19 market effect in both years. The increase in overcompensation of households with children would have been particularly strong in 2021.

The additional benefit amount would have been highly progressive. However, the total effect on disposable incomes would have been less progressive due to the market effect and the interaction with other benefits and automatic stabilizers. By including not only households that already receive benefits but also low-income

single-parent and single-earner families, the benefit increase would have also affected households with income from employment and self-employment. The additional reduction in the at-risk-of-poverty rates of households with children would have been 1.2pp in 2020 and 1.1pp in 2021. The reform would have cost around €0.3 billion both in 2020 and 2021.

6.4 R3: increased & more progressive family tax credit

6.4.1 Background

The additional policy reform simulates a revision of the family tax credit, "*Familienbonus Plus*", and the connected negative tax, "*Kindermehrbetrag*", which was implemented in 2022. The reform aimed to support working parents by reducing their amount of income taxes and low-income families by extending their eligibility for the enlarged negative tax.[20] To support working parents, the maximum amount of the tax credit for children below 18 years was increased from €1,500 to €2,000 per child annually. The maximum amount of the family tax credit for children above 17 years was also increased from €500 to €575[21] per year and child. The eligibility conditions for the negative tax were extended from exclusively single-parent and single-earner families to all low-income families. Parents are eligible if they cannot make use of the maximum amount of the family tax credit because their amount of income tax to pay is lower. The maximum amount of the negative tax was increased from an annual €250 to €550 per child. The reform did not alter the other eligibility conditions for the family tax credit.

6.4.2 Reform parameters

The policy reform implements the 2022 changes to the family tax credit in the Austrian tax-benefit systems of 2020 and 2021. The maximum amount of the family tax credits was increased to €2,000 per child, for children above 17 years to €575 per child and for the negative tax to €550 per child. Additionally, the eligibility for the negative tax credit was extended to all parents who did not receive the full amount of the family tax credit. All other policies of 2020 and 2021 were not altered. The results reflect, therefore, not only the isolated effect of the additional reform but also

[20] For more information, see https://www.bundeskanzleramt.gv.at/familienportal/aktuell/familienbonus-plus.html and the latest EUROMOD country report for Austria (European Commission et al., 2024).

[21] Retrospectively the amount was even increased to €650, in the simulation we kept the €575.

its interaction with other policy changes that have been implemented in response to COVID-19.

6.4.3 The effect of the Austrian tax-benefit system, including the additional reform

The total effect of the family tax credit, including the negative tax, would have been an additional 0.5pp increase in disposable income in 2020 and 0.4pp in 2021 compared to 2019 (Table 6.19). As a matter of fact, the reform would have exclusively benefited households with children, who would have received 1.2pp more disposable income in 2020 and 1.1pp in 2021 compared to 2019. This would have increased the overcompensation of the COVID-19-related market effect to an ISC of 1.7 (+0.27) in 2020 and an ISC of 2.83 (+1.83) in 2021. The results illustrate that the additional effect of the policy reform would have been comparable in both years, but the COVID-19-related market effect was lower in 2021. The original reform in 2022 did not have the intended effect to compensate for any external shocks, but to generally improve the financial situation of working families and to make the tax credit more progressive.

Table 6.19: R3: Decomposed additional effects on mean equivalised household income – percentage points

	2019 vs. 2020					2019 vs. 2021				
House-hold type	ΔTE	ΔPE	ΔAE	ΔME	ΔISC	ΔTE	ΔPE	ΔAE	ΔME	ΔISC
With children	1.2	1.2	0.0	0	0.27	1.1	1.1	-0.1	0	1.83
Without children	0.0	0.0	0.1	0	0.00	0.0	0.0	0.0	0	0.00
Total	0.5	0.5	0.0	0	0.07	0.4	0.4	0.0	0	0.10

S: Own calculations based on EUROMOD outputs

Looking at the median equivalised disposable income, a similar pattern can be observed (Table 6.20). Households with children would have exclusively benefited from the reform, and the change in mean disposable income would have been similar in 2020 and 2021. However, the COVID-19 overcompensation would have been higher in 2020 than in 2021, while the reform contribution to the ISC would have been similar in both years.

Table 6.20: R3: Decomposed additional effects on median equivalised household incomes – percentage points

	2019 vs. 2020					2019 vs. 2021				
House-hold type	ΔTE	ΔPE	ΔAE	ΔME	ΔISC	ΔTE	ΔPE	ΔAE	ΔME	ΔISC
With children	1.8	1.6	0.1	0	0.27	1.6	1.6	0.1	0	0.36
Without children	0.2	0.1	0.1	0	0.02	0.0	0.0	0.0	0	0.00
Total	0.6	0.5	0.1	0	0.08	0.7	0.8	-0.2	0	0.12

S: Own calculations based on EUROMOD outputs

The additional policy effect of the tax credit reform would have been higher in the first income decile compared to the other deciles (2020 1.2pp, 2021 1.6pp) (Table 6.21). However, in 2020, the slightly stronger policy effect would have been compensated by the negative additional market effect (-0.4pp) and by the negative additional automatic stabiliser effect (-0.4pp). This would have led to an additional total effect of 0.4pp for the first income decile. In 2020, the average additional total effect would have ranged from 0.2 to 0.9 among income deciles, with no clear pattern. In 2021, the first-income decile would have profited the most (+1.6pp), while the second- and tenth-income decile would have experienced an additional decrease in their disposable income by 0.1pp and 0.2pp. The other income deciles would have benefited from an additional increase ranging from 0.2 pp to 0.7 pp.

Table 6.21: R3: Decomposed additional effects on mean equivalised disposable incomes of households with children by deciles – percentage points

	2019 vs 2020					2019 vs 2021				
	ΔTE	ΔPE	ΔAE	ΔME	ΔISC	ΔTE	ΔPE	ΔAE	ΔME	ΔISC
Income deciles										
1	0.4	1.2	-0.4	-0.4	0.03	1.6	1.6	0.7	-0.9	-1.21
2	0.3	0.4	0.3	-0.5	0.03	-0.1	0.3	-0.1	-0.4	0.02
3	0.6	0.7	0.0	-0.1	0.10	0.2	0.5	-0.4	0.0	0.06
4	0.5	0.7	0.1	-0.3	0.05	0.4	0.7	0.1	-0.3	0.10
5	0.9	0.8	0.1	0.1	0.09	0.5	0.5	-0.5	0.5	0.05
6	0.5	0.6	0.2	-0.2	0.10	0.6	0.4	0.0	0.1	0.11
7	0.4	0.5	-0.2	0.1	0.07	0.7	0.6	-0.4	0.5	-0.19
8	0.4	0.5	0.4	-0.5	0.07	0.5	0.4	0.0	0.1	-0.58
9	0.4	0.6	0.5	-0.7	0.05	0.2	0.3	0.1	-0.2	0.04
10	0.2	0.4	-0.2	0.1	0.02	-0.2	-0.1	0.0	-0.1	-0.03
Total	1.2	1.2	0.0	0.0	0.27	1.1	1.1	-0.1	0.0	1.83

S: Own calculations based on EUROMOD outputs

Households with at least two adults and four or more children would have experienced an additional 1.8pp policy effect and thus a 1.9pp increase in disposable income in 2020 compared to 2019 (Table 6.22). In 2021, these households would have benefited from a 1pp increase in policy effect and, thus, a 1.7pp increase in disposable income. Households with at least two adults and one child would have profited the least from the reform. Their disposable income would have increased additionally by 0.8pp in 2020 and by 0.7pp in 2021. The size of the extra effect increases with the number of children in the household.

According to the main income source, in 2020, households with employment as the main source of income would have benefited the most from the reform. They would have experienced an additional 1.1pp increase in their disposable income. In 2021, households with benefits as their main source of income would have profited from an additional 1.9pp increase in disposable income and thus the most. This illustrates that the family tax credit reform consists of two parts: It increased the amount of the family tax credit, thus supporting families with employment incomes by reducing their income taxes. The second component is the increase in the negative tax, which also benefits households without employment incomes and functions somewhat like a benefit with a means test. However, the amounts are not identical and thus are not progressive, which can be observed in the additional policy effect by income decile.

There would have been no clear beneficiaries according to citizenship. In contrast to R1 and R2, which targeted households receiving benefits, the policy effect of the family tax credit reform is comparable among Austrian, other-EU and non-EU households.

Table 6.22: R3: Decomposed additional effects on mean equivalised disposable incomes of households with children by demographic groups – percentage points

	2019 vs 2020					2019 vs 2021				
Group	ΔTE	ΔPE	ΔAE	ΔME	ΔISC	ΔTE	ΔPE	ΔAE	ΔME	ΔISC
Household composition										
single-parent, at least 1 child	1.4	1.3	0.1	0.0	-0.83	1.2	1.2	0.1	0.0	0.10
min. 2 adults, 1 child	0.8	0.8	-0.1	0.0	0.08	0.7	0.7	0.0	0.0	0.26
min. 2 adults, 2 children	1.3	1.3	0.0	0.0	6.50	1.3	1.3	-0.1	0.0	-0.81
min. 2 adults, 3 children	1.6	1.6	-0.1	0.0	0.55	1.4	1.5	-0.1	0.0	0.23
min. 2 adults, 4+ children	1.9	1.8	0.1	0.0	-0.14	1.7	1.6	0.0	0.0	-0.05
Main source of income										
Employment	1.1	1.2	0.0	0.0	0.33	0.9	1.0	0.0	-0.1	1.29
Self-employment	0.7	0.9	0.1	-0.4	-0.17	1.0	1.1	0.0	0.0	-0.19
Benefits excl. pensions	0.6	1.0	0.0	-0.3	0.15	1.9	1.5	0.5	-0.1	-0.26
Pensions or private income	0.8	1.0	-0.2	0.0	0.01	1.0	1.1	-0.1	0.0	0.03
Citizenship										
Austrian	1.1	1.2	0.0	0.0	0.25	1.1	1.1	0.0	0.0	-0.61
Other EU	1.2	1.2	-0.1	0.0	0.21	0.9	1.0	-0.2	0.0	0.13
Non-EU	1.1	1.1	0.0	0.0	0.52	1.1	1.1	-0.1	0.0	-0.19
Total	1.2	1.2	0.0	0.0	0.27	1.1	1.1	-0.1	0.0	1.83

S: Own calculations based on EUROMOD outputs

The additional total effect on children's at-risk-of-poverty rate would have been a small increase of 0.1pp in 2020 (Table 6.23). However, the effect would have been caused by the automatic stabilizers and not the additional policy effect. In 2021, the policy reform would have additionally decreased the AROP rate by 1pp, which would have consisted of a 0.6pp decrease by automatic stabilizers and a 0.3pp decrease by the additional policy effect.

Single-parent households would have experienced an additional 0.5pp reduction in poverty rates in 2020, while households with at least two adults and two children would have experienced a 0.5pp increase. In 2021, single-parent households and households with at least two adults and three children would have benefited from a strong additional AROP rate reduction (-4.8pp and -2.6pp). Both additional effects were jointly caused by the policy effect and the automatic stabiliser effect. Households with at least two adults and four or more children would have

experienced a strong increase in AROP rates by the policy reform. However, the additional policy effect would have been compensated by automatic stabilizers.

In 2021, the additional total effect in the poverty rate reduction would have been particularly strong among households with employment as the main source of income (-1pp) as well as with benefits (-1pp). The additional effect among the second group would have been mainly caused by automatic stabilizers and not by the policy reform directly. In 2020, the policy effect and the total effect remained limited and partly increased poverty rates instead.

Households with other EU citizenship would have experienced an additional increase in children's AROP rates of 2.6 pp in 2020, while the other two citizenship types would not have been affected. In 2021, the policy interaction with automatic stabilizers would have had a decreasing effect on children's AROP rates among Austrian (-0.7pp) and non-EU households (-3.8pp). The policy effect, however, would have clearly benefited Austrian citizens.

Table 6.23: R3: Decomposed additional effects on the child AROP rate by demographic groups – percentage points

	2019 vs 2020					2019 vs 2021				
Group	ΔTE	ΔPE	ΔAE	ΔME	ΔCPPC	ΔTE	ΔPE	ΔAE	ΔME	ΔCPPC
Household composition										
single-parent, at least 1 child	-0.5	-0.8	0.3	0.0		-4.8	-2.4	-2.4	0.0	0.62
min. 2 adults, 1 child	0.1	-0.1	-0.1	0.0	0.02	0.0	0.0	0.0	-0.1	-0.08
min. 2 adults, 2 children	0.5	0.2	0.3	0.0	-0.13	-0.6	-0.3	-0.2	-0.1	0.16
min. 2 adults, 3 children	0.0	0.0	0.0	0.0	0.00	-2.6	-1.3	-0.4	-0.9	0.36
min. 2 adults, 4+ children	0.0	0.0	0.0	0.0	0.00	0.0	3.1	-3.1	0.0	0.00
Main source of income										
Employment	0.2	0.0	0.2	0.0	-0.09	-1.0	-0.5	-0.3	-0.2	0.24
Self-employment	0.0	0.0	-0.3	0.3	-0.55	-0.6	-0.3	-0.3	0.0	-0.14
Benefits excl. pensions	0.1	-0.2	0.4	0.0	0.25	-1.0	1.5	-2.5	0.0	-1.43
Pensions or private income	0.0	0.0	0.0	0.0	0.00	-0.3	-0.1	-0.1	0.0	0.01
Citizenship										
Austrian	-0.1	-0.2	0.1	0.0	0.05	-0.7	-0.4	-0.1	-0.2	0.31
Other EU	2.6	1.3	1.3	0.0	-0.22	0.0	0.0	0.0	0.0	0.00
Non-EU	0.0	0.0	0.0	0.0	0.00	3.8	0.2	-3.9	0.0	-0.42
Total	0.1	0.0	0.2	0.0	-0.04	-1.0	-0.3	-0.6	-0.3	0.43

S: Own calculations based on EUROMOD outputs

6.4.4 The effect of child benefits

The additional reform related to the family tax credit, including the negative tax, was not categorised as a child benefit as tax credits are generally not considered benefits in EUROMOD. However, the negative tax strongly resembles a benefit. The total policy and automatic stabiliser effect (excluding market effects) would have been an additional increase of €25.3 in 2020 and of €23.70 in 2021 per month (Table 6.24). The amount of the total benefit depends on the amount of income taxes paid by each household. Therefore, we observe a pattern biased towards the higher income deciles in 2020, and in 2021 towards middle income deciles. The first income decile, however, would have benefited the most from the negative tax in 2021. The pattern by income deciles remains unclear, indicating that the policy reform would not have been targeted at a certain income group but at all households with children instead.

Table 6.24: R3: Additional effect of child benefits on the change in monthly mean disposable incomes of households with children by income deciles - EUR

	2019 vs. 2020				2019 vs. 2021			
	ΔPE_t	ΔAE_t	ΔPE_{ch}	ΔAE_{ch}	ΔPE_t	ΔAE_t	ΔPE_{ch}	ΔAE_{ch}
Income deciles								
1	10.3	-3.7	*1.7*	*2.0*	14.0	6.5	*2.6*	*1.6*
2	6.7	4.0	*-7.9*	*3.5*	4.4	-0.3	*-1.8*	*-4.7*
3	11.2	0.9	*8.1*	*-6.4*	8.0	-6.5	*-2.2*	*2.2*
4	14.2	1.6	*-1.2*	*-0.4*	13.9	0.7	*0.7*	*-0.2*
5	16.6	0.7	*2.7*	*5.0*	10.7	-9.6	*-1.4*	*3.1*
6	14.3	4.5	*-1.8*	*-2.1*	10.9	1.0	*1.3*	*1.1*
7	12.9	-6.1	*0.0*	*-1.1*	15.8	-11.6	*3.3*	*-1.6*
8	15.3	12.4	*-1.6*	*1.3*	12.1	-0.2	*1.0*	*-2.6*
9	20.3	16.0	*0.8*	*0.5*	9.0	3.3	*-2.3*	*0.3*
10	18.9	-12.4	*0.5*	*0.6*	-3.6	3.0	*1.6*	*1.7*
Total	25.6	-0.3	*0.0*	*0.0*	24.7	-1.0	*0.0*	*0.0*

S: Own calculations based on EUROMOD outputs

In terms of family type, families with at least two adults and three children would have benefited the most in both years (Table 6.25). In 2020, they would have received an additional €31.80 and €29.60 in 2021 per month. In contrast, households with at least two adults and one child would have received the lowest additional amount (€18.20 in 2020, €17.10 in 2021). Related to the main income source, households with employment would have seen the greatest increase (€27.80) in 2020. In 2021, self-employed households would have gained the most with an additional €26.70. Households with benefits would have profited the least in 2020 and the second least in 2021. This deviates from R1 and R2, which targeted benefit recipients directly. The main target group of the family tax credit reform would have been employed

households. According to citizenship, due to their higher employment incomes, Austrian households would have received in both years the largest additional amount (€27.30 in 2020, €26.7 in 2021). This also deviates from the other two reforms, R1 and R2, from which mainly households with non-Austrian citizenship would have benefited.

Table 6.25: R3: Additional effect of benefits targeted at children on the change in monthly mean disposable incomes of households with children by demographic groups - EUR

	2019 vs. 2020				2019 vs. 2021			
	ΔPE_t	ΔAE_t	ΔPE_{ch}	ΔAE_{ch}	ΔPE_t	ΔAE_t	ΔPE_{ch}	ΔAE_{ch}
Household composition								
single-parent, at least 1 child	22.3	2.4	*-0.4*	*-0.3*	20.6	0.9	*-0.1*	*0.0*
min. 2 adults, 1 child	18.4	-0.2	*0.0*	*0.0*	17.8	-0.7	*-0.1*	*0.0*
min. 2 adults, 2 children	29.6	-0.6	*0.0*	*0.1*	29.2	-1.0	*0.0*	*0.0*
min. 2 adults, 3 children	33.6	-1.8	*0.0*	*0.0*	32.5	-2.9	*0.0*	*0.0*
min. 2 adults, 4+ children	23.9	1.7	*-0.2*	*-0.2*	21.8	0.9	*-0.1*	*-0.1*
Main source of income								
Employment	27.1	0.7	*0.0*	*0.0*	23.4	0.2	*0.1*	*0.2*
Self-employment	22.8	2.9	*-0.1*	*-0.1*	27.6	-0.9	*-0.1*	*0.0*
Benefits excl. pensions	11.3	-0.2	*0.2*	*0.4*	17.0	5.5	*0.1*	*0.2*
Pensions or private income	22.6	-5.0	*0.0*	*0.0*	24.2	-3.2	*0.0*	*0.0*
Citizenship								
Austrian	27.3	0.1	*0.0*	*-0.1*	26.7	-0.4	*-0.1*	*0.0*
Other EU	23.4	-2.0	*0.0*	*0.0*	21.0	-4.6	*0.0*	*0.0*
Non-EU	16.4	-1.1	*-0.1*	*0.0*	16.1	-0.8	*-0.1*	*0.1*
Total	25.6	-0.3	*0.0*	*0.0*	24.7	-1.0	*0.0*	*0.0*

S: Own calculations based on EUROMOD outputs

In 2020, the disposable income of households with children would have increased, on average, by an additional €25.4 per month. In contrast to the other two reforms, R1 and R2, the policy reform effect would not have been the result of benefits but of tax reductions (Table 6.26). The family tax credit reform would have reduced, on average, the monthly income tax by €27.4 in households with children. The absolute tax reduction would have been strongest for families in the 7th income decile. However, considering the change in market income, the change in disposable income would not have had a clear pattern. The tax credit was not categorised as a child benefit, therefore there is no change in the share of child benefits.

Table 6.26: R3: Change in composition of mean monthly disposable incomes of households with children in 2020 by income decile - EUR

	Δ Disposable income	Δ Market income	Δ Taxes	Δ Social insurance contributions	Δ Benefits	*Δ Benefits directed at children*	
Income deciles	Total	Total	Total	Total	Total	*Total*	*pp (% of disposable)*
1	3.5	-9.6	-18.7	-2.4	-8.1	*3.7*	*0*
2	3.3	-22.2	-17.3	-4.1	4.1	*-4.4*	*0*
3	10.3	-20.6	-29.2	-5.2	-3.5	*1.8*	*0*
4	10.8	-38.7	-32.2	-4.8	12.4	*-1.7*	*0*
5	19.3	-18.5	-35.0	-3.2	-0.4	*7.7*	*0*
6	12.7	-17.9	-35.8	-4.7	-10.1	*-3.9*	*-1*
7	8.5	-38.8	-50.0	-5.4	-8.2	*-1.2*	*0*
8	13.3	-35.3	-46.5	-0.6	1.5	*-0.4*	*0*
9	13.9	-48.1	-43.4	-1.9	16.7	*1.3*	*0*
10	10.9	-0.3	-35.2	-1.4	-25.4	*1.1*	*0*
Total	25.4	0.0	-27.4	0.0	-1.9	*-0.1*	*0*

Note: Disposable incomes are calculated as market incomes + benefits – taxes – social insurance contributions. Benefits directed at children are one component of total benefits.

S: Own calculations based on EUROMOD outputs

The functioning of the policy reform remains the same in 2021 (Table 6.27). The source of the change in disposable income would have been tax reductions and not benefits. However, the pattern by income deciles is different in 2021. The decrease in tax amounts is now skewed towards higher-income deciles, with the 10th income decile receiving the greatest absolute reduction in income taxes. Taking the change in market income into consideration, again, this does not translate into a clear pattern in the change of disposable income. Middle-income families benefit more, but also families in the first income decile. On average, households with children would have benefited from an additional increase in monthly disposable income of €24.2, which is caused primarily by the average reduction of €25.7 in taxes.

Table 6.27: R3: Change in composition of mean monthly disposable incomes of households with children in 2021 by income decile - EUR

	Δ Disposable income	Δ Market income	Δ Taxes	Δ Social insurance contributions	Δ Benefits	*Δ Benefits directed at children*	
Income deciles	Total	Total	Total	Total	Total	*Total*	*pp (% of disposable)*
1	13.5	-20.6	-21.6	-5.1	7.6	*4.3*	*0*
2	-2.2	-33.8	-18.0	-5.8	7.6	*-6.6*	*-1*
3	2.1	3.4	-18.3	0.5	-19.1	*-0.1*	*0*
4	10.0	-36.1	-34.1	-7.4	4.6	*0.5*	*0*
5	12.2	-13.0	-27.8	-0.7	-3.3	*1.7*	*0*
6	14.1	-23.5	-39.2	-2.2	-3.8	*2.4*	*0*
7	18.9	-27.2	-38.0	-2.9	5.2	*1.7*	*0*
8	16.0	-18.3	-42.3	-7.9	-15.9	*-1.6*	*0*
9	7.1	-29.1	-36.7	4.2	3.6	*-2.2*	*0*
10	-8.0	-80.0	-63.7	-5.3	2.9	*3.4*	*1*
Total	24.2	0.0	-25.7	0.0	-1.5	*0.0*	*0*

Note: Disposable incomes are calculated as market incomes + benefits – taxes – social insurance contributions. Benefits directed at children are one component of total benefits.

S: Own calculations based on EUROMOD outputs

6.4.5 Summary of reform effect

The increase in the (maximum) amount of the family tax credit per child, including the negative tax, would have increased the disposable incomes of households with children on average by €25.4 per month in 2020 and by €24.2 in 2021. This would have resulted in an average change in the total effect of 1.2pp in 2020 and 1.1pp in 2021 compared to 2019. In contrast to the policy reforms R1 and R2, the increase in disposable income would not have been affected through an increase in benefits but through a decrease in income taxes. The change in income taxes is biased towards middle and higher earners and towards the first income decile due to the two components of the policy reform. However, combined with the market effect and automatic stabilizers, the policy reform does not translate into a clear pattern of disposable income changes by income deciles. Since the policy reform was not intended to compensate for external shocks but generally to improve the financial situation of (working) families, the policy reform would have had a strong overcompensating effect in both years, though particularly in 2021, when the COVID-19 market effect was smaller.

The policy reform would have been exclusively targeted at households with children. In 2020, the additional effect on children's at-risk-of-poverty rate would have been small (0.1pp increase). In 2021, the reform would have decreased children's poverty rate on average by 1pp. The poverty rate reduction would have been strongest for single-parent households, particularly in 2021. Also, due to the negative tax, not only households with employment or self-employment as main sources of income would have benefited from the reform.

In total, the reform would have decreased public tax revenues and thus would have had budgetary effects of around €0.6 billion both in 2020 and 2021.

6.5 R4: increased universal family allowance

6.5.1 Background

The policy reform somewhat replicates the universal component of current policy proposals for a basic security for children (*Kindergrundsicherung*). The German cabinet decided on a legislative proposal in November 2023, which is currently in the legislative process.[22] Also, in Austria different proposals and models are currently discussed.[23] Basically, the models consist of a universal component paid out to all parents for each child below a certain age limit (usually 18 years and potentially including older children in full-time education) and an income-dependent component, which is paid out in addition for each child to families with incomes below a certain lower income limit to the full extent and decreasing to zero, until a specific upper income limit.

The additional reform redesigns the existing universal family allowance in Austria in the direction of a universal component of a basic security for children. To cover the basic needs of a child, we use the somewhat higher child amount stipulated in the social assistance scheme of Vienna. Like the German model for a basic security, family allowance is increased with age to cover the increasing needs of children, an approach which is also retained in the modelled reform.

6.5.2 Reform parameters

The additional policy reform keeps the structure of all child-related benefits and only raises the amount of family allowance to the level of the rate for children in the social assistance system of Vienna (amounting to 27% of the rate for a single adult). The

[22] For more information, see https://www.bundestag.de/dokumente/textarchiv/2023/kw45-de-kindergrundsicherung-975454.

[23] For more information, see https://www.ots.at/presseaussendung/OTS_20240624_OTS0082/runder-tisch-zur-kindergrundsicherung-einigkeit-ueber-eckpunkte.

ratios of the age-dependent benefit increase in the current family allowance scheme remain constant. This results in the following new monthly benefit amounts:

Table 6.28: Basic amounts family allowance in the reform scenario 2020 and 2021 compared to actual amounts – in EUR

Amounts	Actual 2020/21	Reform 2020	Reform 2021
Basic amount for children aged 0-2 (Reform: equal to the social assistance rate for children in Vienna: 27% of single adult rate)	114.00	247.68	256.35
Basic amount for children 3-9 (ratio 1.069)	121.90	264.84	274.11
Basic amount for children 10-18 (ratio 1.241)	141.50	307.43	318.19
Basic amount for children 19-23 in full-time education or with disabilities (ratio 1.448)	165.10	358.70	371.26

S: Own calculations based on actual rates for family allowance and minimum income benefit Vienna

Other child-related benefits were not changed within the reform scenario. Thus, a family with children currently receiving social assistance receives the rate twice: once as the universal component of a basic security and again as the means-tested rate within the social assistance scheme.

6.5.3 The effect of the Austrian tax-benefit system, including the additional reform

The reform of the Austrian universal family allowance as the universal component of a hypothetical basic security for children would have almost exclusively benefited households with children.[24]

The total effect of the policy reform would have been an average additional increase of 2.5pp in mean disposable incomes in 2020 and 2.6pp in 2021 compared to 2019 (Table 6.29). Households with children would have seen an average increase of 6.1pp in 2020 and 6.3pp in 2021. This would have resulted in a total ISC of 2.76 in 2020 and 11.50 in 2021. Thus, the Austrian tax-benefit system, including the reformed family allowance, would have substantially overcompensated the COVID-19 labour market effect. However, as is the case with the previous policy reforms R1 and R3, the primary goal of the policy is not to mitigate a specific external shock but rather to provide children with the minimum financial means to participate in society.

[24] In some cases, parents may receive family allowance even if their child does not live in the same household. Additionally, young adults over 18 years who are in full-time education and live in their own household can also receive family allowance.

Table 6.29: R4: Decomposed additional effects on mean equivalised household income – percentage points

	2019 vs. 2020					2019 vs. 2021				
House-hold type	ΔTE	ΔPE	ΔAE	ΔME	ΔISC	ΔTE	ΔPE	ΔAE	ΔME	ΔISC
With children	6.1	6.0	0.1	0	1.33	6.3	6.2	0.0	0	10.50
Without children	0.3	0.4	0.0	0	0.03	0.4	0.4	-0.1	0	0.06
Total	2.5	2.5	0.0	0	0.37	2.6	2.6	0.0	0	0.63

S: Own calculations based on EUROMOD outputs

Regarding the median disposable income, the effect of the reform would have been similar (Table 6.30). The Austrian welfare state would have overcompensated the COVID-19 labour market effect. However, the ISC would have been smaller compared to the mean disposable income, especially in 2021.

Table 6.30: R4: Decomposed additional effects on median equivalised household incomes – percentage points

	2019 vs. 2020					2019 vs. 2021				
House-hold type	ΔTE	ΔPE	ΔAE	ΔME	ΔISC	ΔTE	ΔPE	ΔAE	ΔME	ΔISC
With children	5.6	6.0	-0.5	0	0.86	6.0	6.3	-0.2	0	1.36
Without children	0.3	0.6	-0.3	0	0.03	0.4	0.5	0.0	0	0.05
Total	2.9	2.9	0.0	0	0.36	3.0	3.3	-0.4	0	0.51

S: Own calculations based on EUROMOD outputs

The additional relative policy effect would have been strongly progressive (Table 6.31). Households with children in the first income decile would have gained from an additional 9.6pp in the policy effect in 2020 and an additional 9.1pp in 2021. This would have resulted in an additional 10.4pp and 8.4pp in the total effect, and thus an increase in disposable income. The effect size would have decreased by income deciles until a 0.8pp additional total effect in 2020 and 2021 for families in the 10th income decile. The additional benefit is paid out universally per child and thus independent of families' means. The difference according to deciles can be explained by the unequal distribution of the number of children across deciles and by the fact that the transfer has a higher relative impact on lower-income deciles. The additional effect from automatic stabilizers would have increased the additional policy effect in the first income decile. In the other income deciles, automatic stabilizers would have reduced the policy effect.

Table 6.31: R4: Decomposed additional effects on mean equivalised disposable incomes of households with children by deciles – percentage points

	2019 vs 2020					2019 vs 2021				
	ΔTE	ΔPE	ΔAE	ΔME	ΔISC	ΔTE	ΔPE	ΔAE	ΔME	ΔISC
Income deciles										
1	10.4	9.6	2.3	-1.5	0.73	8.4	9.1	1.2	-2.0	23.29
2	5.3	4.5	0.6	0.1	0.54	5.4	4.7	0.7	-0.1	0.87
3	3.9	4.2	0.5	-0.8	0.55	4.2	4.4	-1.0	0.7	1.34
4	3.5	3.7	-0.7	0.5	0.43	3.8	3.9	-1.6	1.4	1.00
5	3.1	3.2	0.0	0.0	0.30	3.0	2.9	2.3	-2.3	0.26
6	2.4	2.8	-0.4	0.1	1.34	2.6	2.6	-1.9	1.7	0.64
7	2.2	2.3	0.6	-0.7	0.30	2.8	2.7	0.3	-0.2	-0.94
8	2.1	2.0	1.5	-1.4	0.39	2.5	2.3	0.4	-0.2	-5.11
9	1.5	1.7	-0.6	0.4	0.26	1.6	1.8	-0.2	-0.1	0.28
10	0.8	0.6	-0.3	0.5	0.05	0.8	0.5	-0.3	0.5	0.11
Total	6.1	6.0	0.1	0.0	1.33	6.3	6.2	0.0	0.0	10.50

S: Own calculations based on EUROMOD outputs

Single-parent households and households with at least two adults and four or more children would have experienced the strongest additional increase in disposable income (Table 6.32). In 2020, they would have benefited from an additional policy effect of 9.4pp and 16.8pp, respectively, resulting in a total effect of 9.2pp and 17.1pp. In 2021, the additional policy effect for these two groups would have been 9.9pp and 17.0pp, resulting in a total effect of 9.9pp and 16.7pp. Its consistency in the two crisis years indicates that the policy reform effect is independent of COVID-19 and the size of the market effect. The family allowance functions as a universal benefit and does not entail a means test, which would have skewed the policy towards low-income families. Instead, it functions as a universal benefit for each child and, therefore, particularly supports larger families.

The effect would have remained constant between 2020 and 2021 when analysing its distribution by the main source of income. Households with benefits would have benefited the most from the reform. The additional total effect for this group would have been 19pp in 2020 and 15.1pp in 2021. In 2021, households with pensions and other earnings would have profited more from an 18.8pp additional increase in the total effect.

According to citizenship, households with non-EU citizens would have gained the most in both years. This reflects the unequal distribution of children in these household categories and less so their income situation.

Table 6.32: R4: Decomposed additional effects on mean equivalised disposable incomes of households with children by demographic groups – percentage points

	2019 vs 2020					2019 vs 2021				
Group	ΔTE	ΔPE	ΔAE	ΔME	ΔISC	ΔTE	ΔPE	ΔAE	ΔME	ΔISC
Household composition										
single-parent, at least 1 child	9.2	9.4	-0.1	0.0	-5.42	9.9	9.9	0.0	0.0	0.88
min. 2 adults, 1 child	3.7	3.6	0.0	0.0	0.35	3.8	3.8	0.1	0.0	1.40
min. 2 adults, 2 children	6.1	6.1	0.0	0.0	30.50	6.4	6.4	0.0	0.0	-4.00
min. 2 adults, 3 children	8.7	8.6	0.0	0.0	3.00	9.3	9.1	0.1	0.0	1.55
min. 2 adults, 4+ children	17.1	16.8	0.4	0.0	-1.27	16.7	17.0	-0.3	0.0	-0.46
Main source of income										
Employment	6.6	6.4	0.1	0.2	2.11	7.0	6.7	-0.2	0.4	35.00
Self-employment	5.9	6.3	-0.3	-0.2	-0.81	8.5	7.7	-0.7	1.6	-1.11
Benefits excl. pensions	19.0	17.9	0.8	0.4	9.15	15.1	15.2	-0.2	0.0	-2.10
Pensions or private income	5.7	10.6	0.5	-5.3	0.14	18.8	15.3	1.7	2.0	0.68
Citizenship										
Austrian	5.5	5.5	0.1	0.0	1.25	5.7	5.6	0.0	0.0	-3.17
Other EU	6.3	6.2	0.0	0.0	1.14	6.8	6.7	0.1	0.0	0.99
Non-EU	10.7	10.5	0.2	0.0	5.09	11.3	11.1	0.1	0.0	-1.92
Total	6.1	6.0	0.1	0.0	1.33	6.3	6.2	0.0	0.0	10.50

S: Own calculations based on EUROMOD outputs

The policy reform would have additionally reduced children's at-risk-of-poverty rate by 3.1pp in 2021 and by 5.1pp in 2021 (Table 6.33). The main driver would have been the additional policy effect and less so the additional effect of automatic stabilizers.

Single-parent households and households with at least two adults and four or more children would have also seen a strong additional decrease in children's poverty rates (2020: -6.8pp / -10.2pp; 2021: -8.8pp / -15.7pp). The policy effect would have contributed the most to this decrease. However, the effect of automatic stabilizers would have been particularly strong in 2021.

Households with benefits as the main source of income would have experienced the strongest additional decrease in children's poverty rates (2020: -11.8pp; 2021: -10pp). In 2021, households with pensions and other earnings as the main sources of income would have seen a strong -23.1pp decrease in children's poverty rates. This could indicate that the number of children changed for this group in the sample. According to citizenship, households with non-EU citizens would have experienced the strongest additional reduction in children's poverty rates (2020: -9 pp; 2021: -16.3pp).

Table 6.33: R4: Decomposed additional effects on the child AROP rate by demographic groups – percentage points

	2019 vs 2020					2019 vs 2021				
Group	ΔTE	ΔPE	ΔAE	ΔME	ΔCPPC	ΔTE	ΔPE	ΔAE	ΔME	ΔCPPC
Household composition										
single-parent, at least 1 child	-6.8	-9.3	2.2	0.3	Inf	-8.8	-10.7	2.3	-0.4	1.17
min. 2 adults, 1 child	-1.4	-0.9	-0.6	0.1	0.34	-0.7	-0.7	-0.5	0.4	0.63
min. 2 adults, 2 children	-1.9	-1.2	-1.1	0.4	0.48	-3.0	-2.0	-0.7	-0.2	1.05
min. 2 adults, 3 children	-3.7	-3.6	0.4	-0.5	3.65	-10.3	-6.9	-2.1	-1.3	1.61
min. 2 adults, 4+ children	-10.2	-10.6	0.4	0.0	-2.08	-15.7	-10.2	-8.8	3.3	-1.25
Main source of income										
Employment	-3.1	-2.9	-0.3	0.1	1.34	-5.5	-4.3	-1.0	-0.2	1.70
Self-employment	-3.6	-4.3	-0.5	1.2	-7.75	-6.6	-7.1	2.5	-2.0	-0.68
Benefits excl. pensions	-11.8	-11.1	0.0	-0.6	-17.80	-10.0	-7.4	-2.3	-0.3	-7.56
Pensions or private income	-5.5	-4.3	-6.0	4.7	0.21	-23.1	-12.3	-11.3	0.5	1.00
Citizenship										
Austrian	-2.4	-2.2	-0.3	0.2	1.14	-3.3	-2.7	-0.6	0.0	3.00
Other EU	-0.9	-0.5	-1.6	1.2	0.09	-4.0	-3.2	-0.4	-0.4	0.40
Non-EU	-9.0	-9.0	1.1	-1.0	-1.44	-16.3	-11.3	-5.2	0.3	-1.91
Total	-3.1	-2.9	-0.3	0.1	1.20	-5.1	-3.8	-1.3	0.0	2.55

S: Own calculations based on EUROMOD outputs

6.5.4 The effect of child benefits

The reform of the family allowance as a universal component of basic security for children is categorised as a child benefit. Therefore, the reform would have increased the policy effect of child benefits on average by €131.30 in 2020 and by €137.50 in 2021 (Table 6.34). Due to its universal design, the additional amount does not substantially change by income decile. We would, however, observe differences in the total benefit, primarily due to differences in the effect of automatic stabilizers. The first income decile would have received an additional €102.70 in 2020 and €89.40 in 2021. The 10th income decile would have received an additional €16.50 in 2020 and €19.30 in 2021. Interestingly, despite being a universal benefit, the pattern of the

policy effect is slightly progressive. However, the automatic stabilizers moderate the effect in an unspecific pattern.

Table 6.34: R4: Additional effect of benefits targeted at children on the change in monthly mean disposable incomes of households with children by income deciles – in EUR

	2019 vs. 2020				2019 vs. 2021			
	ΔPE_t	ΔAE_t	ΔPE_{ch}	ΔAE_{ch}	ΔPE_t	ΔAE_t	ΔPE_{ch}	ΔAE_{ch}
Income deciles								
1	83.3	19.4	*134.8*	*1.9*	78.8	10.6	*138.1*	*1.1*
2	64.3	7.7	*139.6*	*3.2*	66.7	10.0	*155.4*	*1.0*
3	69.5	8.4	*150.8*	*-1.8*	74.9	-15.6	*149.9*	*-8.3*
4	70.7	-13.2	*125.9*	*4.7*	75.3	-31.1	*133.5*	*3.4*
5	67.6	-1.0	*143.7*	*-10.1*	61.5	50.1	*153.0*	*3.2*
6	65.2	-10.5	*123.2*	*-4.7*	61.7	-43.0	*132.9*	*0.0*
7	59.6	14.3	*130.4*	*19.4*	69.4	7.4	*136.4*	*9.2*
8	58.1	45.1	*125.8*	*1.7*	66.7	11.7	*129.2*	*0.6*
9	57.1	-21.7	*132.2*	*-0.6*	60.3	-6.9	*128.3*	*-5.0*
10	33.3	-16.8	*121.2*	*0.9*	30.0	-10.7	*128.1*	*2.2*
Total	131.6	1.6	*131.3*	*1.3*	137.5	1.0	*137.5*	*1.0*

S: Own calculations based on EUROMOD outputs

Households with at least two parents and four or more children would have enjoyed the highest increase in benefits in both years. In 2020, they would have received an additional €228.20 per month and €227.8 in 2021 (Table 6.35). The effect size clearly increases with the number of children since the family allowance is paid out per child. The automatic stabilizers do not substantially alter the benefit amount. Interestingly, households with pensions or other private earnings as the main source of income would have experienced the greatest increase in total benefits in both years. However, the group would not have featured the highest increase in benefits targeted at children. In both years, this would have been the case with households with benefits as the main source of income. Regarding citizenship, households with non-EU citizenships would have experienced the highest increase, followed by households with Austrian citizenship.

Table 6.35: R4: Additional effect of benefits targeted at children on the change in monthly mean disposable incomes of households with children by demographic groups – in EUR

	2019 vs. 2020				2019 vs. 2021			
	ΔPE_t	ΔAE_t	ΔPE_{ch}	ΔAE_{ch}	ΔPE_t	ΔAE_t	ΔPE_{ch}	ΔAE_{ch}
Household composition								
single-parent, at least 1 child	160.0	-1.7	*159.5*	*-2.2*	169.3	-0.7	*169.2*	*-0.7*
min. 2 adults, 1 child	88.5	0.8	*87.9*	*0.3*	93.1	1.1	*93.0*	*1.1*
min. 2 adults, 2 children	137.2	0.8	*136.9*	*0.6*	144.3	1.0	*144.3*	*1.0*
min. 2 adults, 3 children	178.9	1.4	*178.6*	*1.1*	189.8	3.2	*189.8*	*3.3*
min. 2 adults, 4+ children	223.2	5.0	*223.0*	*4.8*	226.1	-3.0	*226.2*	*-3.0*
Main source of income								
Employment	148.3	2.5	*125.4*	*3.9*	155.0	-3.8	*130.0*	*2.0*
Self-employment	160.6	-7.2	*132.0*	*-3.4*	197.9	-19.4	*140.6*	*-2.2*
Benefits excl. pensions	205.0	9.5	*151.2*	*-7.9*	174.9	-2.6	*167.4*	*-7.1*
Pensions or private income	237.8	10.7	*110.2*	*-11.2*	343.6	37.0	*105.6*	*-14.8*
Citizenship								
Austrian	129.2	1.9	*128.8*	*1.5*	134.0	0.3	*133.9*	*0.3*
Other EU	122.4	-1.4	*121.9*	*-2.0*	131.4	1.3	*131.4*	*1.3*
Non-EU	154.0	1.9	*153.7*	*1.6*	161.6	1.9	*161.6*	*1.9*
Total	131.6	1.6	*131.3*	*1.3*	137.5	1.0	*137.5*	*1.0*

S: Own calculations based on EUROMOD outputs

On average, households with children would have experienced an additional €134.20 increase in their disposable incomes in 2020 (Table 6.36). Its main source would have been benefits and, in particular, child benefits. The share of child benefits would have increased on average by 5pp to an average share of 16%. Families in the first income decile would have experienced the highest absolute increase in their disposable income (+€90.8), though not the highest increase in benefits and child benefits. The low market effect in the first income decile increases the gain from the hypothetical reform for this decile. The first income decile would have experienced the greatest increase in the share of child benefits in disposable income (+11 pp to 43%). The third income decile would have experienced the strongest increase in child benefits (+€150.10), though not the highest increase in disposable incomes. This illustrates the induced change in income decile grouping when the reform affects disposable income.

Table 6.36: R4: Change in composition of mean monthly disposable incomes of households with children in 2020 by income decile – in EUR

	Δ Disposable income	Δ Market income	Δ Taxes	Δ Social insurance contributions	Δ Benefits	*Δ Benefits directed at children*	
Income deciles	Total	Total	Total	Total	Total	*Total*	*pp (% of disposable)*
1	90.8	-38.9	1.3	-7.0	124.0	*137.7*	*11*
2	74.7	-115.8	-4.9	-19.7	165.8	*143.8*	*9*
3	65.3	-155.3	-18.5	-33.5	168.5	*150.1*	*8*
4	68.5	-79.6	-14.7	-6.0	127.3	*131.3*	*6*
5	66.0	-137.6	-24.7	-29.1	149.9	*134.6*	*5*
6	56.0	-91.5	-25.7	-23.4	98.3	*119.5*	*4*
7	57.0	-164.4	-53.4	-20.8	147.1	*150.6*	*5*
8	63.4	-114.2	-36.4	-6.8	134.3	*128.4*	*4*
9	49.7	-128.5	-43.3	-12.1	122.8	*132.4*	*4*
10	42.9	-129.6	-55.2	-10.0	107.4	*123.0*	*3*
Total	134.2	0.0	-0.7	0.0	133.5	*133.4*	*5*

Note: Disposable incomes are calculated as market incomes plus benefits minus taxes minus social insurance contributions. Child benefits are one component of total benefits.

S: Own calculations based on EUROMOD outputs

In 2021, households with children would have benefited from an additional €141.20 in disposable income (Table 6.37). The change is solely due to the change in benefits and, particularly, in benefits targeted at children (+€141.20). This increases the share of benefits targeted at children in the disposable income on average by 5pp to 14%. The change in the disposable income is not as progressive as in 2020. However, households in the 2nd income decile would have benefited from the greatest increase in benefits targeted at children (+€159.70), which translates into the highest increase in disposable income. Similarly to 2020, households in the first income decile would have experienced the highest increase in the share of benefits targeted at children in their disposable income (+13pp to 42%).

Table 6.37: R4: Change in composition of mean monthly disposable incomes of households with children in 2021 by income decile – in EUR

	Δ Disposable income	Δ Market income	Δ Taxes	Δ Social insurance contributions	Δ Benefits	*Δ Benefits directed at children*	
Income deciles	Total	Total	Total	Total	Total	*Total*	*pp (% of disposable)*
1	73.5	-81.2	2.1	-14.4	142.5	*142.2*	*13*
2	76.7	-107.2	-12.4	-23.6	147.7	*159.7*	*10*
3	72.7	-103.6	-3.9	-15.1	157.3	*144.6*	*8*
4	73.9	-71.0	-26.6	-16.6	101.7	*139.7*	*7*
5	64.0	-182.7	-26.0	-35.4	185.3	*159.3*	*7*
6	59.5	-113.4	-17.4	-9.7	145.8	*135.6*	*5*
7	73.8	-150.3	-58.0	-20.0	146.0	*148.4*	*5*
8	74.0	-89.7	-21.7	-24.0	118.0	*132.5*	*4*
9	51.7	-110.1	-35.1	-2.4	124.3	*125.8*	*4*
10	46.0	-160.6	-68.3	-9.6	128.7	*133.0*	*3*
Total	141.2	0.0	0.0	0.0	141.2	*141.2*	*5*

Note: Disposable incomes are calculated as market incomes plus benefits minus taxes minus social insurance contributions. Child benefits are one component of total benefits.

S: Own calculations based on EUROMOD outputs

6.5.5 Summary of the reform effect

The increase of the family allowance approximating a universal component of a basic security for children clearly benefits households with children. However, in contrast to reform R2, which grants an additional benefit for each child in low-income households, the increase in the family allowance is universal. Compared to 2019, the reform would have increased the total effect for households with children by 6.1pp in 2020 and by 6.3pp in 2021. This would have resulted in a strong overcompensation of the COVID-19 market effect, particularly in 2021. However, comparable to the family tax credit reform, the idea of a basic security for children is not to compensate for a specific external shock but instead to improve the financial situation of children and their parents permanently.

The reform would have increased the monthly disposable income of households with children on average by €134.2 in 2020 and by €141.20 in 2021. In contrast to the other three additional reforms, the increased family allowance would have increased the share of child benefits in all income deciles (+5 pp in both years). The stability in the additional effects indicates that the reform would not have been targeted at families to mitigate the COVID-19 labour market effect, but instead to universally increase the benefits targeted at children. This would have decreased children's at-

risk-of-poverty rate by 3.1pp in 2020 and by 5.1pp in 2021. Households with at least two adults and four or more children and single-parent households would have seen particularly substantial reductions in child poverty rates in both crisis years. The same is true for households with benefits as their main source of income as well as for households with non-EU citizens.

However, the reform would have been the most expensive among the four additional reforms. In 2020, the extra budgetary costs would have been €3.6 billion and in 2021 €3.9 billion.

6.6 Comparison of additional reforms: reduction in child poverty vs. budgetary costs

To gain a comprehensive view of the additional effects of each (hypothetical) policy reform aimed at reducing child poverty during the crisis years in RQ 4, we set the additional reduction in child poverty rates in relation to the additional budgetary costs of each reform (Table 6.38).[25] In this sense, the monthly transfer of €60 for children below 18 in low-income households (R2) would have represented the most cost-effective policy measure. It would have decreased child at-risk-of-poverty rates by additionally 1.2pp in 2020 and by 1.1pp in 2021, with costs amounting to around €0.3 billion in both 2020 and 2021.

The increase of the family allowance approximating a universal component of a basic security for children (R4) would have had the strongest impact on children's at-risk-of-poverty rates (-3.1pp in 2020, -5.1pp in 2021). However, in 2020, the reform would have increased budgetary costs by € 3.6 billion and in 2021 by € 3.9 billion.

The 2022 family tax credit reform (R3) would have had basically no effect on the children's at-risk-of-poverty rate in 2020 (+0.1pp) and a small impact (-1.0pp) in 2021. The cost of the reform would have been around €0.6 billion both in 2020 and 2021, illustrating that it is not mainly targeted at low-income families but rather at employed parents in the middle- and higher-income deciles.

The increase of the replacement rates for unemployment benefits and the connected family supplement (R1) would have represented the second most expensive additional policy reform (€1.0 billion in 2020, €0.8 billion in 2021), again – as only indirectly targeted at vulnerable families with children – with only a minor impact on child poverty (-0.5pp in 2020, -0.3pp in 2021).

All four reforms would have contributed to a higher Income Stabilisation Coefficient (ISC) and thus an overcompensation of the COVID-19 pandemic's effect on families' market incomes. Reforms R1 and R2 would have increased the ISC the least. This

[25] When comparing the budgetary costs, it has to be kept in mind that R2 (transfer for children in low-income households) only affects children below 18 years, while R3 (family tax credit reform) and R4 (family allowance reform) also affect children above 17 years. R1 (reform of unemployment benefits) is anyway unspecific related to the age of children.

indicates that the potential beneficiaries of both an increase in replacement rates of unemployment benefits and the monthly transfer of €60 per child in low-income households would have corresponded better with those households whose market income was significantly affected by COVID-19. In contrast, both the family bonus tax credit (R3) and the family benefit reform (R4) would have been less "targeted" by "overcompensating" the crisis-related market effect.

Table 6.38: R1 – R4: Summary of the four hypothetical reforms

	2020			2021		
	Child AROP rate: TE_s (ΔTE)	**mean equivalised disposable income: ISC_s (ΔISC)**	**Budgetary costs (Mio. €)**	**Child AROP rate: TE_s (ΔTE)**	**mean equivalised disposable income: ISC_s (ΔISC)**	**Budgetary costs (Mio. €)**
R1 unemployment benefits & supplement reform	-0.3 (-0.5)	1.57 (+0.14)	1,037	+1.5 (-0.3)	1.67 (+0.67)	818
R2 monthly € 60 for children <18 in low-income households	-1.0 (-1.2)	1.54 (+0.11)	288	+0.7 (-1.1)	2.00 (+1.00)	275
R3 family bonus tax credit reform	+0.3 (0.1)	1.70 (+0.27)	635	+0.8 (-1.0)	2.83 (+1.83)	614
R4 family allowance reform	-2.9 (-3.1)	2.76 (+1.33)	3,559	-3.3 (-5.1)	11.50 (+10.50)	3,898

Note: TE: Total Effect; ΔTE: Additional Total Effect; ISC: Income Stabilisation Coefficient; ΔISC: Additional Income Stabilisation Coefficient

S: Own calculations based on EUROMOD simulations

7 Summary and conclusion

The study refers to Cluster 6 of the ÖNB-Jubiläumsfonds, "public finances and households," including the effects of the COVID-19 pandemic. We contribute to the growing body of empirical evidence regarding poverty and material deprivation among children in Austria by analysing the consequences of the COVID-19 crisis during 2020 and 2021. This research adopts a comprehensive approach, exploring various aspects of child poverty. We examine different concepts and indicators, such as the development of AROP rates and material deprivation, using various indices throughout the crisis years. Additionally, we analyse family-related characteristics of the affected children, including whether new groups of vulnerable children, such as those with self-employed parents, were impacted. Furthermore, the study discusses the distributional effects and poverty-reducing outcomes of automatic stabilizers and discretionary policy measures introduced in response to COVID-19, as well as hypothetical policy changes that could have been implemented in addition.

Children growing up in poverty face many disadvantages related to their material, social, cultural and health situations, which can affect the trajectory of their entire lives. The longer they live in poverty, the more the risks and adverse consequences intensify. Structural factors can also prevent affected persons from escaping their circumstances. Furthermore, there are significant long-term human and economic costs associated with childhood poverty and disadvantage, which represent a serious problem for both those individuals and society.

In the study at hand, we focus on the income situation and related (monetary) poverty and deprivation risks of children. However, child poverty is a complex phenomenon with many dimensions, requiring policy action for the prevention and early intervention in childhood as well as mitigating its consequences throughout the life course. A major challenge concerns creating integrated approaches that address the overall improvement of the family situation using an effective mix of public cash and in-kind measures (adequate income and housing, labour market integration, social services, public infrastructure, etc.) at the same time.

As in other countries, the COVID-19 crisis and the responsive health and protection measures taken have led to a tremendous labour market and (primary) income shock in Austria. The government reacted with several support measures for employees at risk of losing their jobs (short-time work scheme), self-employed (hardship funds), unemployed (one-off payments and increase of benefit level) and families with children (mainly one-off payments) as well as with other overall income supporting measures in the income tax system.

Summing up the different already existing studies for Austria in a consolidated literature analysis, both automatic stabilizers and discretionary COVID-19 measures helped to contain, if not compensate, the market income losses. This finding seems to apply particularly to low-income households. However, some results suggest that households without children were better off than households with children, given that persons in households with children were more likely to be employed before the

crisis and, thus, at a higher risk of suffering from COVID-19 consequences. There are also some hints that lone parents and other low-income households with children were particularly affected by the crisis, but here, the picture is ambiguous. All in all, there is the assumption that income inequality and poverty rates did not increase significantly.

Drawing a conclusion on the impact of the COVID-19 crisis on disposable incomes in European countries according to available studies, it can be assumed that employment protection schemes and discretionary benefit measures were relatively effective in containing the tremendous labour market and income effect. For some countries, it seems that households with children were adversely affected by the crisis, including a steeper increase in poverty rates compared to the total population. On the other hand, other studies suggest that low-income groups, particularly lone parents, were relatively well-protected.

Research question (RQ) 1 (development of financial poverty and material deprivation of children during the crisis years) and RQ2 (socio-demographic characteristics of affected children) of the current study were answered based on a secondary analysis of EU-SILC 2020-2022 data (income years 2019-2021). The effect of the COVID-19 crisis is clearly visible when looking at the evolution of the at-risk-of-poverty rate of children. With almost 20%, the proportion was 1.4 percentage points higher in 2020 than in 2019 and showed only a small decrease in 2021. The increase among children in 2020 was considerably larger than among the total population, indicating that children were disproportionately affected in the first year of the crisis.

Yet, families with children were not equally affected. Single-parent households faced the highest rate of relative poverty among families with children before the crisis in 2019 (around 32%), and their poverty rate even further increased in the crisis years (up to around 36%). Couple households with three or more children faced likewise a very high poverty risk in 2019 (around 31%). They also remained the most likely, after single-parent households, to experience poverty during the pandemic – although on a slightly decreasing level of around 28%. A multivariate analysis accounting for confounding variables confirms that families with children were more severely affected by an increase in poverty than those without children.

Furthermore, compared to the total population, children tend to live disproportionately often in deprived households. Based on the standard Eurostat indicators, the proportion of children affected by severe material deprivation increased from 3.5% in the year prior to the COVID-19 crisis to 4.5% in 2020 before returning to its pre-pandemic level in 2021. The same inverted U-shape pattern of increase (from 4.4% in 2019 to 5.5% in 2020) and decrease (to 2.7% in 2021) is observed in the severe material and social deprivation indicator. In both cases, increases in 2020 were clearly more pronounced for children than for the total population.

The child-specific material deprivation indicator by Eurostat includes items relating to children, therefore offering information on the specific situation of children. However, given the lack of respective data for the years 2015 to 2020, we have no information on COVID-19-specific developments and can compare the situation in 2021 only with that in 2014: in the seven-year period, the percentage of deprived children decreased in all 12 child-specific categories. The categories where children were lacking the most in 2021 were going on holiday and participating in leisure activities (11% and 8% of children, respectively), which children had likely also been

deprived of because of the physical restrictions induced by the COVID-19 pandemic. At the same time, less than 1% of children were reported to have no access to basic needs such as food and clothing. In addition to the 12 child-specific categories, there are also five household-level categories in the child-specific indicator. Adding up the 17 categories yields a child-specific deprivation rate, which in 2021 was just below 8% and in 2014 stood at a significantly higher rate of 14%.

Among the six domains that were originally developed for the Vienna child poverty index, independent of the pandemic housing and the local environment (more than 40% with at least one category included in this domain) and financial capacity (around 30%) are those where households with children were most likely to report problems. Financial capacity was also one of the domains where deprivation somewhat increased during the crisis. Social interactions and personal relationships, as well as unmanageable debts and arrears, were two other areas where deprivation among families increased, albeit to a lesser extent than in the case of financial capacity. Still, the prevalence observed in the latter domain doubled (from 2% in 2019 to 4% in 2021). As for the other three domains, namely Housing and the environment (note: housing costs were not included here as that indicator was covered under the financial capacity domain), Health, as well as Education and care, no increase in deprivation was observed during the crisis period.

Summing up, we can confirm hypothesis 1: We found that both monetary poverty and material deprivation of families with children increased during the COVID-19 crisis, especially in 2020. This also suggests that both automatic stabilizers and discretionary COVID-19-related benefits were only partially effective in protecting families with children, a first indication that we examine in greater detail in RQs 3 and 4.

Linear (OLS) regression models (with both a logistic and a probit regression as a sensitivity analysis) were employed to investigate whether the socio-economic characteristics of families with dependent children below 18 years of age affected by AROP or material deprivation changed during the COVID-19 crisis. Both in 2019 and during the crisis years, very low work intensity and primary education level are those most significantly associated with being in relative poverty. However, their explanatory weight somewhat decreased during the COVID-19 crisis. Lone parenthood was significantly related to a low-income profile in 2019, and this association slightly further increased in 2020 and 2021. Contrary to 2019, the risk of poverty increased with the number of children. Families with a non-EU origin were more likely to fall into poverty already in 2019 and more so in the peak year of the pandemic. Self-employment was significantly associated with households being at risk of poverty in 2019. Interestingly, this association weakened in 2020, but its significance as a predictor increased again in the following year. Finally, families renting in the private market were more likely to be at risk of poverty, and the statistical significance even increased in 2021.

The effects of household characteristics for deprivation are broadly similar, although some (e.g., single parent status, number of children, self-employed in the household) lack statistical significance. A notable difference is that families affected by unemployment were significantly more likely to be severally materially deprived during COVID-19 than in 2019. The results also indicate that non-EU immigrant households had an increasingly higher probability of being (severely) deprived during the pandemic. Surprisingly, (very) low work intensity, as well as a low education level,

lost their statistical significance during the crisis years. As with the risk of poverty, the probability of being (severely) deprived was considerably higher among families who did not own their home, here also including those paying no or reduced rent, and their situation worsened in 2020 and 2021.

We can confirm hypothesis 2, indicating that the situation worsened for traditionally vulnerable children. This is particularly true for both children from single-parent families and large families (related to AROP), those living in households with unemployed individuals (related to deprivation), and children both from non-EU migrant backgrounds and whose tenancy status depended on renting from the private market (related to both AROP and deprivation).

Conversely, while the connection to low education levels and low work intensity remains statistically significant overall, it somewhat weakened during the pandemic. This might be partly attributed to discretionary crisis measures that supported low-income households with children. Additionally, unlike trends observed in other EU countries, we did not find evidence that new groups of children – especially those with self-employed parents – were adversely affected. There was no significant correlation with material deprivation for children with self-employed parents, and for AROP, the statistical significance, which dropped in 2020, returned to pre-crisis levels in 2021.

RQ 3 (effectiveness of the Austrian tax-benefit system in preventing an increase in child poverty due to COVID-19) and RQ 4 (hypothetical performance of additional policy measures to mitigate child poverty during the COVID-19 crisis) were answered based on tax-benefit microsimulation using the model EUROMOD. Specifically, in RQ 3, we analysed the impact of the COVID-19 labour market shock on the incomes of households with children and the child poverty rate. We examined how much this impact was mitigated by discretionary policy changes and automatic stabilizers, as well as the effectiveness of measures specifically aimed at children in addressing these effects.

The findings reveal a notable difference from the literature analysis: households with children experienced less impact on their market incomes due to the COVID-19 labour market shock compared to childless households. One possible explanation for this is that working parents are less likely to be employed in industries that were severely affected by COVID-19, such as hospitality and tourism. Nevertheless, households with children experienced a significant decrease in their average market incomes from 2019 to 2020 (-4.6%) and a weaker decline from 2019 to 2021 (-0.6%). In both periods, the decline in market incomes was stronger among lower-income households. In the absence of any countermeasures, the labour market shock would have caused a 2.5-percentage point increase in the child AROP rate in the first and a 2.0-percentage point increase in the second crisis period.

The Austrian tax and benefit system effectively mitigated the impact of market shocks on household incomes. From 2019 to 2020, our findings suggest that there was even an overcompensation for the market effects on the average incomes of households with children. Specifically, while market incomes declined by 4.6%, disposable incomes actually increased by 2%. This effect was driven in about equal parts by discretionary policy changes (+3.4%) and automatic stabilizers (+3.2%). The former consisted in large parts of lump sum COVID-19 payments, which in relative terms benefited lower-income households more. As intended, the effect of automatic stabilizers showed a clear correlation with the market income

development: households experiencing the strongest declines, also saw the strongest effect. Our results further indicate that during the first crisis year, the Austrian tax benefit system also managed to curtail a 2.5-percentage point increase in the child poverty rate caused by the labour market shock to a low 0.2-percentage point increase.

The comparison of data from 2019 to 2021 reveals a smaller decline in mean market incomes for households with children, with a decrease of only 0.6%. This decline was offset by an equivalent increase in incomes due to discretionary policies. In this second crisis period, the impact of these policies once again favoured lower-income households more significantly. While the tax-benefit system effectively maintained the average income of households with children, it was much less effective in preventing an increase in child poverty during this period. A decrease in market incomes led to a 2-point increase in the child AROP rate, which was reduced to only a 1.8-point increase after policy measures. According to our analysis, the primary reason for this child poverty-increasing effect (despite a relatively modest decline in market incomes and compensation through the tax-benefit system for families with children on average) is that in the 2nd decile – an important decile for the AROP rate – a relatively strong negative market income effect was not sufficiently compensated, particularly by automatic stabilizers.[26]

Child benefits played an important role in stabilising incomes and preventing an increase in child poverty when comparing 2019 with 2020, also due to the child-related COVID one-off payment. Between 2019 and 2021, the contribution of child benefits to disposable incomes decreased slightly, presumably because policies targeted at children were generally not indexed for inflation and, hence, lost their value over time. However, they still play a crucial role in supporting the incomes of households with children, especially at the lower end of the income distribution.

[26] The results on the development of market and disposable incomes during the crisis years are relatively similar to those by Budgetdienst (2023) and Gasior et al. (2023), also employing EUROMOD, according to which automatic stabilizers and discretionary crisis-support measures have more than compensated market income losses for (families with) children, particularly in 2020. However, results on poverty rates differ from the current secondary analysis of EU-SILC-data (RQ 1), where a respective increase for children rather took place in 2020 (instead of 2021). Differences are due to deviating poverty lines according to original EU-SILC data vs according to simulated policies in EUROMOD. Those differences in thresholds (disposable incomes of "vulnerable households" slightly above or below the respective poverty lines) could be decisive for specific results. In addition, when interpreting them, the limitations of our methodological approach must be considered: The decomposition method applied compares the incomes of population samples drawn at different points in time (2019, 2020, 2021), which allows us to understand how population-level statistics like average incomes or the child AROP-rate change from one sample to the other. The method has the advantage that it allows us to analyse policies based on data collected for the same calendar year. On the other hand, it implies that we do not make use of panel data, which would allow us to track how the incomes of individual households developed between two points in time. The magnitude of changes in market incomes by deciles also depends on the dataset-specific distribution of population groups. The "over/under-representation" of certain household types with children in certain deciles from one sample to the other (e.g., has the composition of households with children along the income distribution changed? Has the share of households with children in each decile changed?) might help to understand changes in mean and median market incomes. Consequently, particularly the results for small subsamples of the population must be interpreted with caution.

The results support hypothesis 3, indicating that COVID-19-related policies and automatic stabilizers were relatively effective in preventing child poverty. However, the lack of targeted compensation measures and the absence of indexing for family benefits during that period meant that children did not receive full support, as noted in RQ 1. Therefore, implementing additional policy measures could have further enhanced the effectiveness of poverty prevention efforts.

To more effectively combat child poverty, we tested the effects of both actual and hypothetical general policies in the context of the COVID-19 scenario (RQ4). We simulated (R1) an increase in the replacement rate for unemployment benefit and unemployment assistance incl. an increase of the family supplements, (R2) a monthly transfer of €60 to every child <18 in low-income households, (R3) a more progressive configuration of the tax credit family bonus (situation 2022 vs. 2021), and (R4) an increase of the universal family allowance (incl. age supplements) as additional policies to combat child poverty during the crisis-years more effectively. To gain a comprehensive understanding of the additional impacts of each hypothetical policy reform, the reduction in child poverty rates was analysed in relation to the corresponding budgetary costs.[27]

Of the four additional reforms analysed, the increase in the family allowance (-3.1 pp in 2020, -5.1 pp in 2021) and the transfer payments to children in low-income households (more than -1 pp in both crisis years) would have had the strongest additional child poverty reduction effect. The latter, including a means-test and thus, targeted directly at poor children, would have been the most cost-effective measure to combat the effect of the COVID-19 pandemic on child poverty (budgetary costs of less than €0.3 billion in each crisis year). The increased family allowance would have represented a benefit focussing on families in a universal way and thus at high budgetary costs (more than €3.5 billion in 2020 and 2021 each). It would have guaranteed the needs of all children independent of families' incomes. The increased replacement rates of unemployment benefits, incl. the increased family supplement at annual budgetary costs of around €0.8-€1.0 billion, would have rather supported low-income households but would not have focused (significantly) on households with children. Thus, the additional poverty-reduction effect for children with minus 0.3-0.5 pp would have been relatively low. The more progressive configuration of the family tax credit, while also incorporating a higher negative tax, would have primarily benefited families with employment income. It would have been less focused on supporting families that have lost their jobs or experienced a decline in income during the COVID-19 crisis. The budgetary cost of approximately €0.6 billion per year would have achieved a maximum reduction in poverty of only 1 pp.

All four reforms would have contributed to a higher Income Stabilisation Coefficient (ISC) and, thus, overcompensation of COVID-19's effect on families' market incomes. The increase in replacement rates of unemployment benefits and the monthly transfer of €60 per child in low-income households would have increased the ISC the least. This indicates that the potential beneficiaries of the two reforms would have corresponded better with those households whose market income was significantly

[27] When comparing the budgetary costs, it has to be kept in mind that R2 (transfer for children in low-income households) only affects children below 18 years, while R3 (family tax credit reform) and R4 (family allowance reform) also affect children above 17 years. R1 (reform of unemployment benefits) is anyway unspecific related to the age of children.

affected by COVID-19. On the contrary, both the family bonus tax credit and the family benefit reform would have been less “targeted” and “over-compensating” the crisis-related market effect.

Thus, we can also confirm hypothesis 4: additional policies to counter child poverty would have increased the poverty-reducing effect of actual policies during the COVID-19 crisis. In sum, the monthly transfer of €60 per child for low-income families would best combine the aspects of a policy being child-focused and being targeted at low-income families simultaneously.

However, policymakers are confronted with several trade-offs in combating child poverty with the available set of monetary tools. Measured per percentage point of reduction, an increase in universal benefits is substantially more expensive than reforms of targeted means-tested payments – as we have also demonstrated in the current study. While the transfer of €60 to children in low-income households would have efficiently reduced poverty among vulnerable children, reforms of these more targeted payments have the potential to either weaken financial work incentives for families (as they are primarily linked to stringently means-tested benefits) or might increase inequality within the wider “poorer” population, also by reinforcing perceptions of who deserves public support and who does not (see Roantree/Doorley, 2023; Heitzmann/Staudinger, 2023).

8 Dissemination

Along with this final report, we published the main results of the project in a Policy Brief from the European Centre and as a EUROMOD Working Paper at the Centre for Microsimulation and Policy Analysis at the University of Essex. This dissemination provides visibility to a wide network of experts, including researchers, policymakers, and members of the European Commission. We also plan to publish the results in peer-reviewed scientific journals.

On 28 October 2024, an international seminar was held at the European Centre to present the final project results. Karin Heitzmann (WU Wien) and Katrin Gasior (SASPRI) commented on the findings. In addition, we will present the project results at the 7th ESPAnet Austria Social Policy Research Conference, which will take place in April 2025 in Innsbruck, as well as at the EUROMOD Research Workshop, a discussion event for stakeholders and the interested public, scheduled for September 2025 in Ljubljana.

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10 Appendix

10.1 Additional tables RQ1

Table A1.1: Domains and variables of the "Vienna Index"

Domain	Indicators
Unmanageable debts and arrears	Arrears on mortgage payments (house)
	Arrears on mortgage payments (flat)
	Arrears on rent payments
	Arrears on utility bills (water, sewage, garbage)
	Arrears on utility bills
	Arrears on additional housing costs
	Arrears on hire purchase instalments or other loan
Financial capacity of the household	Spend a small amount of money each week on yourself
	Ability to make ends meet
	Capacity to face unexpected financial expenses
	Financial burden of the total housing cost
	Replace worn-out clothes by some new
	Capacity to afford new clothing
	Two pairs of properly fitting shoes
	Have a telephone (including mobile phone)
	Have a colour TV

	Have a computer
	Have a washing machine
	Have a car
	Have internet
	Have internet at home
Health	Capacity to afford a meal with meat, chicken, fish (or veg. equivalent) every second day
	Main reason for unmet need for medical examination or treatment
	Main reason for unmet need for dental examination or treatment
Social interaction & personal relationships	Get-together with friends/family (relatives) for a drink/meal at least once a month
	Capacity to invite guests
	Children: invite friends
	Children: afford celebrations
	Capacity to afford paying for one-week annual holiday away from home
Housing and local environment quality	Leaking roof, damp walls/floors/foundation, or rot in window frames or floor
	Problems with the dwelling: too dark, not enough light
	Ability to keep home adequately warm
	Bath or shower in dwelling
	Indoor flushing toilet for sole use of household
	Insufficient number of rooms
	Noise from neighbours or from the street

	Pollution, grime or other environment problems
	Crime, violence or vandalism in the area
Education and care	Regular leisure activities: children
	Regularly participate in a leisure activity
	Sport and leisure equipment outdoor: children
	Participation school activities and school excursions: Children

S: Fuchs et al., 2022

10.2 Additional tables RQ 2

Table A2.1: Descriptive statistics for the total sample %(mean)

	2019	2020	2021	2022
Single parent	15.25	13.39	13.60	12.47
No. of children, mean	1.65	1.64	1.67	1.66
s.d.	0.78	0.76	0.76	0.73
Child<3 yrs	29.12	27.58	26.48	24.65
EU-born	14.18	13.79	13.12	12.84
Non-EU born	16.25	16.29	15.76	12.93
Health limitation	47.13	45.08	45.44	44.47
Highest education				
Primary	3.98	4.68	3.36	1.12
Secondary	39.77	38.39	37.92	36.56
Tertiary	56.25	56.94	58.72	62.33
Work intensity				
Very low	5.67	6.37	4.08	2.05
Low	3.75	6.05	5.28	3.53
Medium	16.55	16.77	15.36	16.65
High	35.33	33.39	33.28	33.86
Very high	38.70	37.42	42.00	43.91
Unemployed	8.74	12.32	10.81	9.58
Self-employed	15.79	16.40	15.32	16.09
Tenure status				
Owner	60.31	60.97	62.56	66.79
Rent market price	29.27	27.58	26.48	23.63
Rent reduced/free	10.42	11.45	10.96	9.58
Area of residence				
Rural	42.45	40.56	40.80	42.05
Urban	57.55	59.44	59.20	57.95
N	1,305	1,250	1,240	1,250

Note: Years displayed refer to the survey year.

S: Own calculations based on EU-SILC

Table A2.2: Descriptive statistics for material deprivation, % (mean)

	No material deprivation		Material deprivatioon	
	2019	2020	2019	2020
Single parent	13.74	14.24	40.00	35.71
No. of children, mean	1.65	1.63	1.77	1.80
s.d.	0.76	0.72	1.03	1.19
Child<3 yrs	29.51	26.19	22.67	17.14
EU-born	14.31	14.24	12.00	10.00
Non-EU born	14.31	14.24	48.00	55.71
Health limitation	46.10	44.07	64.00	64.29
Highest education				
Primary	2.36	2.20	30.67	22.86
Secondary	39.51	37.03	44.00	50.00
Tertiary	58.13	60.76	25.33	19.35
Work intensity				
Very low	3.58	3.14	40.00	37.14
Low	3.17	4.07	13.33	17.14
Medium	16.75	17.80	13.33	17.14
High	36.50	33.14	16.00	14.29
Very high	40.00	41.86	17.33	14.29
Unemployed	6.75	9.41	41.33	61.43
Self-employed	16.50	17.12	4.00	4.29
Tenure status		64.58		
Owner	62.76	59.64	20.00	12.86
Rent market price	27.48	25.34	58.67	68.57
Rent reduced/free	9.76	10.08	21.33	18.57
Area of residence				
Rural	43.82	41.36	20.00	15.71
Urban	56.18	58.64	80.00	84.29
N	1,230	1,180	75	70

Note: 3 out of 9 items. Note: Years displayed refer to the survey year.

S: Own calculations based on EU-SILC

Table A2.3: Regression analysis for poverty risk (coefficients from logistic regression), 2019-2021

	2019	2020	2021
Single parent	1.547***	1.628***	1.541***
	(0.315)	(0.324)	(0.310)
No. of children	0.197	0.423***	0.321**
	(0.118)	(0.109)	(0.112)
Child<3 yrs	0.224	0.252	-0.131
	(0.245)	(0.225)	(0.250)
EU-born	0.918***	0.668**	0.702**
	(0.261)	(0.250)	(0.264)
Non-EU-born	0.960***	1.108***	0.744**
	(0.285)	(0.258)	(0.263)
Health limitation	-0.009	-0.368	-0.134
	(0.204)	(0.202)	(0.200)
Highest education (Ref= Tertiary)			
Primary	2.322***	0.987**	1.386**
	(0.456)	(0.381)	(0.441)
Secondary	0.587**	0.385	0.187
	(0.208)	(0.205)	(0.205)
Work intensity (Ref= Very high)			
Very low	2.578***	2.223***	1.458**
	(0.411)	(0.381)	(0.485)
Low	1.366***	1.439***	1.337***
	(0.410)	(0.387)	(0.391)
Medium	1.325***	1.390***	0.676*
	(0.306)	(0.316)	(0.329)
High	0.436	0.680*	0.735**
	(0.271)	(0.289)	(0.254)
Unemployed	0.196	0.073	0.323
	(0.277)	(0.289)	(0.320)
Self-employed	1.103***	0.736**	0.940***
	(0.266)	(0.274)	(0.259)
Tenure status (Ref= Qwner)			
Rent market price	0.590*	0.625*	1.263***
	(0.245)	(0.247)	(0.254)
Rent reduced /free	0.787**	0.364	0.889**
	(0.297)	(0.286)	(0.323)
Rural	0.203	-0.341	0.313
	(0.241)	(0.240)	(0.244)
Constant	-5.131***	-5.402***	-5.240***
	(0.555)	(0.541)	(0.535)
Observations	1,250	1,240	1,250
Adj. R-sq	0.245	0.225	0.176

Notes: Robust standard errors in parentheses. Significance level: *** p<0.001, ** p<0.01, * p<0.05. The adjusted R squared refers to the McFadden's adjusted R squared. Years displayed refer to the income year (y-1) and not the survey year (y).

S: Own calculations based on EU-SILC

Table A2.4: Regression analysis for poverty risk (coefficients from probit regression), 2019-2021

	2019	2020	2021
Single parent	0.823***	0.848***	0.852***
	(0.165)	(0.173)	(0.166)
No. of children	0.115	0.231***	0.185**
	(0.061)	(0.059)	(0.060)
Child<3 yrs	0.122	0.122	-0.084
	(0.130)	(0.121)	(0.130)
EU-born	0.510***	0.360**	0.387**
	(0.141)	(0.138)	(0.142)
Non-EU-born	0.535***	0.602***	0.410**
	(0.149)	(0.141)	(0.141)
Health limitation	0.008	-0.181	-0.081
	(0.106)	(0.107)	(0.104)
Highest education (Ref= Tertiary)			
Primary	1.284***	0.599**	0.804***
	(0.258)	(0.215)	(0.249)
Secondary	0.295**	0.212	0.095
	(0.110)	(0.110)	(0.108)
Work intensity (Ref= Very high)			
Very low	1.448***	1.237***	0.855***
	(0.225)	(0.208)	(0.260)
Low	0.757***	0.778***	0.737***
	(0.224)	(0.210)	(0.212)
Medium	0.698***	0.718***	0.338*
	(0.159)	(0.165)	(0.171)
High	0.254	0.314*	0.399**
	(0.137)	(0.143)	(0.129)
Unemployed	0.115	0.046	0.203
	(0.152)	(0.162)	(0.179)
Self-employed	0.599***	0.379**	0.493***
	(0.139)	(0.142)	(0.136)
Tenure status (Ref= Owner)			
Rent market price	0.320*	0.343**	0.672***
	(0.129)	(0.133)	(0.134)
Rent reduced/ free	0.387*	0.178	0.477**
	(0.161)	(0.156)	(0.168)
Rural	0.108	-0.165	0.159
	(0.124)	(0.124)	(0.125)
Constant	-2.863***	-2.959***	-2.931***
	(0.283)	(0.280)	(0.278)
Observations	1,250	1,240	1,250
Adj. R-sq	0.245	0.223	0.180

Notes: Robust standard errors in parentheses. Significance level: *** p<0.001, ** p<0.01, * p<0.05. The adjusted R squared refers to the McFadden's adjusted R squared. Years displayed refer to the income year (y-1) and not the survey year (y). S: Own calculations based on EU-SILC

Table A2.5: Regression analysis for severe material deprivation (4 out of 9) and material deprivation (3 out of 9) (coefficients from logistic regression), 2019-2021

	2019	2020	2021	2019	2020
	Severe material deprivation			*Material deprivation*	
Single parent	0.760	1.414*	0.433	0.949*	0.636
	(0.649)	(0.740)	(0.789)	(0.472)	(0.476)
No. of children	-0.123	0.258	-0.043	0.081	0.066
	(0.255)	(0.213)	(0.218)	(0.172)	(0.158)
Child<3 yrs	-0.271	-0.972	-0.544	-0.415	-0.906*
	(0.528)	(0.636)	(0.533)	(0.335)	(0.434)
EU-born	-1.737	0.379	0.810	-0.099	-0.186
	(1.026)	(0.747)	(0.654)	(0.485)	(0.536)
Non-EU born	0.981	1.387*	1.584*	0.674	0.826*
	(0.533)	(0.570)	(0.704)	(0.367)	(0.401)
Health limitation	0.416	0.768	0.448	0.314	0.488
	(0.510)	(0.448)	(0.489)	(0.304)	(0.300)
Highest education (Ref=Tertiary)					
Primary	2.336**	1.292	0.005	2.064***	1.558**
	(0.711)	(0.718)	(0.710)	(0.466)	(0.545)
Secondary	1.058	0.363	-0.466	0.704*	0.521
	(0.591)	(0.498)	(0.531)	(0.330)	(0.383)
Work intensity (Ref= Very high)					
Very low	1.919**	2.069	0.906	1.867***	1.846***
	(0.680)	(1.224)	(0.677)	(0.467)	(0.556)
Low	1.667	2.433*	0.996	1.778***	1.082*
	(0.895)	(1.168)	(0.741)	(0.539)	(0.605)
Medium	0.235	2.628*	-0.194	0.541	0.645
	(0.847)	(1.078)	(0.746)	(0.513)	(0.512)
High	-0.278	1.546	-0.911	0.028	-0.049
	(0.768)	(1.101)	(0.880)	(0.421)	(0.490)
Unemployed	1.182*	1.784**	2.034***	1.009**	1.620***
	(0.589)	(0.513)	(0.609)	(0.396)	(0.343)
Self-employed	1.073	-	1.065	-0.228	-0.273
	(0.845)		(0.674)	(0.621)	(0.719)
Tenure status (Ref=Owner)					
Rent market price	1.405	1.297	3.043***	0.469	1.366**
	(0.752)	(0.721)	(0.952)	(0.411)	(0.447)
Rent reduced /free	2.306**	1.624*	2.632**	1.024*	1.526**
	(0.793)	(0.762)	(1.013)	(0.457)	(0.518)
Rural	-0.063	0.334	0.921	-0.118	0.036
	(0.560)	(0.606)	(0.598)	(0.335)	(0.403)
Constant	-7.003***	-9.597***	-8.052***	-5.210***	-5.842***
	(1.181)	(1.473)	(1.292)	(0.870)	(0.830)
Observations	1,305	1,045	1,240	1,305	1,250
Adj. R-sq	0.281	0.259	0.239	0.263	0.327

Notes: Robust standard errors in parentheses. Significance level: *** p<0.001, ** p<0.01, * p<0.05. The adjusted R squared refers to the McFadden's adjusted R squared. Years refer to the survey year. S: Own calculations based on EU-SILC

Table A2.6: Regression analysis for severe material deprivation (4 out of 9) and material deprivation (3 out of 9) (coefficients from probit regression), 2019-2021

	2019	2020	2021	2019	2020
	Severe material deprivation			*Material deprivation*	
Single parent	0.351	0.622	0.286	0.558**	0.308
	(0.301)	(0.325)	(0.338)	(0.226)	(0.222)
No. of children	-0.051	0.112	-0.010	0.062	0.015
	(0.113)	(0.102)	(0.104)	(0.082)	(0.080)
Child<3 yrs	-0.143	-0.368	-0.337	-0.235	-0.450*
	(0.238)	(0.297)	(0.249)	(0.158)	(0.220)
EU-born	-0.955*	0.187	0.348	0.028	-0.063
	(0.481)	(0.312)	(0.287)	(0.222)	(0.241)
Non-EU born	0.470	0.709**	0.757**	0.388*	0.419*
	(0.245)	(0.258)	(0.288)	(0.175)	(0.189)
Health limitation	0.156	0.395	0.268	0.131	0.259
	(0.224)	(0.208)	(0.223)	(0.143)	(0.144)
Highest education (Ref=Tertiary)					
Primary	1.266***	0.812*	0.019	1.146***	0.839**
	(0.320)	(0.332)	(0.323)	(0.243)	(0.274)
Secondary	0.576*	0.250	-0.268	0.364*	0.252
	(0.247)	(0.240)	(0.244)	(0.151)	(0.170)
Work intensity (Ref= Very high)					
Very low	0.966**	1.085*	0.488	0.949***	1.055***
	(0.315)	(0.468)	(0.307)	(0.234)	(0.271)
Low	0.741	1.131*	0.542*	0.833**	0.613*
	(0.424)	(0.445)	(0.321)	(0.270)	(0.293)
Medium	0.108	1.182**	-0.141	0.258	0.309
	(0.365)	(0.421)	(0.335)	(0.222)	(0.245)
High	-0.177	0.747	-0.377	-0.045	0.008
	(0.299)	(0.402)	(0.378)	(0.184)	(0.219)
Unemployed	0.656**	0.863***	0.996***	0.572**	0.841***
	(0.268)	(0.227)	(0.256)	(0.196)	(0.167)
Self-employed	0.443	-	0.497	-0.124	-0.025
	(0.348)		(0.311)	(0.249)	(0.288)
Tenure status (Ref=Owner)					
Rent market price	0.556*	0.534	1.451***	0.172	0.626***
	(0.261)	(0.301)	(0.380)	(0.185)	(0.193)
Rent reduced /free	1.066***	0.604	1.186**	0.459*	0.706**
	(0.303)	(0.338)	(0.406)	(0.208)	(0.241)
Rural	-0.089	0.220	0.459*	-0.072	-0.028
	(0.234)	(0.250)	(0.274)	(0.153)	(0.184)
Constant	-3.494***	-4.750***	-4.090***	-2.794***	-2.968***
	(0.511)	(0.657)	(0.594)	(0.398)	(0.390)
Observations	1,305	1,045	1,240	1,305	1,250
Adj. R-sq	0.298	0.266	0.251	0.271	0.331

Notes: Robust standard errors in parentheses. Significance level: *** p<0.001, ** p<0.01, * p<0.05. The adjusted R squared refers to the McFadden's adjusted R squared. Years refer to the survey year. S: Own calculations based on EU-SILC

10.3 Additional tables RQ 3

Table A3.1: Decomposition of effects on median disposable incomes of households with children by income decile

	2019 vs 2020					2019 vs 2021				
Group	TE%	PE%	AE%	ME%	ISC	TE%	PE%	AE%	ME%	ISC
Income deciles										
1	2.0	6.2	13.9	-18.1	1.11	-2.8	1.8	-10.7	6.1	1.46
2	-0.7	4.7	6.2	-11.6	0.94	-2.8	1.1	1.0	-5.0	0.44
3	0.5	4.1	6.9	-10.4	1.05	-3.3	0.1	6.6	-10.0	0.67
4	0.9	3.9	3.6	-6.7	1.13	-1.2	0.9	-3.4	1.4	1.86
5	1.3	3.1	9.8	-11.6	1.11	-1.2	0.2	8.8	-10.2	0.88
6	3.0	2.4	2.7	-2.2	2.36	1.2	0.0	6.6	-5.5	1.22
7	0.8	2.2	0.8	-2.2	1.36	-0.6	-1.1	-3.3	3.8	1.16
8	1.1	1.9	-1.1	0.3	-2.67	0.0	-0.8	-4.6	5.4	1.00
9	0.7	2.1	3.6	-5.1	1.14	-1.8	-1.1	1.7	-2.4	0.25
10	-1.9	0.3	0.3	-2.6	0.27	4.3	-2.5	-5.0	11.8	0.64
Total	1.9	3.2	4.2	-5.6	1.34	-1.9	-0.6	1.4	-2.6	0.27

S: Own calculations based on EUROMOD simulations

Table A3.2: Decomposition of effects on median disposable incomes of households with children by household composition

	2019 vs 2020					2019 vs 2021				
Group	TE%	PE%	AE%	ME %	ISC	TE%	PE%	AE%	ME %	ISC
Household composition										
single-parent, at least 1 child	2.1	2.4	1.2	-1.4	2.50	-9.6	-0.9	1.1	-9.8	0.02
min. 2 adults, 1 child	0.1	3.9	8.7	-12.5	1.01	-2.2	0.7	3.2	-6.1	0.64
min. 2 adults, 2 children	6.1	3.5	-3.4	6.0	-0.02	2.7	-0.5	-4.6	7.8	0.65
min. 2 adults, 3 children	-0.9	3.4	-1.4	-2.8	0.68	-6.6	-0.1	1.0	-7.6	0.13
min. 2 adults, 4+ children	9.8	3.7	-19.1	25.2	0.61	13.1	-2.5	-30.2	45.8	0.71
Main source of income										
Employment	3.2	3.5	4.2	-4.4	1.73	-0.5	-0.3	1.9	-2.1	0.76
Self-employment	14.1	3.2	2.3	8.5	-0.66	3.7	-1.8	5.7	-0.2	19.50
Benefits excl. pensions	6.1	7.1	1.2	-2.2	3.77	3.8	-2.9	-7.9	14.6	0.74
Pensions or private income	8.7	3.6	6.7	-1.6	6.44	6.8	-0.5	9.2	-1.9	4.58
Citizenship										
Austrian	3.8	3.7	3.8	-3.6	2.06	1.2	-0.2	0.0	1.4	0.14
Other EU	-1.1	4.2	14.3	-19.6	0.94	-7.6	-0.7	8.2	-15.0	0.49
Non-EU	-1.1	6.3	-8.9	1.5	1.73	1.4	1.4	-11.8	11.9	0.88
Total	1.9	3.2	4.2	-5.6	1.34	-1.9	-0.6	1.4	-2.6	0.27

S: Own calculations based on EUROMOD simulations

Table A3.3: Number of observations adjusted SILC 2020 (income year 2019)

	Households		Individuals		Adults		Children	
Category	**Sample**	**Population**	**Sample**	**Population**	**Sample**	**Population**	**Sample**	**Population**
Total	6021	3990132.4	12244	8737660.7	10175	7178958.2	2069	1558702.5
Household type								
Household with children	1265	902417.5	4612	3551497.8	2543	1992795.2	2069	1558702.5
Household without children	4756	3087714.9	7632	5186163.0	7632	5186163.0	0	0.0
Household composition (Households with children)								
single-parent, at least 1 child	191	69780.1	455	177462.2	191	69780.1	264	107682.1
min. 2 adults, 1 child	504	375176.2	1649	1281343.0	1145	906166.8	504	375176.2
min. 2 adults, 2 children	439	331253.9	1811	1410597.5	933	748089.8	878	662507.8
min. 2 adults, 3 children	107	98716.3	545	508530.0	224	212381.1	321	296148.9
min. 2 adults, 4+ children	24	27491.0	152	173565.0	50	56377.4	102	117187.6
Main source of income (Households with children)								
Employment	1003	715898.1	3665	2793404.7	2064	1616682.6	1601	1176722.2
Self-employment	116	77098.0	436	311180.2	231	166488.9	205	144691.4
Benefits excl. pensions	102	81149.5	363	342458.1	170	154201.7	193	188256.4
Pensions or private income	44	28271.9	148	104454.7	78	55422.1	70	49032.6
Citizenship (Households with children)								
Austrian	1135	685294.4	3931	2781797.7	2124	1536259.8	1807	1245537.9
Other EU	169	98942.8	328	337346.5	207	198564.1	121	138782.4
Non-EU	173	118180.3	353	432353.6	212	257971.3	141	174382.3
Disposable income deciles (Households with children)								
1	114	94145.0	413	384086.5	204	187908.9	209	196177.6

	Households		Individuals		Adults		Children	
Category	**Sample**	**Population**	**Sample**	**Population**	**Sample**	**Population**	**Sample**	**Population**
2	130	95424.0	467	376396.1	234	188755.9	233	187640.2
3	130	104994.3	481	429231.7	252	236147.6	229	193084.1
4	143	106736.4	533	428363.7	291	234392.6	242	193971.1
5	149	109179.0	554	444250.9	316	265051.7	238	179199.3
6	146	99313.0	538	378949.6	299	215373.7	239	163575.9
7	138	98103.6	509	386277.9	297	235245.2	212	151032.7
8	115	70886.9	414	264723.1	239	155577.7	175	109145.4
9	96	68165.6	347	261956.3	206	160943.8	141	101012.6
10	104	55469.5	356	197262.0	205	113398.2	151	83863.7

S: Own calculations based on EU-SILC & EUROMOD

Table A3.4: Number of observations adjusted SILC 2021 (income year 2020)

	Households		Individuals		Adults		Children	
Category	**Sample**	**Population**	**Sample**	**Population**	**Sample**	**Population**	**Sample**	**Population**
Total	6018	4013635.7	12305	8770969.2	10210	7184330.8	2095	1586638.3
Household type								
Household with children	1249	909560.4	4617	3553810.5	2522	1967172.2	2095	1586638.3
Household without children	4769	3104075.3	7688	5217158.6	7688	5217158.6	0	0.0
Household composition (Households with children)								
single-parent, at least 1 child	158	64106.7	380	164085.4	158	64106.7	222	99978.7
min. 2 adults, 1 child	474	378149.3	1539	1257041.6	1065	878892.2	474	378149.3
min. 2 adults, 2 children	480	324078.3	1966	1355792.6	1006	707635.9	960	648156.7
min. 2 adults, 3 children	112	115666.4	578	605072.2	242	258073.0	336	346999.1
min. 2 adults, 4+ children	24	26947.4	153	171206.5	51	58464.4	102	112742.1
Main source of income (Households with children)								
Employment	953	681305.2	3522	2644554.3	1948	1478517.0	1574	1166037.3
Self-employment	117	90238.2	453	361445.0	248	203061.6	205	158383.3
Benefits excl. pensions	131	100781.3	479	406759.5	230	197572.2	249	209187.4
Pensions or private income	47	36623.4	162	140439.5	96	88021.4	66	52418.1
Citizenship (Households with children)								
Austrian	1112	692189.9	3893	2775650.7	2080	1498548.4	1813	1277102.3
Other EU	159	96594.1	354	323017.1	223	206537.7	131	116479.4
Non-EU	152	120164.2	369	454530.5	219	262086.1	150	192444.4
Disposable income deciles (Households with children)								
1	118	93853.2	441	391580.0	222	197633.6	219	193946.5

	Households		Individuals		Adults		Children	
Category	**Sample**	**Population**	**Sample**	**Population**	**Sample**	**Population**	**Sample**	**Population**
2	117	96594.5	445	395207.4	231	207472.0	214	187735.4
3	124	100820.1	467	399541.9	246	212296.0	221	187245.9
4	145	108148.1	536	419822.1	290	231691.4	246	188130.7
5	146	103897.0	536	402836.1	302	231490.7	234	171345.4
6	147	99876.2	554	393259.4	304	216410.5	250	176848.9
7	137	88546.5	498	336142.4	278	191817.7	220	144324.7
8	113	77064.6	407	291621.0	229	168367.7	178	123253.3
9	98	75370.2	365	285383.2	208	170605.7	157	114777.5
10	103	64777.6	367	237804.6	212	139386.9	155	98417.7

S: Own calculations based on EU-SILC & EUROMOD

Table A3.5: Number of observations adjusted SILC 2022 (income year 2021)

	Households		Individuals		Adults		Children	
Category	**Sample**	**Population**	**Sample**	**Population**	**Sample**	**Population**	**Sample**	**Population**
Total	5938	4060547.5	12069	8860612.9	9959	7242954.8	2110	1617658.1
Household type								
Household with children	1268	944272.4	4664	3661453.3	2554	2043795.2	2110	1617658.1
Household without children	4670	3116275.1	7405	5199159.6	7405	5199159.6	0	0.0
Household composition (Households with children)								
single-parent, at least 1 child	169	70699.3	408	182703.6	169	70699.3	239	112004.2
min. 2 adults, 1 child	484	408049.3	1577	1356701.6	1093	948652.3	484	408049.3
min. 2 adults, 2 children	486	332224.6	1990	1398617.3	1018	734168.2	972	664449.1
min. 2 adults, 3 children	106	106249.1	541	546910.8	223	228163.6	318	318747.2
min. 2 adults, 4+ children	23	27050.2	148	176520.1	51	62111.9	97	114408.2
Main source of income (Households with children)								
Employment	1017	741198.0	3744	2849463.6	2074	1610353.9	1670	1239109.6
Self-employment	112	81429.4	426	319865.2	231	175652.1	195	144213.0
Benefits excl. pensions	93	83256.4	331	342242.4	156	166714.2	175	175528.2
Pensions or private income	46	38388.7	163	149882.1	93	91074.9	70	58807.2
Citizenship (Households with children)								
Austrian	1122	728552.9	3931	2772979.3	2107	1515255.0	1824	1257724.3
Other EU	160	93255.0	369	351385.8	227	214073.4	142	137312.4
Non-EU	149	122464.6	364	537088.1	220	314466.7	144	222621.4
Disposable income deciles (Households with children)								

	Households		Individuals		Adults		Children	
Category	**Sample**	**Population**	**Sample**	**Population**	**Sample**	**Population**	**Sample**	**Population**
1	109	106951.5	395	429356.1	194	217545.6	201	211810.5
2	124	104839.2	453	419659.5	228	212209.0	225	207450.5
3	127	103709.2	478	413482.9	255	224744.5	223	188738.4
4	137	111605.0	510	434689.8	280	246116.2	230	188573.6
5	159	113079.9	580	435010.3	317	247119.9	263	187890.3
6	128	87463.1	479	338428.2	270	196664.6	209	141763.6
7	137	93075.1	511	357342.3	292	208794.4	219	148547.9
8	143	88072.6	524	332926.5	298	194969.2	226	137957.3
9	99	67450.9	356	250068.1	204	150415.9	152	99652.2
10	105	68026.0	378	250489.7	216	145215.9	162	105273.8

S: Own calculations based on EU-SILC & EUROMOD

10.4 Additional tables RQ 4

10.4.1 Additional tables R1

Table A4.1: Decomposed effects on mean equivalised household income (R1) - percentages

		2019 vs. 2020				2019 vs. 2021				
Household type	TE_s	PE_s	AE_s	ME_s	ISC_s	TE_s	PE_s	AE_s	ME_s	ISC_s
Household with children	2.6	4.0	3.2	-4.6	1.57	0.4	1.0	0.0	-0.6	1.67
Household without children	0.0	3.2	4.7	-7.9	1.00	-0.9	1.7	3.7	-6.3	0.86
Total	1.0	3.5	4.2	-6.7	1.15	-0.5	1.4	2.1	-4.1	0.88

S: Own calculations based on EUROMOD simulations

Table A4.2: Decomposed effects on median equivalised household incomes (R1) – percentages

	2019 vs. 2020					2019 vs. 2021				
Household type	TE_s	PE_s	AE_s	ME_s	ISC_s	TE_s	PE_s	AE_s	ME_s	ISC_s
Household with children	2.5	4.7	4.4	-6.5	1.38	-1.0	1.7	1.7	-4.4	0.77
Household without children	2.7	4.4	7.0	-8.7	1.31	0.4	2.1	6.4	-8.1	1.05
Total	2.6	4.4	6.3	-8.1	1.32	0.1	1.9	4.2	-5.9	1.02

S: Own calculations based on EUROMOD simulations

Table A4.3: Decomposed effects on mean equivalised disposable incomes of households with children by deciles (R1) - percentages

	2019 vs 2020					2019 vs 2021				
	TE_s	PE_s	AE_s	ME_s	ISC_s	TE_s	PE_s	AE_s	ME_s	ISC_s
Income deciles										
1	4.3	8.0	7.7	-11.4	1.38	0.3	4.5	-7.2	3.0	0.90
2	1.0	6.6	4.2	-9.7	1.10	-2.3	3.5	-1.0	-4.8	0.52
3	2.4	5.8	1.8	-5.3	1.45	-1.2	3.0	0.8	-5.0	0.76
4	2.0	5.2	6.2	-9.4	1.21	-1.1	2.5	1.2	-4.8	0.77
5	1.9	4.3	7.4	-9.9	1.19	-0.7	2.1	6.8	-9.5	0.93
6	3.4	3.7	1.2	-1.5	3.27	1.1	1.9	5.6	-6.4	1.17
7	2.2	3.4	4.8	-6.0	1.37	0.5	1.2	-4.5	3.8	0.87
8	1.3	2.9	1.2	-2.9	1.45	0.5	1.3	-1.4	0.7	0.29
9	0.4	2.5	4.3	-6.3	1.06	-0.7	0.8	4.1	-5.6	0.88
10	-5.3	1.0	7.5	-13.7	0.61	-1.7	0.1	4.4	-6.3	0.73
Total	2.6	4.0	3.2	-4.6	1.57	0.4	1.0	0.0	-0.6	1.67

S: Own calculations based on EUROMOD simulations

Table A4.4: Decomposed effects on mean equivalised disposable incomes of households with children by demographic groups (R1) - percentages

	2019 vs 2020					2019 vs 2021				
Group	TE_s	PE_s	AE_s	ME_s	ISC_s	TE_s	PE_s	AE_s	ME_s	ISC_s
Household composition										
single-parent, at least 1 child	5.3	4.1	-0.5	1.7	-2.12	-6.8	1.4	2.9	-11.2	0.39
min. 2 adults, 1 child	0.5	3.8	7.5	-10.7	1.05	0.5	1.4	1.8	-2.7	1.19
min. 2 adults, 2 children	4.3	3.9	0.5	-0.2	22.50	0.8	0.7	-1.5	1.6	0.50
min. 2 adults, 3 children	2.2	4.2	0.9	-2.9	1.76	-2.6	0.6	2.8	-6.0	0.57
min. 2 adults, 4+ children	13.1	6.9	-7.2	13.4	0.02	17.8	2.6	-21.8	36.9	0.52
Main source of income										
Employment	3.1	4.3	2.3	-3.5	1.89	0.4	1.4	-0.4	-0.6	1.67
Self-employment	10.6	3.5	-0.6	7.7	-0.38	2.8	-1.7	-0.9	5.3	0.47
Benefits excl. pensions	8.9	14.7	-3.2	-2.6	4.42	3.8	4.6	-8.5	7.6	0.50
Pensions or private income	-10.8	3.5	30.9	-45.3	0.76	-8.4	-0.1	20.6	-28.9	0.71
Citizenship										
Austrian	2.9	3.6	3.6	-4.4	1.66	2.1	0.8	-0.5	1.8	-0.17
Other EU	2.5	5.3	2.7	-5.5	1.45	-2.4	1.7	2.8	-6.9	0.65
Non-EU	2.2	6.6	-2.2	-2.1	2.05	0.3	2.8	-8.3	5.9	0.95
Total	2.6	4.0	3.2	-4.6	1.57	0.4	1.0	0.0	-0.6	1.67

S: Own calculations based on EUROMOD outputs

Table A4.5: Decomposed effects on the child AROP-rate by demographic groups (R1) – percentage points

	2019 vs 2020					2019 vs 2021				
Group	TE_s	PE_s	AE_s	ME_s	$CPPC_s$	TE_s	PE_s	AE_s	ME_s	$CPPC_s$
Household composition										
single-parent, at least 1 child	1.1	-2.1	3.2	0.0	-Inf	4.5	-0.2	-3.0	7.7	0.42
min. 2 adults, 1 child	0.4	-1.5	-2.2	4.0	0.90	1.2	-0.3	0.2	1.2	0.00
min. 2 adults, 2 children	2.3	-1.1	-0.5	4.0	0.43	4.9	0.2	2.0	2.7	-0.81
min. 2 adults, 3 children	-3.3	-1.5	-3.5	1.7	2.94	0.3	0.1	-7.3	7.5	0.96
min. 2 adults, 4+ children	-8.8	-3.1	-0.8	-4.9	-0.80	-14.3	-3.1	6.8	-18.0	0.21
Main source of income										
Employment	-0.6	-1.1	-1.9	2.4	1.25	3.7	-0.3	0.7	3.3	-0.12
Self-employment	-7.0	-1.5	-3.5	-1.9	-2.68	-4.9	0.8	-1.4	-4.2	-0.17
Benefits excl. pensions	-2.3	-10.8	9.4	-0.9	-1.56	-8.4	-2.4	-5.0	-1.0	-7.40
Pensions or private income	1.1	-1.3	-19.8	22.2	0.95	16.1	0.1	-7.0	23.0	0.30
Citizenship										
Austrian	0.4	-0.9	-0.7	2.0	0.80	2.2	-0.1	1.2	1.1	-1.00
Other EU	1.8	-4.0	-5.7	11.5	0.84	9.0	1.3	-1.7	9.4	0.04
Non-EU	-9.7	-4.6	-2.1	-3.0	-2.23	-16.7	-2.1	-5.5	-9.1	-0.84
Total	-0.3	-1.5	-1.3	2.5	1.12	1.5	-0.2	-0.2	1.9	0.21

S: Own calculations based on EUROMOD outputs

Table A4.6: Effect of benefits targeted at children on the change in monthly mean disposable incomes of households with children by income deciles (R1) - EUR

	2019 vs. 2020				2019 vs. 2021			
	$PE_{t;s}$	$AE_{t;s}$	$PE_{ch;s}$	$AE_{ch;s}$	$PE_{t;s}$	$AE_{t;s}$	$PE_{ch;s}$	$AE_{ch;s}$
Income deciles								
1	68.9	66.3	*28.4*	*-10.3*	38.5	-62.2	*-4.3*	*-8.4*
2	92.5	59.0	*29.7*	*28.2*	48.6	-13.6	*-9.5*	*-6.3*
3	98.0	30.9	*19.9*	*17.7*	50.6	12.7	*-11.1*	*14.1*
4	99.6	118.4	*15.9*	*-24.9*	46.9	22.9	*-8.1*	*-7.1*
5	91.9	157.9	*31.6*	*36.9*	44.9	143.3	*-6.4*	*31.3*
6	86.4	27.1	*13.4*	*8.8*	43.6	130.6	*-11.1*	*4.3*
7	89.3	124.6	*30.0*	*18.0*	32.3	-117.4	*-14.7*	*3.3*
8	84.6	35.2	*14.4*	*-18.1*	36.4	-40.3	*-5.7*	*-27.4*
9	83.2	143.7	*17.8*	*17.5*	27.9	138.1	*-8.6*	*3.6*
10	49.7	389.0	*21.6*	*1.7*	7.7	228.3	*-9.8*	*2.1*
Total	89.1	71.9	*22.6*	*8.2*	23.0	-0.1	*-8.3*	*2.1*

S: Own calculations based on EUROMOD outputs

Table A4.7: Effect of benefits targeted at children on the change in monthly mean disposable incomes of households with children by demographic groups (R1) - EUR

	2019 vs. 2020				2019 vs. 2021			
	PE_t	AE_t	PE_{ch}	AE_{ch}	PE_t	AE_t	PE_{ch}	AE_{ch}
Household composition								
single-parent, at least 1 child	69.2	-8.5	*27.1*	*31.4*	23.9	50.3	*-5.3*	*9.5*
min. 2 adults, 1 child	92.5	182.8	*14.7*	*1.1*	34.0	43.9	*-5.9*	*-5.7*
min. 2 adults, 2 children	88.9	12.2	*24.1*	*8.4*	15.0	-32.8	*-8.7*	*9.7*
min. 2 adults, 3 children	87.1	18.3	*30.7*	*-2.1*	12.8	57.2	*-14.1*	*0.7*
min. 2 adults, 4+ children	92.3	-96.2	*37.5*	*19.9*	34.3	-289.8	*-8.3*	*2.0*
Main source of income								
Employment	100.3	53.2	*21.0*	*13.8*	33.5	-10.2	*-8.7*	*6.7*
Self-employment	89.3	-14.8	*23.6*	*-12.3*	-43.3	-22.3	*-5.7*	*-11.8*
Benefits excl. pensions	169.2	-37.2	*20.5*	*-9.0*	53.1	-97.5	*-11.7*	*-1.1*
Pensions or private income	79.6	696.4	*19.4*	*-41.3*	-1.8	463.4	*-7.5*	*-39.9*
Citizenship								
Austrian	86.3	86.0	*22.1*	*10.5*	18.7	-11.1	*-8.7*	*3.3*
Other EU	103.5	53.7	*21.4*	*-5.8*	33.7	54.1	*-8.4*	*5.4*
Non-EU	95.6	-32.7	*26.4*	*0.8*	40.1	-121.3	*-5.7*	*-18.2*
Total	89.1	71.9	*22.6*	*8.2*	23.0	-0.1	*-8.3*	*2.1*

S: Own calculations based on EUROMOD outputs

Table A4.8: Composition of mean monthly disposable incomes of households with children in 2020 by income decile (R1) - EUR

	Disposable income$_s$	Market income$_s$	Taxes$_s$	Social insurance contributions$_s$	Benefits$_s$	*Benefits directed at children$_s$*	
Income deciles	Total	Total	Total	Total	Total	*Total*	*% of disposable*
1	914.0	361.2	-43.9	60.4	569.3	*282.6*	*31*
2	1,441.6	954.2	-27.0	173.9	634.3	*310.1*	*22*
3	1,751.0	1,506.7	36.0	277.8	558.0	*260.0*	*15*
4	1,977.5	1,754.9	67.4	316.6	606.6	*224.6*	*11*
5	2,189.8	2,214.4	160.0	404.9	540.3	*247.2*	*11*
6	2,431.9	2,663.4	247.1	486.7	502.3	*226.6*	*9*
7	2,684.8	2,966.6	351.4	528.4	597.9	*238.5*	*9*
8	2,974.2	3,701.2	542.3	633.2	448.4	*210.8*	*7*
9	3,428.3	4,398.8	763.2	694.7	487.4	*217.7*	*6*
10	4,993.2	7,338.8	2,006.7	862.0	523.1	*209.2*	*4*
Total	2,313.9	2,492.2	321.9	409.0	552.7	*245.8*	*11*

Note: Disposable incomes are calculated as market incomes plus benefits minus taxes minus social insurance contributions. Benefits direct at children are one component of total benefits.

S: Own calculations based on EUROMOD outputs

Table A4.9: Composition of mean monthly disposable incomes of households with children in 2021 by income decile (R1) - EUR

	Disposable income$_s$	Market income$_s$	Taxes$_s$	Social insurance contributions$_s$	Benefits$_s$	*Benefits directed at children$_s$*	
Income deciles	Total	Total	Total	Total	Total	*Total*	*% of disposable*
1	903.5	510.7	-46.7	83.7	429.8	*258.7*	*29*
2	1,433.8	1,149.3	-19.8	206.7	471.4	*242.7*	*17*
3	1,735.4	1,473.8	8.3	265.8	535.7	*231.5*	*13*
4	1,970.8	1,957.6	102.8	349.6	465.7	*224.5*	*11*
5	2,194.6	2,251.8	165.7	422.6	531.0	*208.7*	*10*
6	2,443.4	2,683.7	216.6	466.8	443.0	*202.9*	*8*
7	2,711.6	3,351.6	438.0	589.7	387.7	*184.0*	*7*
8	3,034.2	3,860.0	546.0	670.7	390.9	*186.6*	*6*
9	3,485.8	4,584.0	788.3	732.9	423.0	*182.0*	*5*
10	5,319.7	8,026.5	2,237.5	894.4	425.0	*183.0*	*3*
Total	2,328.1	2,643.2	343.2	427.6	455.8	*214.4*	*9*

Note: Disposable incomes are calculated as market incomes plus benefits minus taxes minus social insurance contributions. Benefits direct at children are one component of total benefits.

S: Own calculations based on EUROMOD outputs

10.4.2 Additional tables R2

Table A4.10: Decomposed effects on mean equivalised household income (R2) - percentages

		2019 vs. 2020				2019 vs. 2021				
Household type	TE_s	PE_s	AE_s	ME_s	ISC_s	TE_s	PE_s	AE_s	ME_s	ISC_s
Household with children	2.5	3.9	3.2	-4.6	1.54	0.6	1.1	0.0	-0.6	2.00
Household without children	-0.5	2.8	4.6	-7.9	0.94	-1.4	1.4	3.6	-6.3	0.78
Total	0.6	3.2	4.1	-6.7	1.09	-0.8	1.3	2.1	-4.1	0.80

S: Own calculations based on EUROMOD outputs

Table A4.11: Decomposed effects on median equivalised household incomes (R2) – percentages

	2019 vs. 2020					2019 vs. 2021				
Household type	TE_s	PE_s	AE_s	ME_s	ISC_s	TE_s	PE_s	AE_s	ME_s	ISC_s
Household with children	2.0	4.3	4.1	-6.5	1.31	-1.6	1.4	1.4	-4.4	0.64
Household without children	2.1	3.8	7.0	-8.7	1.24	0.2	1.9	6.4	-8.1	1.02
Total	2.3	4.0	6.3	-8.1	1.28	-0.6	1.4	4.0	-5.9	0.90

S: Own calculations based on EUROMOD outputs

Table A4.12: Decomposed effects on mean equivalised disposable incomes of households with children by deciles (R2) - percentages

	2019 vs 2020					2019 vs 2021				
	TE_s	PE_s	AE_s	ME_s	ISC_s	TE_s	PE_s	AE_s	ME_s	ISC_s
Income deciles										
1	5.7	10.4	7.3	-12.1	1.47	2.1	7.1	-7.1	2.1	0.00
2	0.2	6.3	4.1	-10.1	1.02	-2.8	3.4	-0.7	-5.5	0.49
3	1.4	4.8	3.7	-7.1	1.20	-2.2	2.2	0.7	-5.1	0.57
4	1.1	4.6	4.9	-8.4	1.13	-1.3	2.2	1.3	-4.9	0.73
5	1.4	3.9	8.2	-10.7	1.13	-0.9	2.0	7.5	-10.3	0.91
6	3.0	3.4	1.3	-1.7	2.76	0.8	1.7	4.9	-5.9	1.14
7	1.9	3.2	4.7	-6.0	1.32	0.1	1.0	-4.1	3.3	0.97
8	0.9	2.6	1.0	-2.8	1.32	0.2	1.0	-1.4	0.6	0.67
9	0.1	2.2	4.3	-6.4	1.02	-1.0	0.7	4.1	-5.7	0.82
10	-5.4	1.0	7.6	-14.0	0.61	-1.7	0.1	4.4	-6.2	0.73
Total	2.5	3.9	3.2	-4.6	1.54	0.6	1.1	0.0	-0.6	2.00

S: Own calculations based on EUROMOD outputs

Table A4.13: Decomposed effects on mean equivalised disposable incomes of households with children by demographic groups (R2) - percentages

	2019 vs 2020					2019 vs 2021				
Group	TE_s	PE_s	AE_s	ME_s	ISC_s	TE_s	PE_s	AE_s	ME_s	ISC_s
Household composition										
single-parent, at least 1 child	7.0	5.7	-0.5	1.7	-3.12	-4.7	3.4	3.1	-11.2	0.58
min. 2 adults, 1 child	0.2	3.5	7.4	-10.7	1.02	0.3	1.3	1.7	-2.7	1.11
min. 2 adults, 2 children	4.2	3.8	0.6	-0.2	22.00	0.8	0.7	-1.4	1.6	0.50
min. 2 adults, 3 children	2.2	4.1	1.0	-2.9	1.76	-2.3	0.8	2.9	-6.0	0.62
min. 2 adults, 4+ children	13.3	8.0	-8.1	13.4	0.01	18.9	4.4	-22.4	36.9	0.49
Main source of income										
Employment	3.3	4.2	2.1	-3.1	2.06	0.4	1.4	-0.3	-0.7	1.57
Self-employment	10.8	4.2	0.0	6.6	-0.64	3.6	-0.5	-0.6	4.8	0.25
Benefits excl. pensions	5.7	12.0	-3.5	-2.8	3.04	3.6	5.6	-8.1	6.1	0.41
Pensions or private income	-10.4	5.5	31.8	-47.8	0.78	-5.9	3.2	21.9	-31.0	0.81
Citizenship										
Austrian	2.8	3.5	3.6	-4.4	1.64	2.1	0.8	-0.5	1.8	-0.17
Other EU	2.0	5.0	2.6	-5.5	1.36	-2.2	1.8	2.8	-6.9	0.68
Non-EU	2.6	7.1	-2.4	-2.1	2.24	1.3	3.9	-8.5	5.9	0.78
Total	2.5	3.9	3.2	-4.6	1.54	0.6	1.1	0.0	-0.6	2.00

S: Own calculations based on EUROMOD outputs

Table A4.14: Decomposed effects on the child AROP-rate by demographic groups (R2) – percentage points

	2019 vs 2020					2019 vs 2021				
Group	TE_s	PE_s	AE_s	ME_s	$CPPC_s$	TE_s	PE_s	AE_s	ME_s	$CPPC_s$
Household composition										
single-parent, at least 1 child	-2.0	-7.0	5.0	0.0	Inf	1.8	-5.9	0.1	7.7	0.77
min. 2 adults, 1 child	0.5	-1.5	-1.9	4.0	0.88	0.8	-0.7	0.1	1.3	0.38
min. 2 adults, 2 children	2.1	-1.3	-0.6	4.0	0.48	4.9	-0.2	2.4	2.7	-0.81
min. 2 adults, 3 children	-5.0	-3.0	-3.7	1.7	3.94	-2.3	-1.9	-7.9	7.5	1.31
min. 2 adults, 4+ children	-8.8	-3.1	-0.8	-4.9	-0.80	-14.3	-3.1	6.8	-18.0	0.21
Main source of income										
Employment	-1.8	-2.0	-1.8	2.0	1.90	2.8	-1.0	0.4	3.4	0.18
Self-employment	-7.6	-4.1	-2.3	-1.2	-5.33	-7.4	-3.4	-0.2	-3.9	-0.90
Benefits excl. pensions	-0.6	-10.2	9.9	-0.3	-1.00	-7.7	-5.3	-1.7	-0.7	-10.00
Pensions or private income	1.1	0.1	-24.3	25.2	0.96	14.6	0.1	-11.8	26.3	0.44
Citizenship										
Austrian	-0.2	-1.4	-0.7	2.0	1.10	1.9	-0.6	1.4	1.1	-0.73
Other EU	1.5	-4.2	-5.9	11.5	0.87	8.6	-0.2	-0.7	9.4	0.09
Non-EU	-10.8	-6.8	-0.9	-3.0	-2.60	-20.5	-6.4	-4.9	-9.1	-1.25
Total	-1.0	-2.3	-1.2	2.5	1.40	0.7	-1.3	0.0	2.0	0.65

S: Own calculations based on EUROMOD outputs

Table A4.15: Effect of benefits targeted at children on the change in monthly mean disposable incomes of households with children by income deciles (R2) - EUR

	2019 vs. 2020				2019 vs. 2021			
	$PE_{t;s}$	$AE_{t;s}$	$PE_{ch;s}$	$AE_{ch;s}$	$PE_{t;s}$	$AE_{t;s}$	$PE_{ch;s}$	$AE_{ch;s}$
Income deciles								
1	89.8	63.1	*79.5*	*-7.3*	61.4	-61.0	*47.9*	*-8.4*
2	88.0	57.3	*44.9*	*14.2*	48.4	-10.4	*9.8*	*-9.4*
3	81.7	61.8	*36.2*	*29.2*	37.0	11.2	*2.4*	*16.4*
4	87.6	94.1	*26.0*	*-16.9*	42.5	25.7	*-2.0*	*-5.5*
5	83.5	173.2	*28.0*	*25.4*	41.8	159.7	*-1.3*	*32.8*
6	78.8	30.6	*18.2*	*12.6*	39.6	114.3	*-9.4*	*1.9*
7	82.0	121.3	*28.2*	*17.4*	25.8	-107.0	*-16.1*	*5.2*
8	75.7	30.4	*19.0*	*-20.7*	29.4	-41.8	*-6.0*	*-27.0*
9	73.9	144.1	*18.3*	*19.2*	22.4	139.3	*-5.3*	*5.5*
10	52.2	396.9	*21.8*	*2.3*	4.3	226.7	*-9.2*	*2.6*
Total	87.3	71.7	*33.0*	*8.3*	25.0	0.2	*2.7*	*2.4*

S: Own calculations based on EUROMOD outputs

Table A4.16: Effect of benefits targeted at children on the change in monthly mean disposable incomes of households with children by demographic groups (R2) - EUR

	2019 vs. 2020				2019 vs. 2021			
	$PE_{t;s}$	$AE_{t;s}$	$PE_{ch;s}$	$AE_{ch;s}$	$PE_{t;s}$	$AE_{t;s}$	$PE_{ch;s}$	$AE_{ch;s}$
Household composition								
single-parent, at least 1 child	97.2	-8.0	*66.1*	*30.6*	57.6	53.6	*36.4*	*11.7*
min. 2 adults, 1 child	86.0	180.5	*19.5*	*2.0*	30.5	42.3	*-1.9*	*-5.6*
min. 2 adults, 2 children	86.2	14.2	*30.5*	*8.9*	14.7	-31.0	*-1.7*	*10.7*
min. 2 adults, 3 children	84.6	21.0	*43.6*	*-1.7*	15.9	60.8	*2.5*	*3.6*
min. 2 adults, 4+ children	106.7	-107.5	*85.2*	*10.6*	58.5	-297.8	*38.8*	*-10.5*
Main source of income								
Employment	98.0	48.3	*25.7*	*13.6*	33.3	-7.8	*-3.4*	*7.7*
Self-employment	108.0	1.1	*29.4*	*-12.1*	-13.1	-16.0	*0.6*	*-11.5*
Benefits excl. pensions	137.8	-40.6	*75.1*	*-13.4*	64.7	-93.0	*43.7*	*-4.4*
Pensions or private income	123.1	716.9	*27.6*	*-36.9*	73.0	493.7	*4.0*	*-31.8*
Citizenship								
Austrian	83.6	86.4	*28.7*	*11.4*	18.1	-10.7	*-2.2*	*4.1*
Other EU	97.3	50.9	*34.4*	*-7.0*	36.0	55.4	*7.3*	*6.6*
Non-EU	103.6	-35.3	*58.8*	*-3.3*	56.6	-123.6	*28.2*	*-23.8*
Total	87.3	71.7	*33.0*	*8.3*	25.0	0.2	*2.7*	*2.4*

S: Own calculations based on EUROMOD outputs

Table A4.17: Composition of mean monthly disposable incomes of households with children in 2020 by income decile (R2) - EUR

	Disposable income$_s$	Market income$_s$	Taxes$_s$	Social insurance contributions$_s$	Benefits$_s$	*Benefits directed at children$_s$*	
Income deciles	Total	Total	Total	Total	Total	*Total*	*% of disposable*
1	925.9	332.6	-44.3	55.2	604.1	*337.1*	*36*
2	1,430.7	949.4	-27.5	173.7	627.6	*311.5*	*22*
3	1,734.6	1,414.1	26.6	262.5	609.7	*288.0*	*17*
4	1,960.4	1,804.7	70.3	318.3	544.5	*242.8*	*12*
5	2,179.3	2,199.1	156.3	406.8	543.4	*232.1*	*11*
6	2,423.3	2,656.8	245.6	486.9	499.1	*235.2*	*10*
7	2,674.4	2,976.4	345.2	534.1	577.4	*236.1*	*9*
8	2,962.1	3,686.9	538.8	624.3	438.2	*212.8*	*7*
9	3,416.4	4,396.5	762.2	696.4	478.5	*219.9*	*6*
10	4,989.6	7,338.8	2,006.4	862.0	519.2	*209.9*	*4*
Total	2,312.0	2,492.2	321.1	409.0	549.9	*256.5*	*11*

Note: Disposable incomes are calculated as market incomes plus benefits minus taxes minus social insurance contributions. Benefits direct at children are one component of total benefits.

S: Own calculations based on EUROMOD outputs

Table A4.18: Composition of mean monthly disposable incomes of households with children in 2021 by income decile (R2) - EUR

	Disposable income$_s$	Market income$_s$	Taxes$_s$	Social insurance contributions$_s$	Benefits$_s$	*Benefits directed at children$_s$*	
Income deciles	Total	Total	Total	Total	Total	*Total*	*% of disposable*
1	919.8	477.2	-47.7	78.4	473.2	*312.0*	*34*
2	1,426.0	1,118.2	-21.8	200.1	486.1	*259.3*	*18*
3	1,719.1	1,445.1	0.3	261.4	535.6	*247.6*	*14*
4	1,966.1	1,968.3	101.8	350.5	450.2	*232.4*	*12*
5	2,190.6	2,240.1	160.4	420.2	531.1	*215.3*	*10*
6	2,436.0	2,702.7	220.5	471.3	425.2	*202.2*	*8*
7	2,701.6	3,340.5	431.9	586.4	379.3	*184.3*	*7*
8	3,023.4	3,846.8	540.9	669.9	387.5	*186.7*	*6*
9	3,475.2	4,582.5	786.7	732.8	412.3	*187.2*	*5*
10	5,319.8	8,026.5	2,237.3	894.4	425.0	*184.2*	*3*
Total	2,330.5	2,643.2	342.2	427.6	457.1	*226.0*	*10*

Note: Disposable incomes are calculated as market incomes plus benefits minus taxes minus social insurance contributions. Benefits direct at children are one component of total benefits.

S: Own calculations based on EUROMOD outputs

10.4.3 Additional tables R3

Table A4.19: Decomposed effects on mean equivalised household income (R3) - percentages

		2019 vs. 2020				2019 vs. 2021				
Household type	TE_s	PE_s	AE_s	ME_s	ISC_s	TE_s	PE_s	AE_s	ME_s	ISC_s
Household with children	3.2	4.6	3.2	-4.6	1.70	1.1	1.7	-0.1	-0.6	2.83
Household without children	-0.5	2.8	4.6	-7.9	0.94	-1.4	1.4	3.6	-6.3	0.78
Total	0.9	3.5	4.1	-6.7	1.13	-0.5	1.5	2.1	-4.1	0.88

S: Own calculations based on EUROMOD outputs

Table A4.20: Decomposed effects on median equivalised household incomes (R3) – percentages

	2019 vs. 2020					2019 vs. 2021				
Household type	TE_s	PE_s	AE_s	ME_s	ISC_s	TE_s	PE_s	AE_s	ME_s	ISC_s
Household with children	3.6	5.5	4.5	-6.5	1.55	-0.2	2.5	1.7	-4.4	0.95
Household without children	2.2	3.8	7.1	-8.7	1.25	0.2	1.9	6.4	-8.1	1.02
Total	2.8	4.5	6.4	-8.1	1.35	0.1	2.2	3.8	-5.9	1.02

S: Own calculations based on EUROMOD outputs

Table A4.21: Decomposed effects on mean equivalised disposable incomes of households with children by deciles (R3) - percentages

	2019 vs 2020					2019 vs 2021				
	TE_s	PE_s	AE_s	ME_s	ISC_s	TE_s	PE_s	AE_s	ME_s	ISC_s
Income deciles										
1	2.2	7.2	7.9	-12.9	1.17	0.4	4.9	-5.4	0.8	0.50
2	-0.3	5.7	4.3	-10.3	0.97	-3.2	3.1	0.2	-6.6	0.52
3	1.8	5.3	2.6	-6.1	1.30	-2.0	2.6	-1.1	-3.5	0.43
4	1.4	5.1	5.4	-9.1	1.15	-1.3	2.7	1.1	-5.0	0.74
5	2.1	4.6	8.1	-10.5	1.20	-0.5	2.3	7.0	-9.8	0.95
6	3.4	3.9	1.7	-2.2	2.55	1.3	2.1	5.2	-6.0	1.22
7	2.2	3.6	4.4	-5.8	1.38	0.8	1.6	-4.5	3.7	0.78
8	1.3	3.1	1.6	-3.4	1.38	0.7	1.4	-1.5	0.8	0.13
9	0.5	2.8	4.6	-6.9	1.07	-0.9	0.9	4.2	-5.9	0.85
10	-5.2	1.4	7.4	-13.9	0.63	-1.9	0.0	4.4	-6.3	0.70
Total	3.2	4.6	3.2	-4.6	1.70	1.1	1.7	-0.1	-0.6	2.83

S: Own calculations based on EUROMOD outputs

Table A4.22: Decomposed effects on mean equivalised disposable incomes of households with children by demographic groups (R3) - percentages

	2019 vs 2020					2019 vs 2021				
Group	TE_s	PE_s	AE_s	ME_s	ISC_s	TE_s	PE_s	AE_s	ME_s	ISC_s
Household composition										
single-parent, at least 1 child	6.1	4.7	-0.3	1.7	-2.59	-6.0	2.1	3.1	-11.2	0.46
min. 2 adults, 1 child	0.7	4.1	7.3	-10.7	1.07	0.8	1.8	1.7	-2.7	1.30
min. 2 adults, 2 children	5.2	4.8	0.6	-0.2	27.00	1.8	1.6	-1.5	1.6	-0.12
min. 2 adults, 3 children	3.1	5.1	0.9	-2.9	2.07	-1.8	1.5	2.7	-6.0	0.70
min. 2 adults, 4+ children	12.3	6.2	-7.3	13.4	0.08	18.1	2.5	-21.4	36.9	0.51
Main source of income										
Employment	3.7	4.9	2.2	-3.4	2.09	0.9	2.0	-0.4	-0.7	2.29
Self-employment	11.3	4.2	-0.3	7.4	-0.53	3.7	-0.7	-0.9	5.3	0.30
Benefits excl. pensions	2.0	8.4	-3.6	-2.8	1.71	1.1	2.5	-8.5	7.1	0.85
Pensions or private income	-10.2	4.3	30.7	-45.3	0.77	-7.4	0.9	20.5	-28.9	0.74
Citizenship										
Austrian	3.6	4.4	3.6	-4.4	1.82	2.9	1.6	-0.5	1.8	-0.61
Other EU	2.5	5.5	2.5	-5.5	1.45	-2.2	2.1	2.5	-6.9	0.68
Non-EU	1.6	6.0	-2.2	-2.1	1.76	0.4	2.7	-8.2	5.9	0.93
Total	3.2	4.6	3.2	-4.6	1.70	1.1	1.7	-0.1	-0.6	2.83

S: Own calculations based on EUROMOD outputs

Table A4.23: Decomposed effects on the child AROP rate by demographic groups (R3) – percentage points

	2019 vs 2020					2019 vs 2021				
Group	TE_s	PE_s	AE_s	ME_s	$CPPC_s$	TE_s	PE_s	AE_s	ME_s	$CPPC_s$
Household composition										
single-parent, at least 1 child	1.4	-2.5	3.9	0.0	-Inf	0.0	-2.4	-5.2	7.7	1.00
min. 2 adults, 1 child	1.2	-1.1	-1.8	4.0	0.70	1.2	-0.3	0.2	1.2	0.00
min. 2 adults, 2 children	2.8	-0.9	-0.3	4.0	0.30	4.3	-0.2	1.8	2.6	-0.65
min. 2 adults, 3 children	-2.3	-0.6	-3.4	1.7	2.35	-0.8	-0.4	-7.0	6.6	1.12
min. 2 adults, 4+ children	-8.8	0.0	-3.9	-4.9	-0.80	-14.3	0.0	3.7	-18.0	0.21
Main source of income										
Employment	-0.3	-1.0	-1.5	2.2	1.14	2.9	-0.5	0.3	3.1	0.06
Self-employment	-7.6	-1.6	-4.1	-1.9	-3.00	-5.5	0.7	-2.0	-4.2	-0.31
Benefits excl. pensions	4.1	-4.0	8.5	-0.4	11.25	-6.7	-0.4	-5.6	-0.7	-8.57
Pensions or private income	1.1	-1.3	-19.8	22.2	0.95	15.8	0.0	-7.1	23.0	0.31
Citizenship										
Austrian	0.9	-0.6	-0.5	2.0	0.55	1.6	-0.4	1.1	0.9	-0.78
Other EU	5.0	-2.4	-4.1	11.5	0.57	9.0	0.8	-1.2	9.4	0.04
Non-EU	-9.7	-2.5	-4.2	-3.0	-2.23	-18.8	-1.0	-8.6	-9.1	-1.07
Total	0.3	-0.9	-1.2	2.5	0.88	0.8	-0.4	-0.6	1.7	0.53

S: Own calculations based on EUROMOD outputs

Table A4.24: Effect of benefits targeted at children on the change in monthly mean disposable incomes of households with children by income deciles (R3) - EUR

	2019 vs. 2020				2019 vs. 2021			
	PE_t	AE_t	PE_{ch}	AE_{ch}	PE_t	AE_t	PE_{ch}	AE_{ch}
Income deciles								
1	62.0	68.4	*29.9*	*-4.5*	42.7	-46.5	*-2.7*	*-5.3*
2	80.8	60.4	*19.0*	*23.5*	43.8	3.5	*-7.9*	*-17.3*
3	89.4	44.2	*31.1*	*16.1*	43.2	-18.9	*-16.6*	*19.8*
4	98.0	103.1	*18.6*	*-16.3*	52.4	20.1	*-8.8*	*-7.9*
5	96.9	170.7	*28.5*	*31.5*	49.7	148.9	*-4.4*	*36.1*
6	91.2	39.6	*14.3*	*9.4*	49.6	120.7	*-9.4*	*3.1*
7	94.2	113.1	*27.4*	*16.5*	41.3	-116.6	*-13.5*	*3.6*
8	90.8	46.0	*18.2*	*-18.3*	41.5	-44.8	*-5.5*	*-29.8*
9	94.1	155.2	*17.0*	*18.5*	29.5	141.7	*-9.6*	*4.8*
10	70.5	384.2	*21.7*	*2.7*	0.0	229.3	*-8.3*	*3.9*
Total	102.3	71.1	*22.7*	*8.4*	38.7	-1.2	*-8.3*	*2.0*

S: Own calculations based on EUROMOD outputs

Table A4.25: Effect of benefits targeted at children on the change in monthly mean disposable incomes of households with children by demographic groups (R3) - EUR

	2019 vs. 2020				2019 vs. 2021			
	PE_t	AE_t	PE_{ch}	AE_{ch}	PE_t	AE_t	PE_{ch}	AE_{ch}
Household composition								
single-parent, at least 1 child	80.3	-5.0	*27.0*	*31.3*	36.4	52.3	*-5.4*	*9.5*
min. 2 adults, 1 child	99.4	179.2	*15.1*	*1.5*	44.3	41.4	*-6.0*	*-5.7*
min. 2 adults, 2 children	109.1	12.8	*24.1*	*8.5*	37.0	-33.1	*-8.6*	*9.6*
min. 2 adults, 3 children	105.2	18.5	*30.8*	*-2.0*	31.8	55.0	*-14.1*	*0.7*
min. 2 adults, 4+ children	82.6	-96.7	*37.3*	*19.7*	33.2	-284.4	*-8.4*	*1.9*
Main source of income								
Employment	113.2	51.6	*21.7*	*13.5*	47.5	-9.5	*-8.0*	*6.7*
Self-employment	106.8	-8.3	*23.7*	*-11.9*	-18.8	-23.0	*-5.8*	*-11.8*
Benefits excl. pensions	96.8	-41.4	*24.1*	*-7.3*	28.8	-97.8	*-13.1*	*-0.2*
Pensions or private income	97.7	691.8	*19.4*	*-41.3*	20.0	461.6	*-7.5*	*-39.9*
Citizenship								
Austrian	104.1	85.5	*22.3*	*10.7*	38.3	-11.9	*-8.8*	*3.3*
Other EU	107.2	49.5	*21.4*	*-5.8*	41.6	49.3	*-8.1*	*5.1*
Non-EU	87.2	-32.7	*26.3*	*0.8*	39.0	-119.1	*-5.6*	*-18.3*
Total	102.3	71.1	*22.7*	*8.4*	38.7	-1.2	*-8.3*	*2.0*

S: Own calculations based on EUROMOD outputs

Table A4.26: Composition of mean monthly disposable incomes of households with children in 2020 by income decile (R3) - EUR

	Disposable income$_t$	Market income$_t$	Taxes$_t$	Social insurance contributions$_t$	Benefits$_t$	*Benefits directed at children$_t$*	
Income deciles	Total	Total	Total	Total	Total	*Total*	*% of disposable*
1	896.1	327.2	-62.2	52.5	559.2	*289.9*	*32*
2	1,422.7	939.4	-46.1	172.1	609.3	*294.7*	*21*
3	1,741.5	1,417.6	0.0	261.7	585.6	*269.7*	*15*
4	1,967.3	1,772.6	42.6	315.7	552.9	*236.0*	*12*
5	2,195.0	2,180.8	121.6	403.6	539.3	*238.6*	*11*
6	2,432.9	2,636.7	209.1	481.4	486.6	*228.1*	*9*
7	2,682.6	2,942.5	298.2	530.0	568.3	*234.4*	*9*
8	2,975.5	3,645.5	491.8	623.0	444.8	*214.4*	*7*
9	3,431.1	4,359.8	722.0	695.7	489.0	*217.9*	*6*
10	4,999.5	7,338.5	1,971.4	860.6	493.0	*210.3*	*4*
Total	2,326.4	2,492.2	294.4	409.0	537.7	*246.1*	*11*

Note: Disposable incomes are calculated as market incomes plus benefits minus taxes minus social insurance contributions. Benefits direct at children are one component of total benefits.

S: Own calculations based on EUROMOD outputs

Table A4.27: Composition of mean monthly disposable incomes of households with children in 2021 by income decile (R3) - EUR

	Disposable income	Market income	Taxes	Social insurance contributions	Benefits	*Benefits directed at children*	
Income deciles	Total	Total	Total	Total	Total	*Total*	*% of disposable*
1	904.6	473.7	-70.0	75.1	436.1	*263.5*	*29*
2	1,420.0	1,068.3	-41.1	192.3	502.8	*233.2*	*16*
3	1,722.1	1,507.8	-13.8	272.0	472.5	*231.6*	*13*
4	1,969.6	1,942.6	71.9	344.7	443.6	*223.0*	*11*
5	2,199.2	2,227.6	130.7	420.8	523.1	*215.6*	*10*
6	2,449.1	2,679.3	181.4	469.2	420.4	*203.4*	*8*
7	2,720.5	3,309.9	393.0	583.7	387.4	*185.5*	*7*
8	3,039.6	3,834.7	500.1	662.2	367.2	*184.4*	*6*
9	3,479.4	4,553.4	750.0	737.0	413.0	*182.1*	*5*
10	5,310.6	7,946.5	2,173.6	889.1	426.7	*186.4*	*4*
Total	2,343.1	2,643.2	316.5	427.6	444.0	*214.4*	*9*

Note: Disposable incomes are calculated as market incomes plus benefits minus taxes minus social insurance contributions. Benefits direct at children are one component of total benefits.

S: Own calculations based on EUROMOD outputs

10.4.4 Additional tables R4

Table A4.28: Decomposed effects on mean equivalised household income (R4) - percentages

		2019 vs. 2020				2019 vs. 2021				
Household type	TE_s	PE_s	AE_s	ME_s	ISC_s	TE_s	PE_s	AE_s	ME_s	ISC_s
Household with children	8.1	9.4	3.3	-4.6	2.76	6.3	6.8	0.0	-0.6	11.50
Household without children	-0.2	3.2	4.5	-7.9	0.97	-1.0	1.8	3.5	-6.3	0.84
Total	2.9	5.5	4.1	-6.7	1.43	1.7	3.7	2.1	-4.1	1.41

S: Own calculations based on EUROMOD outputs

Table A4.29: Decomposed effects on median equivalised household incomes (R4) – percentages

	2019 vs. 2020					2019 vs. 2021				
Household type	TE_s	PE_s	AE_s	ME_s	ISC_s	TE_s	PE_s	AE_s	ME_s	ISC_s
Household with children	7.4	9.9	3.9	-6.5	2.14	4.2	7.2	1.4	-4.4	1.95
Household without children	2.3	4.3	6.7	-8.7	1.26	0.6	2.4	6.4	-8.1	1.07
Total	5.1	6.9	6.3	-8.1	1.63	2.4	4.7	3.6	-5.9	1.41

S: Own calculations based on EUROMOD outputs

Table A4.30: Decomposed effects on mean equivalised disposable incomes of households with children by deciles (R4) - percentages

	2019 vs 2020					2019 vs 2021				
	TE_s	PE_s	AE_s	ME_s	ISC_s	TE_s	PE_s	AE_s	ME_s	ISC_s
Income deciles										
1	12.2	15.6	10.6	-14.0	1.87	7.2	12.4	-4.9	-0.3	25.00
2	4.7	9.8	4.6	-9.7	1.48	2.3	7.5	1.0	-6.3	1.37
3	5.1	8.8	3.1	-6.8	1.75	2.0	6.5	-1.7	-2.8	1.71
4	4.4	8.1	4.6	-8.3	1.53	2.1	5.9	-0.6	-3.3	1.64
5	4.3	7.0	8.0	-10.6	1.41	2.0	4.7	9.8	-12.6	1.16
6	5.3	6.1	1.1	-1.9	3.79	3.3	4.3	3.3	-4.4	1.75
7	4.0	5.4	5.2	-6.6	1.61	2.9	3.7	-3.8	3.0	0.03
8	3.0	4.6	2.7	-4.3	1.70	2.7	3.3	-1.1	0.5	-4.40
9	1.6	3.9	3.5	-5.8	1.28	0.5	2.4	3.9	-5.8	1.09
10	-4.6	1.6	7.3	-13.5	0.66	-0.9	0.6	4.1	-5.7	0.84
Total	8.1	9.4	3.3	-4.6	2.76	6.3	6.8	0.0	-0.6	11.50

S: Own calculations based on EUROMOD outputs

Table A4.31: Decomposed effects on mean equivalised disposable incomes of households with children by demographic groups (R4) - percentages

	2019 vs 2020					2019 vs 2021				
Group	TE_s	PE_s	AE_s	ME_s	ISC_s	TE_s	PE_s	AE_s	ME_s	ISC_s
Household composition										
single-parent, at least 1 child	13.9	12.8	-0.5	1.7	-7.18	2.7	10.8	3.0	-11.2	1.24
min. 2 adults, 1 child	3.6	6.9	7.4	-10.7	1.34	3.9	4.9	1.8	-2.7	2.44
min. 2 adults, 2 children	10.0	9.6	0.6	-0.2	51.00	6.9	6.7	-1.4	1.6	-3.31
min. 2 adults, 3 children	10.2	12.1	1.0	-2.9	4.52	6.1	9.1	2.9	-6.0	2.02
min. 2 adults, 4+ children	27.5	21.2	-7.0	13.4	-1.05	33.1	17.9	-21.7	36.9	0.10
Main source of income										
Employment	9.2	10.1	2.3	-3.2	3.87	7.0	7.7	-0.6	-0.2	36.00
Self-employment	16.5	9.6	-0.7	7.6	-1.17	11.2	5.9	-1.6	6.9	-0.62
Benefits excl. pensions	20.4	25.3	-2.8	-2.1	10.71	14.3	16.2	-9.2	7.2	-0.99
Pensions or private income	-5.3	13.9	31.4	-50.6	0.90	10.4	15.1	22.3	-26.9	1.39
Citizenship										
Austrian	8.0	8.7	3.7	-4.4	2.82	7.5	6.1	-0.5	1.8	-3.17
Other EU	7.6	10.5	2.6	-5.5	2.38	3.7	7.8	2.8	-6.9	1.54
Non-EU	11.2	15.4	-2.0	-2.1	6.33	10.6	12.7	-8.0	5.9	-0.80
Total	8.1	9.4	3.3	-4.6	2.76	6.3	6.8	0.0	-0.6	11.50

S: Own calculations based on EUROMOD outputs

Table A4.32: Decomposed effects on the child AROP rate by demographic groups (R4) – percentage points

	2019 vs 2020					2019 vs 2021				
Group	TE_s	PE_s	AE_s	ME_s	$CPPC_s$	TE_s	PE_s	AE_s	ME_s	$CPPC_s$
Household composition										
single-parent, at least 1 child	-4.9	-11.0	5.8	0.3	17.33	-4.0	-10.7	-0.5	7.3	1.55
min. 2 adults, 1 child	-0.1	-1.9	-2.3	4.1	1.02	0.5	-1.0	-0.3	1.7	0.71
min. 2 adults, 2 children	0.4	-2.3	-1.7	4.4	0.91	1.9	-1.9	1.3	2.5	0.24
min. 2 adults, 3 children	-6.0	-4.2	-3.0	1.2	6.00	-8.5	-6.0	-8.7	6.2	2.37
min. 2 adults, 4+ children	-19.0	-10.6	-3.5	-4.9	-2.88	-30.0	-13.3	-2.0	-14.7	-1.04
Main source of income										
Employment	-3.6	-3.9	-2.0	2.3	2.57	-1.6	-4.3	-0.4	3.1	1.52
Self-employment	-11.2	-5.9	-4.3	-1.0	-10.20	-11.5	-6.1	0.8	-6.2	-0.85
Benefits excl. pensions	-7.8	-14.9	8.1	-1.0	-6.80	-15.7	-9.3	-5.4	-1.0	-14.70
Pensions or private income	-4.4	-5.6	-25.8	26.9	1.16	-7.0	-12.2	-18.3	23.5	1.30
Citizenship										
Austrian	-1.4	-2.6	-0.9	2.2	1.64	-1.0	-2.7	0.6	1.1	1.91
Other EU	1.5	-4.2	-7.0	12.7	0.88	5.0	-2.4	-1.6	9.0	0.44
Non-EU	-18.7	-11.5	-3.1	-4.0	-3.67	-31.3	-12.5	-9.9	-8.8	-2.56
Total	-2.9	-3.8	-1.7	2.6	2.12	-3.3	-3.9	-1.3	2.0	2.65

S: Own calculations based on EUROMOD outputs

Table A4.33: Effect of benefits targeted at children on the change in monthly mean disposable incomes of households with children by income deciles (R4) - EUR

	2019 vs. 2020				2019 vs. 2021			
	$PE_{t;s}$	$AE_{t;s}$	$PE_{ch;s}$	$AE_{ch;s}$	$PE_{t;s}$	$AE_{t;s}$	$PE_{ch;s}$	$AE_{ch;s}$
Income deciles								
1	135.0	91.5	163.0	-4.6	107.5	-42.4	132.8	-5.8
2	138.4	64.1	166.5	23.2	106.1	13.8	149.3	-11.6
3	147.7	51.7	173.8	20.7	110.1	-28.0	135.5	9.3
4	154.5	88.3	145.7	-11.2	113.8	-11.7	124.0	-4.3
5	147.9	169.0	169.5	16.4	100.5	208.6	150.0	36.2
6	142.1	24.6	139.3	6.8	100.4	76.7	122.2	2.0
7	140.9	133.5	157.8	37.0	94.9	-97.6	119.6	14.4
8	133.6	78.7	145.6	-17.9	96.1	-32.9	122.7	-26.6
9	130.9	117.5	148.4	17.4	80.8	131.5	121.0	-0.5
10	84.9	379.8	142.4	3.0	33.6	215.6	118.2	4.4
Total	208.3	73.0	154.0	9.7	151.5	0.8	129.2	3.0

S: Own calculations based on EUROMOD outputs

Table A4.34: Effect of benefits targeted at children on the change in monthly mean disposable incomes of households with children by demographic groups (R4) - EUR

	2019 vs. 2020				2019 vs. 2021			
	$PE_{t;s}$	$AE_{t;s}$	$PE_{ch;s}$	$AE_{ch;s}$	$PE_{t;s}$	$AE_{t;s}$	$PE_{ch;s}$	$AE_{ch;s}$
Household composition								
single-parent, at least 1 child	218.0	-9.1	*186.9*	*29.4*	185.1	50.7	*163.9*	*8.8*
min. 2 adults, 1 child	169.5	180.2	*103.0*	*1.8*	119.6	43.2	*87.1*	*-4.6*
min. 2 adults, 2 children	216.7	14.2	*161.0*	*9.0*	152.1	-31.1	*135.7*	*10.6*
min. 2 adults, 3 children	250.5	21.7	*209.4*	*-0.9*	189.1	61.1	*175.7*	*4.0*
min. 2 adults, 4+ children	281.9	-93.4	*260.5*	*24.7*	237.5	-288.3	*217.9*	*-1.0*
Main source of income								
Employment	234.4	53.4	*147.1*	*17.4*	179.1	-13.5	*121.9*	*8.5*
Self-employment	244.6	-18.4	*155.8*	*-15.2*	151.5	-41.5	*134.9*	*-14.0*
Benefits excl. pensions	290.5	-31.7	*175.1*	*-15.6*	186.7	-105.9	*154.2*	*-7.5*
Pensions or private income	312.9	707.5	*129.6*	*-52.5*	339.4	501.8	*98.1*	*-54.7*
Citizenship								
Austrian	206.0	87.3	*151.1*	*12.3*	145.6	-11.2	*125.2*	*3.6*
Other EU	206.2	50.1	*143.3*	*-7.8*	152.0	55.2	*123.3*	*6.4*
Non-EU	224.8	-29.7	*180.1*	*2.4*	184.5	-116.4	*156.1*	*-16.5*
Total	208.3	73.0	*154.0*	*9.7*	151.5	0.8	*129.2*	*3.0*

S: Own calculations based on EUROMOD outputs

Table A4.35: Composition of mean monthly disposable incomes of households with children in 2020 by income decile (R4) - EUR

	Disposable income$_s$	Market income$_s$	Taxes$_s$	Social insurance contributions$_s$	Benefits$_s$	*Benefits directed at children$_s$*	
Income deciles	Total	Total	Total	Total	Total	*Total*	*% of disposable*
1	983.4	297.9	-42.2	47.9	691.3	*423.9*	*43*
2	1,494.1	845.8	-33.7	156.5	771.0	*442.9*	*30*
3	1,796.5	1,282.9	10.7	233.4	757.6	*418.0*	*23*
4	2,025.0	1,731.7	60.1	314.5	667.8	*369.0*	*18*
5	2,241.7	2,061.7	131.9	377.7	689.6	*365.5*	*16*
6	2,476.2	2,563.1	219.2	462.7	595.0	*351.5*	*14*
7	2,731.1	2,816.9	294.8	514.6	723.6	*386.2*	*14*
8	3,025.6	3,566.6	501.9	616.8	577.6	*343.2*	*11*
9	3,466.9	4,279.4	722.1	685.5	595.1	*349.0*	*10*
10	5,031.5	7,209.2	1,951.4	852.0	625.8	*332.2*	*7*
Total	2,435.2	2,492.2	321.1	409.0	673.1	*379.6*	*16*

Note: Disposable incomes are calculated as market incomes plus benefits minus taxes minus social insurance contributions. Benefits directed at children are one component of total benefits.

S: Own calculations based on EUROMOD outputs

Table A4.36: Composition of mean monthly disposable incomes of households with children in 2021 by income decile (R4) - EUR

	Disposable income,	Market income,	Taxes,	Social insurance contributions,	Benefits,	*Benefits directed at children,*	
Income deciles	Total	Total	Total	Total	Total	*Total*	*% of disposable*
1	964.6	413.1	-46.3	65.8	571.0	*401.4*	*42*
2	1,498.9	994.9	-35.5	174.5	642.9	*399.5*	*27*
3	1,792.7	1,400.8	0.6	256.4	648.9	*376.3*	*21*
4	2,033.5	1,907.7	79.4	335.5	540.7	*362.2*	*18*
5	2,251.0	2,057.9	132.5	386.1	711.7	*373.2*	*17*
6	2,494.5	2,589.4	203.2	461.7	570.0	*336.6*	*13*
7	2,775.4	3,186.8	373.0	566.6	528.2	*332.2*	*12*
8	3,097.6	3,763.3	520.7	646.1	501.1	*318.5*	*10*
9	3,524.0	4,472.4	751.6	730.4	533.7	*310.1*	*9*
10	5,364.6	7,865.9	2,169.0	884.8	552.5	*316.0*	*6*
Total	2,460.1	2,643.2	342.2	427.6	586.7	*355.6*	*14*

Note: Disposable incomes are calculated as market incomes plus benefits minus taxes minus social insurance contributions. Benefits direct at children are one component of total benefits.

S: Own calculations based on EUROMOD outputs