

War and Economic Downturn:

The impact of the war in Ukraine and the subsequent economic downturn on children and families in Europe and Central Asia

A macro-micro simulation analysis

ABOUT THIS BRIEF

This brief undertakes a regional analysis of the impact of the war in Ukraine – and subsequent economic downturn – on the situation of children in Eastern Europe and Central Asia.

We specifically examine the impacts on child poverty, school years lost and infant mortality.

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1. Introduction

The start of the war in Ukraine triggered an economic shock in countries in Eastern and Central Asia.¹ In particular, the countries affected were those that relied on imports from or through the Russian Federation and Ukraine – imports including food (wheat and grains), fertilizer, fuel supplies, trade, tourism and remittances. This economic shock occurred amid the disruption caused by the COVID-19 pandemic and at the time of multiple country-specific economic disturbances. In addition, this cascade of events happened in a region deeply affected by the global financial crisis of 2008 and the devaluation of the rouble in 2015.

Even though the drivers and manifestations of each economic downturn are different, for the children and families they affect, many of the economic and social consequences are the same. Falls in economic growth affect the incomes of many households and the most recent evidence from the COVID-19 pandemic shows that, as economic conditions in the region worsen, so do outcomes for children.

These outcomes include more poverty risks, weaker school attachment and increased infant mortality, among others (Richardson et al., 2020). A particularly worrying feature of the 2022 crisis was the sudden spike in the prices of essential commodities including food and fuel. This meant that poor families who spent a greater proportion of their incomes on necessities – such as food and fuel – were the hardest hit.

Estimates using the International Monetary Fund (IMF) growth forecasts from October 2021 indicated that gross domestic product (GDP) per capita (USD PPP) for ECA would have reached US\$24,700 in 2022 from US\$23,300 in 2021 (IMF, 2021). With the diminished economic outlook following the start of the war, estimates based on the April 2022 IMF growth forecasts showed that GDP per capita (USD PPP) for ECA was still projected to increase for 2022, but only to US\$23,600. In essence, that means the war and subsequent economic downturn was projected to have cost the region about US\$1,100 PPP per person for a population of 424 million – or approximately US\$462 billion (2017 PPP) in total (IMF, 2022).

To understand the potential impacts of these crises, this research brief sought to analyse how the conflict and the subsequent economic fallout affected children and families in the ECA region in 2022. The specific objectives of the study were:

- To estimate the effect of the diminished macroeconomic outlook on monetary poverty, schooling and infant mortality in the region.
- To estimate the extent to which the purchasing power of different family types has been eroded considering the spike in prices of basic needs and the reduction in remittances.
- To review the social protection responses to the crises.
- To make recommendations for improving social policy and social protection responses to help safeguard the rights and wellbeing of children.

The macrosimulation results reported in this research brief refer to those included in the analysis published in October 2022 (Richardson, et al. 2022). At the time of the writing of the October 2022 report, the macrosimulations showed that almost 4 million children were predicted to fall into poverty as a consequence of the macroeconomic effect of the war in Ukraine.² The increase in child poverty was about 19 per cent higher than the projected child poverty rate in the absence of the war and economic downturn. Two more children in every 1,000 in the region were expected to miss a year of school in 2022, while an additional 4,500 children were expected to die before their first birthday in 2022.

Estimations using a pooled cross-sectional framework at the micro level, conducted in mid-2022 with the most up-to-date survey data available to the researchers up to August 2022, have shown that as a result of price inflation and remittances changes, the poorest 20 per cent of families with children will see their net incomes eroded by 20 per cent on average. The income loss was slightly higher on average for households with children than for those without. However, the wide confidence interval suggests a large variability between countries. Among the three drivers of income erosion, reduction in remittances account for the largest share over total income among households with children.

The research brief is organized as follows. The next section presents an overview of the drivers of

economic disruption for families and children as a consequence of price inflation and previous economic shocks in the region. Section 3 describes the different data and studies produced by different international organizations on the possible effects of the Ukraine conflict. Section 4 provides an overview of the methods used and highlights the unique contribution of this study. Section 5 reports the findings of the simulation at macro level, while Section 6 presents the results of the analysis conducted at micro level. Section 7 reports the social protection interventions implemented in the region to offset the negative consequences of the conflict. Finally, Section 8 concludes by providing policy recommendations.

2. The drivers of the crisis in the region

Children in the ECA region have experienced several shocks in the last 30 years that have undermined the efforts made towards reducing poverty levels and other child-related deprivations. In early 1990, the collapse of communist regimes and the consequent transition period corresponded with an increase in material poverty as well as missed education, inadequate nutrition and high rates of infant mortality (Aleshina & Redmond, 2005; United Nations Children's Fund [UNICEF], 1994, 2001, 2006; World Bank, 2005). The transition from planned to market economy caused a period of economic instability and consequent declining living standards, followed in many cases by nation-building and armed conflict (Menchini & Redmond, 2009). Even when the transition brought about GDP growth, this did not always translate into significant progress in reducing child poverty.

Despite some improvements in average levels, the overall level of child deprivation remained high and sometimes worse for certain regions or population groups, such as large families, those resident in rural areas or Roma children (UNICEF, 2009). In the medium and long terms, however, the region has experienced improvements in terms of economic and social welfare indicators, with the consequent decline in child income poverty and child mortality, although large disparities across the region persisted (Menchini et al., 2009).

Since the end of 2007, countries in the region faced two consecutive major shocks: the food and fuel price increase of 2007–08 and the global economic and financial crisis that started at the end of 2008. Indeed, in many of the region's countries, inflation rose by almost 20 per cent in 2008 (Gassmann, 2011) and in Central

Asia, Kazakhstan, Kyrgyzstan and Tajikistan were especially hard hit (World Bank, 2010). The financial crisis and inflation challenged some of the progress made in most child wellbeing indicators (Menchini et al., 2009). The economic downturn lasted at least two years for the majority of ECA countries and for many it took almost 10 years to recover to pre-2008 levels. The first spike in food prices caused by the financial crisis in early 2008 was followed by another rise in the international prices of staple food such as cereals in the second half of 2010 (Ortiz et al., 2011). This indicates medium- and long-term risks to families and children.

The recent health and economic crises caused by the SARS-CoV-2 virus put greater pressure on children's welfare in the region. GDP contraction following the COVID-19 crisis is expected to exacerbate the incidence of poverty and income inequality across the region, mainly affecting poorer children (Richardson et al., 2020). Indeed, the prevalence of children living in monetary poor households has been projected to increase from 14.1 per cent (pre-COVID) to 20.9 per cent in 2020 and 21.2 per cent in 2021³ (Fiala et al., 2021).

Children and their families in the region therefore face the challenge of simultaneous multiple shocks, with the Ukraine conflict representing only the latest crisis to exacerbate an already fragile situation.

The effects of the conflict have been propagated worldwide through skyrocketing food and energy prices, food and non-food value chain disruption and humanitarian effects. Given the strong commercial and remittances connections with Russia, ECA countries have been largely exposed to the conflict's ripple effects. The close import connections and other strong economic linkages with Russia (United Nations Conference on Trade and Development, 2022) have led observers around the globe to predict cascading effects on the ECA region. The recent literature on the impacts of the conflict in the region has widely focused on impact forecasts for a broad range of outcomes, such as GDP, remittances and household income (Global Knowledge Partnership on Migration and Development [KNOMAD], 2022; Organisation for Economic Cooperation and Development [OECD], 2022).

At the time of this analysis, corresponding to the initial phases of the conflict, large drops in regional GDP were projected for 2022, especially for non-commodity exporting countries, alongside contractions in remittance inflows and booms in commodity prices

(KNOMAD, 2022). However, not all these predictions have materialized one year on (OECD, 2022). For example, the GDP growth observed refuted predictions made in spring 2022, as the region seemed to have resisted the negative spillover effects of the conflict by experiencing a consolidation from the mild post-pandemic growth in the first half of the year. Similarly, contrary to forecasts (see KNOMAD, 2022), in a few countries such as Uzbekistan and Kyrgyzstan, remittances showed a positive trend (European Bank for Reconstruction and Development [EBRD], 2022), continuing to be an important income source for households (EBRD, 2022). On the other hand, predictions about the price volatility of basic food products have been significantly aligned with the observed reality. The record-high price increases for food and energy products confirmed early predictions, which meant medium-term forecasts for the region remained uncertain, given the narrow range of diversification in exporting markets and commodity price volatility (OECD, 2022). Commodity price inflation coupled with supply chain disruptions therefore remain the two most immediate and relevant effects on ECA households of the conflict in Ukraine.

The conflict in itself contributed to exacerbating the rise in international commodity prices that started in the aftermath of the pandemic. Global commodity price shocks have been quickly transmitted from international markets to ECA domestic markets on both imported and produced food and energy. The surge in energy prices largely affected the production costs of firms and small enterprises, with a domino effect on the consumption prices perceived by households. Indeed, the World Bank's business pulse survey (lootty and Melecky, 2022) reported that 65 per cent of firms in three Central Asian countries (Kyrgyzstan, Tajikistan and Uzbekistan) have experienced a surge in production costs coupled with a deterioration in their access to credit (lootty & Melecky, 2021).

Even if inflation is expected to re-track in 2023, the persistently high expenditure shares in food and energy and high import dependency will be a huge burden, especially for net food buyer households. Similar to past crises (Food and Agriculture Organization of the United Nations [FAO], 2008), children living in net food buyer households will continue to lose out as parents will need to keep increasing their expenditures to maintain the same consumption levels. In addition, as stated by Von Cramon-Taubadel (2022), households that already spend more than half their income on food have little margin to shrink essential non-food expenditure

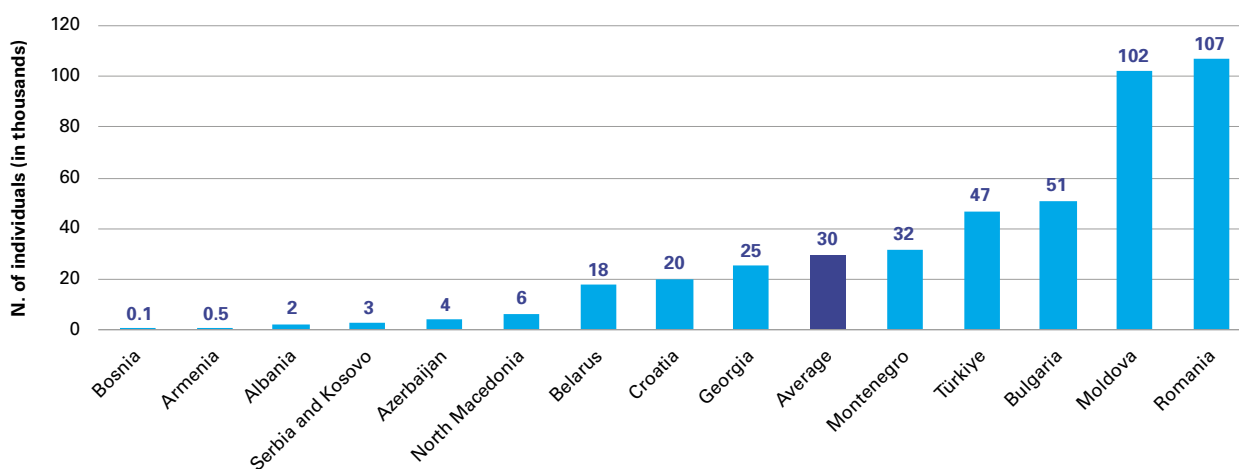
(housing, healthcare and education) when food prices upsurge. On the other hand, for net food producer households the story is slightly different from the one experienced in the 2007–08 and 2010–11 food price crises. With respect to the food price shocks of those

periods, net food producer households, which generally benefit from food price increases at least in the long run, may be worse hit because of the larger increase in input costs – energy and fertilizers – which may outweigh their gains.

BOX 1: ANALYSIS OF TRENDS IN MOVEMENTS OF THE DISPLACED UKRAINIAN POPULATION

As a consequence of the armed conflict in Ukraine, which has led to the escalation of violence and the breakdown of infrastructure and services, millions of people have been forced to cross borders to neighbouring countries in search of safety and protection. Across Europe, 7.9 million refugees from Ukraine were recorded, of which 5 per cent were displaced in the ECA region (United Nations High Commissioner for Refugees [UNHCR], n.d.). Moldova and Romania are the ECA countries receiving the largest influx of refugees (see Figure 1). Approximately 90 per cent of all Ukrainian refugees are women and children (United Nations Entity for Gender Equality and the Empowerment of Women & CARE International, 2022). Among those internally displaced, disabled persons and elderly women are particularly vulnerable. In April 2022, the United Nations Population Fund (UNFPA) estimated that 265,000 women in Ukraine were pregnant, of whom about 80,000 were expected to give birth during the first three months of the crisis (UNFPA, 2022a).

Figure 1: N. of refugees from Ukraine recorded in ECA countries, in thousands



Source: Own elaboration from UNHCR, n.d. Note: The numbers refer to the latest data available, ranging from 11 November 2022 to 1 March 2023. Ukrainian refugees recorded in the Russian Federation are not reported in the figure.

As a response to the massive influx of displaced people, on 4 March 2022, the Council of the European Union enacted the Temporary Protection Directive (TPD), which grants temporary protection to people fleeing the war (Gentilini et al., 2022a). It applies to persons displaced from Ukraine on or after 24 February 2022 and defines a harmonized framework of rights to which all EU member states are bound. The directive includes residency rights, access to medical assistance, education and social welfare.

In addition to Ukrainian refugees, many Russians also fled to other countries, especially in the Caucasus and Central Asia, where visas are not required. Many of these refugees are highly skilled, notably in the information technology sector.

3. Mapping recent international organizations' data and reports

From the beginning of the conflict, many individuals and local and international organizations started to monitor the situation and produce analysis about the potential economic impact around the world. Particular attention was given to Ukraine's neighbouring countries, which were expected to be the most directly affected by the conflict, especially in terms of remittances and the influx of refugees. Most analyses focused on socioeconomic impact, with key drivers being the price inflation of food and fuel and the reduction in remittances. The focus of these analyses changed over time, however, moving from projections on economic performance at the beginning to other dimensions of wellbeing, such as nutrition. In this section, we present the main findings from a selection of the most relevant analyses relating to the focus of this research brief.

In the immediate aftermath of the conflict outbreak, emphasis was placed on understanding the overall economic, social and political situation in the region and the underlying causes and responses of the conflict. In March 2022, the Centre for European Policy Studies (CEPS) published a bulletin within the framework of the CEPS-led 3 DCFTAs project,⁴ presenting the situation of the conflict in Ukraine and investigating the ongoing and possible future impact on Eastern Europe. Specifically, the bulletin describes the military, economic and humanitarian responses of Armenia, Azerbaijan, Belarus, Georgia and Moldova, as well as the situation in Ukraine and the Russian Federation and the overall response in the EU and UK. It highlights the complex issues arising from the migration of Ukrainian and Russian people to neighbouring and European countries and analyses public opinion about the war.

At the same time, concerns about the economic consequences of the war pushed different research institutions and regional and international organizations to produce projections on the economic downturn linked to the conflict. Estimates for the EBRD regions⁵ in March 2022 projected a deceleration of economic growth to 1.7 per cent for that year – a downward revision of 2.5 percentage points relative to previous forecasts – as a consequence of Russia's invasion of Ukraine. In 2023, growth in the EBRD regions is expected to pick up to 5 per cent. However, variation in projections are expected, depending

on the escalation of hostilities and the restrictions on gas and other commodity exports from Russia (EBRD, 2022).

An update on the economic situation was provided a month later, in April 2022, by the IMF. Compared with projections made in the previous January, global economic prospects had worsened significantly, largely because of Russia's invasion of Ukraine. A large GDP contraction was estimated in 2022 in both Russia and Ukraine. The severe collapse in Ukraine was a direct result of the invasion, with the consequent destruction of infrastructure and the exodus of its people. In Russia, on the other hand, the decline reflected the impact of sanctions. Other countries were estimated to be mainly affected by the increase in the price of several commodities – specifically oil, gas, metals, wheat and corn – given that Russia and Ukraine are major suppliers. Europe, the Caucasus and Central Asia are expected to be among the most affected regions, together with the Middle East and North Africa and sub-Saharan Africa (IMF, 2022).

In April 2022, analysis of the consequences of the conflict turned to food security and nutrition. Nutrition was mainly affected through the negative effects of the war on the agricultural sector, both in Ukraine and in countries hosting large numbers of refugees. Roughly 40 per cent of people were estimated to be facing food shortages or were expected to do so in the three months after the start of the conflict (FAO, 2022). Disruptions to food value chains were also expected to contribute to increasing food insecurity, especially for women. Alongside difficulties in accessing key agricultural inputs, labour shortages in the agricultural sector – especially in small scale production – might lead farmers to resort to child labour.

According to the FAO, the global number of undernourished people could increase by 8 million to 13 million in 2022–23, with the most pronounced increases taking place in Asia-Pacific, followed by sub-Saharan Africa and the Near East and North Africa. To respond to an increase in food prices, households tend to shift their diet towards staple foods that mitigate hunger, decreasing the consumption of nutrient-rich foods such as vegetables and meat. This could have devastating effects on people's nutritional status and particularly those already vulnerable to malnutrition, including women and young children.

The analysis of the food crisis emerging from the conflict was also considered a possible financial crisis. As reported in an update by the World Bank (Estevão, 2022), the countries at highest risk of a debt crisis were experiencing the additional threat of a food crisis. Among them, Tajikistan was one of the seven countries at greatest risk of overlapping food and debt crises. The document also highlights the importance of considering other concurrent shocks affecting the region, such as prolonged drought in the EU and the water and heat stress that were driving crop yields down, especially for wheat and barley.

Besides the direct economic effect of the war, understanding the exposure to different direct and indirect effects across the world and the vulnerability level related to a specific shock is highly relevant for appropriate and timely policy responses. For this reason, an economic vulnerability index that quantifies the vulnerabilities of 118 low- and middle-income countries to the economic effects of the war was produced in April 2022. The index measured vulnerability as “the combination of direct economic exposure to Russia and Ukraine (e.g. through bilateral trade and investment, migrants) and indirect exposure to the global effects of the war (e.g. through levels of commodity imports, trade and investment openness, tourism), minus resilience (e.g. quality of economic governance, capacity for energy transition) to manage the negative impact of shocks that may emerge from the war”. The top seven most vulnerable countries were Armenia, Belarus, Kyrgyzstan, Lebanon, Maldives, Montenegro and Uzbekistan (Raga & Pettinotti, 2022)

Different organizations produced macroeconomic forecasts for specific regions. As far as the European Union is concerned, a policy contribution produced by Blanchard and Pisani-Ferry (2022) found that the war’s main impact on Europe was likely to be felt through energy prices and, to a lesser extent, food prices. The World Bank’s *Europe and Central Asia Economic Update* released in spring reported an expected 4.1 per cent contraction of output in the region in 2022 (World Bank, 2022b), which was twice as much as with the COVID-19 pandemic. The economic trend, however, was different across countries. Indeed, while Belarus, Kyrgyzstan, the Republic of Moldova and Tajikistan, in addition to the Russian Federation and Ukraine, were expected to shrink, the rest of the countries were likely to experience tepid growth.

In June, the implications of the war in the region were analysed in terms of sustainable development progress (United Nations Development Coordination Office for Europe and Central Asia [UNDCO ECA], 2022). The impact with regards to the Sustainable Development Goals was decomposed into the effects on people, the planet, prosperity, peace and partnerships. The major risk for all was the exacerbation of pre-existing inequalities. Specifically, the effect on rural women was expected to be greater than on men because of their limited access to resources. The threat of gender-based violence including conflict-related sexual violence, sexual exploitation and abuse, and human trafficking rose exponentially since the beginning of the war (UNFPA, 2022a). Within the first month, 90 per cent of those displaced by the conflict were women and children (United Nations Entity for Gender Equality and the Empowerment of Women & CARE International, 2022). (UNDCO ECA, 2022).

In the autumn, the new economic forecasts for the ECA region in 2022 reduced the output contraction from the original 4.1 per cent to the new 0.2 per cent, projecting a positive growth of 0.3 per cent in 2023 (World Bank, 2022b). As countries implemented a series of social protection policy responses to address the economic crisis, studies analysing the effectiveness of these measures also followed.

Social protection systems in the region quickly began to address the challenges introduced by the conflict, for instance, by extending utility subsidy schemes. Studies highlighted the importance in the region of simultaneously addressing the challenges of the COVID-19 pandemic, the Ukrainian conflict and the long-term transformations of the labour market. This required a more targeted approach that was able to respond to the specific needs of population groups more exposed to the simultaneous effect of the different shocks (World Bank, 2022b). On the social protection measures in the region, a living discussion paper by the World Bank aimed to track and update social protection and related responses to the food, fuel, fertilizer and other price shocks sparked or accelerated by the Ukraine war around the world (Gentilini et al., 2022). A detail of the social protection responses in ECA is extracted and provided in Section 6.

4. Methodology and contribution

To address our research questions, first, national economic and social trends in the ECA region were analysed to develop a macro economic model predicting children's poverty risks as well as changes in education and health conditions. Modelling considered projected real GDP growth for 2022 in contrast with real GDP growth for 2021 and real GDP growth for 2022 in the absence of the conflict. Ordinary least squares regressions (pooled) were used to model the relationship between poverty, GDP growth, inequality, unemployment and consumer price index by country and year (see Fosu, 2017, and discussions in Ferreira et al., 2022). Effects on infant mortality and schooling were estimated through the effect on poverty. The model is based on a 10 per cent drop in real GDP for 2022 relative to 2021.

Second, a microsimulation model run on country-specific household budget surveys was developed to predict the change in households' purchasing power as a result of a change in three main macroeconomic channels; namely, food inflation, energy inflation and remittance changes. Data used for the simulations for seven countries were retrieved in summer 2022 and the results are reported as regional aggregates.

The analysis refers to the situation in 2022. Specifically, the macrosimulation is based on the IMF *World economic outlook* forecasts for October 2021 (prior to the start of the war) and April 2022 (after the start of the war) (IMF, 2021, 2022). The microsimulation compares the change in prices and remittances from the beginning of the war with June/August 2022, based on national statistical office data and the KNOMAD/World Bank projections for remittances (Ratha et al., 2022). At the micro level, we computed the change in disposable household income after accounting for price shocks and change in remittances. Households were divided into income quintiles, focusing on the bottom 20 per cent and the top 40 per cent of the distribution and on household composition. Specifically, we considered households without children, households with children and large families (with three or more children).

The overall contribution of this work is threefold:

- While most of the economic outlooks published by other international organizations (see Section 3) projected the impact of the conflict on GDP contraction and change in poverty, this study specifically focuses on children, in terms of child poverty and the economic impact on households with children.
- Different techniques are used to answer the research questions. Indeed, the findings of this work are based on both an assessment of the existing literature related to previous shocks and the analysis of secondary data. The latter is based on a simulation of the regional response of child poverty levels and household income to changes in food and fuel prices and remittances.
- This research brief provides a summary of the local response to the crisis in terms of social protection interventions.

5. Macroeconomic conditions and child welfare in the ECA region

This section of the research brief starts with an overview of the national economic and social trends in the ECA region from 2006 to 2021. These descriptive analysis served as building blocks to develop a model of how changes in national economic conditions (GDP per capita) predict children's poverty risks, education (enrolment and learning outcomes) and health outcomes – specifically infant mortality (see also Richardson et al., 2022).

5.1 Demographic snapshots

Table 1 presents a snapshot of some demographic characteristics and the real GDP per capita (USD PPP) for 2021. The total population for the region is about 425 million, of which 105 million (25 per cent) are children aged 0–17 years. The share of children in the population ranges from a low of 17.1 per cent in Croatia to about 42 per cent in Tajikistan. The population-weighted average real GDP per capita for the region was US\$23,300 in 2021, ranging from a low of US\$3,900 for Tajikistan to US\$31,600 for Türkiye. Subregional differences exist in the GDP per capita as well – ranging from about US\$12,300 in Central Asia to US\$25,600 in Eastern Europe.

Table 1: Demographic and economic snapshot, 2021

Country	Population (2021)	Number of children 0–17 (2021)	Children 0–17 as share of population (2021)	Number of children under one (2021)	Real GDP per capita (2021) in USD PPP
Albania	2,844,000	562,000	19.8	29,000	14,564
Armenia	2,780,000	667,000	24.4	33,000	13,345
Azerbaijan	10,363,000	2,882,000	27.8	123,000	14,457
Belarus	9,531,000	1,898,000	20.1	87,000	19,743
Bosnia and Herzegovina	3,229,000	580,000	18.0	27,000	14,573
Bulgaria	6,784,000	1,145,000	16.9	57,000	23,588
Croatia	4,030,000	687,000	17.1	35,000	29,986
Georgia	3,749,000	928,000	24.9	49,000	15,389
Kazakhstan	19,400,000	6,642,000	34.3	405,000	25,839
Kosovo	1,658,000	442,000	26.7	18,000	11,681
Kyrgyzstan	6,630,000	2,620,000	39.5	154,000	4,823
Moldova	3,277,000	748,000	22.9	41,000	14,023
Montenegro	627,000	141,000	22.5	7,000	20,541
North Macedonia	2,097,000	402,000	19.2	20,000	16,372
Romania	19,656,000	3,781,000	19.3	200,000	30,689
Russian Federation	144,707,000	30,161,000	21.0	1,392,000	28,081
Serbia	7,222,000	1,242,000	17.2	66,000	19,695
Tajikistan	9,948,000	4,166,000	41.9	255,000	3,941
Turkmenistan	6,428,000	2,311,000	36.0	131,000	16,131
Türkiye	85,343,000	23,638,000	27.7	1,230,000	31,636
Ukraine	39,703,000	7,273,000	18.5	278,000	13,040
Uzbekistan	34,623,000	12,073,000	34.9	781,000	7,815
Overall	424,629,000	104,989,000	24.7	5,418,000	23,286.13

Source: World Population Prospects, 2022 revision; IMF, 2022. See Annex I for subregional aggregates.

5.2 Trends in GDP in ECA

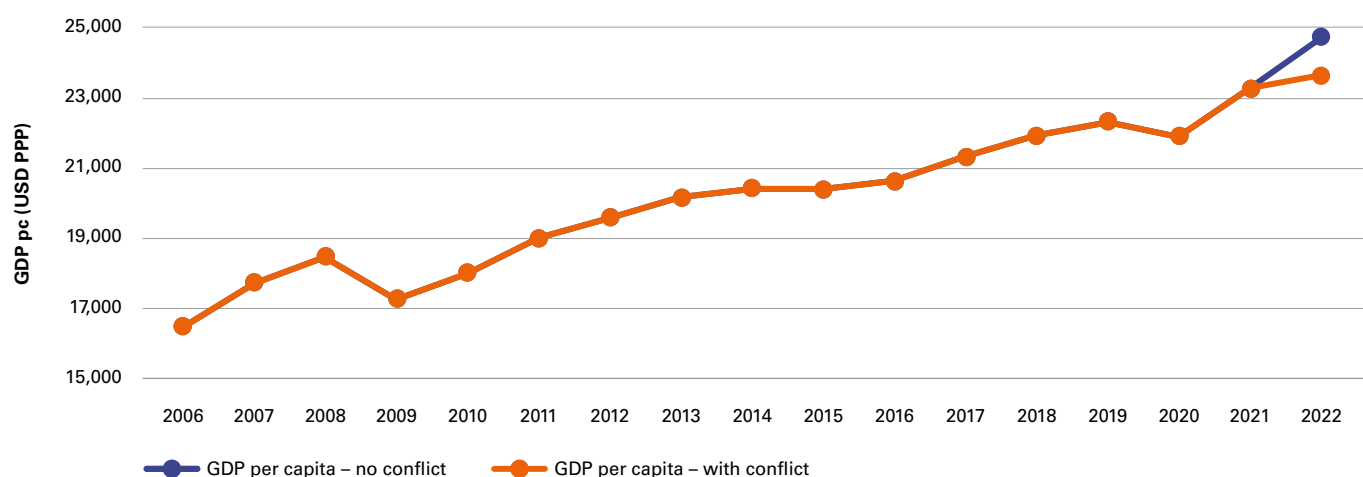
Figure 2 presents the population-weighted trend in GDP per capita (USD PPP) for the ECA region from 2006 to 2021 and two scenarios for 2022, with the blue line indicating the pre-war projection and the orange line indicating the post-war projection. GDP per capita in the region increased from about US\$6,800 in 2006 to about US\$23,300 in 2021, with noticeable dips in 2009 and 2020 reflecting the effects of the global financial crisis and the COVID-19 pandemic, respectively. In the absence of war, GDP per capita would have reached US\$24,700 in 2022, but with war, GDP per capita was still projected to increase for 2022, albeit only to US\$23,600. This essentially means that the war and subsequent economic downturn was estimated to cost the region about US\$1,100 PPP per person for the population of 424 million – or approximately US\$462 billion PPP in total.

5.3 Changes in prices of food and non-food commodities

Since the conflict in Ukraine has escalated, the region has had to cope with sharp increases in domestic prices of food and non-food items. These increases have been mostly supported by high global export quotations and increased consumer demand, alongside general public worries over supply shortages. Inflation growth is likely to drive a cost-of-living crisis, which is particularly felt by children living in low-income families that spend higher proportions of their overall income on these basic necessities and have limited options to purchase substitutes.

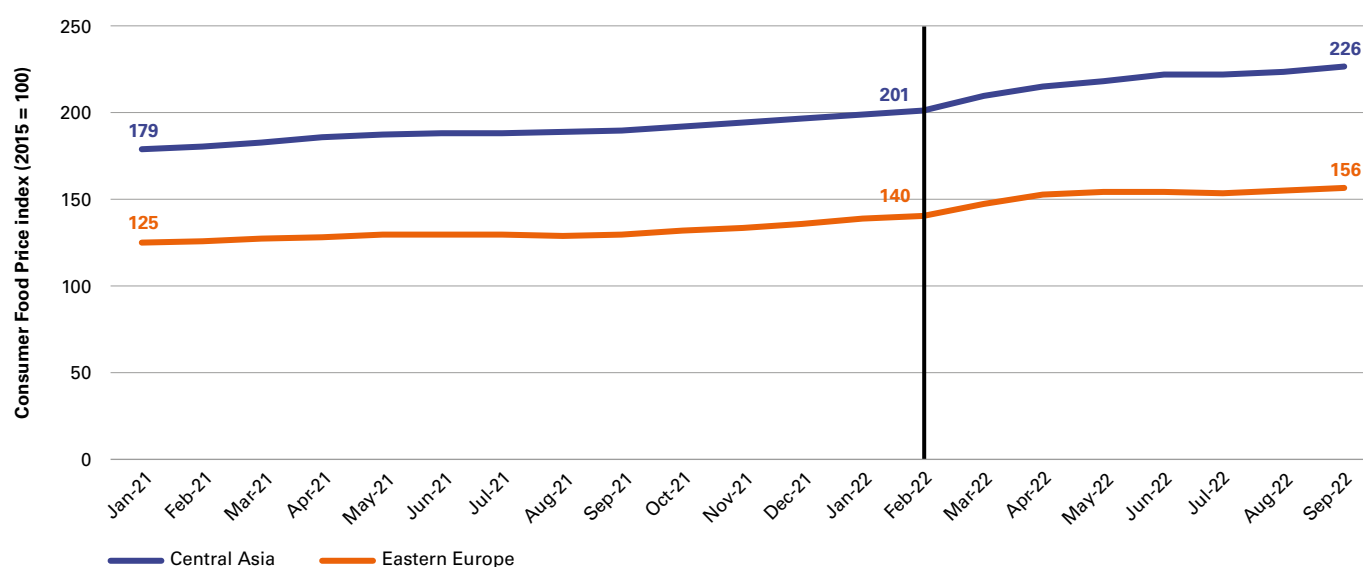
Russia and Ukraine are key producers of sunflower oil, wheat, barley, corn and fertilizers, accounting for a combined 55 per cent of global exports of sunflower oil, 22 per cent of wheat, 17 per cent of barley and 12 per cent of corn (World Bank, 2022a). As a consequence, global prices for these products and certain substitutes have surged. Additionally,

Figure 2: Trend in GDP per capita (USD PPP) in ECA, 2006–2022



Source: Authors' computations based on IMF, 2021, 2022.

Figure 3: Trend in consumer food price index (2015=100) in ECA, January 2021 to September 2022



Source: FAOstat – Food and Agriculture Organization of the UN.

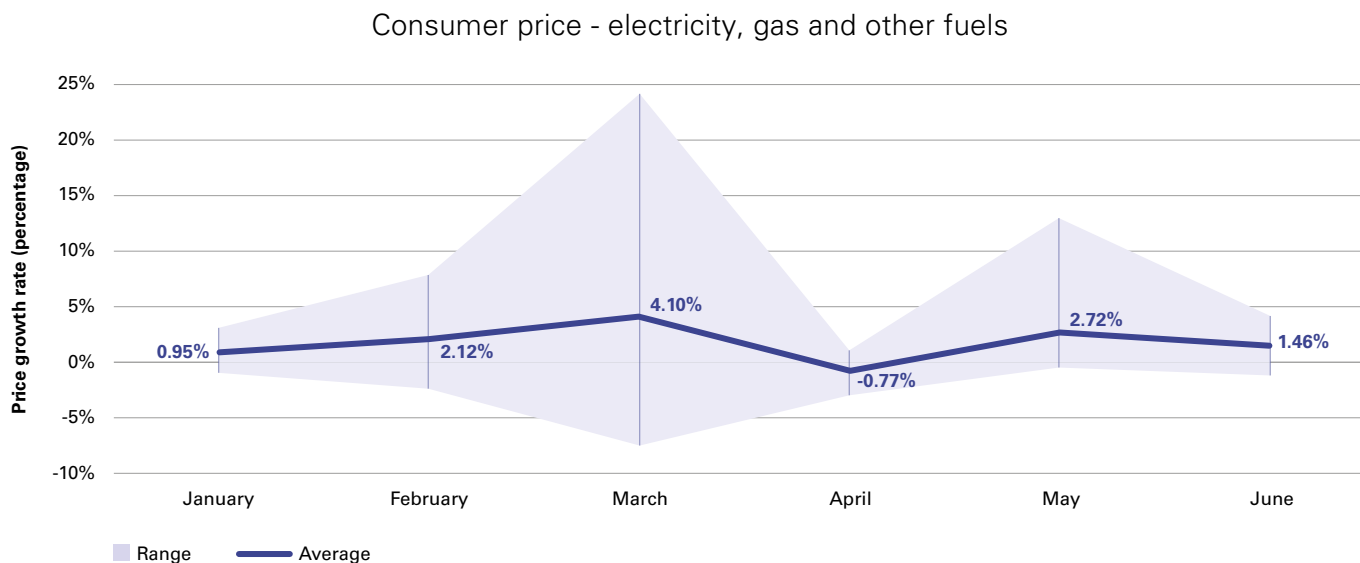
limited access to Black Sea ports and a disrupted spring planting season in Ukraine contribute to keeping prices high.

The FAO consumer food price index reached its all-time high in the region in September 2022, at 36.8 (19.4 per cent) and 26.5 (20.5 per cent) points above its value in the corresponding month in 2021 for Central Asia and Eastern Europe, respectively. Many governments in the region introduced measures such as trade barriers and export bans in an attempt to insulate and secure their domestic markets. However, these measures, while reducing domestic prices, might

contribute to higher international prices, which impact import-dependent countries more (UNDCO ECA, 2022).

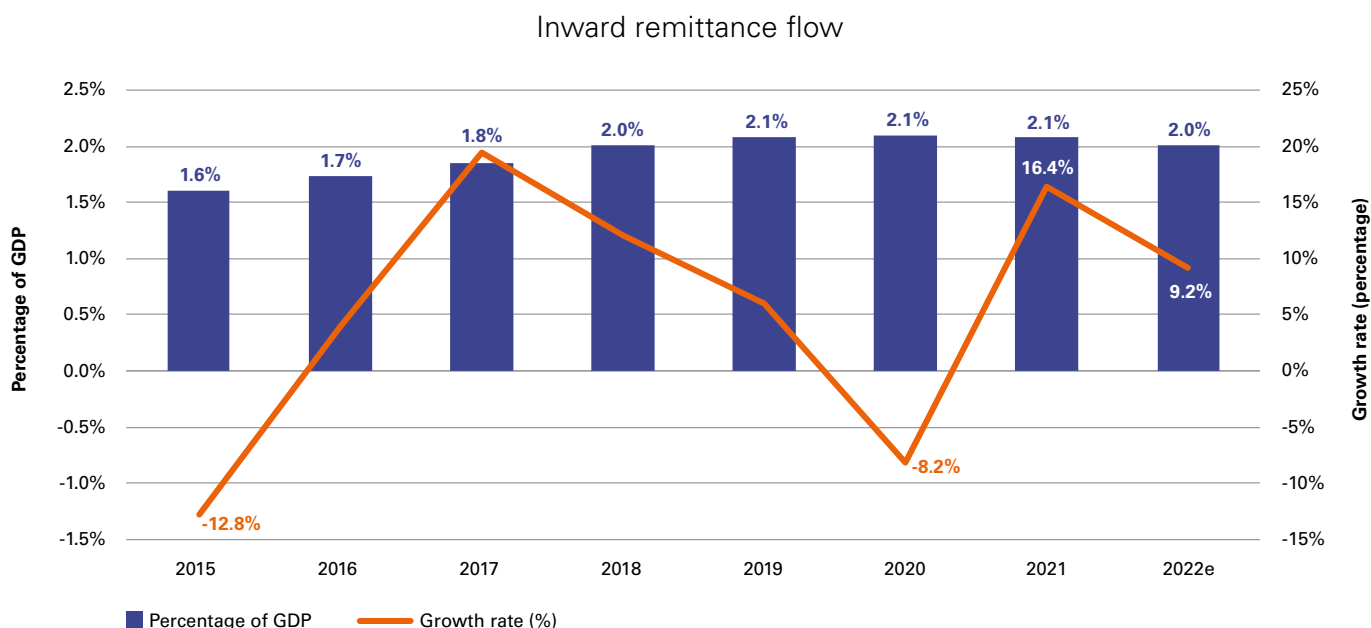
Oil and natural gas prices rose sharply following the start of the conflict. Countries largely dependent on oil imports, such as Kyrgyzstan and Tajikistan, are particularly vulnerable to the increase in commodity prices. On the other hand, higher energy prices will benefit oil and gas exporters. These include Azerbaijan, where oil and gas exports account for more than one third of GDP, and Kazakhstan and Turkmenistan, where the shares of energy exports in GDP range from 15 per cent to 19 per cent (Asian Development Bank,

Figure 4: Trend in price of electricity, gas and other fuels, monthly growth rate compared with previous month (%), January to June 2022



Source: Own elaboration from CPI data retrieved from national statistics offices for selected countries. The growth rate refers to the change in price from the previous month.

Figure 5: Trend in inward remittance flow in ECA, growth rate and % of GDP, 2015–2022



Source: KNOMAD/World Bank, November 2022.

2022). Kazakhstan’s ability to export oil, however, has been reduced by the war.

Declining remittances from Russia will negatively impact the external balances of economies heavily reliant on these inflows. Reduction in remittances is due to lower migrant workers’ incomes, difficulties in making money transfers from Russia caused by

the disconnection of the Russian banks from SWIFT, and the rouble’s depreciation. The impact will be the strongest for those countries where remittances represent a large share of GDP; for instance, Kyrgyzstan and Tajikistan. The decline in remittances from Russia will also lower demand for local currencies, adding pressure on already depreciating exchange rates, with consequences for inflation and liquidity risks.

Table 2: Estimated effect of economic shock on poverty, infant mortality and schooling (children 6–17)

Country	Additional population going into poverty	Additional children going into poverty	Additional infant mortality	Additional years of schooling lost
Albania	35,413	9,061	19	743
Armenia	52,773	14,493	15	868
Azerbaijan**	(9,640)	(3,946)	(47)	-3,314
Bosnia and Herzegovina	17,285	5,472	8	738
Bulgaria	47,441	12,383	6	1,452
Croatia	83,548	21,830	25	851
Georgia	17,360	4,255	30	1,054
Kazakhstan	51,364	28,004	53	7,451
Kosovo	41,450	16,354	14	114
Kyrgyzstan	143,862	67,608	36	2,929
Moldova	60,293	13,650	50	601
Montenegro	913	305	6	163
North Macedonia	5,468	1,624	2	494
Romania	395,186	110,390	70	4,343
Russian Federation	8,365,237	2,876,591	2,268	37,52
Serbia	28,198	7,989	35	1,579
Tajikistan	75,426	50,638	169	4,844
Turkmenistan	12,098	6,463	36	2,604
Türkiye	252,260	109,063	974	29,079
Ukraine*	472,018	400,104	504	9,345
Uzbekistan	179,128	89,551	267	13,635
Total	10,327,081	3,841,882	4,540	117,101
Percentage of population exposed to event	2.48	3.72	0.08	0.22

Notes: Modelling considers projected real GDP growth for 2022 in contrast with real GDP growth for 2021, and real GDP growth for 2022 in the absence of the war. Ordinary least squares regressions (pooled) are used to model the relationship between poverty, GDP growth, inequality, unemployment and consumer price index by country and year. Effects on infant mortality and schooling are estimated through the effect on poverty (see Annex A, Richardson et al., 2022). Belarus is not included because estimates are still under review.

*Model based on a 10 per cent drop in real GDP for 2022 relative to 2021. Some estimates suggest the drop in GDP could be as high as 30 per cent. **Azerbaijan is the only country projected to have higher growth than was anticipated before the war. This translates into reductions in poverty, infant mortality and years of schooling lost.

Source: Author's analysis of IMF data, 2021, 2022.

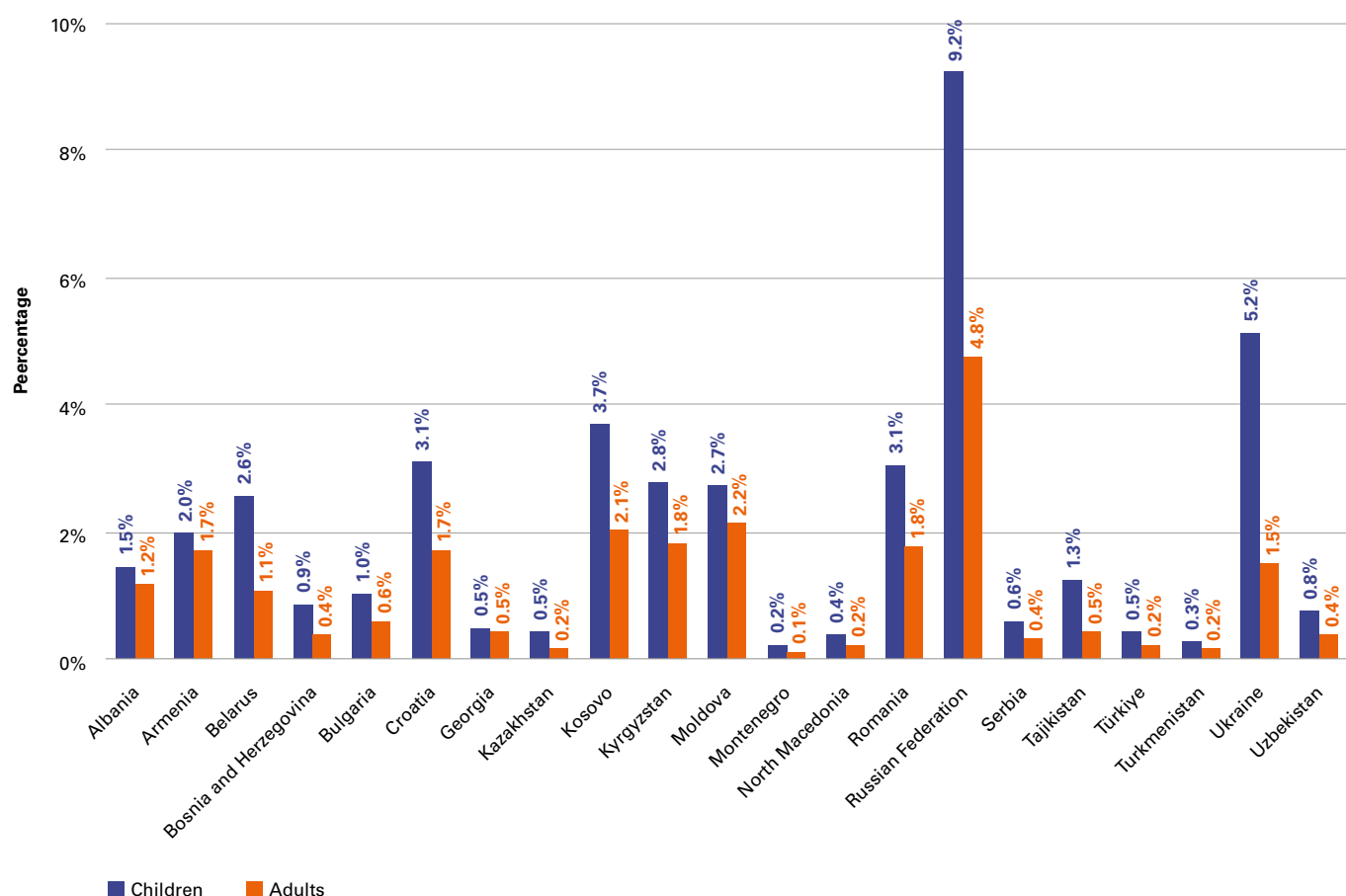
5.4 Estimated effect of economic shocks on poverty, infant mortality and schooling

Table 2 summarizes the modelled effect of the economic shock on poverty, infant mortality and schooling for children ages 6–17 years following the methodology described in Section 4. Using data from 2000 to 2021, we estimated the poverty-reducing effect of GDP growth in the ECA, controlling for inequality. The estimated coefficients were then applied to estimate the reductions in poverty under two growth scenarios – the projections before the start of the war and the revised projections after the start of the war and the subsequent economic downturn. Furthermore, we explored the relationship between consumer price index and poverty to

account for the cost-of-living crises despite projected positive growth. The additional poverty figures reported in Table 2 represent the difference in the two scenarios.

The effects on schooling and infant mortality rate were estimated through the relationship between these two variables and poverty. Our estimates show, for example, that a 1 percentage point increase in poverty is associated with an increase of about 2 infant deaths per 100,000 live births and a reduction in learning-adjusted years of schooling by 0.05. Applying this to various countries produced the country-level estimates, which were weighted by population to arrive at the regional figures.

Figure 6: Percentage of children and adults who will fall into poverty due to the crisis, by country



Notes: These numbers mean that in Croatia, for example, about 3 per cent of children will experience poverty compared with 1.7 per cent for adults. In Russia, 9.2 per cent of children will experience poverty compared with 4.8 per cent of adults. Azerbaijan is not included because estimates do not suggest additional households will fall into poverty (see Table 2).

Source: Authors' analysis of IMF data, 2022.

In total, an additional 10.3 million individuals (about 2.5 per cent of the total population of the region) fell into poverty due to the economic shock from the war in Ukraine. Children will bear a large share of the shock, as an additional 4 million children aged 0–17 are projected to live in poverty. This implies that children, who make up 25 per cent of the region's total population, will account for 40 per cent of the increase in poverty. Put differently, an additional 3.6 per cent of children will experience poverty compared with an additional 2 per cent of adults (see Figure 6), highlighting the higher poverty risk for children, as in many crisis situations. In the absence of war, an estimated 19.5 million children would have been in poverty, which represents an increase of approximately 19 per cent in the child poverty rate.

In terms of infant mortality, an estimated additional 4,540 children will die before their first birthday (about 8 per 10,000 live births) due to the increase

in poverty. Finally, it is projected that an additional 117,101 years of schooling will be lost, comprising absences from school and reduced learning outcomes among some of the children that remain in school. This is equivalent to about 2 per 1,000 children not attending school for an academic year. All these estimates are excess cases on top of the expected figures in the absence of the economic shock. For example, in the case of infant mortality, an estimated 61,000 infants would have died in the absence of the shock and 4,540 is the excess.

The results above do not account for the specific needs of refugee families; rather, they are aggregates based on reported population figures in previous years. However, refugee families add to these numbers, and in line with Article 2 of the Convention of the Rights of the Child, any response whether national or international, to mitigate these effects simply needs to include all children and their families.

6. Microeconomic effects of the economic turmoil on households and children

Sharp changes in global food and energy prices between 2021 and 2022 have raised serious concerns about potential effects on children living in poor households. Such dramatic changes in food and energy prices could indeed have major impacts for the region's poor, who spend a larger share of their income on food expenditure relative to non-food spending but also heavily rely on food production to survive. This section reports the potential direct effects of the crisis on family incomes in the region.⁶ The analysis focuses on the extent to which different households' purchasing power was eroded by changes in three drivers of household income and living standards influenced by the Ukraine conflict; namely, food prices, energy prices and remittances. We assume that all households within a country are equally affected by price spikes.

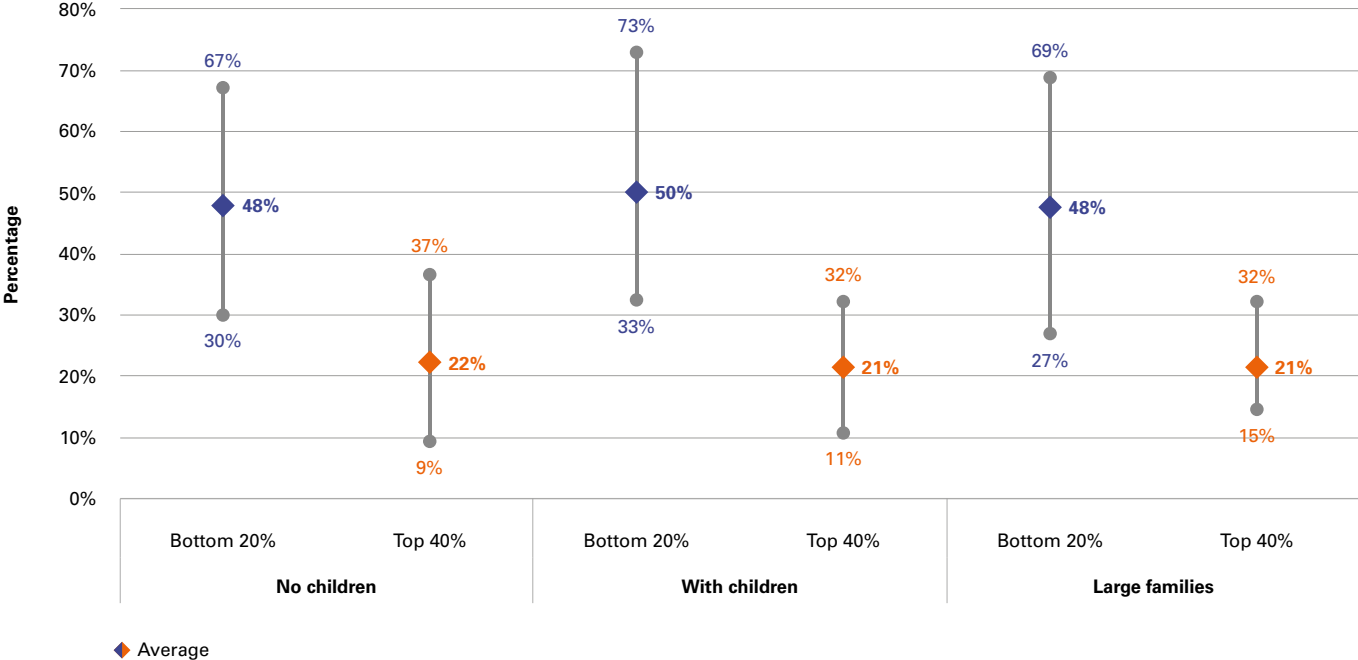
In the forthcoming subsections, we report the results of a simulation of the short-run income losses due to changes in prices and remittances at the household level, using pre-crisis income data for seven countries and reported as regional average, minimum and maximum values. For each country, the income distribution was disaggregated into income quintiles to allow for a comparison of the top 40 per cent (orange – higher income) and the bottom 20 per cent (blue – lower income) of the income distribution. Then, the results were standardized and averaged out for the whole region. Households were grouped into those with and without children. Within households with children, a focus was placed on large families with three or more children.

6.1 Income composition and expenditure breakdowns by income quintiles

We start by reporting the proportion of total per capita disposable income devoted to food, fuel and electricity, and remittances (see Figures 7a to 7c). In terms of income composition, the aggregate sample did not show stark differences between households with and without children. Instead, the main difference relates to the family's economic condition. Indeed, households at the bottom of the distribution have a higher share of income devoted to food than households at the top (48–50 per cent versus 21–22 per cent) (see Figure 7, panel a). The same applies for the share of income devoted to fuel and electricity (see Figure 7, panel b), although the difference between the two income groups is smaller (7–8 per cent versus 3 per cent). Additionally, the poorest households are more dependent on remittances than the richest ones (see Figure 7, panel c). Households with children spend on average a slightly higher share of their income on food than households without children, although the difference is very small (50 per cent versus 48 per cent). On average, the poorest households devote half of their income to food and a smaller share to fuel and electricity expenses. Remittances also represent an important part of their income, contributing to one fifth of the total disposable amount.

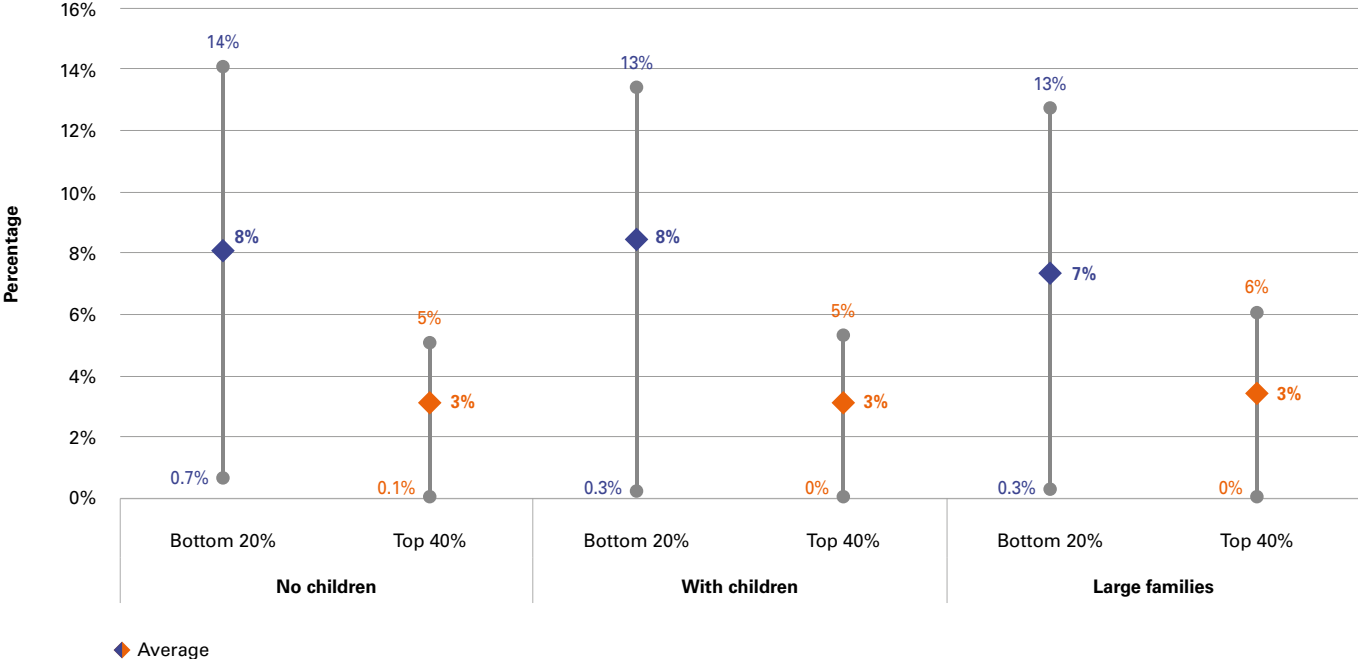
Figure 7: Proportion of total disposable income per capita devoted to food, to fuel and electricity, and income from remittances

a) Proportion of disposable income per capita devoted to food



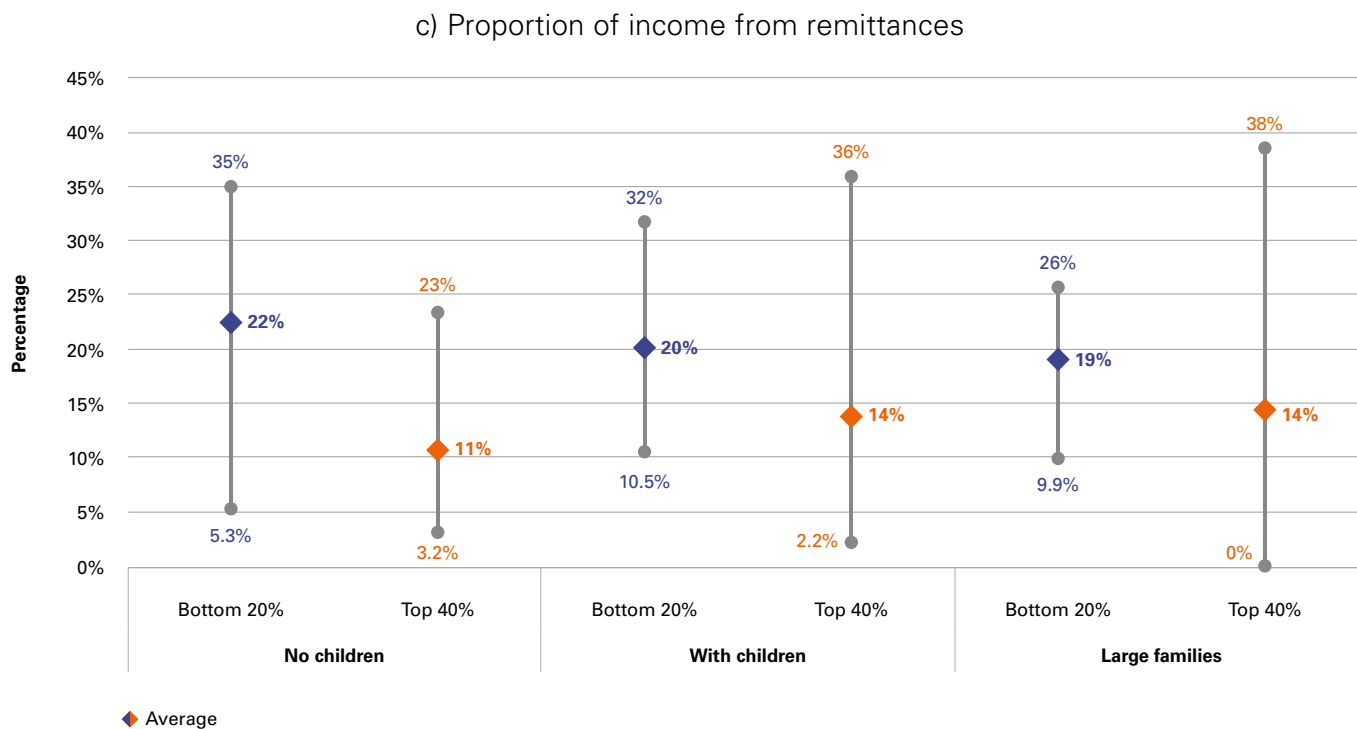
Note: Authors' elaboration. The blue and orange markers represent the average proportion of total per capita disposable income for the bottom 20 per cent and top 40 per cent of the income distribution.

b) Proportion of disposable income per capita devoted to fuel and electricity



Note: Authors' elaboration. The blue and orange markers represent the average proportion of total per capita disposable income for the bottom 20 per cent and top 40 per cent of the income distribution.

Figure 7 (cont.): Proportion of total disposable income per capita devoted to food, to fuel and electricity, and income from remittances



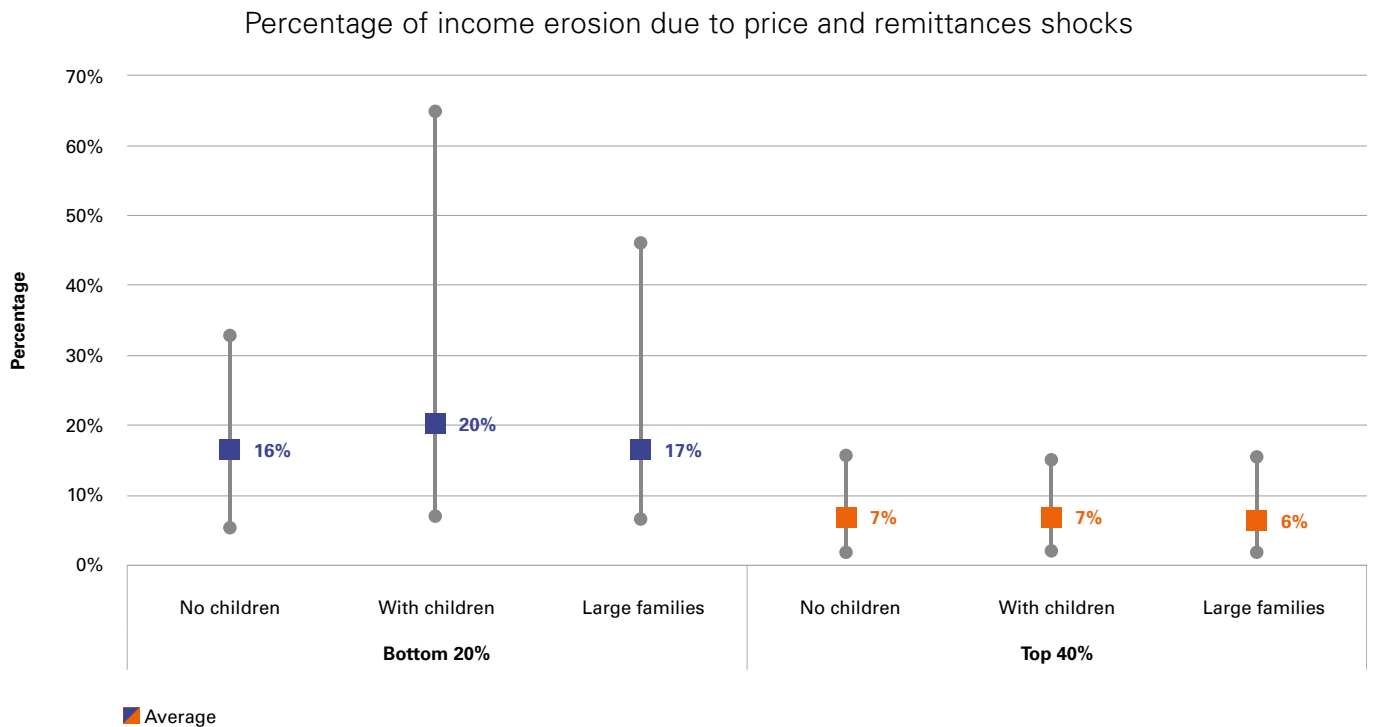
Note: Authors' elaboration. The blue and orange markers represent the average proportion of total per capita disposable income for the bottom 20 per cent and top 40 per cent of the income distribution.

6.2 Effect of change in disposable income due to price inflation by income and family types

Based on the estimates and using data at the household level, income losses due to changes in prices and remittances were microsimulated using reported pre-crisis income data. Figure 8 compares the proportion of net income lost due to price and remittance shocks in low-income households (with and without children) and high-income households. Between 2021 and 2022, the poorest 20 per cent of families without children saw their net incomes eroded by 16 per cent on average, and for those living with children the net income loss was 20 per cent of the total. Families with children therefore seem to have been affected more than those without children, but only among those in the bottom 20 per cent of the distribution. Nevertheless, the wide confidence interval suggests a substantial variability between countries, which must be considered when interpreting the results.

The variation is larger for families with children, suggesting that the effects of the spike in prices and remittances on income varied widely across the region's countries for this type of family. The reasons can be different, depending on the characteristics of the household and the type of social protection programmes in place in each country. Child benefits and other social protection responses addressed to families with children can potentially explain the small difference between households without children and large families. Child grants can contribute to alleviating the impacts of price volatility for families with children, especially if they have been designed pro-poor, targeting households at the bottom of the income distribution and based on family size and number of dependents. When this is the case, children living in households with lower income benefit more than those higher up the income distribution. As expected, the richest families were hit less on average, with a 7 per cent rate of income erosion due to the price shocks for families without children. We do not register significant differences based on household size.

Figure 8: Disposable income loss due to price and remittances shocks



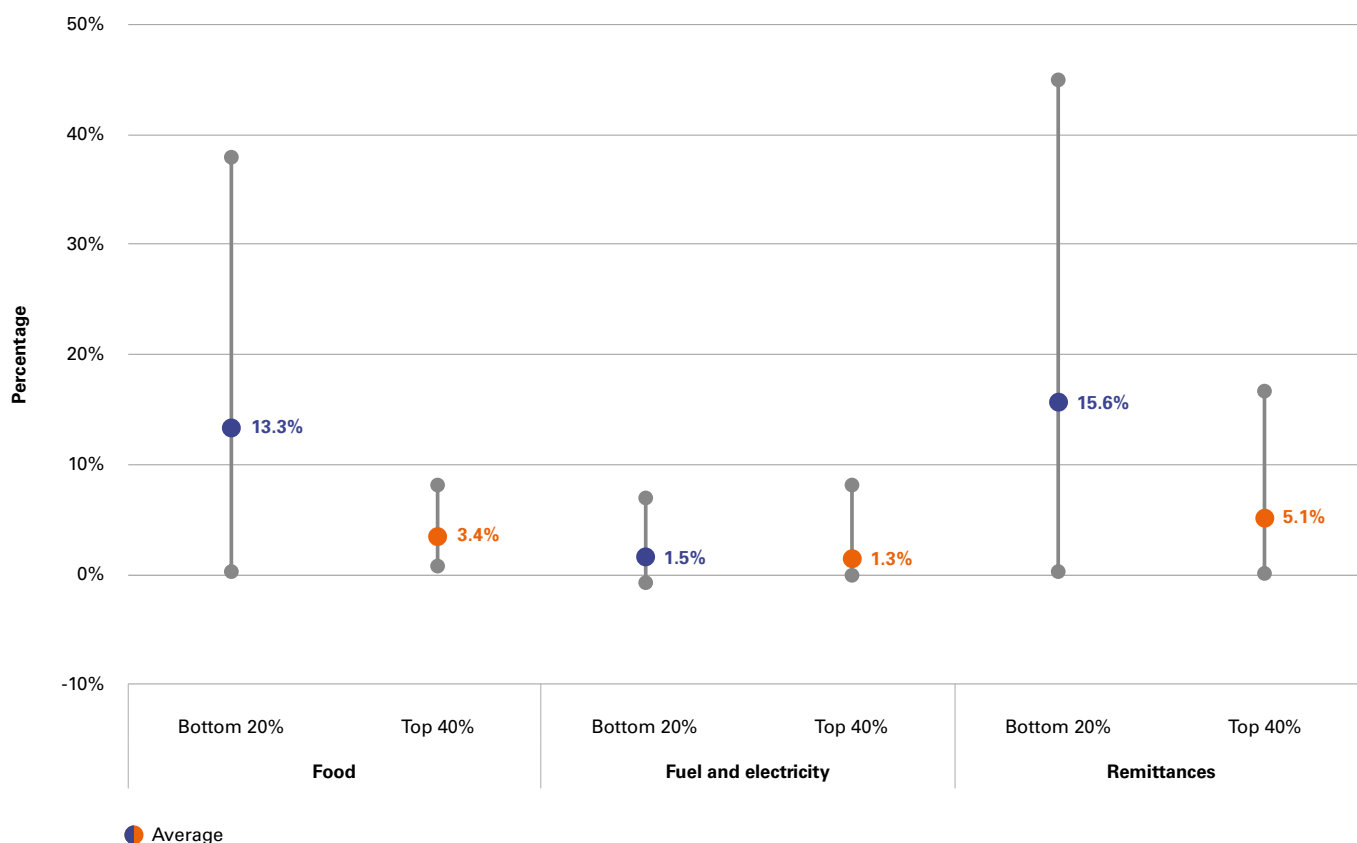
Note: Estimates do not include Kyrgyzstan. The blue and orange markers represent the average proportion of income eroded for the bottom 20 per cent and top 40 per cent of the income distribution.

6.3 Analysing the contribution of each shock to overall income loss

Among the three drivers of income erosion, reduction in remittances accounted for the largest share of total income among households with children (see Figure 9), both for the poorest and for the richest. On average, the reduction in income due to a change in remittances represented 16 per cent and 5 per cent of total income for households in the bottom and top quintiles, respectively. The rise of food prices also greatly contributed to household income loss, accounting for 13 per cent of income for families with children in the bottom 20 per cent of the income distribution and 3 per cent for the high-income ones. Even in this case, there is a large variability between countries in the contribution of income erosion by food and remittances among the poorest households. Indeed, in some countries, households experienced up to a 45 per cent loss in income due to remittances and 38 per cent due to the increase in food prices. Meanwhile, the fuel and electricity price increase contributed to income erosion to a limited extent, regardless of households' economic condition.

In summary, our estimates suggest that the crisis has been more detrimental on average for households with children than for those without. However, the large variability across countries suggests these findings should be interpreted with caution. The highly diverse social protection systems in place in each country lead to a heterogeneous response to adapting to the shocks. Furthermore, as expected, the top 40 per cent show higher levels of resilience to income erosion caused by the price shocks. Finally, the reduction in remittances is among the three drivers of income erosion, accounting for the largest share of total income in households with children.

Figure 9: Contribution of income erosion to overall disposable income according to each component shock, households with children



Note: The blue and orange markers represent the average proportion of income eroded for the bottom 20 per cent and top 40 per cent of the income distribution.

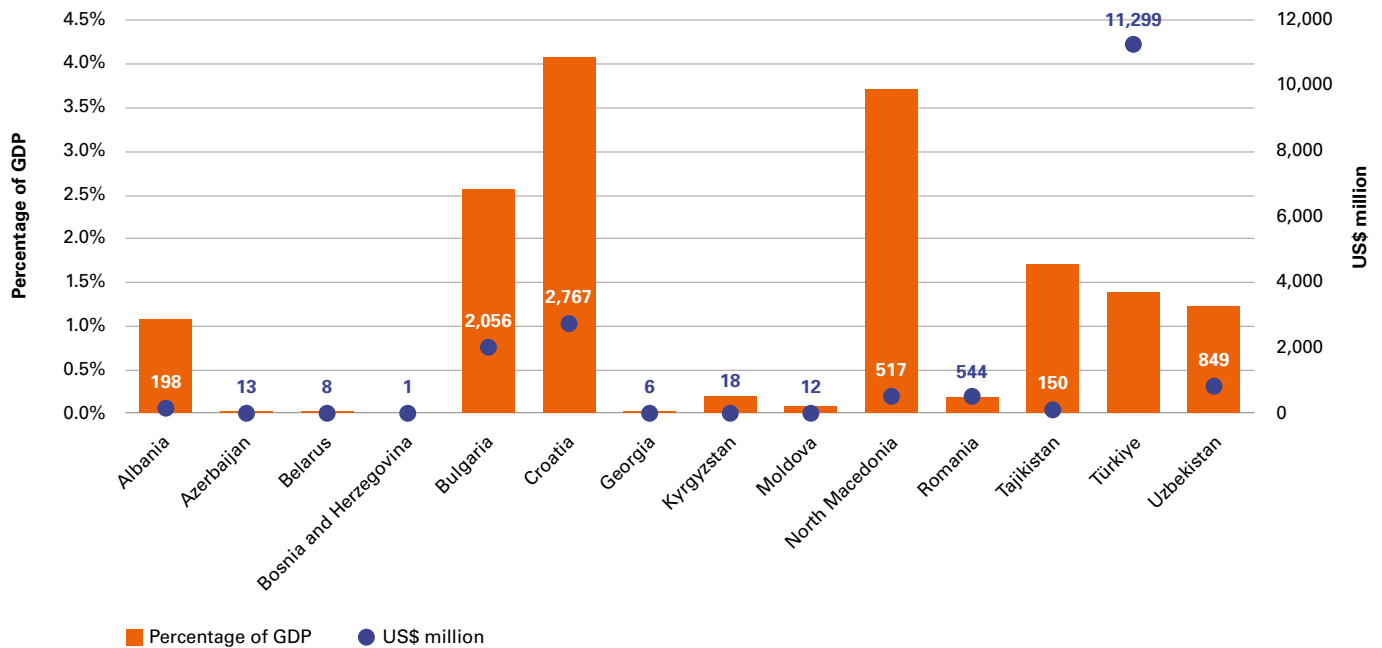
7. Social protection response in the ECA region⁷

In addition to regular social protection measures, countries in the region have implemented additional social protection responses to address the negative impacts of the food, fuel and fertilizer crises, as well as other ongoing shocks (i.e. COVID-19) that have been caused and/or compounded by the Ukraine conflict. Measures range from subsidies and social assistance to tax and trade-related measures, and the vast majority were introduced between early and mid-2022 as a response to the soaring prices of food, fuel, fertilizers and essential items. The targeting of the response also varies widely across countries and programmes, considering poor and vulnerable households, as well as students and farmers. Some measures aimed to tackle not only the economic dimension of welfare, but other dimensions that could have been affected by the crisis, such as health and education. Croatia, for instance, announced 2,000 additional scholarships for students of EUR 200 (US\$237), which is an increase from the previous amount of EUR 159 (US\$188). In Belarus,

the Ministry of Labour and Social Protection introduced a one-off grant to pay for school materials to be given to more than 225,000 children from 111,500 families.

At the time of the writing of this research brief, a great number of measures were aimed at supporting families with children by increasing the size of the benefits, often with extra amounts dedicated to special categories of families. In Albania, for instance, the government announced in December 2022 a 10 per cent increase in family benefits (i.e. the 'resistance package', which subsidized utilities, lowered taxes for low salaries and introduced an extra boost for female-headed households with two or more children). In Bulgaria, the government announced in May 2022 an increase in the amount of personal income tax relief for adults with children in their care, with a retroactive effect from 1 January 2022, based on the number of children in a household and with a specific focus on children with disabilities. In Kyrgyzstan, social assistance targeted at poor families with children was increased by 50 per cent in June 2022. Also, disability benefit increased by 30–140 per cent, depending on the disability group.

Figure 10: Spending on social protection⁸ in response to the Ukraine crisis, in millions of USD and as a percentage of GDP, by country



Source: Own elaboration, from Gentilini et al., 2022

Note: Countries without additional spending on social protection as a response to the price shocks have not been included. Social protection includes social assistance, social insurance, labour market programmes, subsidies and tax measures.

In total, as of December 2022, the region planned to spend US\$18 billion in response to the Ukraine conflict and the related price shocks, which corresponded to less than 1 per cent of regional GDP. In relative terms, Croatia reported the highest share of GDP devoted to social protection as a response to the Ukraine conflict (4.1 per cent). Yet, in absolute terms, Turkey planned to spend the largest amount (US\$11.3 billion) (see Figure 10).

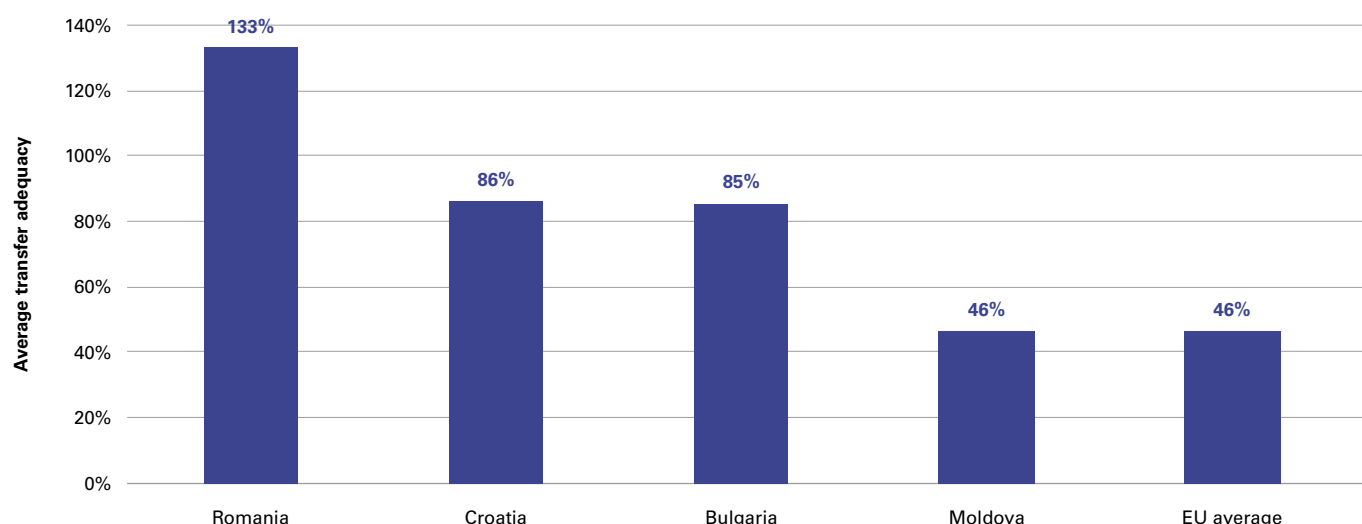
Most of the measures fall under subsidies, implemented in almost 80 per cent of the region's countries. Subsidies were implemented over fuel, food, fertilizers and various fees, and included both utility discounts and fee price controls. Fee subsidies were the most common in the region, enacted in 43 per cent of the countries, followed by food and fertilizer subsidies (38 per cent) and fuel subsidies (24 per cent). Food subsidies consist of price controls and reduction in food price measures, while all fertilizer subsidy measures relate to the reduction in fertilizer cost. Fuel subsidies, rather than price caps on fuel, were mainly implemented to cover part of the fuel cost.

Bulgaria, for instance, offered a discount of US\$0.15 per litre of petrol, diesel and liquefied petroleum gas and methane, starting from July 2022 until the end of the year. In the same month, the government of

Moldova announced a compensation programme for high energy bills (electricity and heating) for the upcoming winter months aimed at universal coverage, with higher support for the most vulnerable population. The measure was aimed at the elderly, families with many children and people with disabilities and it covered 99 per cent of the population, with 60 per cent eligible for the maximum compensation. In Tajikistan, a fixed amount of staple food was sold to the public at relatively low prices.

After subsidies, social assistance was the most used response, implemented in almost half of the countries. Cash measures were in the majority, followed by in-kind and social pension measures. In Uzbekistan, the government started a multiphase one-time social assistance measure in May 2022, which continued until December of the same year. The measure was intended to target low-income families, distinguishing between families with and without children. In total, 4.9 million children were targeted, with each family receiving UZS 200,000 per child (corresponding to approximately US\$20). The initial assistance covered 8.9 million people, or 27 per cent of the population. In Kyrgyzstan, the monthly payment for families with children was increased by 50 per cent, from KGS 810 to KGS 1,200 per child (approximately US\$9 to US\$14), supporting about 360,000 children in 110,000 families.

Figure 11: Cash transfer adequacy level



Note: Adequacy is calculated by comparing the average daily transfer size with the country's median income/expenditure.

Source: Gentilini et al., 2022b.

The emergency support was provided for seven months between June and December 2022, covering 5.5 per cent of the population.

The region recorded tax-related measures across 48 per cent of its countries. Most of the tax reduction measures addressed commodities such as food and fuel, as well as salaries. Bulgaria, for instance, introduced a zero VAT rate on the supply of bread and flour for one year. North Macedonia, at the same time, removed customs duties on all imports of basic food products. Montenegro announced a 50 per cent reduction in excise duties for fuels. On the labour market, in Croatia, the government increased the tax-free amount of income for pupils and students in September 2022 with the aim of supporting young people who, during their education, wanted to join the labour market and gain work experience.

Social insurance measures were implemented in only 33 per cent of the countries in ECA. These measures included pension increases, social security contributions and unemployment insurance. In North Macedonia, for instance, a 15 per cent increase in wages for all staff working in kindergartens and primary and secondary schools was announced in July 2022. The full list of social protection measures related to children by country is provided in Annex I.

In addition to social protection measures implemented for their own citizens, countries also needed to tackle the safety and basic needs of those fleeing the war. The conflict placed a strain on the capacity of Ukraine's

neighbouring countries to absorb and provide protection to these new refugees. Provision of social benefits in these countries was never intended to address large covariate shocks of this kind, therefore the conflict and the related refugee influx posed a great challenge to the capacity of national social protection systems to provide an adequate and timely response to those made newly vulnerable by the conflict. This is particularly true for non-EU member countries such as Moldova.

Healthcare support for refugees, especially dealing with the psychological stress and trauma experienced by Ukrainian refugees, is adding to pre-existing pressures on health and social care budgets. There is urgent need for mental health and psychosocial support services in the region (UNDCO ECA, 2022). Cash transfer programmes have been enacted to support Ukrainian refugees in some countries. Specifically, Bulgaria, Croatia, Moldova and Romania implemented this measure, with the size of the transfer varying from country to country. The amount was more adequate in Romania, followed by Croatia and Bulgaria (see Figure 11).

Other measures have been implemented across countries to support Ukrainian refugees. They include accommodation support, legal counselling, psychological support and the provision of free cellphone cards. Given that children constitute a large share of the displaced Ukrainian population, some countries in Europe have provided child allowance too. However, none of the ECA countries have implemented special child benefits for displaced Ukrainian people.

8. Policy recommendations

Beyond hoping for an immediate peaceful resolution of the conflict through negotiations, what role can UNICEF play today and in the future?

- Through upstream engagement, provide all national policymakers with the rationale and evidence to expand social assistance benefits to all families with children in need, including refugees – to address poverty risks and their consequences. UNICEF Innocenti and UNICEF Europe and Central Asia Regional Office produced country-level studies to deliver on this recommendation. About US\$2 billion of extra spending will be required to protect the 4 million children at risk of poverty over 2023.
 - Continue to highlight the importance of – and protect and support the delivery of – health, nutrition and social care services to pregnant mothers, infants and preschoolers, despite economic pressures. Social protection benefits, including family-friendly service provision, can help in reducing out-of-pocket costs and labour market detachment associated with accessing healthcare for children and their parents.
 - Acknowledge how household conditions and poverty can drive detachment from school, particularly for children who are at risk of child labour, and provide the necessary evidence and available support to help countries prevent school dropouts and drops in learning outcomes. Social protection benefits, transport subsidies and school meals can all play a role in reducing the transaction costs experienced by families sending children to school.
 - Compounding crises have pushed up government borrowing and subsequently created inflationary pressures on interest rates, making borrowing less affordable. This trend usually leads to austerity measures that trigger cuts to social protection spending. In the longer-term, UNICEF needs to continue to advocate in the strongest terms for ring-fencing child and family benefits and services (of all kinds) in the case of fiscal consolidation/budget cuts. Short-term savings on future generations will have the largest long-term social costs. Some of the proposals in the [call for action](#) in response to COVID-19 are still relevant.
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Table A1: Social protection measures related to children up to December 2022, by country (Gentilini et al., 2022)

Country	Date	Measure description
Albania	September 2022	A 10 per cent increase in economic benefits for families in need, with an extra boost for women-headed households with two or more children.
Belarus	August 2022	A one-off grant is given out to more than 225,000 children from 111,500 families to pay for school materials. Financial assistance is provided once and is not dependent on family income. The subsidy is part of the national Health of the People and Demographic Security programme. More than 20 million Belarusian roubles have been set apart for this campaign.
Bulgaria	May 2022	Increase in the amount of personal income tax relief for adults with children in their care with retroactive effect from 1 January 2022 as follows. One child: increased from BGN 4,500 to BGN 6,000 per year; two children: increased from BGN 9,000 to BGN 12,000 per year; three or more children: increased from BGN 13,500 to BGN 18,000 per year; and children with disabilities: increased from BGN 9,000 to BGN 12,000 per year. Families will receive a EUR 300 tax rebate for each child.
Croatia	September 2022	Payment of special cash income for beneficiaries of child allowance, with average transfer size of EUR 92.88 depending on number of children (from EUR 39.80 for one child to EUR 145.99 for 5+ children). Estimated number of users: 130,000. Estimated amount of the measure: HRK 62 million (EUR 8.2 million). Larger scholarships and support for student centres. Student scholarships based on socioeconomic status, with 2,000 additional scholarships (total 12,000 instead of 10,000). Scholarship increase to HRK1,506.90 (EUR200), instead of HRK 1,200 (EUR 159). Value of the measure: HRK 45 million (EUR 5.97 million). Support for student centres so that the price of students' meals remain unchanged from HRK6.50. Value of the measure: HRK75 million (EUR 9.95 million) Higher tax-free amount of receipt. Increase the tax-free amount of income for pupils and students from HRK 15,000 to HRK 24,000 (for 60 per cent) who, during their education, want to join the labour market and gain work experience, as well as additional income. The mentioned measure also includes realized receipts in 2022. Value of the measure: HRK 246 million (EUR 32.6 million).
Kyrgyzstan	June 2022	The monthly payment for families with children provided by the Uy-bulogo komok (UBK) programme was increased by 50 per cent from KGS 810 to KGS 1,200 per child in eligible families, supporting about 360,000 children in 110,000 families. It is estimated that the project's emergency support will be provided for seven months between June and December 2022.
Moldova	July 2022	Compensation programme for high energy bills (electricity and heating) for the winter months aimed at the most vulnerable population. The amount will depend on the household's income and energy consumption data. It will be aimed at the elderly, families with many children and people with disabilities. It will also go to those in rural areas in the form of support for cutting wood for wood fires. It is estimated that 99 per cent of the population will receive some form of compensation, with 60 per cent eligible for the maximum compensation.
North Macedonia	July 2022	Energy bill discount for those on low incomes over a 12-month period with 6,500 low-income households receiving the energy bill discount. An energy bill discount of MKD 600 (EUR 10) is provided to eligible applicants from households with up to three members, while an energy bill discount of MKD 800 (EUR 13) is provided to eligible applicants from households with four or more members. This is provided as a monthly discount for 12 consecutive months.
	October 2022	A group of 41,878 vulnerable citizens (social security and disability rights users; parents of children with disabilities up to the age of 26 who receive a special allowance; persons with disabilities who have a care provider and who do not exercise the right to disability; people with severe permanent changes in their health condition and who do not exercise the right to disability; single parents beneficiaries of the guaranteed minimum income; and unemployed people with an employer who has filed for bankruptcy) will receive MKD 12,000 (around EUR 200) in four months (MKD 3,000 or around EUR 50) as support for the energy and food price crisis. The total fiscal implications of this measure are EUR 8.2 million (0.06 per cent of Bank estimated GDP for 2022).
Uzbekistan	May 2022	Multiphase one-time social assistance until December 2022. Each pensioner received SUM 400,000 in Tashkent city and SUM 300,000 in other regions. The registry includes: (i) low-income families without children or children above 18 years (82,708); and (ii) low-income families with children (1.6 million). Low-income families with children up to the age of 18 – in total 4.9 million children – received SUM 200,000 per child. The initial assistance amounted to US\$194 million covering 8.9 million people, including pensioners, low-income families and recipients of child allowances. It is expected to cost US\$577.8 million.

Source: Gentilini et al., 2022

Note: Only countries that implemented social protection measures addressed to children as a response to the Ukraine conflict have been included in the table. For this reason, the number of countries is smaller than the total number of countries in the region.

Table A2: Demographic and economic snapshot, 2021, by subregion

Country	Population (2021)	Number of children 0–17 (2021)	Children 0–17 as share of population (2021)	Number of children under one (2021)	Real GDP per capita (2021) in USD PPP
Caucasus	16,892,000	4,477,000	26.6	205,000	14,480.66
Central Asia	77,029,000	27,812,000	36.1	1,726,000	12,290.25
Eastern Europe	164,294,000	38,483,000	23.5	1,893,000	25,655.13
Western Balkans	21,707,000	4,056,000	18.7	202,000	19,262.66
Russian Federation	144,707,000	30,161,000	21.0	1,392,000	28,081.13
Overall	424,629,000	104,989,000	24.7	5,418,000	23,286.13

Table A3: Estimated effect of economic shock on poverty, infant mortality and schooling (children 6–17), by subregion

Country	Additional population going into poverty	Additional children going into poverty	Additional infant mortality	Additional years of schooling lost
Caucasus	60,493	14,802	(2)	(1,392)
Central Asia	461,878	242,264	561	31,463
Eastern Europe	1,227,198	645,590	1,604	44,820
Western Balkans	212,275	62,635	109	4,682
Russian Federation	8,365,237	2,876,591	2,268	37,528
Total	10,327,081	3,841,882	4,540	117,101
Percentage of population exposed to event	2.48	3.72	0.08	0.22

Endnotes

- 1 The ECA region refers to the UNICEF regional definition and includes Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Georgia, Greece, Kazakhstan, Kosovo, Kyrgyzstan, Montenegro, the Republic of Moldova, Romania, Serbia, Tajikistan, North Macedonia, Türkiye, Turkmenistan, Ukraine and Uzbekistan. "All references to Kosovo in this report should be understood to be in the context of United Nations Security Council resolution 1244 (1999)."
 - 2 At the time this article was written in 2022, after the start of the conflict, projections and forecasts for October 2021 and April 2022 were used for the economic analysis. The microsimulations analysis makes use of the most up-to-date survey data available to the researchers up to August 2022.
 - 3 The projections made by Fiala et al. (2021) consider different scenarios. The percentages reported here refer to the upper bound (outer), which corresponds to a pessimistic GDP scenario with full distribution effect.
 - 4 The project is called "Understanding the EU's Association Agreements and Deep and Comprehensive Free Trade Areas with Ukraine, Moldova and Georgia".
 - 5 The EBRD regions include Central Asia, Central Europe and the Baltic States, Eastern Europe and the Caucasus, South-eastern Europe, Southern and Eastern Mediterranean, Turkey and the Western Balkans.
 - 6 The estimates of the microsimulation analysis are based on a subsample of countries, which includes Armenia, Belarus, Kazakhstan, Kyrgyzstan, Tajikistan, Montenegro, Moldova and Uzbekistan.
 - 7 Data used in this section have been retrieved from Gentilini et al. (2022). It should be noted that the information provided does not distinguish between actual and planned spending.
 - 8 Social protection includes social assistance, social insurance, labour market programmes, subsidies and tax measures.
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UNICEF works in the world's toughest places to reach the most disadvantaged children and adolescents and to protect the rights of every child, everywhere. Across 190 countries and territories, we do whatever it takes to help children survive, thrive and fulfill their potential, from early childhood through adolescence. And we never give up.

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