

Socio-economic Impact on the Moldovan Economy since the War in Ukraine

September 2023



Socio-economic Impact on the Moldovan Economy since the War in Ukraine

Written by Anna Augusztin (OGResearch), Aron Iker (OGResearch), Danilo Cerovic (OGResearch) and David Vavra (OGResearch)¹



Owner: Norwegian Refugee Council

Approved by: Jacopo Caridi, Country Director

NRC Moldova & Romania

Updated: 01/09/2023

Norwegian Refugee Council

Prinsens gate 2

N-0152 Oslo

Norway

www.nrc.no

Cover photo: Chişinău, Moldova by Nicolae Casîr (Pexels)

¹ Special thanks for their valuable insights to Iulian Groza, Petru Luta, Victoria Rosa, Daniel Savin, Sergiu Tofilat.

TABLE OF CONTENTS

| | |
|--|----|
| SUMMARY | 4 |
| 1 ECONOMIC BACKGROUND OF MOLDOVA AND POTENTIAL EXPOSURE TO CRISES . | 6 |
| 1.1 Economic growth | 6 |
| 1.2 Inflation in Moldova | 7 |
| 1.3 Political relationships and external trade | 8 |
| 1.4 Budget balance, current account, and financing | 9 |
| 1.5 Weaknesses of the remittance-driven growth model | 11 |
| 1.6 Fundamental risks | 14 |
| 2 IMMEDIATE IMPACTS OF THE WAR IN UKRAINE ON MOLDOVA'S ECONOMY | 20 |
| 2.1 External trade | 20 |
| 2.2 Price effect of the war | 23 |
| 3 HOUSEHOLD AND FIRM REACTIONS TO THE SOARING PRICES | 27 |
| 3.1 How inflation affects economic decisions | 27 |
| 3.2 Change in consumption patterns | 28 |
| 3.3 Impact of the soaring prices on real income and poverty | 30 |
| 3.4 The economic impact and sources of funding for refugees | 33 |
| 3.5 Sectoral impact on the economy | 35 |
| 4 POLICY RESPONSES AND FUTURE SUPPORT FOR MOLDOVA | 37 |
| 4.1 Household support | 37 |
| 4.2 Business sector support | 38 |
| 4.3 Measures to reduce energy vulnerability | 38 |
| 4.4 External financing to help weather the crisis | 39 |
| CONCLUSION | 40 |

Summary

While Moldova enjoyed robust growth in the output and living standards over the past decades, it has relied on a growth and political economy model fundamentally different from that of developed Central and Eastern European (CEE) countries. While in this model the growth was fueled by remittance inflows, the economy was held back by institutional weaknesses, geopolitical insecurity, and corruption, and these factors have prevented the country from developing a competitive economy that would be resilient to exogenous shocks and attractive for citizens to live in. Instead, vulnerabilities built up exposing the country to risks in energy supply, geopolitical shocks, external financing, and volatility in remittances.

Before the shocks of 2020-2022, the model was already displaying its limitations as remittance inflows began to dry up due to deteriorating migration patterns and geopolitical tensions. From 2021 the government started taking steps to alter the course of the country and embark on a long overdue reform agenda, supported by external partners – Western governments and international financial institutions (IFIs).

However, the risks that developed in the previous decades materialized strongly during the COVID-19 pandemic, consecutive droughts, energy crises, and finally the severe shock of the war in Ukraine. The economy's legacy weaknesses combined with economic dependence on and geographic proximity to the warring parties contributed to the impact of the war on Moldova being severe – on the economy as a whole and on vulnerable social groups in particular. On a macro level, the war caused a significant recession in 2022, with a 5.9% drop in GDP, alongside a surge in headline inflation (peaking at 34.6%) and a growing current account deficit (now at 13% of GDP).

The main channels through which the war's effects were felt included the loss of export markets, disruptions in the energy sector, and disruptions in the supply of food and fertilizers. Altogether, these consequences led to a noticeable rise in the cost of living in Moldova.

In the energy sector, Russian gas supplies saw a drastic reduction in 2022, and were completely cut off for a period. The sole thermal power plant, located in the pro-Russian breakaway region of Transnistria, entirely ceased supplying the rest of the country in late 2022.

The response to the energy crisis was robust and effective. Initiatives to diversify gas supplies, build reserves, reduce consumption, and promote

alternative fuels, supported by IFIs, prevented the need for energy rationing or other quantity restrictions. While supply of electricity from Transnistria has been reinstated in 2023, energy prices still remain high. Another key element of the policy response was a comprehensive and targeted subsidy scheme, which successfully mitigated some of the effects of the substantial energy price surge on vulnerable population groups, although not entirely.

Given the significance of agriculture and food in Moldova, both as a source of income and a substantial portion of the consumer basket, the combined impact of the drought and war on the most vulnerable groups – rural producers, low-income consumers, and refugees – was considerable.

The outcome of food and energy inflation was a sharp decline in real wages and consumption, including basic food items and energy. While increased remittances did provide some relief in 2022, they were insufficient to counterbalance inflation and were distributed unevenly across the population. Consequently, the resulting rise in poverty rates (now at 6.6% nationwide) disproportionately affected areas outside the capital, impoverished regions, rural areas, and self-employed individuals not receiving remittances.

The refugee population also felt the strain of escalating food and energy prices. However, as the primary victims of the conflict in Ukraine, refugees benefited from numerous support programs funded by international organizations and foreign governments, which generally ensured a universal income aligned with the consumption basket, in addition to housing support. These measures were not accessible to the severely affected vulnerable segments of the local population.

Looking forward, Moldova grapples with the challenge of executing ongoing reforms to bolster competitiveness, while concurrently offering support to a sizable vulnerable population and safeguarding energy security. Nevertheless, sustained aid from international organizations is imperative to secure the required financial resources for this endeavor.

1 Economic background of Moldova and potential exposure to crises

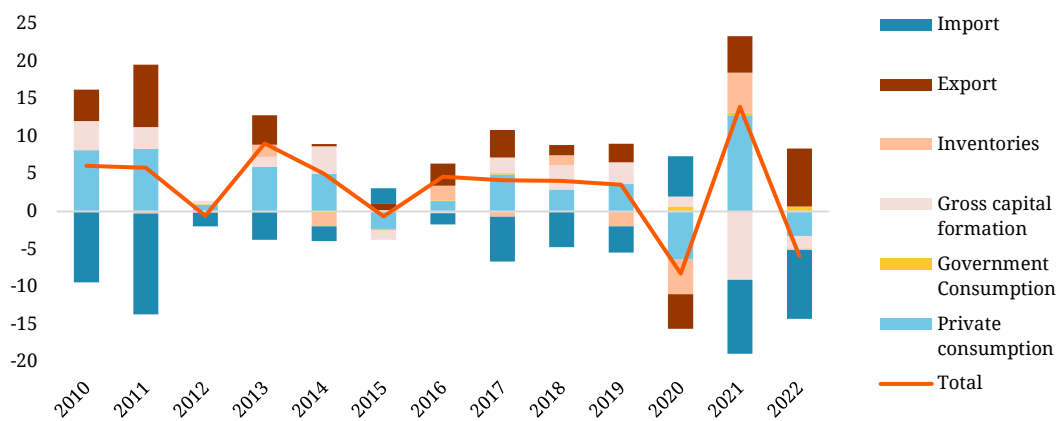
1.1 Economic growth

In the past two decades, Moldova has pursued a growth model mainly driven by remittances. This approach has led to a solid increase in GDP (Gross Domestic Product) and significant poverty reduction. Despite the notable progress, the country still faces significant underdevelopment, obstacles to growth and remains highly vulnerable to shocks, such as weather-related events, fluctuations in remittances, trade disruptions, and risk-premium changes. The recent dual shock (COVID-19 and war in Ukraine) has unveiled the vulnerability of the country.

Between 2010 and 2014, Moldova experienced a solid GDP growth rate (5.1% on average). However, since 2014 the trend growth started to deteriorate. This can be attributed to the worsening economic cooperation with Russia, which coincided with Moldova's signing of the EU Association Agreement in 2014. The deteriorating relationship with Russia led to a decline in remittances and external trade, and coupled with a banking crisis it resulted in a drop of GDP in 2015. Growth subsequently returned to positive figures but remained around 4% from 2016 to 2019.

GDP experienced a contraction in 2020 and 2022 due the impact of COVID-19 and the spillover effect of the Russia-Ukraine war (coupled with droughts affecting both years), leading to GDP contractions of 8.3% in 2020 and 5.9% in 2022 (Figure 1). In particular, the war in Ukraine caused both consumption and investments to contract, while the loss of major export markets is not visible in aggregate data due to trade-route diversions via Moldova to Ukraine. On the production side, a contraction was recorded in all major sectors.

Figure 1 - Real GDP growth (%)

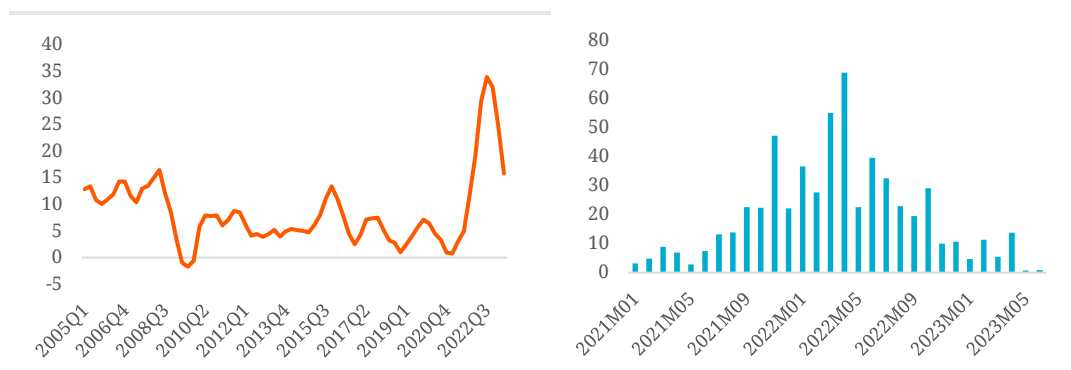


Source: National Bureau of Statistics of the Republic of Moldova, OGREsearch calculation

1.2 Inflation in Moldova

Inflation in Moldova was relatively contained in the past decade, mostly owing to historically favorable global price conditions, but also supported by the monetary policy of the National Bank of Moldova (NBM). The NBM follows a lighter version of an Inflation Targeting (IT) regime, with the inflation target for the headline inflation rate set at 5%. Although inflation has often been outside the inflation target corridor in the past ten years, the NBM has generally been able to maintain single-digit inflation with a few exceptions (Figure 2).

Figure 2 - Historical CPI inflation (in percent YoY and in annualized percent MoM)



Source: National Bureau of Statistics of the Republic of Moldova, OGREsearch calculation

This changed in 2021, as commodity and energy prices started soaring, further aggravated in 2022 by the war in Ukraine. The inflation rate peaked at 34% (October 2022), one of the highest in Europe. As of spring 2023, monthly growth in prices has ceased, implying that prices stabilized at a higher level. The impact of food and energy prices on inflation is discussed in detail in sections 2.2-2.3, and the effect of inflation on living standards is in section 3.

1.3 Political relationships and external trade

Historically, Moldova has pursued a balancing stance in its foreign affairs, seeking to maintain relations with both the East (especially Russia) and Europe. Political disagreement on the precedence of these relationships has resulted in numerous drastic policy shifts. Intentions to approach the EU were consistently opposed by Russia - it responded to Moldova's signing of the Stabilization and Association Agreement (2014) by widening the embargo on Moldovan products and imposing more stringent working permit conditions, which affected migrant workers from Moldova negatively.¹

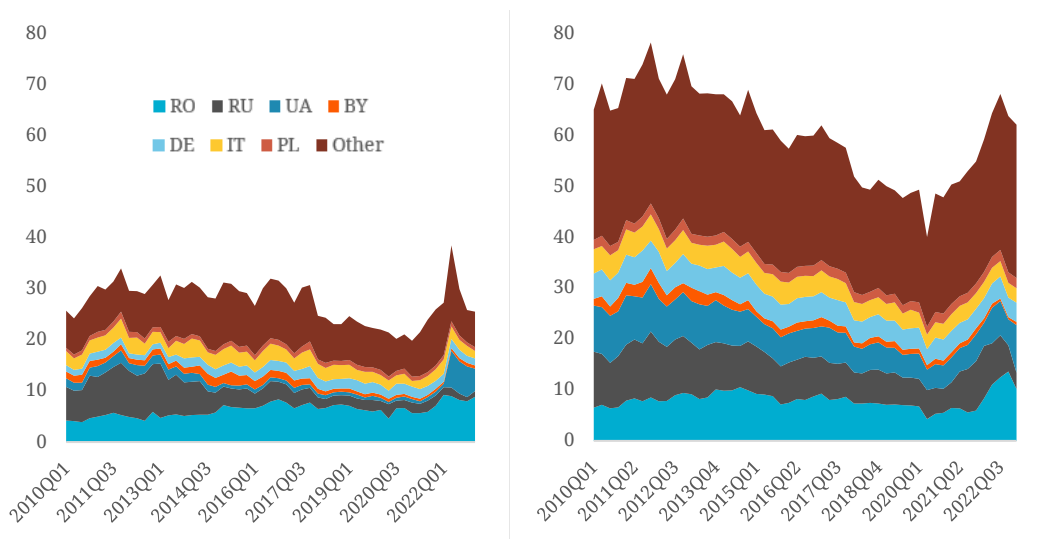
Following several swings in the political elite, the political situation stabilized after 2021, when a pro-EU party won the snap parliamentary election. Since then, the country has been taking steps to approach the West, maintaining a pro-Ukraine stance since the Russia-Ukraine war started. Discussions about EU accession have gained momentum, and in June 2022, Moldova achieved EU candidate status.²

Trade relationships have mirrored the political shifts in Moldova, as the trade has gradually shifted in favor of the EU (Figure 3). In 2019, Russia still ranked as the second-largest import partner, while Ukraine held the third position. However, EU countries collectively were the largest import partner for Moldova. Among EU countries, Romania, Germany, Italy, and Poland were the most significant partners. Moldova primarily imported energy from Russia and a diverse range of goods from Ukraine, including machinery, tobacco, and food products.

Even prior to the COVID-19 pandemic and the war in Ukraine, the relative share of Russia in Moldova's import market had started to decline. In 2010, imports from Russia accounted for 15% of the total, gradually dropping to 12% for 2019. Similarly, Ukraine's share in imports also declined during this period, while trade with European countries such as Poland, Romania, and Turkey significantly increased.

In terms of exports, Russia was the third-largest export partner in 2019, while Ukraine was the seventh-largest destination for Moldovan exports. Once again, the EU emerged as the primary export destination. Moldova mainly exported vegetable goods, chemical products, and wine to Russia, while the range of exported goods to Ukraine remained diverse.

Figure 3 - Export and import (rhs) of Moldova (% of GDP, seasonally adjusted)



Source: National Bureau of Statistics of the Republic of Moldova, OGREsearch calculation

Exports to Russia also experienced a significant contraction in the past years. The relative export share of Russia dropped from 26% to 9% between 2010 and 2019. Ukraine's export share also declined from 6% to 3%. Conversely, exports to European countries, especially Romania, saw a notable increase.

1.4 Budget balance, current account, and financing

Moldova maintained a relatively prudent fiscal policy before the shocks of COVID-19 and the war in Ukraine. The budget deficit averaged below 2% of GDP between 2010 and 2019, the smallest among peer countries. The revelation of the bank fraud in 2014-2015 did shake the fiscal position somewhat, but the government managed to secure support from IFIs to calm the pressure.

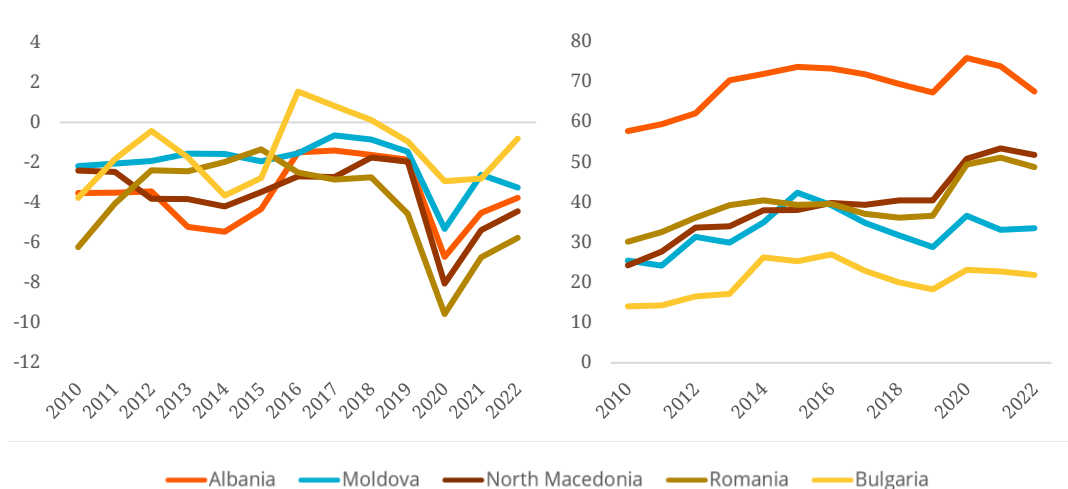
As a result of the relatively prudent fiscal stance, public debt has remained at a sustainable level of around 35% of GDP, low compared to peer countries. A large part of the public debt consists of long-maturity debt, primarily in the form of concessional debt. While this debt structure further reduces fiscal risks, a lack of access to international capital markets is hampering the development of productive capital.

However, structural issues hinder the public sector from effectively stimulating economic activity. Both capital and current expenditures are typically under-executed due to the state's low capacity. Tax collection is relatively modest, due to a narrow tax base because of unfavorable GDP and employment structure, significant tax exemptions, and a sizeable informal sector.

Recent shocks, the COVID-19 pandemic and the economic crisis triggered by the Russia-Ukraine war, have deteriorated the fiscal position (Figure 4). The budget deficit increased to 5.3% of GDP in 2020 and was 3.3% of GDP in 2022, due in part to energy

and population support measures (see Section 4). The buffers built up in the pre-crisis period were sufficient to keep the debt increase moderate.

Figure 4 - Budget deficit and public debt (% of GDP)



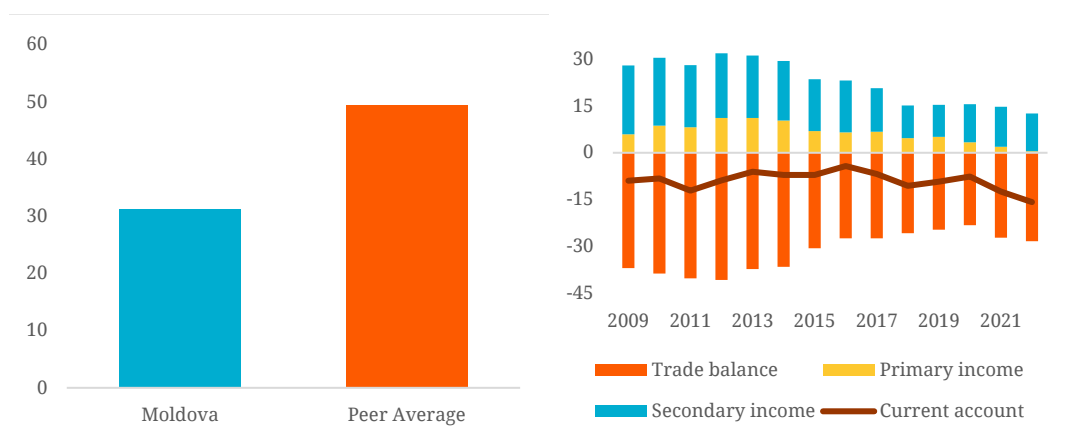
Source: International Monetary Fund (IMF) - World Economic Outlook

Historically, the current account balance remained strongly negative, averaging 7% of GDP between 2010 and 2019, despite the significant inflow of remittances to the country (Figure 5). As a result of the unfavorable business environment, the country is not utilizing its competitive advantages and export potential.

With the energy crisis and the Ukraine war, the external position deteriorated further. In 2022, the current account deficit widened to 15.8% of GDP, nearly double the long-term average. This is mainly attributed to deteriorating goods and services balance due to the energy price effect, but also drought and loss of important markets.

On the financing side, investment sentiment towards Moldova is moderate, resulting in low foreign direct investment (FDI) levels, which are among the lowest compared to peer countries (averaging only around 3% of GDP annually between 2010 and 2021).

Figure 5 - Export of Moldova and its peers in 2019 (% of GDP) and Moldova's current account (% of GDP)



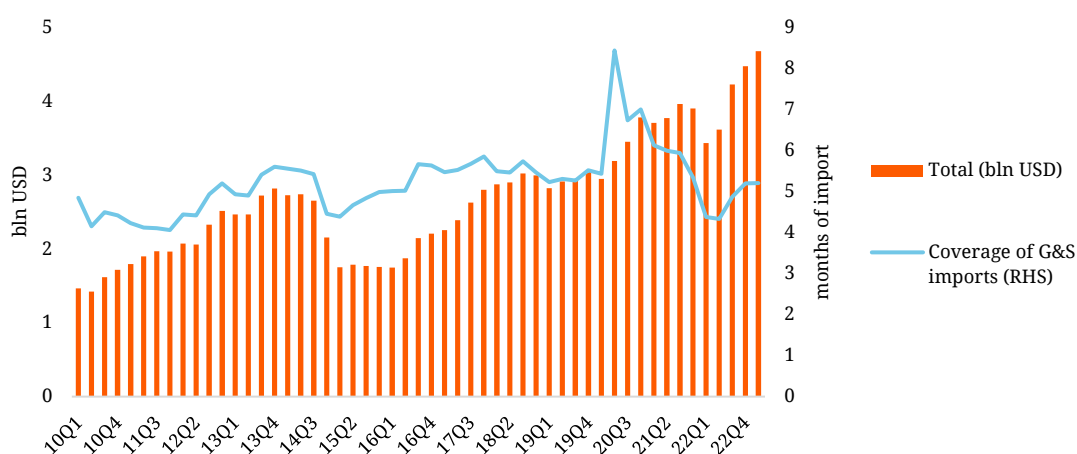
Note: Peer country group includes Albania, Bulgaria, North Macedonia, and Romania

Source: WB World Development Indicators, OGREsearch calculation. IMF BoP statistics

To bridge the external financing gap, Moldova relies on external loans (averaging 2% of GDP between 2010 and 2021).² These financial inflows have been sufficient so far and have enabled the authorities to maintain foreign exchange (FX) reserves at a relatively stable level over the years at approximately 5 months of import (Figure 6).

External financing needs increased sharply due to the widening current account deficit in 2021-2022, which was largely financed by government loans used to pay for energy imports and support both the local and refugee population.

Figure 6 - International reserves of the National Bank of Moldova



Source: National Bank of Moldova, OGREsearch calculation

1.5 Weaknesses of the remittance-driven growth model

The remittance-driven model provided significant growth in previous years but has its limitations. The scarcity of domestic employment opportunities, low investments, and failure to diversify the economy away from agriculture and develop an export-focused manufacturing sector contributed to exposure to geopolitical, energy, and climate risks, which are discussed in the next section.

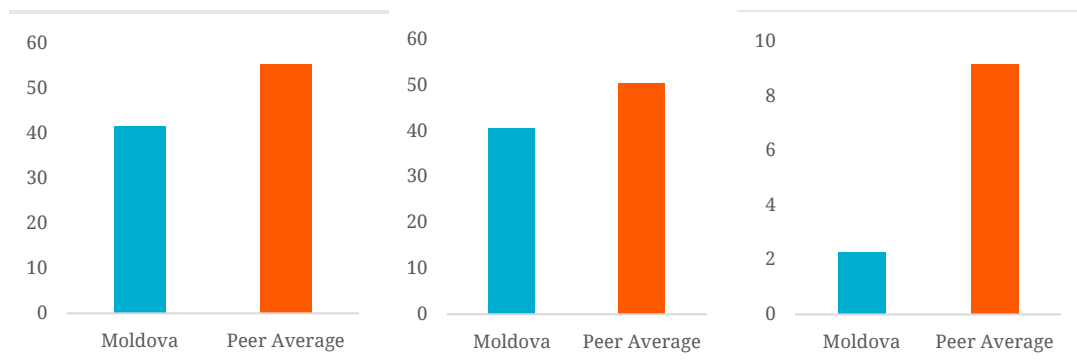
The output of an economy depends on the available productive factors (labor and capital) and the overall productivity of combining these productive inputs to create value added (i.e. technology). Labor, capital, and technology (referred to as total factor productivity, or TFP in the economics literature) are called the structural determinants of growth. In what follows, we provide a brief overview of the absolute and relative

² Large currency and deposits inflows are also a substantial item on the financial account (averaging 3% of GDP between 2010 and 2021), which are likely related to the trade with the Transnistrian region and money inflows from citizens working abroad.

contributions of these determinants on overall growth (Figure 8), to shed light on the structural bottlenecks holding back economic activity in Moldova.

Labor: In line with the high share of the Moldovan labor force working abroad (25%), the overall domestic participation and employment levels are both among the lowest in the CEE region (42% and 41% in 2021, Figure 7). Given the low supply and the apparent labor market mismatches, companies generally perceive inadequate labor force as the most severe obstacle they are facing.³

Figure 7 - Participation, employment and unemployment rates in 2022



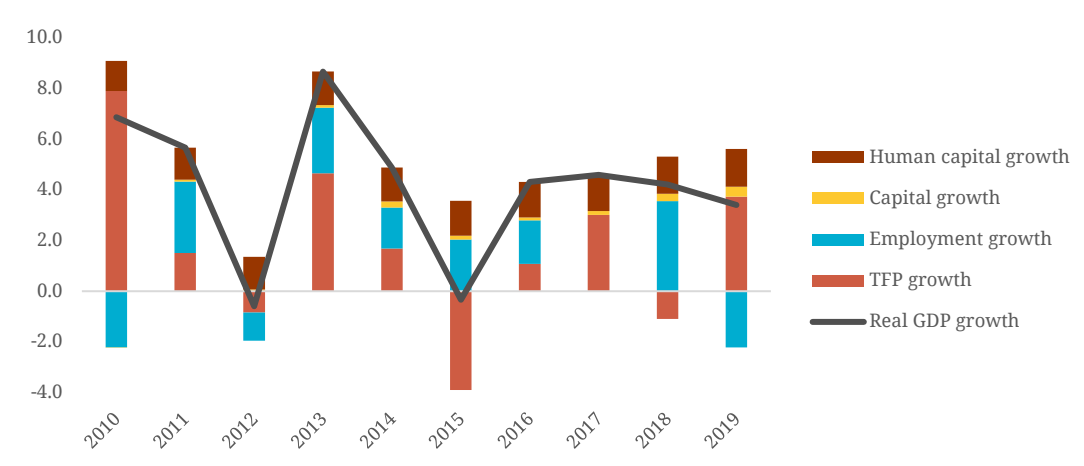
Note: Peer country group includes Albania, Bulgaria, North Macedonia, and Romania

Source: WB - World Development Indicators, OGREsearch calculation

Human capital: Improvement in human capital (effect of schooling) contributed positively to overall growth, averaging 1.3%. On the other hand, the positive effect of labor force participation growth was only moderate, averaging 0.9%, as the country faces significant labor issues; the population is aging, and there is substantial migration outflow, resulting in a 14.6% decline in working age population between 2012 and 2022, particularly in rural areas.⁴ Moreover, the gap between urban and rural areas are significant in terms of human capital improvement (the latter scored higher on the 2018 PISA test by an equivalent of two grade levels).⁵

Capital: The level of capital formation per capita is one of the lowest in the region, reflecting weak public capital execution and an overall meager private investment sentiment toward the country due to institutional problems and political uncertainty.⁶ Not surprisingly, the increase in the capital stock contributed on average only 0.2% to the growth from 2010 to 2019.

Figure 8 - Growth Decomposition with Human Capital (100*logdiff)



Source: Penn World Table, OGREsearch calculation

TFP: Labor productivity (GDP per worker) has consistently been lagging behind country peers, reflecting profound issues with overall productivity and technological adaptation. Total factor productivity growth in the last decade was quite volatile, averaging around 1.5% between 2010 and 2019. This implies that on average, the country has benefitted from some productivity improvements. However, productivity improvements have clearly slowed compared to the previous decade. This indicates that there are significant institutional bottlenecks that still prevent the country from utilizing its labor force and capital stock more efficiently. These bottlenecks⁷ include:

- The state-owned enterprise (SOE) sector is large but exhibits a low level of productivity.
- Low administrative effectiveness of the state.
- Widespread corruption.³
- Poor access to finance for productive SMEs
- Skill mismatches in the labor market.
- Large informal sector (around 25% of the economy)
- Unfortunate location, poor geopolitical conditions, and high transport costs prevent large inflows of FDI.
- There is a lack of FDI-fueled development which was characteristic for much of the CEE region and one of the main channels of transferring technology and know-how needed to develop a competitive market economy.

³ Corruption became evident in 2014 during a large-scale banking fraud, prompting the National Bank of Moldova (NBM) to provide a substantial bailout (about 12% of GDP) in early 2015.

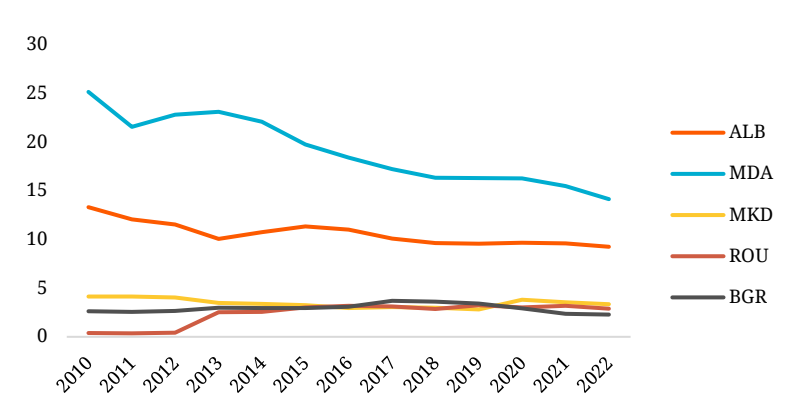
1.6 Fundamental risks

As a result of the low employment and low diversification⁴ of its production and trade, Moldova's economy is highly vulnerable to external and domestic shocks, particularly changes in supply and prices of energy and food, and geopolitical shocks. The structure of the economy is such that large shares of the population are strongly affected by these shocks, putting a strain on social safety nets. The following paragraphs discuss the most significant structural risks.

Remittances

Although remittances are declining, Moldova remains one of the most remittance-dependent countries in Europe (Figure 9). Remittances play a crucial role in households' income, particularly in rural areas, where they accounted for 14% of the total income in 2022. The heavy reliance on remittances implies that disposable incomes are not only contingent upon the business cycles of external countries but also on financial cycles, exchange rates, and geopolitical shocks. Therefore, events such as the banking crisis in 2008 or political tensions with Russia had a substantial impact on a large portion of households' revenue.

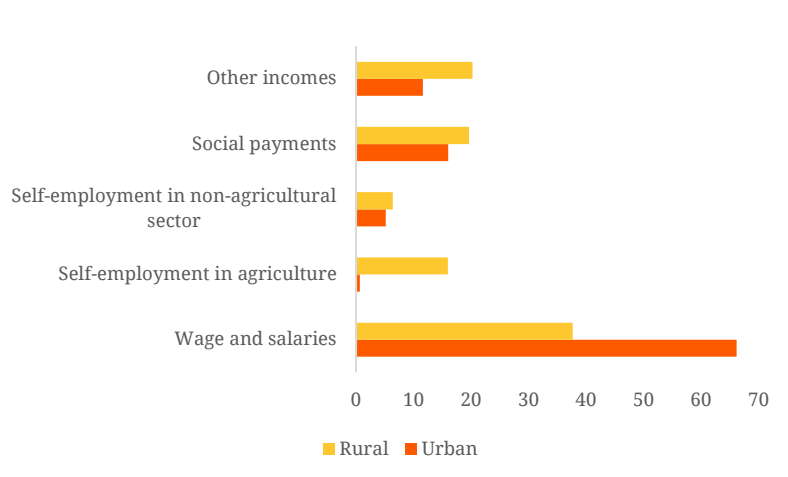
Figure 9 - Personal Remittances (% of GDP)



Source: WB - World Development Indicators

⁴ Based on OEC Economic Complexity index, Moldova has one of the least complex trade structure among peer countries.

Figure 10 - Disposable income categories (2019Q1, % of total)



Source: National Bureau of Statistics of the Republic of Moldova, OGREsearch calculation

Considering other sources of income, the vulnerability of rural households becomes even more apparent (Figure 10). This is primarily due to the low wage and salary income of these households, making them particularly reliant on remittance inflows, revenue from the volatile agriculture sector, and social payments. With a large share of the population being exposed to unreliable income sources, Moldova has the highest poverty ratio in Europe (14% of the population living below USD 6.85 a day, Figure 12) – but is still significantly better off than the typical low-income countries in the world.

Figure 11 - Disposable income categories (% of total)

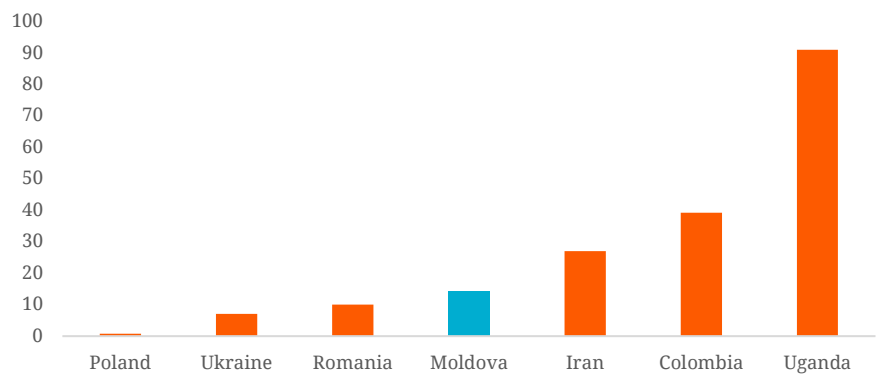


Source: National Bureau of Statistics of the Republic of Moldova, OGREsearch calculation

In recent years, the share of remittances has continued to decline in rural households, while the share of wages and salaries has remained low (Figure 11). As a result, there has been a significant increase in households' income share from social payments. This increase in social payments was primarily driven by an increase in pensions and the implementation of temporary social support measures by the government. In 2022Q4, almost 30% of the total disposable income came from social protection in the

rural side of the country. The switch from remittance to social transfers can impose a significant fiscal risk.

Figure 12 - Poverty headcount ratio below \$6.85 a day (at 2017 PPP prices)



Source: World Bank – World Development Indicators

Agriculture and food production

The agriculture sector, while declining as a share, still accounts for more than 10% of Moldova's GDP, which is one of the highest in the peer group (Figure 14). It also constitutes a significant labor share, with around 20% of the workforce employed in this sector, and 35% of total employment – the highest among European countries.⁸ Additionally, agricultural products make up almost half of the country's exports. The high employment in the sector contributes to low overall productivity in the economy and a narrow tax base and exposes a large share of the population to volatile income streams.

Figure 13 - Agriculture sector GDP growth (%)



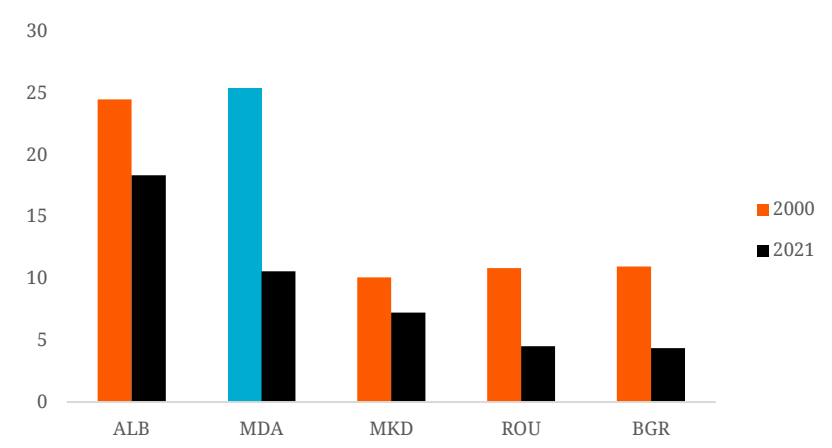
Source: World Bank – World Development Indicators

Moldova is particularly susceptible to weather and climate change shocks. Approximately 75% of the national territory is comprised of dry lands, making the region prone to frequent drought events. Additionally, floods pose a considerable

risk.⁹ Due to the lack of advanced resilience techniques, agriculture output in Moldova is the most volatile among peer countries, contributing to overall GDP volatility (Figure 13). Droughts affected the sector in 2020 and 2022, which together with high fertilizer and fuel prices (in 2022) resulted in a significant drop in agriculture production.

Changes in global commodity prices due to geopolitical and other factors strongly affect Moldovan households, owing to a high reliance on agriculture as a source of income, as well as a high share of food in the consumption basket.

Figure 14 - Agriculture sector share in GDP (%)

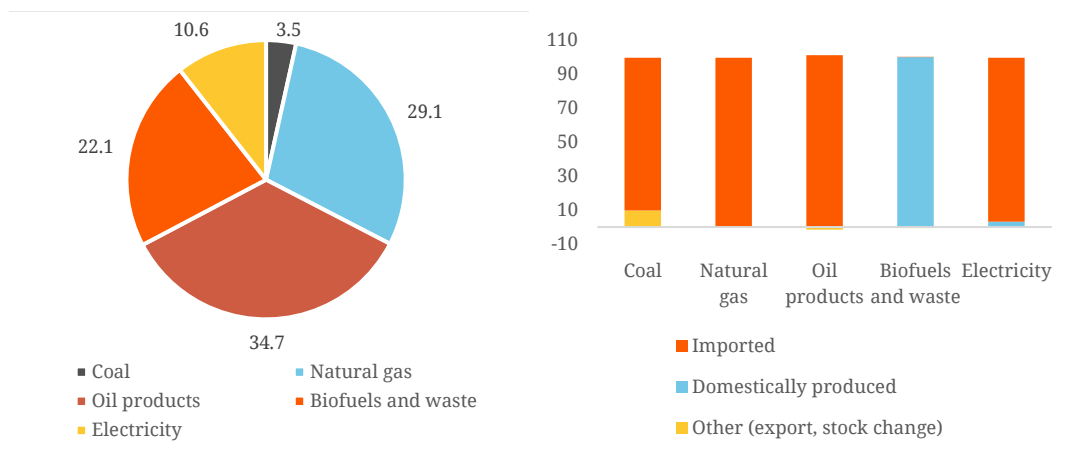


Source: World Bank – World Development Indicators

Energy sector

The energy mix in Moldova consists primarily of natural gas and oil products, with significant contributions from biofuels and waste. While the agricultural sector directly uses oil products as energy input (and gas through fertilizer), the industrial sector is more gas and electricity-dependent, and the households rely on firewood and other biofuels/waste (almost 50%) as the main energy source (Figure 15). Overall, the Moldovan economy is heavily exposed to the global price of gas and oil products, as generally 71% of final energy consumption (including electricity generation and heating) relies on these sources.

Figure 15 - Energy supply composition by type (% of total TES) and by source (% of total), 2019



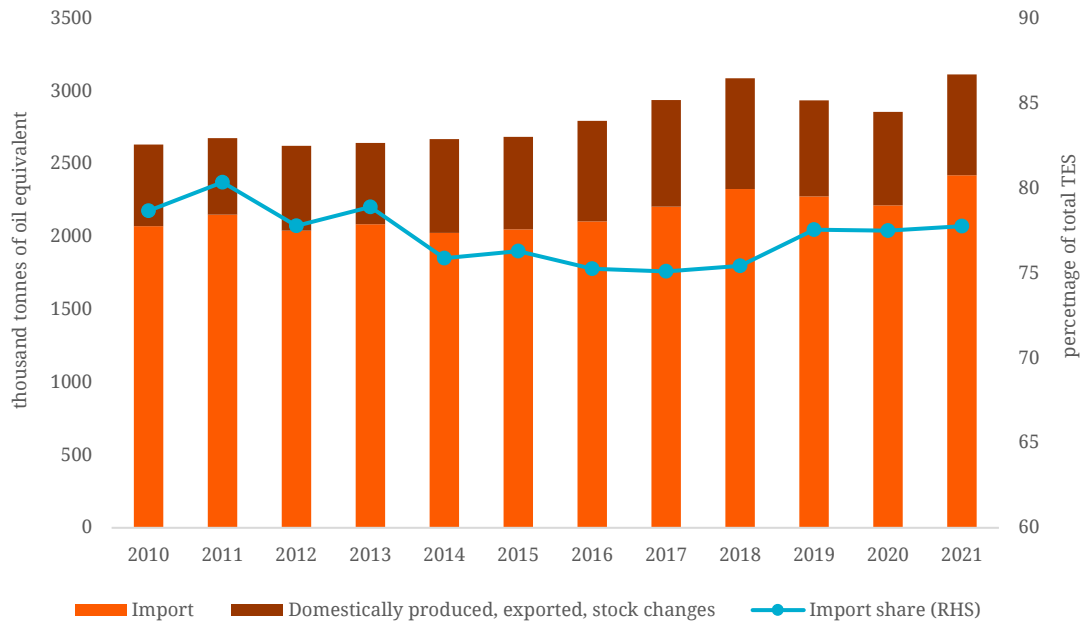
Source: National Bureau of Statistics of the Republic of Moldova, OGREsearch calculation

Most of the energy consumed in Moldova is imported, including virtually all supplies of coal, gas, and oil. Moreover, 74% (in 2021) and up to 95% of electricity in summer is produced from imported gas in the breakaway region of Transnistria, complemented by electricity imports from Ukraine.¹⁰ As of 2021, 77% of the total energy supply was imported, in case electricity from the Transnistrian region is also accounted for as an import (Figure 16).⁵

Prior to the war in Ukraine, the main energy exporter was Russia, which accounted for imports of all natural gas (including the quantity needed for electricity production), as well as a significant share of oil. According to the estimations of the German Economic Team, approximately 60% of the total energy supplies (TES) came from Russia.¹¹ Due to Moldova's turbulent political relationship with Russia, this dependence was a source of significant geopolitical risk for Moldova. The impact of the war on energy supply and prices is discussed in sections 2.1 and 2.2.

⁵ Demographic and economic data do not include the breakaway Transnistrian region.

Figure 16 - Total energy supply (TES)



Source: National Bureau of Statistics of the Republic of Moldova, OGREsearch calculation

2 Immediate impacts of the war in Ukraine on Moldova's economy

Moldova has faced severe repercussions from the war in neighboring Ukraine and destabilization attempts from Russia, which compounded the core vulnerabilities of the economy identified above. An energy crisis emerged, accompanied by a crisis in global food prices and a significant inflow of refugees. These factors, along with shaken investor confidence, led to a decline in economic activity (5.9%), a rapid acceleration in inflation (peak 34.6%), and a fall in living standards, as well as a widening of the current account deficit to 13% of GDP. The country managed to avert a full-blown crisis and cope with the most severe direct impacts of the war, helped by substantial international assistance. However, the situation remains precarious, with significant risks surrounding both fiscal and external balances, as well as the domestic socio-economic outlook.

2.1 External trade

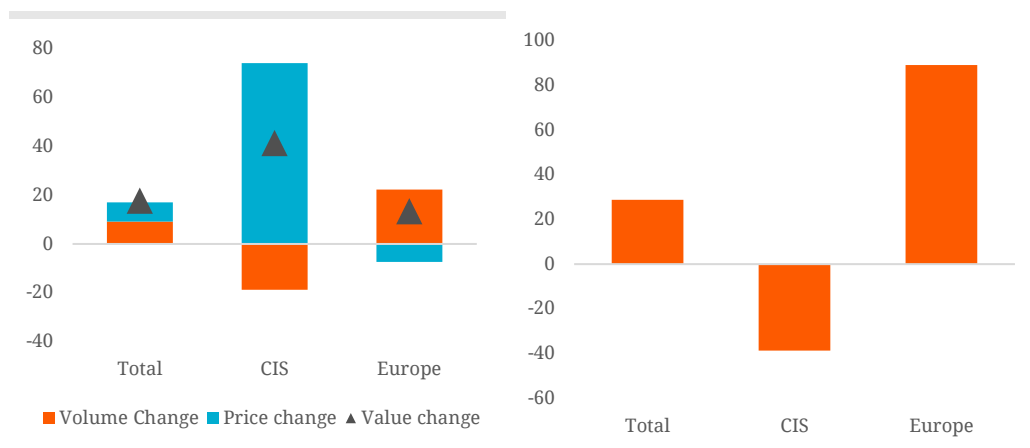
The war had a direct impact on Moldova's external trade. Immediately after the outbreak of the war, export volume surged by 23% in 2022. This increase can be attributed largely to trade reallocation, where products intended for Ukraine were redirected through Moldova using land transport, thus re-exports increased. Export products that saw an increase in sales to Ukraine included fuel and oils, machinery, transportation equipment, and food items. In contrast, exports value to Russia experienced a significant drop of over 30% year on year in 2022. Furthermore, partly due to a good harvest in 2021, which was sold in the first half of 2022, and the reallocation of exports from Russia to Europe, there was a significant increase in exports to the European Union in 2022. The import volumes show a similar pattern, with a significant increase in import value due to the war. This increase is primarily driven by worsened terms of trade, especially in energy prices, and trade route reallocation (Figure 17).

The most significant impact of the war in Ukraine was observed in the energy sector. As Moldova's political sentiment shifted in favor of Ukraine, Russia began to reduce gas supply (and increase prices) to Moldova in the second half of 2022 and completely

stopped exporting gas to Moldova in 2023. Additionally, in November 2022, the electricity generator located in the Transnistrian region ceased sending electricity to the right bank and Ukraine stopped exporting electricity in November 2022 due to the destruction of capacity.

This situation posed a challenge to energy security, prompting Moldova to diversify its energy portfolio in favor of European countries to avoid shortages. Authorities accumulated gas reserves in Ukraine and Romania from European sources (see policy response section), while electricity imports from Romania (at much higher prices) were enabled by the prompt joining of the European transmission system. Also, as local experts confirmed, a large combined heat and power plant (representing ~ 30% of total gas consumption) switched to alternative energy sources.

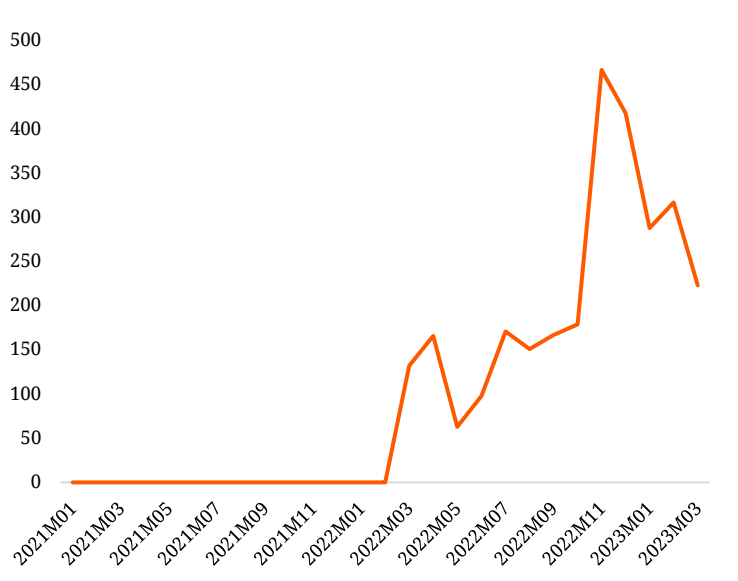
Figure 17 - Total import growth (%) and mineral product import volume growth in 2022 (%)



Source: National Bureau of Statistics of the Republic of Moldova, OGREsearch calculation

By 2023, energy security stabilized. According to an agreement between Moldova and the Transnistrian region, Russian gas continues to be shipped to Transnistria (unpaid), but not to the right bank (Moldova proper). Imports of electricity from Transnistria resumed in 2023, and in March 2023, 88% of the electricity was imported from Transnistria, 10% was produced domestically and the rest was imported from Romania (Figure 18). Thus, although indirectly and to a lesser extent, the country continues to rely on Russian gas through electricity production.

Figure 18 - Electricity imports from Romania (average hourly netted physical flow values measured in GWh)



Source: ENTSOE

This shift in imports toward European sources is reflected in the data, as mineral import volumes from CIS countries (mainly Russia) dropped by 40%, while mineral volume imports from Europe increased by 90%. Although the import value from CIS countries increased, this was solely driven by the price effect. The social effect of the higher energy prices is discussed in the following section.

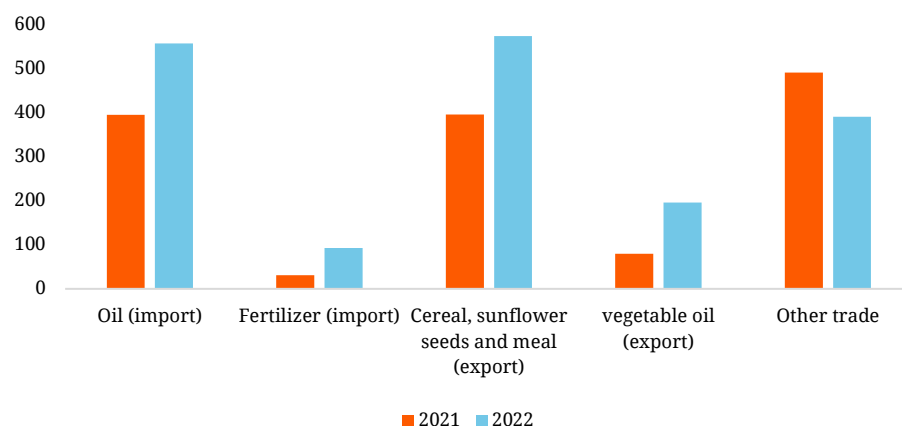
Relocation of trade routes

Due to the war and trade sanctions, there has been a significant shift in trade routes, which can be observed at a micro level through changes in port turnovers.

Odesa port: The turnover of the Ukrainian Odesa port has been significantly affected by the war, with Russia blocking most of the trade via this port since the war began. Odesa was an essential port for Moldova as well, serving as a major logistics center for both exports and imports.¹² The extent to which Moldovan trade through this port was affected remains unknown. Based on government sources, Moldova managed to switch to alternative transportation channels, but it resulted in higher transportation prices.¹³

Giurgiulesti port: Giurgiulesti port in Moldova, being linked to international waters, became one of the destinations where cargoes switched to from Ukrainian ports. As a result, trade at Giurgiulesti port doubled in 2022 (Figure 19).

Figure 19 - Cargo trade via Giurgiulesti International Port (thousand tons)



Source: Giurgiulesti International Free Port (GIFP)⁴, OGRResearch calculation

2.2 Price effect of the war

The surge in food and energy prices increased the costs of living in Moldova both directly and indirectly (through the growth in other prices). Headline inflation peaked at 34% - exceeding not only EU countries but also regional peers including Ukraine (Figure 22).

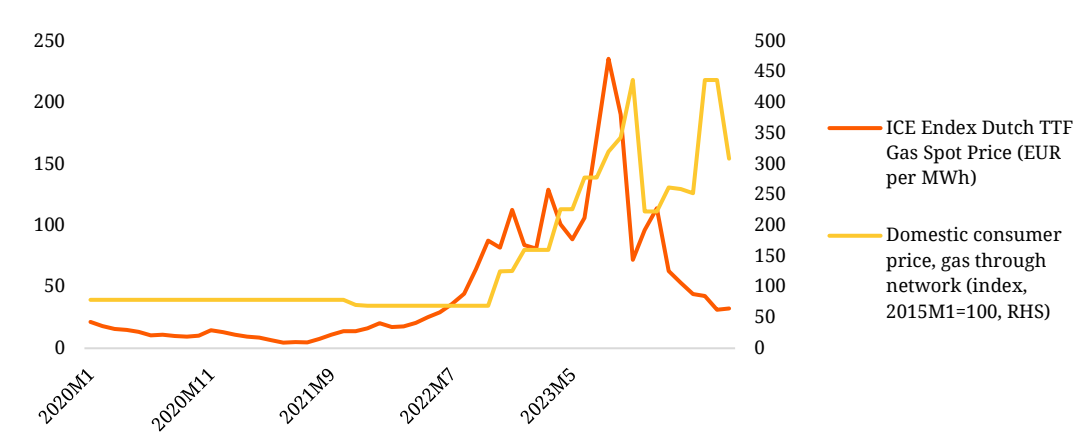
Energy price effect

While the security of supply was stabilized through diversification (discussed above), import prices of energy skyrocketed. The tenfold increase in global gas prices in August 2022 compared to a year earlier was strongly transmitted to domestic prices, placing heavy burdens on households and businesses. Current rates (paid by non-vulnerable households) remain almost 350% higher than two years earlier.

Domestic fuel prices followed the global trends, nearly doubling by mid-2022 compared to 2020 levels and currently standing 45% above their mid-2021 levels (Figure 20).⁶

⁶ The Brent oil price exceeded USD 110 per barrel in during mid-2022, and stayed around USD 80 even recently, which is significantly higher than the price in the preceding years (USD 55 on

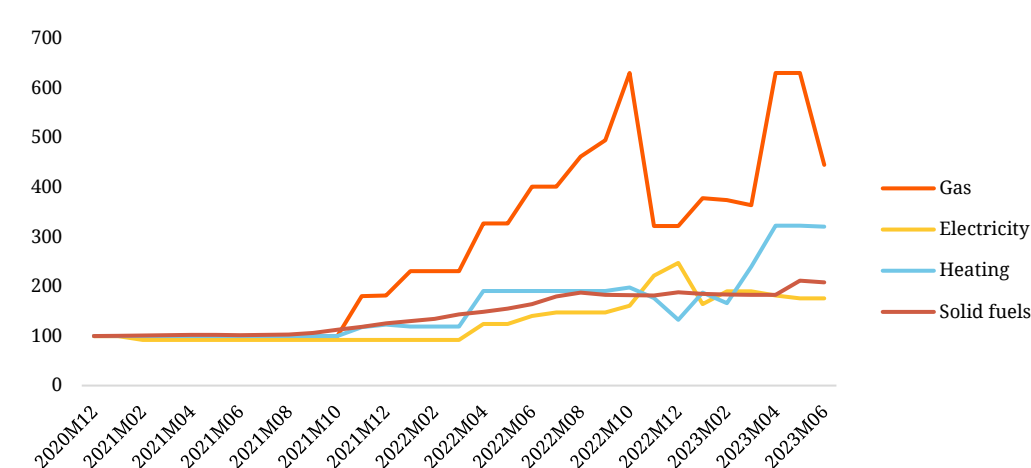
Figure 20 - Global and domestic gas prices



Source: Reuters Refinitiv, National Bureau of Statistics of the Republic of Moldova

The diversification of the electricity supply also came at a cost, the electricity imported from the Transnistrian region cost around €60/MWh, while the average price of energy imported from Romania in November 2022 exceeded €230/MWh.¹⁵ In response to cost pressures the authorities increased administered electricity tariffs: domestic non-vulnerable consumer prices went up by more than 160% by the end of 2022 compared to 2021, and, after some moderation, they remained almost 100% higher than the 2021 prices (Figure 21).

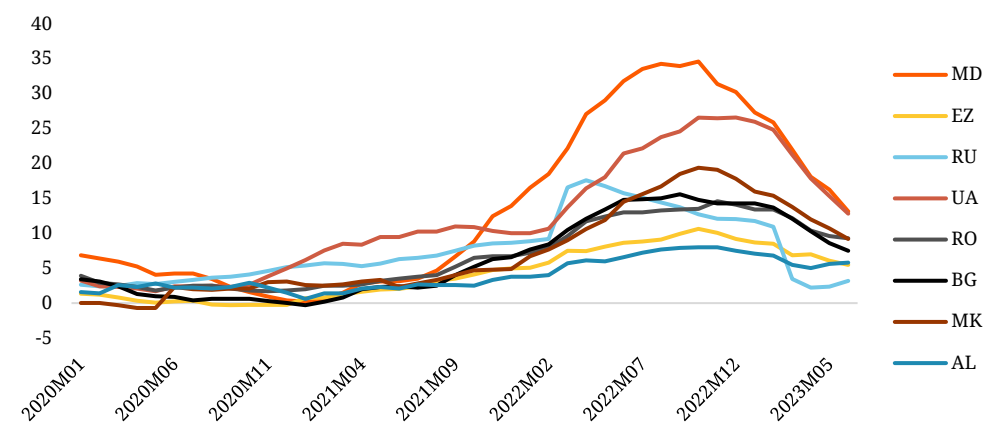
Figure 21 - Consumer energy prices (index, 2020M12 = 100)



Source: National Bureau of Statistics of the Republic of Moldova

average in 2015-2020). Moldova imports oil products from Romania, which stopped using Russian crude oil as input, hence the Brent remained relevant as indicative price.

Figure 22 - Regional CPI inflation comparison (% YoY)



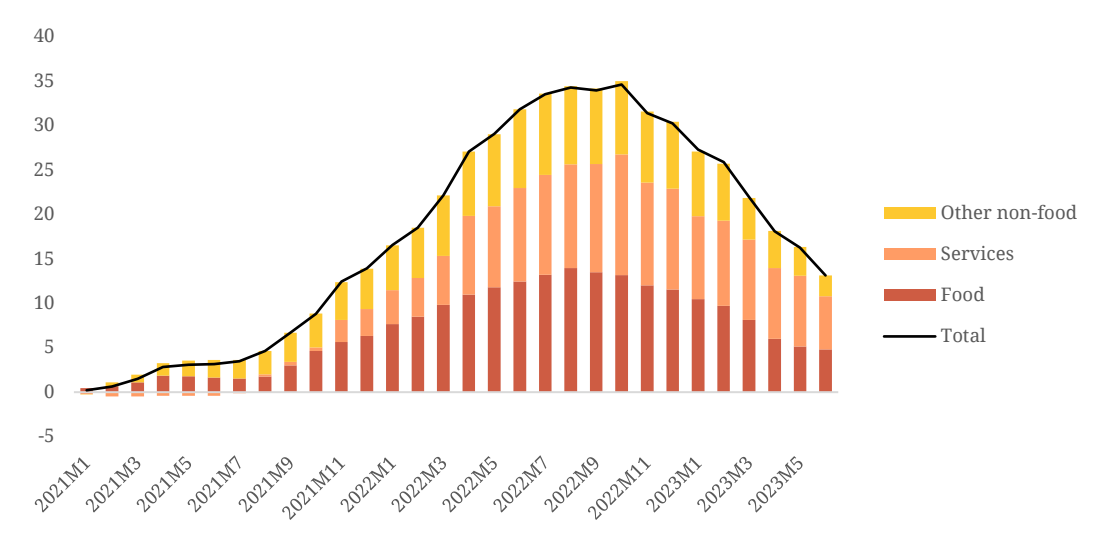
Source: Eurostat

Food price effect

As a result of the war and blockages of Ukrainian ports, global cereal prices increased to record highs in 2022. Although Moldova is usually a net exporter of food, the poor 2022 harvest caused larger food imports from mid-2022 at very high prices. Farmers' costs were further boosted by the skyrocketing prices of fertilizers and fuel, which also contributed to the increase in food prices. Food inflation peaked at 38% in August 2022.

With food carrying a much larger weight in the consumer basket relative to EU countries (36.7% vs. 17.3%), rising global food prices have directly contributed to higher overall inflation in Moldova (Figure 23).

Figure 23 - Contributions to headline inflation (% YoY)

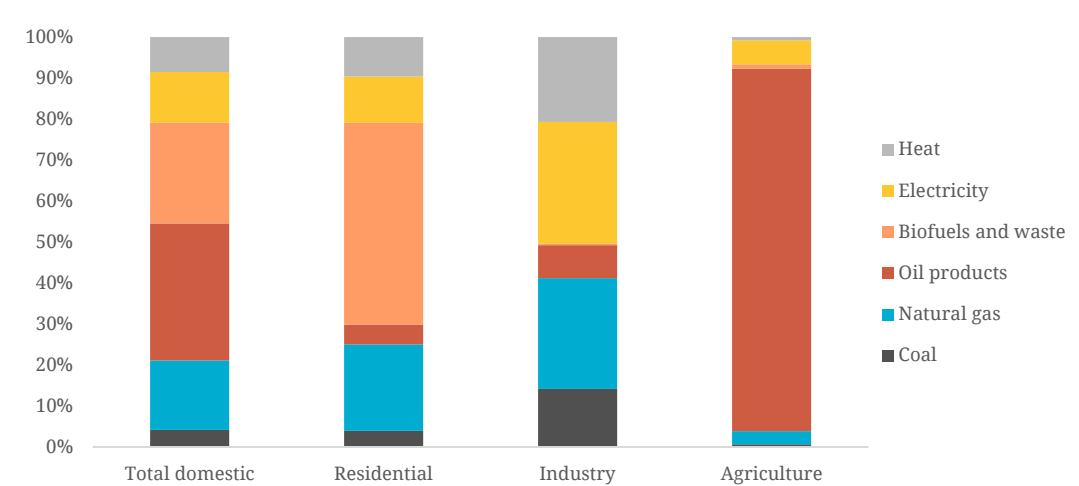


Source: National Bureau of Statistics of the Republic of Moldova, OGREsearch calculation

Indirect effects of food and energy prices on other sectors

The indirect effect of imported energy prices can be approximated by energy intensity (energy use per unit of GDP), where Moldova ranks higher than most peer countries - Bulgaria, Romania, Albania, and North Macedonia – but lower than Serbia and Ukraine.¹⁶ Almost 30% of the energy used as input in the industrial sector is gas, and another 30% is electricity, (Figure 24) which is produced almost entirely from gas, making the production of manufactured goods more expensive, as evidenced by the increase in producer prices of 35% in October 2022. Ultimately, the second-round effects of commodity prices were transmitted to core inflation, which peaked at close to 20% in October 2022.

Figure 24 - Energy consumption shares in different sectors (%)



Source: National Bureau of Statistics of the Republic of Moldova

3 Household and firm reactions to the soaring prices

Households were severely affected by the changes in price level and real incomes. While the aggregate erosion of purchasing power was significant, the effect was more pronounced for vulnerable groups (rural, self-employed, those from a poor region, and non-remittance recipients). This section illustrates the social impact of price increases on the whole population and relevant subgroups, as available in the data and information from interviewed experts.

3.1 How inflation affects economic decisions

Economic theory suggests that inflation affects the decisions of households and firms in multiple ways. Rising inflation erodes the purchasing power of money, leading households to reduce their spending, impacting consumption negatively. At the same time, quick erosion of the value of money makes saving opportunities less appealing. High inflation introduces uncertainty in the economy, making businesses more hesitant to invest in long-term projects or capital expenditures. This can lead to a slowdown in overall investment, further affecting economic growth negatively. In the past year, Moldovan households and businesses reacted to the increasing prices accordingly. On the aggregate level, this can be seen through the negative contribution of both consumption and exports to GDP growth in 2022.

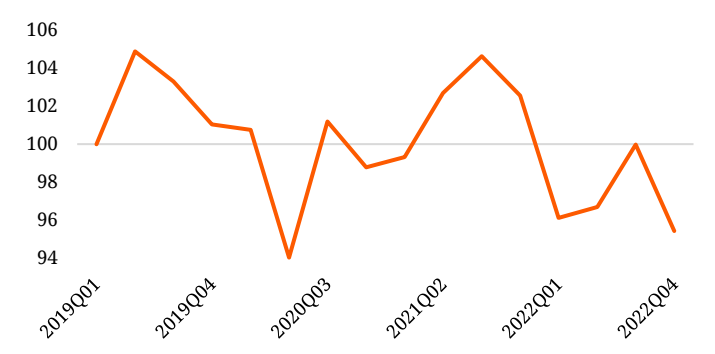
On a micro level, except for the aggregate real wage effect, changes in prices also have an expenditure-switching effect. Typically, a rise in prices causes consumers to cut spending on less essential items (such as recreation or non-essential travel) compared to basic items such as food and energy (even if the prices of food are going up).

In addition, central banks' reaction to inflation (which is dominantly driven by demand shocks) typically involves an increase in interest rates which through the channels of the monetary transmission mechanism causes further reduction in aggregate demand.

3.2 Change in consumption patterns

Increasing prices and tighter monetary conditions put a toll on households' consumption, which declined in 2022 on average by 3% in real terms (Figure 25). This has been more pronounced in food consumption, where data shows a 13% annual decline for 2022Q4 – especially for rural households, where the drop reached 15%. The decreasing food consumption affected all types of food products (see Table 1 for more details), but the cut was one of the heaviest for vegetables (-10.5%).

Figure 25 - Real household consumption (index, 2019Q1 = 100)



Source: National Bureau of Statistics of Moldova and OGREsearch calculation

The decline in food consumption, including basic items such as vegetables, oil, and potatoes is significant and should be viewed as an indicator of the severity of the crisis. Cuts in basic food consumption are typically involuntary and indicate high poverty risk. They also indicate a lack of buffers in the form of household savings.

Table 1 - Yearly change in household food consumption (%)

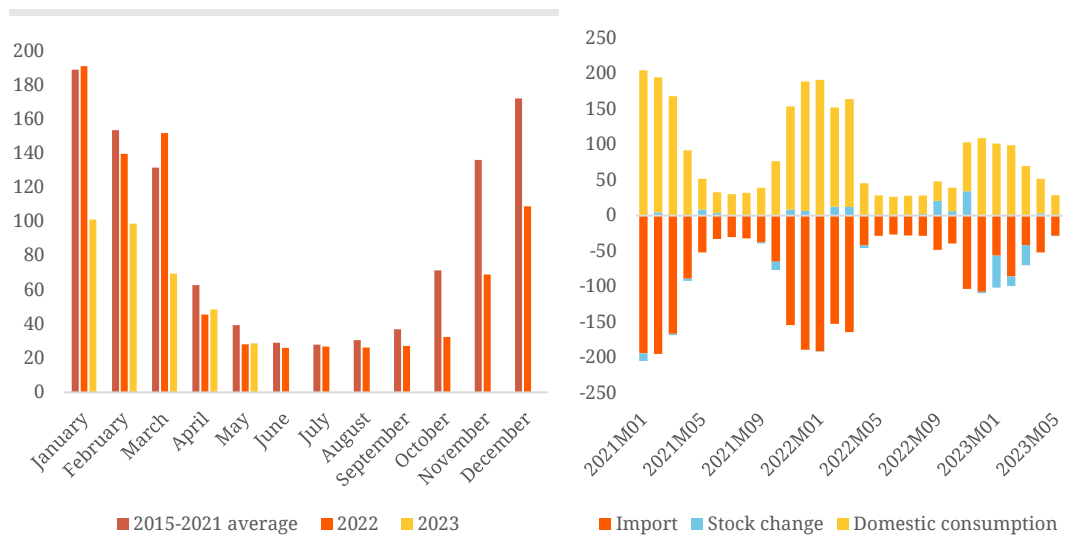
| Food product category | 2020 | 2021 | 2022 |
|-----------------------------------|------|------|-------|
| Bread and bakery products | 0.5 | -3.5 | -6.4 |
| Meat and meat products | 4.0 | 0.0 | 1.6 |
| Milk and dairy products | -0.2 | -3.1 | -3.0 |
| Oil | 0.0 | 2.6 | -14.4 |
| Eggs | 1.0 | -3.1 | -0.9 |
| Sugar and confectionery | 1.0 | 2.9 | -10.0 |
| Fish and fish products | 0.6 | 1.1 | -7.9 |
| Potatoes | 1.9 | 6.0 | -9.2 |
| Vegetables and vegetable products | 3.3 | 3.2 | -10.5 |
| Fruit and fruit products | 1.6 | 0.9 | -0.9 |

Source: National Bureau of Statistics of Moldova and OGREsearch calculation

Energy consumption patterns have also changed due to the increasing prices. This has especially been pronounced in household gas consumption, which reached only 55%

of the 2015-2021 average in the October 2022 – March 2023 period (Figure 26).⁷ This decline is due to a combined effect of higher prices, a milder winter, and active energy conservation measures, and was accomplished through temperature reduction and switching to alternative fuels. Gas rationing measures were not required as, in September-November the government was able to fill gas reserves, which would not have been possible if demand exceeded the available gas supply (Figure 26). Significant gas savings also resulted from municipal heating plants (a large share of national consumption) switching from gas to alternative fuels such as heavy oil, which was also the case with some industrial users (gas price was not subsidized to industry).

Figure 26 - Household gas consumption (million m³) and gas balance (million m³)



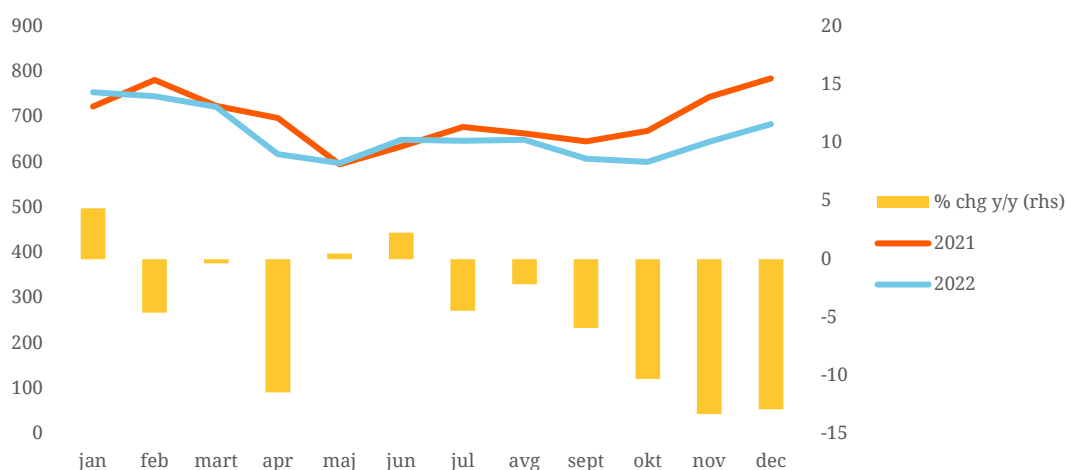
Source: National Bureau of Statistics of Moldova

In electricity consumption the same pattern can be observed, to a much lesser extent: households used 5% less electricity in October-March than the 2015-2021 average (Figure 27). This is not surprising given the fact that electricity prices increased significantly less than gas prices. Although household consumption data is not available for other energy types, data for the whole economy shows that other types of energy sources don't share the same pattern as gas consumption. Although widespread substitution is difficult, these energy sources could have served as a cheaper alternative for some households. The lack of data makes it difficult to quantify how much firewood consumption increased, but local experts confirmed that it has been the most widely used alternative energy source after gas prices started to soar.⁸

⁷ Overall gas consumption in the economy has shown similar pattern.

⁸ Last available data is from 2021.

Figure 27 - Actual total electricity load (MW hourly avg.)



Source: National Bureau of Statistics of Moldova

3.3 Impact of the soaring prices on real income and poverty

Although the aggregate impact of high inflation on households is visible from consumption data, the effect on real wages paints an even bleaker picture. Real wages decreased by 10.2% in 2022, remittances declined by 3.4% in real terms while overall real disposable income declined by 5.9%.¹⁷

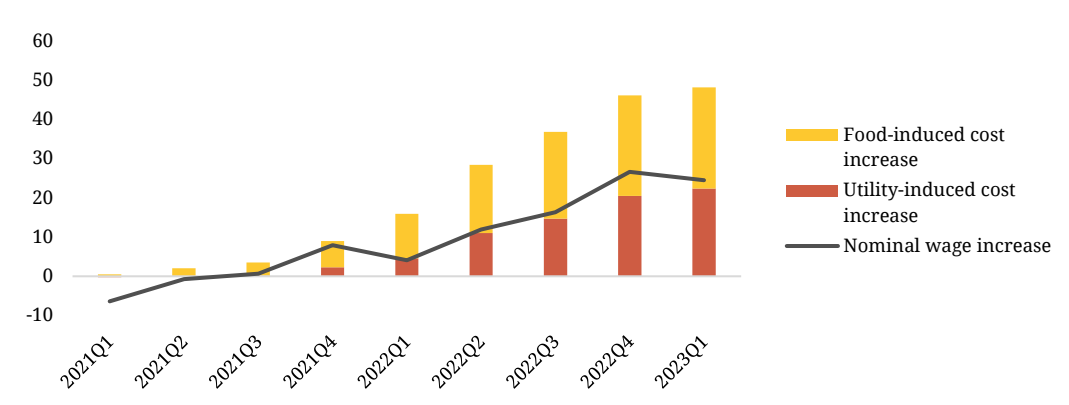
Comparing the effect of individual prices to the increase in wages illustrates the extent to which energy and food prices contributed to this.⁹ Utility price-induced increases alone (a cumulative 20% between 2021Q1 and 2023Q1) nullify most of the wage growth (a cumulative 30%). The picture is similar if we analyze how much the households' costs increased due to the higher food prices alone. This effect alone pushed up the household expenses by an average of 23% in two years, which itself is almost as high as the cumulative 30%.

Adding these effects up, the combined effect in utility and food prices increased household expenses by 43% (and we should note that other consumed items boosted it even further, to a total 51% increase in two years), which outpaces the 30% wage increase by far. Hence, real wages declined significantly (14%) in Moldova, causing acute issues for the households' budgets. The decline in real wages far exceeds the drop in personal consumption expenditure, indicating the compensatory effect of

⁹ We take the share of utilities in the household's consumption basket, and calculate how much the household's total cost would have increased if only the price of utilities had grown (we use a similar approach when calculating the food price-induced cost increase).

social transfers, remittances, and spending by refugees. The lower poverty impact on remittance recipients is discussed below.

Figure 28 - Household expense increase vs. wage increase outside Chisinau(% , cumulative)

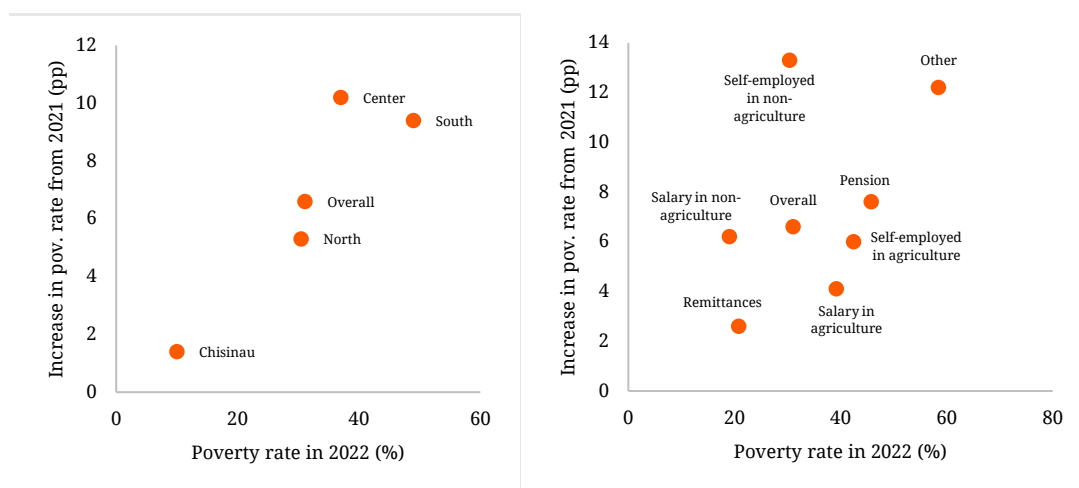


Source: National Bureau of Statistics of Moldova, OGRResearch calculation

The changes in consumption patterns contributed significantly to regional inequality. If we split the country into Chisinau and the rest of the country, significant differences prevail: the nominal wage increase has been more pronounced in Chisinau (31% vs. 25%), while the share of food and utilities is also smaller in the consumption basket in the capital. Thus the real wage decline is more worrisome outside Chisinau, where the food and utility-induced cost increases together (but without other cost increases) add up to a cumulative 48%, which outpaces the 25% rural wage increase by far (Figure 28).

As a result of deteriorating real incomes, poverty increased significantly in 2022. The absolute poverty rate increased by 6.6% in Moldova, with significant variation between regions and sources of income. While in Chisinau the poverty rate increased only slightly (1.4pp), in the already poorer regions (Center and South) it increased by around 10 percentage points, and in the South region, it almost reached 50% (Figure 29). The extreme poverty rate also increased more significantly in the poorer rural areas (by 5.4pp), contributing to inequality.

Figure 29 - Absolute poverty rate and its increase in 2022 across regions and according to main source of income

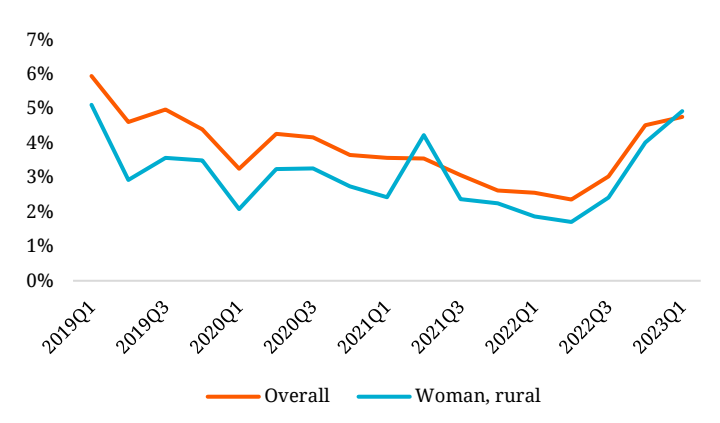


Source: National Bureau of Statistics of Moldova

The impact also varies across sources of income, emphasizing the role of remittances in preserving social safety. While households, where the main source of income was remittances, weathered through the crisis better (absolute poverty rate increased only by 2.6 pp), those who were self-employed in the non-agricultural sector (i.e. usually selling less essential products/services) saw a 13.3 percentage points increase in the absolute poverty rate, essentially doubling the poverty rate in this group.

Unemployment in Moldova is generally very low compared to peer countries, but this is a result of low labor force participation, high outward migration, and high informal employment especially in own-needs farming – as pointed out by local experts during the interviews. Therefore, the statistic is not as an informative indicator of social stress as in other countries. Nevertheless, the unemployment rate posted a growth (from 3% in 2022Q1 to 5.5% in 2023Q1), with the biggest increase among women in the rural parts (from 2.2% 2022Q1 to 5.6% in 2023Q1), who re-entered the labor market as household incomes became insufficient (Figure 30).

Figure 30 - Unemployment rate (% , seasonally adjusted)

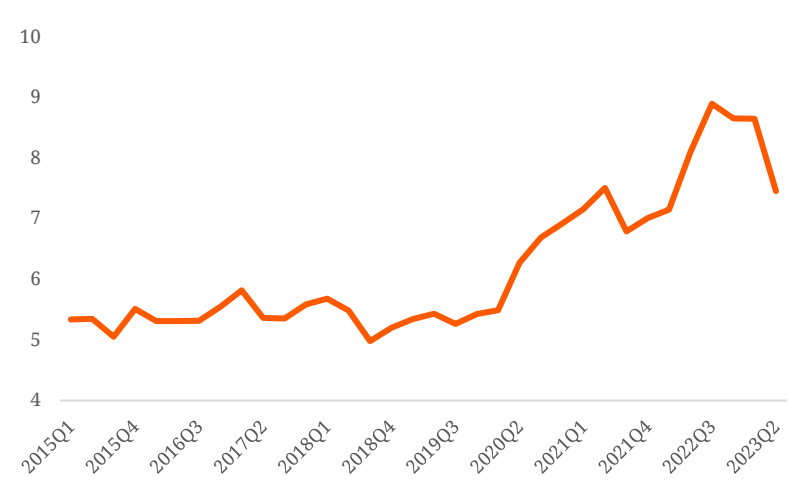


Source: National Bureau of Statistics of Moldova

Outward migration has been a traditional reaction for Moldovans to the lack of employment opportunities domestically (about 25% of the labor force works abroad and 12% of national income comes from abroad). Based on official emigration data (which records registered migrants only), a strong increase was recorded in 2022 compared to the two years of COVID-19, but the official number of outward migrant flows is still slightly lower than in 2019. Outward migration also results in plenty of abandoned or uninhabited properties.

Remittances increased by 24% YoY in local currency in H2 2022 (Figure 31), and stayed at this higher level through Q1 2023 (but started to decline in Q2), which contributed positively to social protection by mitigating a part of the food and energy price impact, especially for poorer households which are more dependent on inflows from abroad. However, despite their increase in 2022 remittances were unable to keep up with inflation and declined in real terms, but the decline was lower than real wages.

Figure 31 - Remittances (billion MDL)



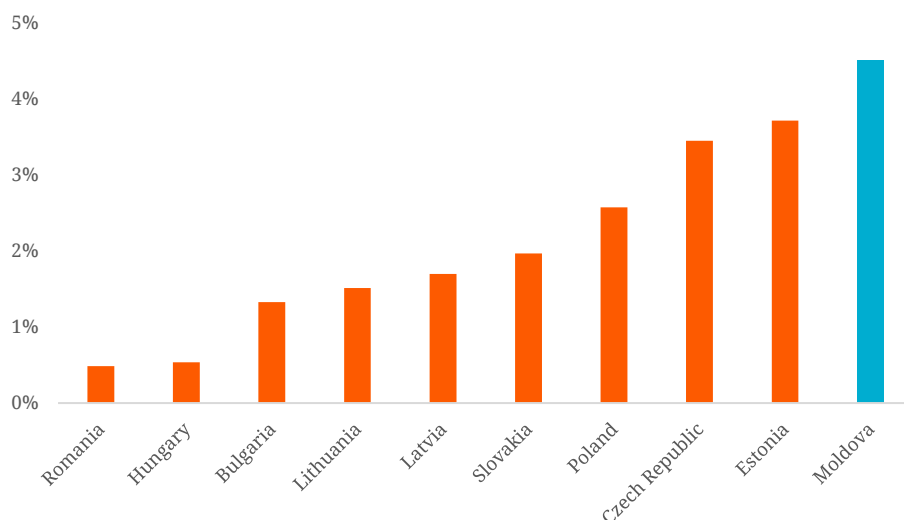
Source: National Bureau of Statistics of Moldova, OGRsearch calculation

3.4 The economic impact and sources of funding for refugees

According to estimates from the BNM inflation report, a significant number of refugees remaining in Moldova (estimates of around 110 thousand people) has dampened the decline in consumption during 2022 but may also have had a pro-inflationary effect on prices during the period of high inflation (Figure 32).¹⁸ Although with moderate effect, the refugees also contributed to Moldova's labor force, with estimates of employment contribution ranging from 1114 as of August 2022 (ANOFM official data) up to 5000, which would represent 0.5% of total employment.^{19,20} Studies pointed to a general lack of employment opportunities for refugees, particularly in rural areas. Together with relatively high aid received, skill mismatch, high

seasonality in offered work, and lack of childcare, this led to about only 20-30% of sampled refugees reporting any form of employment in 2023.^{21,22}

Figure 32 - Ratio of refugees in resident population



Source: UNHCR The UN Refugee Agency: Regional Protection Profiling and Monitoring

Refugees have various sources of income. Transfers of their own funds from abroad are evidenced by the significant increase in travel service exports (77% growth in 2022; expenditure by non-residents is typically recorded in this way), as well as a 54% increase in transportation services – leading to an overall increase of the services surplus by 91%. Another important source of funding was donations from international organizations. Refugees (and host families) were beneficiaries of several financial support programs, which were not available to the general population affected by the cost-of-living crisis. This has been pointed out as a source of dissatisfaction amongst the local population by some local experts. Some of the key programs are listed below. For comparison, the average monthly net earnings in Moldova amounted to EUR 365 in 2021.

- Cash assistance from UNHCR for families with at least one dependent – 2,200 MDL (about 110 EUR) per month per family member
- Cash assistance (multiple rounds) for households hosting refugees of between 3900 and 4800 MLD (200 to 240 EUR), depending on the number of refugees – from various donors, coordinated by UNHCR
- Cash assistance to households hosting Ukrainian refugees on the territory of the Transnistrian authorities – 120 EUR per month – provided by the IOM (the UN migration agency)
- Cash assistance to refugees with disabilities – 1600 MDL (around 80 EUR) from IFRC (Red Cross)
- Rental assistance program from CRS and Caritas – covers rent and utility expenses for 6 months
- Help from local labor agencies to simplify the employment process for migrants

3.5 Sectoral impact on the economy

A decline in output was recorded in most production sectors in 2022, as a result of demand contraction, tighter monetary conditions, loss of markets and suppliers in Russia, Ukraine, and Belarus, and rising energy and logistic costs. As expected, the contraction was most pronounced in the sectors of mining, agriculture, electricity production, and manufacturing. The contraction in trade was more modest, and its relatively high growth in Q2 could be attributed to a surge in demand due to the initial inflow of refugees and trade route reallocation (as discussed in Section 2.1). A strong growth was posted in the financial sector (likely related to higher interest rates), while IT services showed also robust growth indicating the sector is more resilient to external shocks (Table 2).

Table 2 - Sectoral growth in the economy (% YoY)

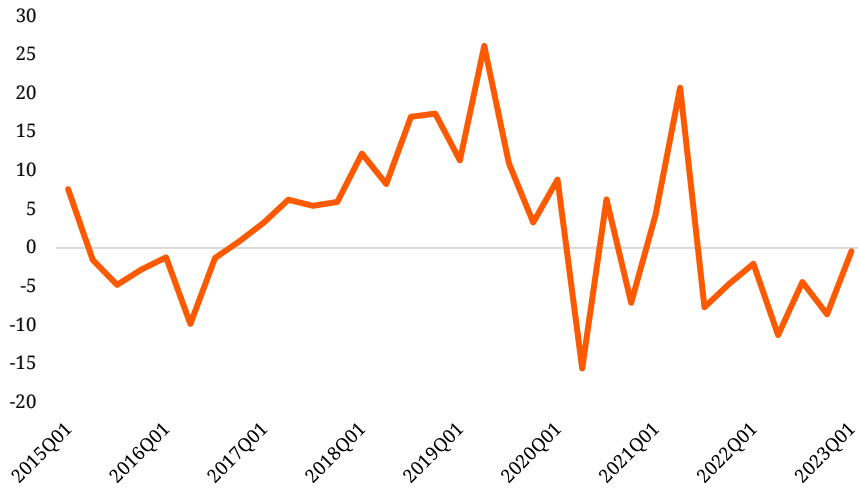
| Period | Ag r | Mi n | Ma n | Ele c | Wa t | Cons t | Trad e | Tran s | Inf o | Fi n | Rea l est | Go v | Edu c | He a | Ta x |
|---------|------|------|------|-------|------|--------|--------|--------|-------|------|-----------|------|-------|------|------|
| 2022Q 1 | -2 | -19 | -2 | -4 | -22 | -3 | 13 | 2 | 0 | 12 | -7 | -1 | 0 | 7 | 1 |
| 2022Q 2 | -6 | 0 | -6 | -27 | -24 | -28 | 14 | 5 | 1 | 12 | -5 | 1 | 2 | 22 | -4 |
| 2022Q 3 | -21 | -33 | -13 | -8 | 0 | -5 | -12 | -4 | 9 | 18 | -20 | -1 | -10 | -7 | -9 |
| 2022Q 4 | -40 | -41 | -7 | -34 | 13 | 0 | -2 | -10 | 12 | 16 | -12 | 6 | 8 | -19 | -16 |
| 2023Q 1 | -4 | -11 | -14 | -37 | 6 | -16 | -6 | 3 | 8 | -3 | 8 | 0 | -3 | 10 | 4 |

Source: National Bureau of Statistics of Moldova, OGREsearch calculation

On a micro level, the broad-based economic contraction has led to a near doubling of closures among individual sole-proprietorship enterprises (which account for 23% of operating businesses) in the first seven months of 2023 compared to a year earlier. Among LLCs (which account for 70% of operating businesses) there has been no increase in closures by July 2023, but this could be due to longer liquidation times for them.

Fixed investments also recorded negative growth rates throughout 2022, on the back of lower foreign and domestic demand, higher uncertainty, and tighter financial conditions (Figure 33). Lower fixed investment could place a drag on growth in the coming years. Changes in inventories (a subcomponent of aggregate investment) recorded an increase, which is a usual business cycle phenomenon in times of slowing demand in the economy.

Figure 33 - Real investments growth (% YoY)



Source: National Bureau of Statistics of Moldova, OGREsearch calculation

4 Policy responses and future support for Moldova

To mitigate the severe energy, cost of living, and refugee crisis triggered by the war in Ukraine, the government of Moldova reacted by implementing a contingency plan and introducing social measures, which were assessed positively by IFIs. The measures were intended to offset the most severe impacts of the crisis caused by the war in Ukraine but were insufficient to fully compensate for the sharp decline in living standards in 2022. The main measures undertaken by the authorities are outlined in this section.

4.1 Household support

Energy support: In the fourth quarter of 2022, the government introduced an extensive and targeted energy price compensation scheme called the Energy Vulnerability Reduction Fund (EVRF) to shield vulnerable households from the impact of rising energy bills. This program provides monthly compensation to households considered vulnerable based on factors such as income, number of family members, the proportion of energy expenditure in household consumption, and the type of heating system used.²³ The project commenced in November 2022 and continued until March 2023, with the fund estimated to be approximately 1.8% of GDP in size.²⁴ Considering that energy tariffs remain far above pre-war levels (see the section on energy crisis), it is likely that energy support will need to be provided in the future until income growth catches up.

General living cost support: The household support measures started in 2022 and will continue into 2023. The government accelerated the allocation of existing social assistance programs, including the Ajutorul Social Program and APRA heating assistance. Also, supported by the UN, additional beneficiary programs were introduced targeting vulnerable families and refugees.^{25,26} The additional social program targeting the local socially vulnerable population comprises of 700 MLD (35 EUR) per month for 6 months and a one-off 1000 MLD (50 EUR) – significantly lower than refugee assistance. Authorities increased the minimum wage by 14% in January 2023, with a planned wage increase for civil servants in 2023. Moreover, pensions were increased by 13.9% in 2022, and starting from 2023, pension adjustments will be indexed in line with the growth in social security contributions. Overall social

protection spending in the national budget increased by 30% in nominal terms in 2022.²⁷

Other measures: Price control was introduced by regulating profit margins on some essential goods. Support for public institutions was also introduced to cover their annual energy costs.

Going forward, support measures to counter the effects of the war continue in 2023, estimated in the amount of 5.2% of GDP by the IMF (IMF 2023), of which 2.4 is related to energy. According to IMF projections, transfers to households are projected to increase further this year (from 13.8% of GDP in 2022 to 14.5% in 2023) and move between 12% and 13% of GDP up to 2028, well above pre-COVID levels (10.7% in 2018-2019).

4.2 Business sector support

The government started to provide zero-rate on undistributed income for SMEs until 2025 to ease liquidity pressure. Also, they started to accelerate the depreciation of investments for businesses. Moreover, the government started to cap the natural gas price for a predetermined limit of consumption for businesses.

To support SMEs, the government also implemented the 373-program, which provides loans of up to 15 mln MDL (775.000 EUR) for 7 years at subsidized rates - 7% for MDL loans and 3% for FX loans with a 3-year grace period for interest payments.²⁸

4.3 Measures to reduce energy vulnerability

Electricity: In an effort to decrease energy vulnerability, Moldova connected to the ENTSO-E European electricity network system and upgraded its cross-border connections, allowing it to secure electricity supply from Romania. However, it's important to note that the market price for electricity from Romania is higher, and the volume of supply is constrained so far.

Gas: To address the gas supply challenges, the government successfully recapitalized the Energocom gas company and bolstered gas reserves in Ukraine by procuring gas from European suppliers with the assistance of a credit line from EBRD. The support provided by EBRD amounted to 300 million EUR. As of March 2023, the gas reserves had reached a level sufficient for seven months of winter consumption. Energy savings measures were implemented, promoting temperature reduction in households. Major district heating plants were switched to alternative fuel sources.

Prices of alternative fuels such as firewood were subsidized by the government to maintain them at 2021 levels.

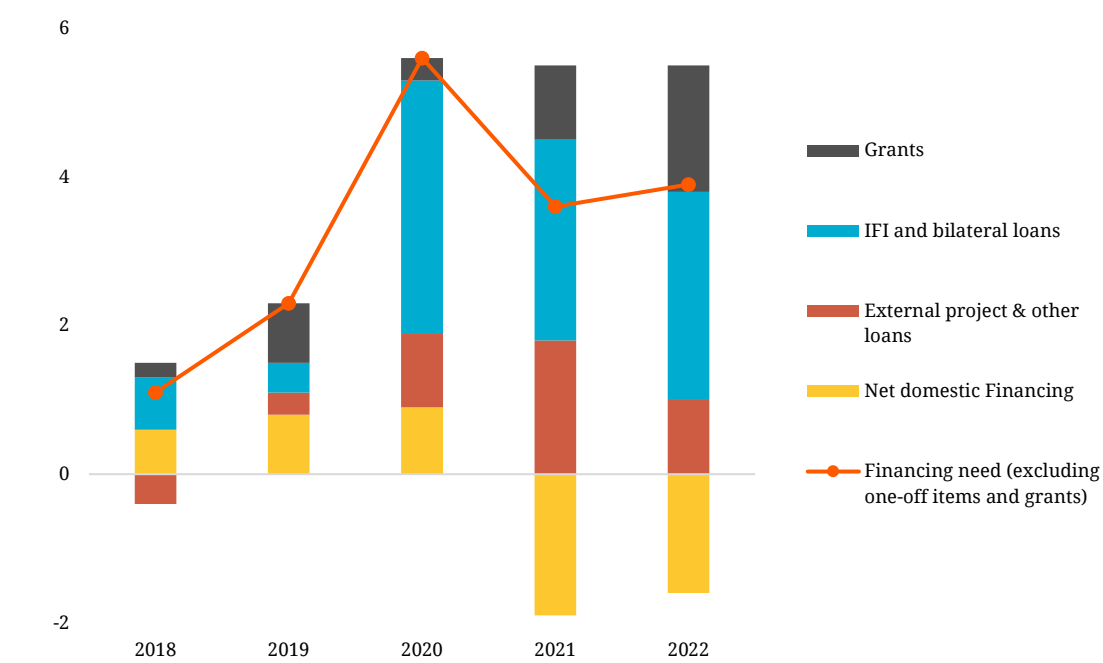
Contingency plans are in place for the coming 2023/2024 winter. The government has outlined various scenarios, starting from a scenario in which Russian gas flows would return to pre-war levels, up to a scenario of total cessation of supply (even to the

electricity producer in the Transnistrian region). In the most severe case, the country could rely on already secured gas reserves and electricity imports from Romania.

4.4 External financing to help weather the crisis

The government has decreased its reliance on expensive short-term internal borrowing as a source of financing in 2022. Strong external support enabled the government to maintain relative stability. In 2022, direct external support (IFI or bilateral loans and grants) accounted for approximately 4.5% of GDP, with grants comprising 1.7% and the rest as loans (Figure 34). The main supporters include the IMF, WB, EBRD, and the EU, while bilateral country partners such as Romania, Germany, the US, and Norway also provided essential help to Moldova. External project financing, in addition to direct loans and grants, amounted to around 1% of GDP in 2022. Given the government's challenges in domestic financing, this external help is a lifeline for Moldova. On a separate stream, the Refugee Response Plan 2023 contains a total of USD 427 million (3% of GDP) pledged assistance, targeting both refugees and local communities affected by the crisis. As pointed out by local experts, going forward, the EU accession would not just secure political stability, but also ensure the external financial support which is essential for the country.

Figure 34 - Financing need (% of GDP)



Source: IMF Country Report No. 23/152

Conclusion

Over the past several decades, the Moldovan economy saw rapid economic development and increasing living standards, which was however underpinned by a growth model based on unsustainable sources – mainly remittances. This resulted in an undiversified economy, with low exports, employment and a structural lack of competitiveness, leaving the country highly exposed to both external and domestic shocks. A large agricultural sector employing much of the population not only contributes to low productivity, but also makes the country vulnerable to weather events and climate change. Reliance on energy from politically volatile suppliers and a lack of own production expose Moldova to geopolitical factors and energy price movements, and the importance of remittances (which still play a crucial role in households' income) amplifies the geopolitical risk, and exposure to economic and financial developments abroad.

Before the recent series of crises, Moldova was already grappling with the limitations of its remittance-reliant growth model, the related challenges of the migration outflow, and the heavy dependency on energy imports. The accumulated vulnerabilities in the economy became painfully evident during the COVID-19 pandemic, consecutive droughts, energy crises, and the war in Ukraine.

Prior to the Russia-Ukraine war, tensions with Russia had started escalating and its importance as a trade and remittance partner had started declining. However, the historical economic dependence on and geographic proximity to the warring parties contributed to the impact of the war on Moldova being severe – on the economy as a whole and on vulnerable social groups in particular. On a macro level, the war resulted in a sharp recession in 2022, (5,9% GDP decline), soaring headline inflation (peak of 34.6%), and a widening current account deficit (to 13% of GDP).

The main channels of transmission of the war were the loss of export markets, disruptions in the energy sector, and food and fertilizer supply. Taken together, these effects led to a sharp increase in the cost of living in Moldova.

In the energy sector, Russian gas supplies were drastically reduced in 2022 and completely cut off for a period. The sole thermal power plant, located in the pro-Russian breakaway region of Transnistria, completely ceased supplying the rest of the country in late 2022.

The policy response to the energy crisis has been strong and effective. Efforts to diversify gas supply and build reserves, as well as cut consumption and promote alternative fuels, funded by IFIs, allowed the country to avoid energy rationing or other quantity restrictions. Supply of electricity from Transnistria has been restored in 2023, but energy prices remain high. The second mechanism of policy action consisted of a comprehensive and well-targeted subsidy scheme, which successfully dampened (but did not fully mitigate) the effects of the severe energy price hike on vulnerable population groups.

With agriculture and food very important in Moldova both as a source of income, as well as an outsized share of the consumer basket, there was a significant combined effect of the drought and war on incomes on the most vulnerable groups – rural producers, low-income consumers, and refugees.

The result of the food and energy inflation was a sharp decrease in real wages and consumption (including on basic food items and energy). The traditional offsetting mechanism – increased remittances – was at work in 2022, but the increase was insufficient to compensate for inflation and was distributed unequally across the population. Therefore, the resulting sharp increase in poverty rates (6.6% across the country) was disproportionately large outside the capital, in poor regions and rural areas, and among those self-employed not receiving remittances.

The refugee population was also affected by soaring food and energy prices. Refugees, however, as the main victims of the conflict in Ukraine, are beneficiaries of a substantial number of support schemes funded by international organizations and foreign governments, which generally provide a universal income commensurate to the consumption basket, and housing support. These measures were not available to the severely impacted vulnerable segments of the local population.

Looking ahead, Moldova faces the challenge of implementing ongoing reforms to enhance competitiveness, while simultaneously providing support to a large vulnerable population and ensuring energy security. Nevertheless, permanent assistance from international organizations is inevitable to secure the necessary financial means for this mission. Our recommendations addressing the issues outlined in this Desk Review are available in the related Policy Brief.

Sources

- ¹ OSW Centre for Eastern Studies (2014): Russian sanctions against Moldova. Minor effects, major potential, <https://www.osw.waw.pl/en/publikacje/osw-commentary/2014-11-06/russian-sanctions-against-moldova-minor-effects-major>
- ² European Council: EU enlargement policy – Moldova, <https://www.consilium.europa.eu/en/policies/enlargement/moldova/>
- ³ World Bank Enterprise Survey (2019), <https://www.enterprisesurveys.org/content/dam/enterprisesurveys/documents/country/Moldova-2019.pdf>
- ⁴ World Bank Database, <https://data.worldbank.org/indicator/SP.POP.1564.TO?locations=MD>
- ⁵ Ministry of Education, Culture and Research (2019): The Republic of Moldova in PISA 2018, https://aee.edu.md/sites/default/files/raport_pisa2018.pdf
- ⁶ International Monetary Fund (2023): Republic of Moldova: Poverty Reduction Strategy and Growth Strategy, 23/085, DOI: <https://doi.org/10.5089/9798400232770.002>
- ⁷ World Bank (2022): Moldova 2021 SCD Update: Building Resilience and Enhancing Competitiveness, <https://documents1.worldbank.org/curated/en/546181647363686927/pdf/Moldova-Systematic-Country-Diagnostic-Update-Building-Resilience-and-Enhancing-Competitiveness.pdf>
- ⁸ World Bank Database, <https://data.worldbank.org/indicator/SL.AGR.EMPL.ZS?locations=MD>
- ⁹ FAO (2022): Special report – FAO Crop and Food Supply Assessment Mission (CFSAM) to the Republic of Moldova. 22 November 2022. Rome. <https://doi.org/10.4060/cc3043en>
- ¹⁰ German Economic Team (2022): Key challenges in Moldova’s electricity sector, <https://www.german-economic-team.com/en/newsletter/key-challenges-in-moldovas-electricity-sector/>
- ¹¹ German Economic Team (2022): War in Ukraine: Moldova to face severe economic shock, <https://www.german-economic-team.com/en/newsletter/war-in-ukraine-moldova-to-face-severe-economic-shock/>
- ¹² Infotag News Agency: Prime Misiter: Moldova is in recession, <https://www.infotag.md/economics-en/304068/> retrieved on August 11, 2023, also confirmed by local experts

¹³ U.S. Department of State (2022): Investment Climate Statements: Moldova, <https://www.state.gov/reports/2022-investment-climate-statements/moldova/>

¹⁴ GIFP (2022): Giurgiulesti International Free Port sets a new transshipment record in 2022 amid vital efforts for securing the regional supply channels. <https://gifp.md/en/news/giurgiulesti-international-free-port-sets-a-new-transshipment-record-in-2022-amid-vital-efforts-for-securing-the-regional-supply-channels/> retrieved on July 23, 2023

¹⁵ OSW Centre for Eastern Studies (2022): Moldova diversifies gas import sources, <https://www.osw.waw.pl/en/publikacje/analyses/2022-12-08/moldova-diversifies-gas-import-sources>

¹⁶ International Energy Agency, Data Explorer, <https://www.iea.org/data-and-statistics/data-tools/energy-end-uses-and-efficiency-indicators-data-explorer>

¹⁷ Expert-Grup (2023): Moldova Economic Growth Analysis 2023Q1, https://www.expert-grup.org/media/k2/attachments/MEGA_24_EN_c.pdf

¹⁸ National Bank of Moldova (2023): Inflation Report, February 2023, [https://www.bnm.md/files/IR_February_2023%20\(1\).pdf](https://www.bnm.md/files/IR_February_2023%20(1).pdf)

¹⁹ Agenția Națională pentru Ocuparea Forței de Muncă: Informații actualizate despre notificările agenților economici privind angajarea cetățenilor din Ucraina, <https://www.anofm.md/ro/node/20103>, retrieved on August 24, 2023

²⁰ IPN Press Agency: Ukrainian refugees positively influenced Moldova's economy, analysis, https://www.ipn.md/en/ukrainian-refugees-positively-influenced-moldovas-economy-analysis-7966_1095967.html, retrieved on August 23, 2023

²¹ UNHCR The UN Refugee Agency: Regional Protection Profiling and Monitoring, <https://data.unhcr.org/en/dataviz/250?sv=54&geo=10784>, retrieved on August 30, 2023

²² UN International Organization for Migration (2023): Republic of Moldova — Surveys with Foreign Populations in Cahul and Balti Municipalities: Joint MGI-DTM Initiative, <https://dtm.iom.int/reports/republic-moldova-surveys-foreign-populations-cahul-and-balti-municipalities-joint-mgi-dtm-0>

²³ Government of Republic of Moldova: Compensation program, <https://compensatii.gov.md/en#program>

²⁴ UN Development Programme (2023): Implementation of the Energy Vulnerability Reduction Fund in the Republic of Moldova, https://www.undp.org/sites/g/files/zskgke326/files/2023-02/project_document_evf_dec_2022.pdf

²⁵ ZDG: Circa 40 de mii de familii din R. Moldova vor beneficia, timp de șase luni, de un suport lunar suplimentar în valoare de 700 de lei, <https://www.zdg.md/stiri/stiri-sociale/circa-40-de-mii-de-familii-din-r-moldova-vor-beneficia-timp-de-sase-luni-de-un-suport-lunar-suplimentar-in-valoare-de-700-de-lei/>, retrieved on August 11, 2023

²⁶ ReliefWeb (2022): Strategic Directions for Cash Assistance in Moldova - Cash Working Group, June 2022, <https://reliefweb.int/report/moldova/strategic-directions-cash-assistance-moldova-cash-working-group-june-2022>

²⁷ Expert-Grup (2023): Moldova Economic Growth Analysis 2023Q1, https://www.expert-grup.org/media/k2/attachments/MEGA_24_EN_c.pdf

²⁸ Program Guvernamental pentru susținerea antreprenorilor, <https://373.gov.md/>