## **ENDING POVERTY IN GEORGIA:**

**NEW ECONOMIC MODELING** 









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## NEW ECONOMIC MODELING

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## **LIST OF ABBREVIATIONS**

BAU	BAU Business as Usual					
BCI	Business Confidence Index					
CAGR	Compound Annual Growth Rate					
CIS	Commonwealth of Independent States					
ESCO	Electricity System Commercial Operator					
GeoStat	Georgian Statistical Service					
GNTA	Georgian National Tourism Association					
ha	Hectare					
HIES	Household Income and Expenditure Survey					
MoESD	Ministry of Economy and Sustainable Development					
MoESD MPI	Ministry of Economy and Sustainable Development  Multidimensional Poverty Index					
	·					
MPI	Multidimensional Poverty Index					
MPI NBG	Multidimensional Poverty Index  National Bank of Georgia					
MPI NBG OECD	Multidimensional Poverty Index  National Bank of Georgia  Organization for Economic Cooperation and Development					
MPI NBG OECD p.p.	Multidimensional Poverty Index  National Bank of Georgia  Organization for Economic Cooperation and Development  Percentage points					
MPI NBG OECD p.p. SAM	Multidimensional Poverty Index  National Bank of Georgia  Organization for Economic Cooperation and Development  Percentage points  Social Accounting Matrix					

## 1. INTRODUCTION

Georgian economy continued recovery from the negative impact of COVID 19 with the double-digit GDP growth in 2022 (10.1%, preliminary data). Also, the absolute poverty (21.3% in 2020, 17.5% in 2021 and 15.6% in 2022) and unemployment rate (18.5% in 2020. 20.6% in 2021 and 17.3% in 2022) has decreased in 2022, Russia's aggression against Ukraine in 2022 and close ties of Georgia's economy to the mentioned countries creates serious concerns regarding the economic development and its impact on vulnerable households.

The war in Ukraine has a negative effect on global and regional economies. The impact on Georgian economy can be channelled through global trends, trade operations with Ukraine and Russia coupled with expected instability of remittances and tourists. The fluctuation of world commodity prices and challenges in global value chains affects the Georgian economy through raising inflation and worsening expectations. Georgia has significant economic ties with Ukraine and Russia, including trade (4% and 16% of total exports in 2022), Foreign Direct investments (4% of total FDI, 2022 preliminary data), remittances (21.4% of total in 2021 and nearly 50% in 2022). More than USD 411 mln was transferred from Russia in 2021 and USD 2 bln in 2022 which made Russia the biggest money remittances origin country. The consequences of the ongoing process could significantly effect living standards of population, poverty rates and increase inequality in the country.

The report demonstrates the results of analysis of impact of the war in Ukraine on the Georgian economy and its implications on unemployment, poverty, and vulnerable household groups. The research presents poverty outlooks over 2022 to 2027 period using the newly developed Georgia Social Accounting Matrix (SAM) 2021 and Poverty Model. UNDP Georgia in collaboration with the Ministry of Economy and Sustainable Development (MoESD) designed a set of projections for the key external sector drivers, including: FDI, remittances, exports and Imports (goods and services). These projections are feed into the SAM

model to simulate growth and household consumption over the reference period. The changes in household consumptions are linked to the poverty model to assess poverty implications.

In the scenario analysis, three possible developments of macroeconomic indicators have been considered:

- 1. Business As Usual (BAU) scenario assumes the current situation will continue in 2023-2027 years and the real GDP growth will be on average 4.8% (coincides with the IMF projections).
- 2. Quick resolution of the conflict (i.e., in 2024) and high growth scenario in 2023-2027.
- 3. Delayed resolution of the conflict (i.e., by the end of 2025) and low growth scenario in 2023-2027.

The outcomes of the SAM model are used in poverty module and the impacts have been assessed using the macro and sectoral indicators such as GDP (i.e., nominal, and real), GDP growth rates, household's consumption, and cost of living indexes.

The UNDP Georgia has formed working group comprised of consultants and representatives of the MoESD and individual experts for qualitative assessment of tourism, the citrus, and wine sector to develop or adjust the existing scenarios. The UNDP team has assessed the needs of the staff of the MoESD in taking over the new model and expand the analytical tools for the forecasting of prices, exchange rate and other economic indicators.

The model will help to forecast economic development of the Georgian economy in the medium term. It has to be mentioned, that the model could be used in other developing countries by adjusting for the certain economic indicators. The results of assessment of Ukrainian conflict assessment will be used by the MoESD in the policy planning and development stage to forecast the impact of certain economic actions on the wellbeing of socially vulnerable population.

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## 2. EXECUTIVE SUMMARY:

#### **MODELLING RESULTS:**

The poverty is expected to continue to decrease in the country in the following years. In the BAU scenario, the average GDP growth rate is expected to be 4.8% in 2023-2027 years and the rate of poverty is expected to decrease by 3.7 percentage points to 11.9%. A 1% increase in real GDP is associated with decreasing poverty trend by 0.15 p.p. on average in Georgia in 2023-2027 years.

Poverty continues to fall but not as rapidly as before. The decreasing poverty trend was slowing down. The average annual decrease in poverty was 1.6% in 2013-2017 years and it has slowed down to 1.3% in 2018-2022 years. It is expected that the decreasing poverty annual trend will slow down to on average 0.7% in 2023-2027 years.

Georgia outperforms neighboring Armenia and Black Sea country Moldova with the lower poverty rate (2021 results) and is close to the poverty rate of neighboring Turkey (14.4% in 2020). The economy of Georgia has increased by 25% and the poverty rate has decreased by 6% to 15.6% in 2018-2022 years. The poverty reduction was much smaller in the neighboring and regional countries. However, the data for some countries is not available for 2021 and 2022.

Urban poverty is lower and continues to fall more rapidly than rural poverty. Urban poverty rate has decreased by 5.7% to 12.3% in 2018-2022 and rural poverty has decreased by 2.5% to 20.6%, over the same period. According to the SAM 2021 and poverty model estimates, poverty is expected to decrease in Georgia, both in Urban and Rural areas by 3.9 p.p. and 3.4 p.p. respectively, in 2022-2027 years.

#### **POLICY IMPLICATIONS:**

igh rates of GDP, government revenue and a strong balance sheet give room for greater investments towards ending poverty and lowering inequality. The number of persons receiving pensions and social packages has increased by 10% to 800,000 in 2017-2022 years. Also, the size of pensions and social packages has increased in the same period.

In the short term higher levels of social security can raise more households out of poverty. The decreasing poverty trend could be accelerated by providing social assistant packages to 75,000 people, which could cost around GEL 225 mln on average annually and will decrease poverty by additional 2 p.p. in 2023-2027.

In the medium and long term, greater levels of investment in human development through health and education, can raise people above the poverty line and keep their levels of well being rising. For example, Georgia's investment in education is comparatively low at 3.6% of GDP compared to global averages (5.1% in EU and 5.3% in OECD countries)<sup>1</sup>.

2021 results, The World Bank (WB)

# 3. SOCIO-ECONOMIC IMPACT OF WAR IN UKRAINE AND ECONOMIC MODELING

#### 3.1 METHODOLOGY

## **Georgia SAM 2021 Structure and Accounts**

The input-output part of SAM captures production linkages across sectors. The linkages are determined by sectors' production technologies and can be segregated into backward and forward linkages. The stronger the linkages are, the large the multiplier is. The backward linkages are backed by the

additional input demand made by industries to supply additional goods and services. The more input-intensive a sector's production technology is the stronger its backward linkages are (downstream industries). On the other hand, forward linkages account for the increased input supply to upstream industries. Thus, the more important a sector is for upstream industries, the stronger its forward linkages will be.

Table 1. Basic structure of a SAM

	Pro	oduction Acco	unt		Institutio					
SAM Accounts	Current Accounts							Capital Accounts		
71000 01110	Activity	Commodity	Factor	Household	Govern- ment	Enterprise	RoW		Total	
Activity (AC)		Domestic output							Total Activity Us	
Commodity (CM)	Input- Output			Private Consump- tion	Public Consump- tion		Exports	Investment	Total Commodit Use	
Factor (FP)	Distribution of value added								Total Household Income	
Household (HH)			Redistri- bution of value added (labour and capital	Inter- Houshold Transfers	Gocern- ment Transfers	Enterprise Transfers	Remittances		Total Household Income	
Govern- ment (GoV)	Value added tax	Indirect Tax (Production and Import)	Redistribu- tion of cap- ital value added	Income Tax		Corporation Tax			Total Govern- ment Income	
Enterprise (ENT)			Redistribu- tion of cap- ital value added						Total Enterprise Income	
Rest of the World (Row)				Imports of Consump- tion Goods				Imports of Capital Goods	Total RoW Payments	
Capital (CAP)				Household Savings	Govern- ment Savings	Enterprise Savings	Foreign savings	Flow of Funds	Total Savings	
Total Supply (TSS)	Domestic Output	Commodity Supply	Payment of Factors of Production	Qutlays by Household	Qutlays by Govern- ment	Qutlays by Enterprises	Row Receipts	Investment		

Source: GeoStat, UNDP

Note: R = rows and C = columns

### SAM ACCOUNTS DETAILED ACCOUNT CLASSIFICATION

#### Activities (37)



Agriculture (01)



Mining and Quarrying; Manufacture of Food Products, Manufacture of Textiles, Wearing Apparel, and Footwear; Manufacturing of Wood, Wood Products, Paper, and Paper Products; Manufacture of Rubber and Plastic Products; Manufacture of Basic Metals; Manufacture of Fabricated Metal Products; and Office and Computing Machinery; Manufacture of Motor Vehicles and Other Transport Equipment; Manufacture of Petroleum; Manufacture of Chemical; Manufacture of Pharmaceuticals; Other Manufacturing; Electricity; Water Supply; and Construction (17)



Wholesale, Retail Trade; Hotels and Restaurants; Transportation services; Telecommunications; Communications; Financial Intermediation and Insurance; Technical Services; Real Estate, Renting services; Business Services; Public Administration and Defence; Research and Development; Administrative Services; Recreation Services; Education; Health; Social Services; Other Service Activities and Household Services (19)

#### Commodities (37)



Agriculture (01)



Mining and Quarrying; Manufacture of Food Products, Manufacture of Textiles, Wearing Apparel, and Footwear; Manufacturing of Wood, Wood Products, Paper, and Paper Products; Manufacture of Rubber and Plastic Products; Manufacture of Basic Metals; Manufacture of Fabricated Metal Products; and Office and Computing Machinery; Manufacture of Motor Vehicles and Other Transport Equipment; Manufacture of Petroleum; Manufacture of Chemical; Manufacture of Pharmaceuticals; Other Manufacturing; Electricity; Water Supply; and Construction (17)



Wholesale, Retail Trade; Hotels and Restaurants; Transportation services; Telecommunications; Communications; Financial Intermediation and Insurance; Technical Services; Real Estate, Renting services; Business Services; Public Administration and Defence; Research and Development; Administrative Services; Recreation Services; Education; Health; Social Services; Other Service Activities and Household Services (19)

#### Factors of Production (02)



Labour factor (01)

Capital factor (01)

#### Institutions (14)



Household (10): Rural household income quintile 1 (poorest); Rural household income quintile 2; Rural household income quintile 3; Rural household income quintile 4; and Rural uousehold income quintile 5 (richest) and Urban household income quintile 1 (poorest); Urban household income quintile 2; Urban household income quintile 3; Urban household income quintile 4; and Urban uousehold income quintile 5 (richest)

Government

Rest of the World

Savings or Gross fixed capital (consolidated capital)

Changes in Inventory

Source: GeoStat, UNDP

#### **SAM Model**

The move from a SAM data framework to a SAM model (also known as a multiplier framework) requires decomposing the SAM accounts into 'exogenous' and 'endogenous'. Generally, accounts intended to be used as policy instruments (for example, government expenditure, investment and exports) are made exogenous and accounts are specified as objectives or targets (for example, output, commodity demand, factor return, and household income or expenditure) must be made endogenous. For any given injection into the exogenous accounts of the SAM, influence is transmitted through the interdependent SAM system among the endogenous accounts.

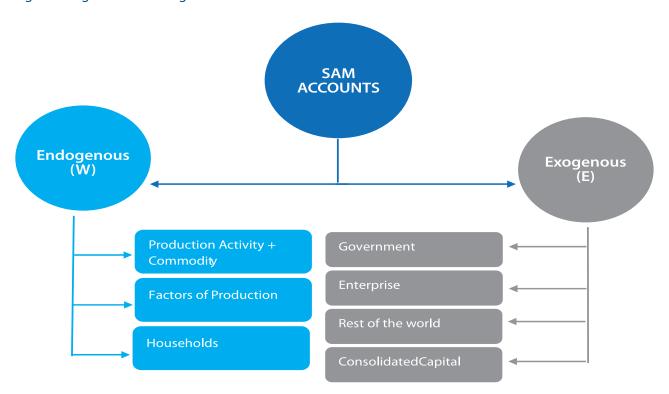


Fig 1. Endogenous and exogenous accounts of a SAM model

Source: Authors' specifications, UNDP

The interwoven nature of the system implies that the incomes of factors, households and production are all derived from exogenous injections into the economy via a multiplier process. The multiplier process is developed here on the assumption that when an endogenous income account receives an exogenous expenditure injection, it spends it in the same proportions as shown in the matrix of average propensities to spend (APS).

Schematic specification of the Georgia SAM model for 2021 has been presented below. Georgia data SAM 2021 composed 90 accounts – 37 accounts for activities; 37 accounts for commodities; factor account composed of 2 accounts; 10 accounts for households; and other accounts consists of 4 accounts. In the first step the accounts of the Georgia SAM 2021 (i.e. 90) have been decomposed into 'exogenous accounts (i.e. 4)' and 'endogenous accounts (i.e. 86)'. Following the general practice, endogenous accounts include activity, commodity, factor and household (i.e. four endogenous accounts with 86 elements). Exogenous accounts consist of government, rest of the world and savings-investment accounts. The endogenous and exogenous accounts decomposition is shown below.

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Table 3: Endogenous and exogenous accounts of Georgia SAM model

ENDOGENOUS A	CCOUNTS	EXOGENOUS ACCOUNTS						
Description	Number	Description	Number	Policy Instruments				
Activity	37							
Commodity	37	Government	1	Expenditure and Transfer				
Factor	2	Rest of the World	1	Export demand and Remittance				
Household	10	Savings-Investment	2	Investment and Inventory				
Total	86		4					

Source: Authors' specifications, UNDP

The endogenous and exogenous accounts decomposition in a SAM matrix format is shown below.

Fig 2. SAM Model Specification in a Matrix Format

		Activity					Fac	tors	Institution				Total Use
		A1		•••	•••	A37	LAB	CAP	НН	GoV	RoW	SI	
	C1												
Commodity	••												
Сот	••	Е	ndo	gen	ous <i>i</i>	AC (8	6 x 86	5)		Exogenous AC			
	••										(86 x 4)		
	C37												
	Labour (1)	[Multiplier)								Exogenous			
Factors		-									(81)	<b>(4)</b>	
Fa	a : 1(a)												
	Capital (1)												
_	Household (10)												
Institution	Government)												
Instii	Rest of the world		Leakage							Other			
	SI (2)												
	Total Supply												

Source: Authors' specifications, UNDP

Table 4. Description of the endogenous and exogenous accounts and the multiplier effects

#### ENDOGENOUS (W) EXOGENOUS (E

The activity (gross output multipliers), indicates the total effect on the sectoral gross output of a unit-income increase in a given account, *i* in the SAM, and is obtained via the association with the commodity production activity account *i*.

The consumption commodity multipliers, which indicates the total effect on the sectoral commodity output of a unit-income increase in a given account *i* in the SAM, is obtained by adding the associated commodity elements in the matrix along the column for account *i*.

Intervention into through activities
(E = i + g + e), where i= GFC + ST (GFCF)
Exports (e)
Government Expenditure (g)
Investment Demand (i)
Inventory Demand (i)

The value-added, or GDP multiplier, giving the total increase in GDP resulting from the same unit-income injection, is derived by summing up the factor-payment elements along account i's column.

Household income multiplier shows the total effect on household and enterprise income and is obtained by adding the elements for the household groups along the account i column. Intervention via Households (E = r + gt + ct), where Remittance (r) Government Transfers (gt) Enterprise Transfers (ct)

$$W = M E + E = (I - M)^{-1} E$$

The multiplier analysis using the SAM framework helps to understand further the linkages between the different sectors and the institutional agents at work within the economy. Accounting multipliers have been calculated according to the standard formula for accounting (impact) multipliers, as follows:

- **W** is a vector of endogenous variables (which is 86 according to 2021 SAM with all accounts showing number with no zero)
- **M E** is a vector of exogenous variables (which is also 86 according to 2021 SAM with lots of zero suggesting that policy options are not large)
- M is the matrix of average expenditures propensities for endogenous accounts, and  $(I M)^{-1}$  is a matrix of aggregate accounting multipliers (also known as generalized Leontief inverse).

The present multiplier framework has four endogenous accounts, and, hence, for each account in the SAM we can calculate four types of multiplier measures due to changes in any one of the various exogenous accounts.

Moreover, the SAM multiplier model also allows tracing three types of impacts of any exogenous intervention. These are: (i) direct effect; (ii) indirect effect and induced effect. For instance, government interventions such as social protection programmes which aim to smooth household consumption are expected to have an impact on the economy through different channels:

#### (A) Direct effects:

Government transfers to households would increase their income. An increase in income leads to higher consumption of goods and services of their choice. The income and consumption increase (or change) of households constitute direct effects of social protection intervention.

(B) Indirect effects: An increase in household income may likely trigger an additional demand for goods and services - requiring higher outputs and more employment of factors (labour and capital). The additional output and employment created in the supply chain (through backward linkages) are the *indirect effects*.

(C) Induced effects: The additional workers employed by the expansion of the sectors supplying to it (through indirect effects) now spend more - which generates additional production and employment in various other sectors throughout the economy, creating a multiplier of further demand.

#### 3.2 SOCIAL ACCOUNTING MATRIX AND POVERTY MODEL

Georgia outperforms neighboring Armenia and Black Sea country Moldova with the lower poverty rate (2021 results) and is close to the poverty rate of neighboring Türkiye (14.4% in 2020). The poverty reduction was much smaller in the neighboring and regional countries. However, the data for some countries is not available for 2021 and 2022.

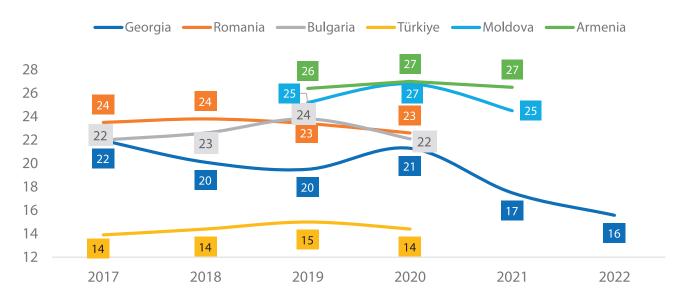


Figure 3. Poverty rates in different countries (%, national poverty line)

Source: GeoStat, World Bank (WB), Author's calculations

The economy of Georgia has increased by 25% and the poverty rate has decreased by 6% to 15.6% in 2018-2022 years. Poverty continues to fall but not as rapidly as before. The decreasing poverty trend was slowing down. The average annual decrease in poverty was 1.6% in 2013-2017 years and it has slowed down to 1.3% in 2018-2022 years. A 1% increase in real GDP is associated with decreasing poverty trend by 0.15% on average in Georgia in 2023-2027 years.



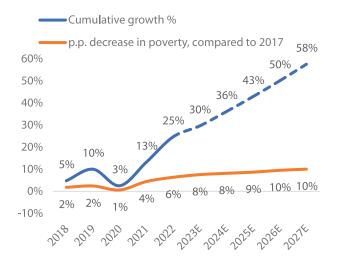
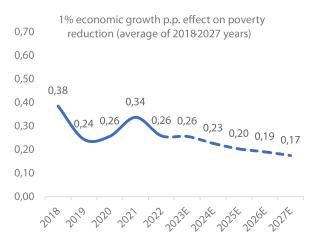


Figure 5. The ratio of economic growth and poverty reduction



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**Real GDP:** In the base scenario real GDP growth rates may vary between 4% to 5% between 2023 and 2027. The real GDP growth rate likely jump to about 6% in 2023 in the high case scenario before settling to around 7% in 2025 and beyond – implying 2 percentage points (p.p.) gain in real GDP growth rates over the BAU scenario. However, there are risks also which is captured by the low growth scenario – which is based on lower FDI, remittance inflows as well as the lower growth for exports from Georgia.

High scenario ——Base scenario Low scenario 12,0% 10,5% 10.1% 10,0% 7,0% 7,0% 7,0% 7,0% 8,0% 6,0% 6,0% 5,0% 5,0% 5,0% 5,0% 4,0% 4,0% 4,0% 4,0% 4.0% 4,0% 2,0% 2,0% 0,0% 2021 2022 2023 2024 2025 2026 2027

Figure 6. Medium term GDP growth outlook (%)

Source: Georgia SAM Model

**Nominal GDP:** additional gains (expansion) and losses (contraction) have been measured against the corresponding annual base nominal GDP values. The additional GDP gains may increase from GEL 1.5 bln in 2023 to over GEL 10 bln in 2027, if the favourable external projections materialised. Even if the economy contracts – which is unlikely – the size of contractions have been found smaller than the gains.

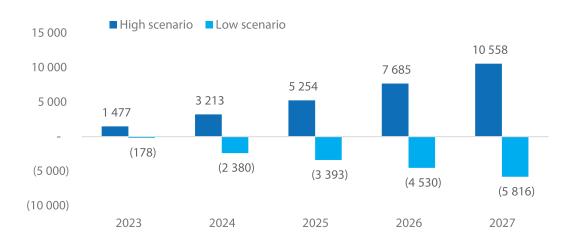


Figure 7. Expansion and contraction of the Georgian economy compared to the base scenario (GEL mln)

Source: Georgia SAM Model

The poverty is expected to decrease in the country in the following years. In the BAU scenario, the average GDP growth rate is expected at 4.8% in 2023-2027 years and the poverty rate (population under absolute poverty line) is expected to decrease by 3.7 p.p. to 11.9%, in the same period.

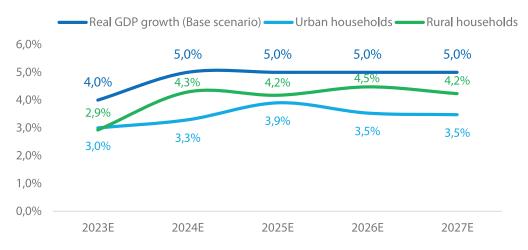
Expected real GDP growth Estimated poverty rates 20,0% 15,6% 14,4% 13,8% 13,2% 15,0% 12,4% 11,9% 10,1% 10,0% 5,0% 5,0% 5,0% 5,0% 4,0% 5,0% 0,0% 2022 2023 2024 2025 2026 2027

Fig. 8. Expected real GDP growth (%, Base scenario) and poverty rates (%, absolute poverty line) in Georgia

Source: Georgia SAM Model, Author's calculations

Rural household consumption growth is expected to be higher, compared to the urban households, under the projected scenarios, which could be driven from the lower base. High GDP growth is translated into consumption growth of rural and urban households. Difference between the real consumption growth or rural and urban household, which is adjusted for the expected economic growth and inflation is 0.6% on average in 2023-2027 years.

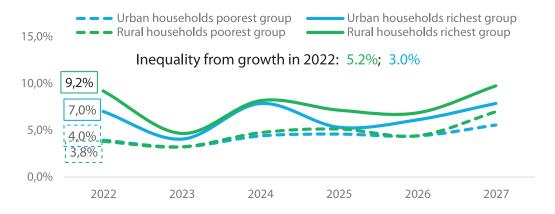




Source: Georgia SAM Model, Author's calculations

Economic growth could widen inequality of the poorest and richest groups of households in rural and urban areas, but the inequality increase is smaller in urban areas. The inequality from consumption growth of richest and poorest groups of rural and urban population is estimated at 5.2% and 3.0% in 2022, which is driven from the 9.2% and 7.0% consumption growth of the richest groups in rural and urban areas, respectively and the lower 3.8% and 4.0% consumption growth of the poorest groups in rural and urban areas, respectively.

Fig. 10. Poorest and the richest group consumption growth in urban and rural areas (%)<sup>2</sup>



Source: Georgia SAM Model, Author's calculations

Consumption growths by the five representative households in 2023-2027 years suggests, that the growth impact is higher for the high-income household groups, compared to their poorer counterparts.

Table 5. Household Consumptions and growths (%) under the low and high scenarios

	2023		20	2024		2025		2026		2027	
HOUSEHOLDS	Low	High	Low	High	Low	High	Low	High	Low	High	
				RU	JRAL						
Poorest	-3.55	7.26	-5.92	13.68	-5.43	17.11	-6.74	22.92	-8.28	29.15	
HHQ2	-3.40	6.96	-5.75	12.96	-5.44	16.65	-6.71	22.13	-8.15	27.93	
HHQ3	-3.44	7.04	-5.69	12.95	-5.48	16.68	-6.72	22.02	-8.10	27.59	
HHQ4	-3.47	7.15	-5.49	12.96	-5.98	17.36	-7.33	22.90	-8.74	28.64	
Richest	-3.76	7.78	-5.57	13.86	-6.74	19.15	-8.26	25.24	-9.76	31.47	
				UF	RBAN						
Poorest	-3.33	6.81	-5.47	12.80	-5.54	16.72	-6.94	22.57	-8.53	28.97	
HHQ2	-3.71	7.64	-6.24	14.29	-6.34	18.91	-7.89	25.40	-9.62	32.47	
HHQ3	-3.97	8.22	-6.32	15.15	-7.21	20.91	-8.98	28.13	-10.83	35.81	
HHQ4	-4.18	8.70	-6.41	15.92	-7.92	22.59	-9.85	30.37	-11.82	38.72	
Richest	-4.67	9.76	-6.82	17.58	-8.80	25.16	-10.95	33.93	-13.08	43.21	
Overall	-3.87	8.00	-6.01	14.58	-6.87	19.93	-8.50	26.57	-10.18	33.57	

Source: Georgia SAM Model, Author's calculations

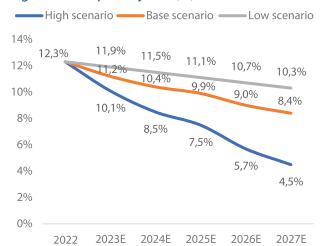
In the Georgian SAM, households have been represented by ten categories classified first by locations – rural and urban and then by income quintiles.

**Poverty is expected to decrease in Georgia, both in Urban and Rural areas by 3.9 p.p. and 3.4 p.p. respectively, in 2022-2027 years.** Head count poverty rate was 15.6% in Georgia in 2022. According to the SAM 2021 and poverty model estimates, Under the base scenario, rural poverty rate declines to 17.2% in 2027 from 20.6% in 2022 and urban poverty rate declines to 8.4%, from 12.3%, over the same period.

Fig. 11 Rural poverty rate (%)



Fig. 12. Urban poverty rate (%)



Source: Georgia Poverty Model, Author's calculations

ENDING POVERTY IN GEORGIA: NEW ECONOMIC MODELING

## 4. MACRO AND SECTORAL OVERVIEW

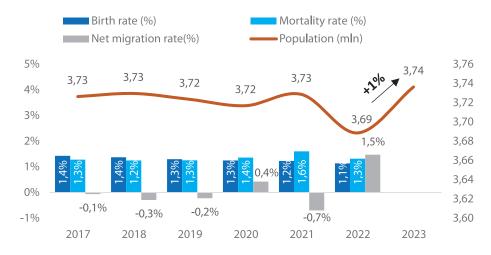
The economy of Georgia surpassed the COVID-19 pre-pandemic level in 2021 with the double-digit real GDP growth 10.5% and continued strong growth in 2022. The real GDP growth in 2022 was 10.1% (according to the GeoStat preliminary data). Strong growth in 2022 was mainly driven from the improvement in major economic indicators (FDI) and supported the decrease in unemployment rate to 17.3% in 2022, -3.3 p.p. down YoY.

Table 6. A brief socio-economic snapshot of Georgia in 2022

Population	+1.3% increase YoY to 3.74 mln in 2023
Gender distribution	Female 52%, in 2022 (broadly unchanged for the last five years)
Urbanization rate	+0.3% up to 59.7% in 2022
Labor force	The labor force slightly increased to 1.53 mln in 2021 (+ 1%, YoY) and 1.55 mln in 2022 (+1% YoY).
Unemployment	The unemployment rate was up to 20.6% (+2%, YoY) during the pandemic in 2021 but has decreased sharply in 2022 to 17.3% (by more than 3%).
Average wage	The average nominal wages were up by $+10\%$ and $+22\%$ YoY to GEL 1,305 and GEL 1,592 in 2021 and 2022 years, respectively. But the real wages adjusted for inflation increased by $+12\%$ in 2021 and 2022 years, compared to 2020.
GDP (USD)	+18% and +33% YoY to USD 18.7 bln and USD 24.8 blin in 2021 and 2022 years.
GDP per capita (USD)	USD 5,013 in 2021 and USD 6.736 in 2022.
Inflation	Inflation in Georgia has skyrocketed from 2H 2021 and annual inflation reached its peak (13.9%) in December 2021 but has slowed down to 0.6% in June 2023.
Poverty and inequality	The share of the population under the absolute poverty line has decreased by -1.9 p.p. to 15.6% in 2022 and the inequality was decreasing in Georgia.
FDI	Displayed a sharp recovery to USD 1,242 in 2021 (+111%, YoY) and nearly doubled to USD 2 bln in 2022.
Tourism	Income in 2022 surpassed USD 3.5 bln and recovery in terms of visitor trips accounted for 70% of the 2019 result.
Remittances	Surpassed USD 2 bln in 2021 (+24%, YoY) and doubled to USD 4 bln in 2022.
Trade	Georgia's foreign trade turnover in goods was record high in 2022. Export and import grew by $+32\%$ to USD 5.6 bln and by $+34\%$ USD 13.5 bln, respectively, in the same period.

Population increased +1% YoY to 3.74 mln in 2022. The number of emigrants was record high for the last years and reached 125,269 people in 2022 (3.4% of population) but the net immigration was positive (+54,459), mainly due to the high immigration from Russia. The mortality rate slowed down to 1.3% in 2022, compared to the 1.6% in 2021, which could be attributed to the positive effect of the post-pandemic period.

Fig. 13. The population dynamics in Georgia

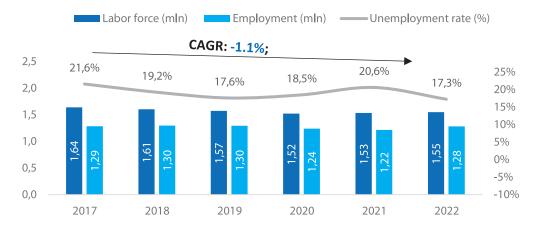


Source: GeoStat, Author's calculations,

#### Labor force, unemployment, and average wages

Unemployment has decreased for the last years due to the lower number of the labor force. The labor force has decreased by a -1.1% 5-year CAGR to 1.55 mln in 2022 but the employment has broadly unchanged over the same period (1.28 mln). Unemployment decreased sharply, by more than 3% in 2022 to 17.3%.

Fig. 14. The labor force, employment (mln) and unemployment rate (%) in Georgia



Source: GeoStat, Author's calculations,

Inflation offsets most of the growth in the country. The average nominal wages were up by +10% to GEL 1357 in 2021 and has reached GEL 1,592 in 2022, displaying +22% YoY growth. However real wages (adjusted for inflation) did not change in 2021 and increased by +12% YoY in 2022.

Average wages (GEL) Average wages at constant prices (GEL, 2017) Real change (% YoY, adjusted for inflation) 2 000 1800 1 600 1 400 1 200 1 000 800 130 191 990 049 600 041 400 200 0 2017 2019 2020 2022E 2018 2021

Fig. 15. The average wages at current prices and constant prices (2017) and real change (%) in Georgia

Source: GeoStat, Author's calculations,

Real GDP growth was double digit (10.1%) in Georgia in 2022<sup>3</sup>. GDP per capita was USD 5,013 in 2021 and reached USD 6,700 in 2022 (+34% YoY), High increase in the GDP per capita was partially due to the solid appreciation of GEL against the USD (-9% to 2.92 in 2022).

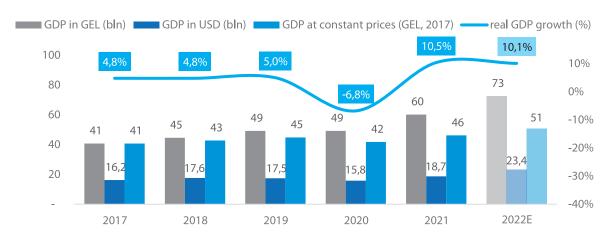


Fig. 16. GDP (GEL, USD) at market prices and constant prices (2017) and real GDP growth (%)

Source: GeoStat, TBC Capital, Galt&Taggart, Author's calculations,

Inflation in Georgia has skyrocketed from 2H 2021 and annual inflation reached its peak (13.9%) in December 2021 but decreased thereafter to 9.4% and 8.1% in January and February in 2023, to 9.4% and 8.1% in January and February in 2023, and to 0.6% in June 2023.

Overall, it is expected, that inflation will be close to its target (3%) in 2023-2027. However, due to the high dollarization in the country and open and small economy, the inflation in Georgia is highly dependent on the global commodity prices and even the historically high monetary policy rate (11%) does not guarantee that the prices will go down sharply if they will not be stabilized in the world market.

3

Preliminary results, GeoStat

Annual inflation Monetary policy rate Target inflation 16% peak13,9% 14% 11% 12% 10% 8.1% 8% 6% 5,3% 4% 2% 2,7% 0% 28.01.2017 28.01.2018 28.04.2018 28.07.2018 28.10.2018 28.01.2019 28.04.2019 28.07.2019 8.10.2019 28.04.2017 28.07.2017 28.10.2017 28.10.2020 8.01.2020 8.07.2020 28.01.2022 8.04.2022 8.01.2023 8.04.2020 8.01.2021 8.07.2022 8.10.2022 28.04.202 28.04.202 8.07.202 28.10.202

Fig. 17. Annual inflation, monetary policy rate, and target inflation (%) in Georgia

Source: NBG, Author's calculations,

High inflation creates pressure on prices and especially on the primary goods of consumption. Inflation in Food and non-alcoholic beverages, Housing, and transportation was 18%, 18%, and 16%, respectively in 2022. High inflation offsets most of the growth for the population with low or medium income, while food, transportation and utilities have a sizeable portion in their consumption basket.

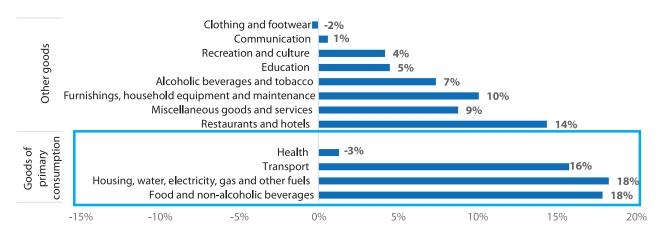


Fig. 18. Monthly average inflation in 2022 (%), compared to 2021 in Georgia

Source: GeoStat, Author's calculations,

#### 4.1 POVERTY AND INEQUALITY

The share of the population under the absolute poverty line has decreased by -3.8% YoY to 17.5% in 2021 (19.5% in 2019) and to 15.6% in 2022. In terms of relative poverty indicators, 18.9% of the population was under 60% of the median consumption (-0.8%, YoY) and 7.4% of the population was under 40% of the median consumption (+0.5%, YoY) in 2021.

The inequality was decreasing in Georgia in 2017-2021 years. The Gini coefficient has not changed (0.37) in terms of total income in 2021, compared to 2020. However, has decreased from 0.36 to 0.34, in terms of consumption expenditures, in the same period. Overall, the Gini coefficient (in terms of total income and total consumption expenditures) has decreased, by -0.047 and 0.062 points, respectively, in 2017-2021 years.

■ Population under absolute poverty line (%, LH) Population under 60% of the median consumption (%, LH) Population under 40% of the median consumption (%, LH) The Gini coefficient (total income, RH) The Gini coefficient (total consumption expenditure, RH) 0,60 40,0% 0,41 30,0% 0.39 0,39 0,37 0,37 0,40 0,40 0,37 0.37 20,0% 0,36 0,20 10,0% 0,0% 0,00 2017 2018 2019 2020 2021

Fig. 19. Poverty and inequality in 2017-2021 years in Georgia

Source: GeoStat, Author's calculations,

Average monthly income was increasing at a slower rate in Georgia, compared to the subsistence minimum in 2015-2022 years. Average monthly income was increasing at a 4.5% seven-year CAGR and is expected to have reached GEL 1,405 by the end of 2022. The subsistence minimum was increasing at a 6.2% and is expected to reach GEL 411 for average household, over the same period $^4$ .

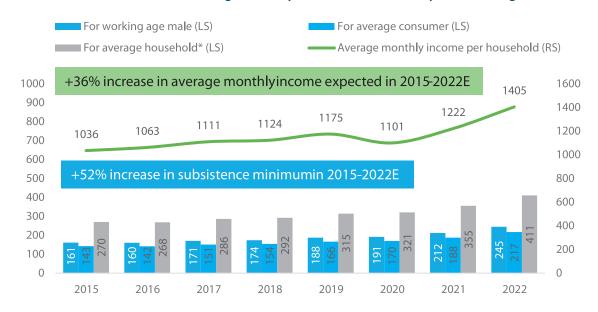


Fig. 20. Subsistence minimum and average monthly income in 2015-2022 years in Georgia

Source: GeoStat, Author's calculations,

4 GeoStat, Author's calculations

#### 4.2 EXTERNAL TRADE: EXPORTS AND IMPORTS WERE RECORD HIGH IN 2022

Georgia's foreign trade turnover in goods has increased by +323% YoY and surpassed USD 19 bln in 2022. Export and import grew by +32% to USD 5.6 bln and by +35% YoY to USD 13.6 bln, respectively, in the same period. Trade deficit has widened to USD 8 bln in 2022. Increased tourism and migrants from Russia are one of the drivers of the higher domestic demand. Also, the increased exports are contributing to the higher imports through the intermediary goods of production and re-exports.

Effects of the Russia and Ukraine war and the following consequences on the international market (increased prices, etc.) could be estimated at USD 0.8 bln as an additional export from Georgia, which is the deviation from the 2015-2021 annual growth rate of 12%, compared to the actual 32% growth in 2022. Also, the increased exports and 4.7 mln visitor trips has contributed to the increased domestic demand and led to the higher imports, USD 3.5 bln more in 2022, compared to 2021. It is noteworthy to mention that the GEL appreciation against the USD by 9% in 2022, could be significant contributor in terms of increased exports and imports in USD value.

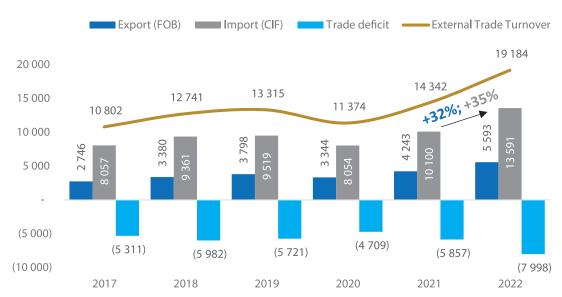


Fig. 21. Foreign trade (USD, mln) in Georgia

Source: GeoStat, Author's calculations

Russia and the Commonwealth of Independent States (CIS) countries (excluding Russia, Belarus and Ukraine) accounted for 12% and 31% of the Georgian exports in 2022. EU and rest of the countries accounted for more than half of the Georgian exports (57%) in the same period. Registered export grew at a 25% six-year Compound Annual Growth Rate (CAGR) in Russia in 2015-2021 years but slowed down to 7% in 2022. Also, export growth in Belarus and Ukraine moved to the negative territory and accounted for -5% and -25%, respectively, in the same period.

ENDING POVERTY IN GEORGIA: NEW ECONOMIC MODELING

Rest of the world EU ■ CIS excl. Russia, Belarus and Ukraine \* Ukraine Russia ■ Belarus 6000 -5% +7% 5000 CAGR 2015-2021: +13%; +2%; +31%; +10%; +25%; +19%. 4000 +68% 3000 -25% +20% 2000 +35% 1000 0

Fig. 22. Exports from Georgia (USD, mln) in different countries in 2015-2022

Source: GeoStat, Author's calculations

2015

2016

2017

Textile becomes one of the top exported products (4% of the total) and Increasing textile industry is creating additional jobs in the country. Income from the textile industry has surpassed USD 200 mln in 2022, displaying +40% growth YoY. Besides, the copper & concentrates, ferro-alloys, motor-cars, wine & spirits and water are the main exported products and expected to account nearly 50% of total exports in 2022.

2018

2019

2020

2021

2022

Import of petroleum products reached USD 1.8 bln in 2022, which is record number and is mostly driven from the increased prices on the petroleum products in the most months of 2022. However, increased tourism and higher mobility in the country could be the important driver also.



Source: GeoStat, Author's calculations

High YoY growth of the export of fertilizers (+155%) is mainly one-off effect, which driven from the increased prices on the world market on fertilizers. Export of motorcars increased nearly 4x since 2015, expected to surpass USD 800 mln in 2022. The development of the motor-car service industry drives the non-producer Georgia to the important regional provider of the car and explores transit capacities of the country through the Poti and Batumi sea ports.

Fig. 25. Growth rates of exported products (%)

-6%

Other

Copper & aluminium

Gold & jewelery

Hazelnuts & nuts

Wine of fresh grapes

Copper & concentrates

Medicaments

Fertilizers

Textile

Water

Spirits

Motor cars

Ferro-allovs

YoY 22 CAGR 15-21

13%

6%

1%

16%

16%

50%

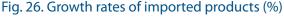
40%

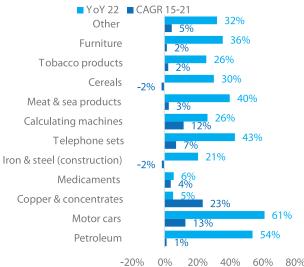
83%

100%

150%







Source: GeoStat, Author's calculations

-50%

Overall, Georgia is highly dependent on imported petroleum and food products, electronics and construction materials. YoY high growth rates of top imported products in 2022 is driven from the increased domestic demand and re-export of this products. Also, it is important, that the war in Ukraine has increased challenges in the global value chain, which is associated with the higher transportation costs and prices on products in the world market, leading to the higher import prices.

#### 4.3 REMITTANCES: SURPASSING USD 4 BLN

Migrants from Russia and restrictions on international bank transfers from Russian has led to the boom of remittances in Georgia. The net inflow from Remittances was increasing at a 6-year 14% CAGR and reached USD 2 bln in 2021 but has doubled to USD 4 bln in 2022 (+98% YoY). Despite the fact, that money transfers from Russia was decreasing by -2% annually in 2015-2021 years, it has increased 5x to USD 2 bln in 2022, USD 1.7 bln more, compared to 2021.

Russia accounted for half of the total remittances in 2022. Positive tendency was observed in 2022 that Georgian economy was more dependent on the remittances from the developed countries (EU and rest of the world), compared to the CIS. The share of EU and the rest of the world in total remittances received has increased from 58% in 2015 to 73% in 2021. However, the share decreased to circa. 41%, due to the one-off effect in 2022.

■ Rest of the world ■ EU ■ CIS\* ■ Ukraine Russia ■ Belarus 4029 YoY 2022: +11% -120%; +532% +2335% +13% +76% 4 000 CAGR 2015-2021: +16% +21% +42% -2%; +1% +82% +98% 3 000 2027 2033 2 000 1683 321 1496 291 1350 299 1177 68 350 959 909 16 367 1021 3 1 000 70 905 366 58 736 307 614 504 12 388 325 576 447 455 404 0 0 -13 -1 000 2018 2022E 2015 2016 2017 2019 2020 2021

Fig. 27. Net inflow from remittances (USD, mln) in Georgia

Source: NBG, Author's calculations. Note: \* CIS excluding Russia, Belarus, and Ukraine.

#### 4.4 FDI: RECORD HIGH IN 2022, COMPRISING USD 2 BLN

After the recovery to USD 1,2 bln in 2021 (+111%, YoY) FDI increased sharply in 2022 and reached USD 2.0 bln (+61% YoY). Georgia's direct dependence on CIS countries (incl. Russia, Belarus, Ukraine) in terms of officially registered FDI is negligible, compared to the EU and rest of the world. However, the country registration of FDI could be misleading and the investments could be indirectly from the above-mentioned countries, especially from Russia, through the intermediary countries.

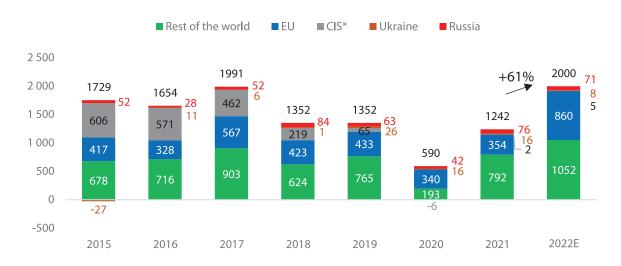
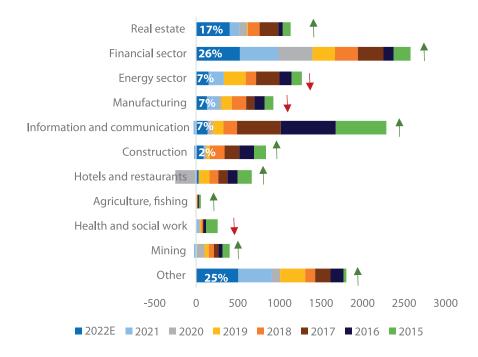


Fig. 28. FDI by countries (USD, mln) in Georgia

Source: Geostat, Author's calculations

Real estate, Financial and Energy sectors account for the largest share in FDI, with expected USD 1.1 bln, and 17%, 26%, and 7% of shares, in 2022, respectively. In 2022, the largest increase in FDI was in real estate (+269%, YoY).

Fig. 29. FDI by sectors (USD, mln) in Georgia

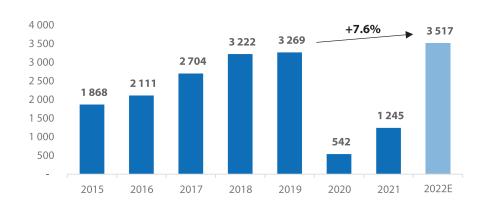


Source: GeoStat, Author's calculations

# 4.5 TOURISM: FULL RECOVERY IN TERMS OF REVENUES BUT THE RECOVERY OF VISI TOR TRIPS IS ONGOING

**Full recovery in revenues from tourism in 2022.** Income from tourism surpassed USD 3.5 bln in 2022, displaying +8% higher, compared to the pre-pandemic period (2019 year). Tourism industry was one of the drivers of Georgian economy before COVID-19 pandemic with 8.4% share in GDP in 2019. In 2020, tourism indicators sharply declined and recovery started in 2021. Russian invasion to Ukraine affected number of tourists and their spendings since 2022.

Fig. 30. Revenues from tourism (USD, mln)



Source: The National Bank of Georgia (NBG), Georgian National Tourism Association (GNTA), Author's calculations

Note: \* International visitor is a traveler taking a trip to a main destination for less than a year, for any main purpose (business, leisure, or other personal purpose) other than to be employed by a resident entity in the country or place visited.

The recovery of visitor trips is ongoing. International visitor trips recovered to 4.7 mln in 2022, circa. 70% of the 7.7 mln international visitor trips in 2019. Due to the war in Ukraine, visitors from Russia (+410% YoY) and Belarus (+142% YoY) has increased mostly in 2022. However, visitors from other countries are also increasing.

The structure of the visits has changed in 2022. More tourists are entering Georgia, for holidays/recreation and visiting friends and relatives, while the share of business trips has declined in the same period. Increase in spending per visit in USD can be attributed to increased length of the visits, high inflation and appreciation of the GEL against the USD.

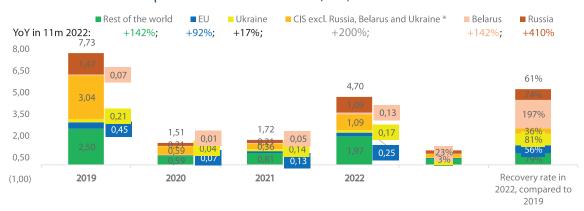


Fig. 31. International visitor trips from different countries (mln)

Source: The National Bank of Georgia (NBG), Georgian National Tourism Association (GNTA), Author's calculations

Tourism sector has a complex value-creation system. The sector can be divided into three functional levels: firm-level, tourism government, the whole of the government level. Firms-level components create direct value added in the sector, such as means of travel, accommodation and food suppliers, entertainment, recreation, etc. forming seven parts of the chain.

Tourism governance includes different types of support mechanisms provided from the government, mainly through the Georgian National Tourism Administration (GNTA). Besides supporting private enterprises, GNTA implements communication campaigns.

Entire government is a responsible for creating a safe, easily accessible destination for tourists with diverse tastes and origin.

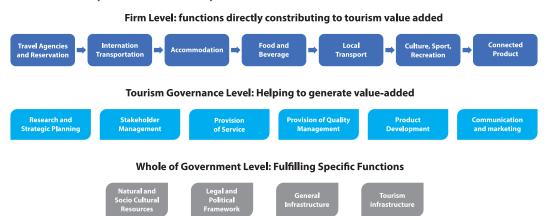
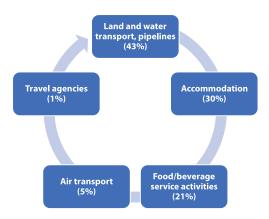


Table 7. Tourism Industry Value Chain Analysis

Source: Tourism Industry Value Chain Analysis, UNDP

Almost half (48%) of tourism value added is created in transport (land, water, air) followed by accommodation (30%) and food/beverage activities (21%). Besides direct effect, business sector benefits indirectly from the tourism revenues through multipliers. According to the calculations in Tourism Industry Value Chain Analysis, the multiplier for the category Hotels and Restaurants is 0.77 and Transport - 0.76. Loss in multiplier can be caused by imported goods and services in the sector.

Table 8. Tourism industry value added by categories



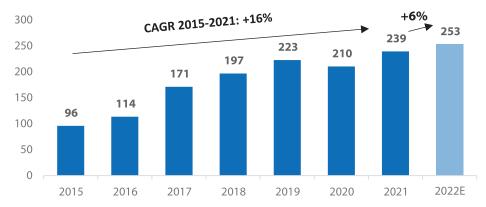
Source. Tourism Value Chain Analysis, UNDP

Even though tourism sector is expanding after pandemic turmoil, there still are the issues to be resolved. For example, a law on tourism, that will require private sector to introduce higher standards in the service is not functioning. Prioritizing specific actions and collecting tourism data to assess the role/share of the sector in GDP is still challenging. Quality of services in the sector is still heterogeneous, and should be improved by reforming VET institutions in the country, introducing new technologies and innovative services to the visitors. Research and development activities by GNTA should be used for selected target audience and providing consumer-specific activities for target groups.

#### 4.6 WINE SECTOR: CONTINUING STABLE GROWTH AND SUPPORTING EXPORTS

Wine is top 4 exported product of Georgia and is continuing stable growth. Revenue from wine export is expected to increase +6% YoY and surpass USD 250 mln in 2022. The growth has been slowed down, compared to annual growth of +16% in 2015-2021 but this could be driven from the high base in 2021, while the sector has been nearly tripled since 2015.

Fig. 32. Revenues from the wine export (USD, mln)



Source: GeoStat, Author's calculations

Russia still dominates the Georgian wine export market, making up to 57% share in total exports (42 mln liters, in 2021), followed by Ukraine and Poland, with 10% and 7%, respectively. In the nine months of 2022, exports to Russia increased by 16% YoY and halved to Ukraine.

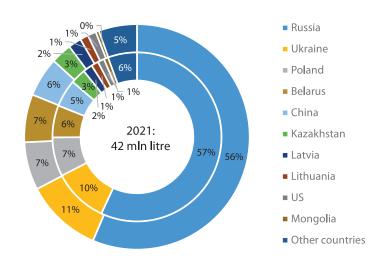


Fig. 33. Structure of the wine export by countries, 2020 (outside)-2021 (inside circle)

Source: Wine Industry Value Chain Analysis, UNDP

271.6 thousand tones (-14% YoY) of grapes were produced in Georgia on 46,000 ha of land in 2021. Kakheti region dominates in grapes production with 73% share in total amount, with 70% white and 30% red grapes. The vast majority (88%) of total vineyards are owned by individual farmers and dominating size (83%) of vineyards is in a range of 0.01 - 1 ha, while majority (44%) of total cultivated vineyards is owned/managed by households owning 1-5 ha of vineyards.

For small and medium size producers (0.01-5ha) of white wine profit before taxes is almost the same, while it doubles for large size producers (5-78ha). Large size producers keep higher profit margins on red wine (39%) compared to producers of white wine (33%).

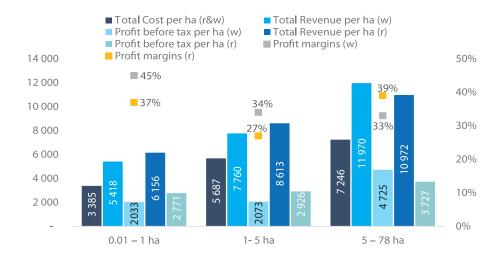
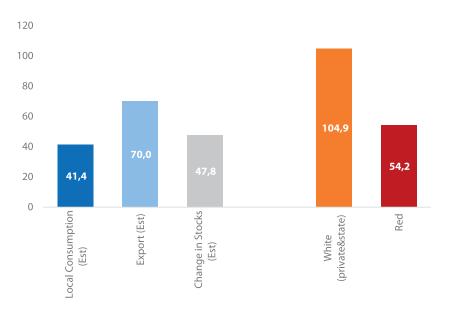


Fig. 34. Total cost, revenue, and profit (GEL/ha), profit margins (%) by range of white&red wine

Source: Wine Industry Value Chain Analysis, UNDP

In 2022, approx. 159 mln liters of wine was produced (66% of white and 34% red wine). Local consumption was nearly 41 mln liters of wine and 70 mln liters was exported worldwide.

Fig. 35. Produced wine and wine-components by markets and wine types (mln. liters)



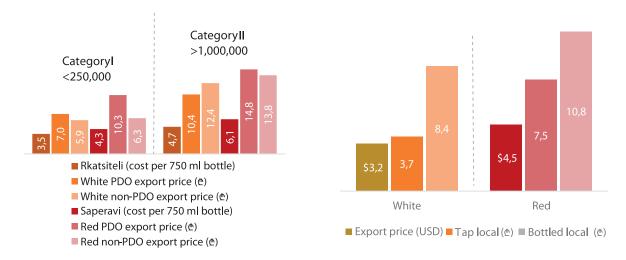
Source: Wine Industry Value Chain Analysis, UNDP

Production of Saperavi wine (red) is costlier than Rkatsiteli (white), due to the higher cost price of the grapes. Therefore, suppliers are putting higher price on red wine, especially on PDO (Protected Destinations of Origin) wines.

Export prices in white and red wine varies within the range of 3-13 USD for white wine and 4.2-9.4 USD for red wine, based on 9 months of 2022. The average weighted price for white wine is USD 3.2 and for red – USD 4.5. But the average prices of tap and bottled wine are quite different in both cases. Bottled wines are more expensive due to higher cost of production. Also, export prices of wines produced in small wineries are quite higher, compared to the export price of large producers.

Fig. 36. Production costs and export prices by types<sup>5</sup>

Fig. 37. Export (\$) and Local prices (\(\Delta\))



Source: Wine Value Chain Analysis, UNDP

<sup>5</sup> I category - features of the companies belonging to 2nd category as of Georgian law on Accounting, Reporting and Audit. According to this distribution, major share of wine producers (94%) belongs to "small" producers' category. In total, producers of this category are capable to process 28% of grapes produced in Kakheti region. Therefore, "small" producer's profile is used for the 2nd group of classification (II category).

Wine sector is subsidized by the government. The state buys excess supply of grapes in the market which is processed by JSC AKURA. Maintaining subsidies in the long-run can have an adverse effect on the sector.

Dependence on Russia should decrease by increasing diversification of the export markets. Improved marketing and promotion of Georgian wine is a step forward to entering new markets and obtaining a stable place on it.

#### 4.7 HAZELNUT & CITRUS: IMPORTANT SOURCE OF REVENUE IN THE WEST OF GEORGIA

Hazelnut and citrus are the important source of revenue in the west of Georgia for the rural population. Increasing trend of export revenues of these products since 2017 is expected to reverse in 2022 and decline by -13% YoY to USD 129 mln in 2022. Hazelnut exports are expected at USD 102 mln (-14%, YoY) and citrus at USD 28 mln (-8% YoY), in the same period.

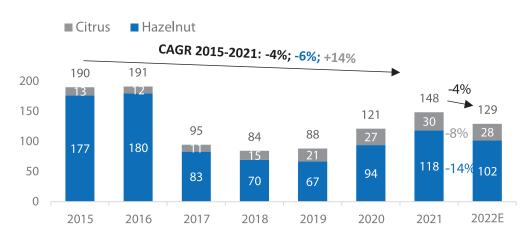
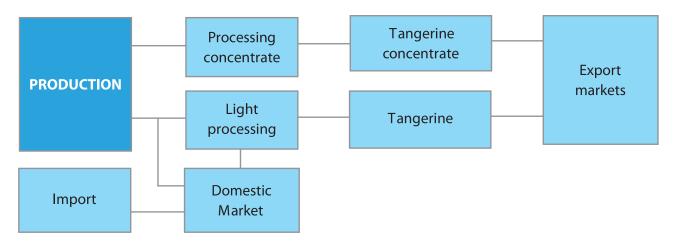


Fig. 38. Revenues from the Hazelnut and citrus exports (USD, mln)

Source: GeoStat, Author's calculations

Adjara's seaside municipalities (Batumi, Kobuleti, Khelvachauri) are main producer of citrus in Georgia and more than 26,000 households are involved in the production process. 61.6 thousand tons of citrus was produced in Georgia in 2021, out of which 93% is tangerine, 4% - orange, and 3% - lemon. Citrus production declines over time, by -4% annually, on average. This call be driven by the small-scale production. Mostly, households own 0.15-0.5 ha of land and there are no farming companies. 6.6 tons of tangerine is produced per ha on average and up to 2 tons - per household. Income of 70% of producers varies in a range of GEL 2,130-4,500 per ha.

Table 9. Tangerine value chain

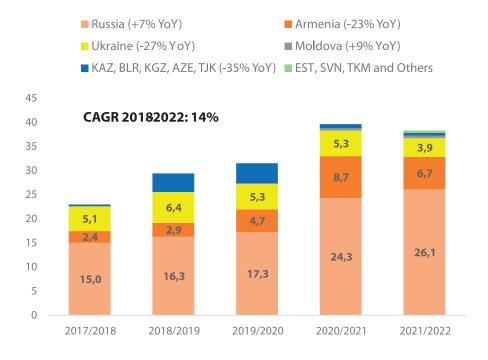


Source: Citrus Value Chain Analysis, UNDP

Produced tangerine is directly sold on domestic market or faces hard/light processing for export. Tangerine is purchased by a processing company which produce tangerine concentrate that is mainly exported to Israel and Japan (75%) as well as Russia, Ukraine, and other European countries. In 2021, 10.2 thousand tons of tangerine was processed to produce concentrate. Processing is subsidized by 200 GEL per ton, therefore, total subsidy in 2021 amounted to approx. 2 mln GEL. Average price for 1 ton of concentrate is 1,400 – 1,500 USD.

In case of light processing, tangerine is calibrated and packaged mainly for foreign markets. Tangerine is exported in more than 15 countries every year, where Russia, Ukraine and Armenia are dominating with total 93% of market share. Tangerine export has been increasing during 2017-2021 by 14%, on average, however, in 2021/2022 it declined by -3% YoY.

Fig. 39. Tangerine export in 2018-2022, thousand tons



Source: Citrus Value Chain Analysis, UNDP

ENDING POVERTY IN GEORGIA: NEW ECONOMIC MODELING

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Russia is the largest trading partners with up to 70% share in total export, and +15% increase on average during 2017-2021 period. In 2021/2022 harvest season, export to Ukraine sharply declined by -27% to 3.85 thousand tons. However, this data does not reflect the war effect, as 2021/2022 harvest season ends in February, therefore, major part of export was finished before the war.

In 2021/2022 new export markets have opened for Georgian tangerine, such as Estonia and Slovenia, however, Azerbaijan and Tajikistan markets were lost.

Export price of tangerine did not change much in the last five years and varied in a range of 0.48-0.52 USD/kg.

#### 4.8 ENERGY AND OIL: DEPENDENCY ON RUSSIA IS INCREASING

Georgia is importing more electricity from Russia but share in total supply (Local generation + imports) is still low (8%). The electricity consumption grew to 14.2 TWH in 2022 (+3%, YoY). The strong growth in generation to 14.3 TWH (+13%, YoY) in 2022 decreases expected import of electricity to 1.4 TWH (-30%, YoY), in the same period. The share of Russian electricity imports in total supply of electricity (Local generation + imports) was 8% in 2022.

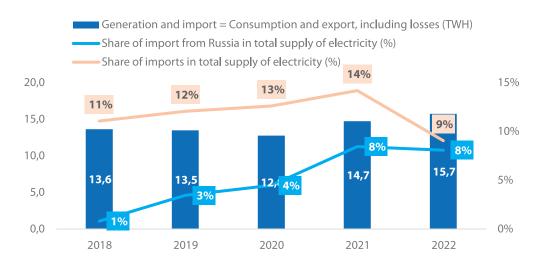
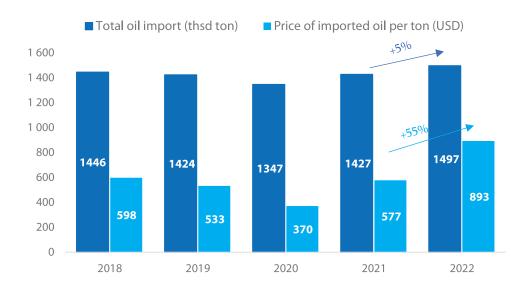


Fig. 40. Electricity balance of Georgia and share of Russian imports in total supply

Source: ESCO, UNDP

Price of imported oil reached \$893 per ton in 2022 (+55% YoY), due to the increasing price of oil worldwide, caused from the Russian invasion of Ukraine. 97% of oil supply is imports, which increased by +5%, in the same period.

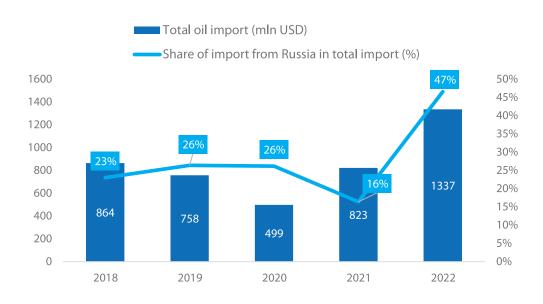
Fig. 41. Oil import (thsd ton) in Georgia and price of imported oil per ton



Source: GeoStat, UNDP

The volume of oil import increased from the world (+62% YoY) as well as Russia (4.5 times), in 2022. Georgia is importing more oil from Russia and its share in total oil imports has reached record high, 47%, in the last five years.

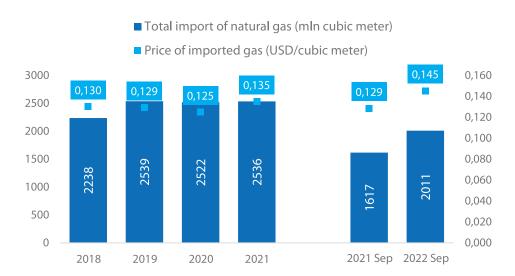
Fig. 42. Total oil import (mln USD) and share of Russian oil



Source: Geostat, UNDP

Demand for natural gas in Georgia is balanced by imports (approx. 99.5%), while local gas production reaches 0.5% of total supply, on average. Price of natural gas increased +13% YoY, reaching 0.145 USD/cubic meter, in nine months of 2022.

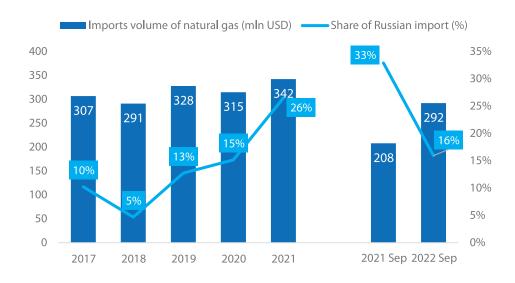
Fig. 43. Natural gas import (mln cubic meter) in Georgia and price of imported gas (USD/cubic meter)



Source: GeoStat, UNDP

Dependence on Russia in terms of natural gas has been increasing gradually since 2018, however, there was a sharp, -32%, decline in imports of natural gas in nine months of 2022, YoY. At the same time, volume of imports increased by +41%, YoY and reached \$292 mln.

Fig. 44. Total gas imports (mln USD) and share of Russian gas (%)



Source: GeoStat, UNDP

## 5. POLICY RECOMMENDATIONS

nequality between poor and rich population could increase in the following years, while the growth is more towards the higher income groups of population. Considering the current double-digit growth and expected growth in the following years, the Government will have more resources to decrease inequality and achieve sustainable growth.

Modelling suggests that rural poverty rate is expected to decrease by 3.4 p.p. to 17.2% and urban poverty rate by 3.9 p.p. to 8.4% in Georgia in 2022-2027 years. Consumption growths by the five representative households in 2023-2027 years suggests, that the growth impact is higher for the high-income household groups, compared to their poorer counterparts. The government could accelerate the decreasing poverty trend by increasing social transfers to the poor groups of population.

Poor households are more vulnerable to Inflation and more accurate household survey statistics needs to be carried out to estimate the negative effect from inflation. The Development of the "basic needs basket" of goods and services and monitoring inflation could support to better design the social packages for the vulnerable groups of population.

High inflation creates pressure on prices and especially on the primary goods of consumption and offsets most of the growth for the population with low or medium income. Average monthly household income increased by +36% in 2015-2022 years (According to our projections for 2022), while the subsistence minimum for average household has increased by +52% to GEL 411, over the same period.

Vulnerable groups need multidimensional support to overcome poverty trap, decrease dependency on the social assistance packages and achieve sustainable development in the medium-term.

The poverty analysis in Georgia could be extended to have multidimensional outlook which could be based on the Multidimensional Poverty Index (MPI) index and could provide solutions for the vulnerable groups of population to overcome the poverty trap. Besides, the estimation of poverty threshold and population which are close to the poverty line and face higher risks of becoming poor could support to have the broader outlook of the poverty development in Georgia.

ENDING POVERTY IN GEORGIA: NEW ECONOMIC MODELING