

Potential Long-Term Impact of the War in Ukraine: A Polycrisis in Cyprus

Don Larson, Mertkan Hamit, and Sebnem Sahin¹

Abstract

The war initiated by Russia against Ukraine in February 2022 has resulted in the largest refugee migration in Europe since World War II: around 6.3 million people as estimated by the UNHCR (2022). An estimated 5.23 million refugees and displaced people have moved from Ukraine to neighbouring countries. As a result, hosting countries were required to develop coping strategies that would allow them to face cope with sudden and unexpected inflows of people seeking access to social services, protection, and financial support. This paper looks at the potential long-term impact of the war in Ukraine with a particular focus on Cyprus. One of the main reasons behind this focus on Cyprus is its state of polycrisis that has preceded the war, and the policies that existed towards the warring parties in Ukraine which differ in either respective community within Cyprus, due to the underlying complex conditions that are specific to the island state.

This paper is part of a larger multi-country research framework. The analysis aims to capture innovative strategies from communities, dynamic economic conditions stemming from challenges to globalization and financial markets, aligned with the framework of the GTAP Conference 2023. A special focus is granted to the leading sectors in Cyprus including tourism, energy, food, and construction. The Greek Cypriot economy is expected to experience steady growth based on IMF projections, while the Turkish Cypriot economy is expected to recover from its sharp decline in 2022 with an estimated 10% growth in GDP due to increasing interest in the construction sector. For the policy analysis, the standard GTAP data and CGE model is tailored to include the impact the war has had on Cypriot communities based on surveys and recent literature. Select micro-level data incorporated into the analysis ranges from border crossings and credit card spending by tourists, to work permit applications and trade between North and South Cyprus. Recent indicators show that the war exacerbated multiple pre-war crises in Cyprus and pushed the North Cypriot community towards a polycrisis. Policy recommendations highlight the potential for stronger reconciliation between the two communities based on the innovative solution examples by Greek and Cypriot communities in alleviating the adverse effects of the war. Sustained initiatives and support for such policies would support resilience building island wide.

Keywords: polycrisis, Ukraine war, Cyprus, economy, displacement, SDGs, resilience

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List of tables

Table 1- Summary statistics on green line trade and crossings

List of figures

Figure 1 - Change in oil price in local currency

Figure 2 – Optimistic Outlook (Business as Usual)

Figure 3 - Alternative Baseline Growth

Figure 4 - Pessimistic Growth Scenario

Table of Contents

Potential Long-Term Impact of the War in Ukraine: A Polycrisis over Cyprus	1
I. Introduction	3
II. Coping strategies of hosting countries.....	5
Discussion of the sudden and unexpected inflows of people seeking access to social services, protection, and financial support	5
III. Potential impact of the Ukraine war in Cyprus.....	7
Snapshot of pre-war conditions	7
Lead ways to the polycrisis character of Cyprus and its response policies.....	8
Special focus on the tourism, energy, food, and construction sectors in Cyprus	8
IV. Explanation of the focus on Cyprus in the CGE analysis	10
V. CGE Analysis of the War's impact on Cyprus	10
Examination of the innovation strategies of socio-economic factors, globalization dynamics and financial markets as they relate to Cyprus.....	10
VI. Policy recommendations towards resilience	12
VII. Discussion of policy recommendations towards resilience based on the analysis	15
References	16
Annex – Methodology	18

I. Introduction

The war in Ukraine started in February 2022 and the end of the conflict is not on the horizon. This war initially precipitated a global shock, since the countries at war are important grain, oil, and natural gas exporters. Furthermore, the war caused a massive migration and resulted in an influx of refugees across various countries. Considering that the war began right after the Covid-19 pandemic, recovering economies received another economic shock that affected- and continues to affect- macroeconomic conditions as well as households.

The war caused significant disruption in trade between Ukraine and Russia and between Russia and rest of Europe due to the imposition of sanctions that were decided and supported by the EU member states. The decline in trade volumes had an impact on the transaction of agricultural products; a trade that Ukraine was leading in Europe with its vast scale of grains production.

Ukraine was also at the crossroads of regional energy supply lines. Now sanctions have effectively stopped all operations in the Nord Stream and other supply routes, leading- at first- to a sudden rise in energy prices, that had a ripple effect across all economies in the region.

Furthermore, travel bans on Russian airlines created unexpected limitations across the tourism industry. The decline in the tourism industry, and the loss of Russian tourists in particular, damaged countries like Cyprus, which heavily relies on Russians for their tourism revenue.

The war caused investments to shrink due to the increased political and economic risks. It also caused an increase in public spending because both warring parties spent more on defence, and because there was a renewed mass movement among people; along the same vein, neighbouring countries were left to shoulder the burden of the emerging humanitarian crisis.

The war in Ukraine created additional and unexpected turmoil in a global economy already grappling with multiple crises. Its immediate effects were linked to the sanctions enforced on Russia, Russian counter measures to those sanctions, energy-related disruptions, as well as a further deterioration of the global supply-chain, which had been suffering due to the impact of the Covid-19 pandemic.

A more focused view on Ukraine and Russia reminds us that they are the two major agricultural exporters in the region (OECD, 2022). Ukraine is known as the world's largest producer of sunflower seed, as well as a key exporter of wheat, rapeseed, barley, vegetable oil, and maize. The aggression by Russia undermined Ukraine's harvesting capacity and stymied export channels. Russia is the world's largest exporter of wheat, an important exporter of barley and sunflower seed, as well as a leading exporter of energy and fertilisers, both of whom have a direct impact in food production. The capacity to export is curtailed in both countries as transport and logistic networks are affected, even though the European Union sanctions exempted both food and fertilisers.

The crisis affects several other countries that are dependent on imported food and energy, and the island of Cyprus is no exemption. As the Ukraine war has progressed, initiatives such as the Black Sea Grain Initiative have stabilised grain prices (OCHA, 2022) but the price level is still higher than before when it comes to grains, animal foodstuff and fertilisers. Global inflation has also increased: in G20 economies inflation is expected to be 8.2% in 2022 and 6.5% in 2023² (OECD, 2022).

The impact of the war was felt especially in the third and fourth quarter of 2022, as the demand for energy increased with the onset of winter in the western hemisphere. The increased prices hampered domestic demand in Europe as the spending power of households declined, especially affecting vulnerable households across the region (World Bank, 2022). The European Investment Bank has warned that the impact of higher prices is deflating European Union growth, doubling firms that operated at a loss in 2022 and reducing private consumption (EIB, 2022). The European Union has also sounded a partial retreat from its environmental goals due to the war and its impact on energy markets, with member states re-activating mothballed coal plants, despite a renewed warning by the United Nations that there is “no credible pathway to 1.5C limit” that is necessary to mitigate climate change (UNEP, 2022). With the re-activation of coal plants and other policies, European Union members managed to secure enough supplies of natural gas and other energy to ensure there was adequate energy to last through the winter of 2022, but they did so at an increased cost (European Commission, 2022).

As European economies entered a phase of inflationary pressure, a hike in the interest rates by central banks was unavoidable. The European Central Bank (ECB) increased its base interest rate in stages to 2.75% by December. This seems to have stemmed the dynamic rise in prices, but inflation has remained at annual level of 9.2% in the euro area, far higher than the ECB stated aim of 2%. This would signal further increases in interest rates in 2023, which would further impact European demand, as households reduce their consumer expenditure to keep up with the increased cost of repaying their loans.

The combination of the impact of the crisis, along with the interest rate increases globally, led to the IMF managing director warning that there will be recessionary headwinds in 2023 (The Guardian, 2023). Global growth projections were revised downwards due to the war and global GDP growth was expected to be 3% in 2022 (OECD, 2022). The slowdown of the global economy was particularly severe in the third and fourth quarter of 2022, with the European Union growing by just 0.4% in the third quarter (Eurostat, 2022) while the European Commission is expecting a contraction in of -0.5% in the fourth quarter (European Commission, 2022). It is notable that the slowdown in economic growth is evident even in economies such as Türkiye, where economic growth in the third quarter of 2022 slowed down to 3.9% despite the central bank holding interest rates steady (Reuters, 2022). Türkiye is not immune to the global slowdown of demand, and it is domestically suffering for inflation of 85.5% in October 2022, and yearly inflation (December to December) is expected to be at 65.2% (Reuters, 2022).

² <https://www.oecd.org/economic-outlook/march-2023/>

While the economic indicators shows that the phase that Europe is experiencing represents a polycrisis that can be understood as a situation characterized by multiple and interrelated crises occurring simultaneously or in rapid succession³.

In this case, the influx of the refugees is only one of the pillars representing a polycrisis situation in Europe. The refugee dimension of the Ukraine war was handled with relatively greater acceptance by the hosting countries unlike previous cases involving Syrian or Afghan refugees. The number of political and social factors contributed to the choice⁴; nevertheless, the movement of people at this rate creates unexpected circumstances that require resilient governance structures to be put in place.

In the case of the war in Ukraine, it is possible to observe a few critical policy measures that eased the management of the refugee dimension of the war relatively easy including access to the Europe, support schemes.⁵

II. Coping strategies of hosting countries

Discussion of the sudden and unexpected inflows of people seeking access to social services, protection, and financial support

The outpouring of support from countries has manifested in the form of support, outreach, and accommodation towards refugees from Ukraine. The sudden and unexpected influx of refugees has meant that European countries have had to rapidly adjust and come up with policies that cater to the needs of millions of people in a short amount of time. The provision of social services, protection, housing, and financial support have all been crucial factors necessary for refugees to adapt to their new housing situation. Greatly facilitating this influx was the EU's Temporary Protection regime⁶ for Ukrainians that ensures the right to work, health, education, shelter, and financial support for up to three years. Also helpful were the EU's Ukrainian diaspora, including 14 million in Poland and 250,000 in Italy and elsewhere⁷.

In the context of children, schooling for the 2 million Ukrainian children in Europe is something that the EU and member countries can deploy when they want to. The programs range from individualized learning plans in Sweden and Finland to the European Commission's multilingual tools to teach local languages.

³ <https://www.unicef.org/blog/outlook-2023-tackling-polycrisis>

⁴ <https://hir.harvard.edu/the-limitations-of-humanity-differential-refugee-treatment-in-the-eu/#:~:text=Islamophobia,discrimination%20against%20Muslim%20asylum%20seekers.>

⁵ https://home-affairs.ec.europa.eu/policies/migration-and-asylum/migration-management/migration-management-welcoming-refugees-ukraine_en

⁶ <https://www.consilium.europa.eu/en/infographics/temporary-protection-displaced-persons/>

⁷ <https://www.brookings.edu/blog/future-development/2022/10/14/ukrainian-refugees-challenges-in-a-welcoming-europe/>

Portugal has bilingual material in Portuguese and Ukrainian as do Lithuania and Spain. Both France and the U.K. have immersion programs with language support. Romania's existing 55 schools teaching in Ukrainian will now accommodate refugee children where possible. Summer camps have been organized with Ukrainian organizations in the EU⁸, Moldova⁹, and Türkiye¹⁰.

Germany and Poland also provide insights on employment. In Germany, 350,000 Ukrainian refugees are registered¹¹ as looking for employment. With 900,000 job vacancies, surveys suggest that up to 50 percent of Ukrainians have found a job, but the Federal Employment Agency cites a 10 percent figure.

Poland's unemployment rate of 2.7 percent¹² means Ukrainians are welcomed given the aging population and a labor shortage—common across the EU. With \$3.4 billion in government funds and \$2.1 billion from private sources, much aid is going to Ukrainians from language classes to childcare and more. Some 1.2 million Ukrainians have received social security numbers and around half have found a job¹³.

In Bulgaria and receiving a registration card of a foreigner with temporary protection for forcibly displaced persons from Ukraine, the displaced person immediately has the right to work, without the need to obtain other registrations or permits. This right is valid for the period of temporary protection granted to them. Persons relocated from Ukraine acquire the status of residents after registration. The personal income tax rate in Bulgaria is 10%. In France, temporary protection status requires that the salary must be at least €10.57/hour.¹⁴ Regarding medical care, for example, in Italy, a request for a residence permit for temporary protection guarantees medical care in the country, identical to that provided to Italian citizens. In Romania, the Daruieste Aripa Association and the Romanian Society of Pediatric Oncology and Hematology created a platform - Code4Romania - to help all Ukrainian children with cancer. It helps to get easy, quick, and targeted access to specialized medical care¹⁵.

⁸ <https://cor.europa.eu/en/news/Pages/ukraine-summer-camps.aspx>

⁹ <https://moldovalive.md/moldovan-summer-camps-opened-their-doors-for-ukrainian-refugee-children/>

¹⁰ <https://www.qha.com.tr/haber-arsivi/savastan-kacarak-istanbul-a-siginan-minik-ukraynalilar-icin-kamp-firsati-418940>

¹¹ <https://www.dw.com/en/ukrainian-refugees-face-poor-job-prospects-in-germany/a-62600360>

¹² <https://www.bloomberg.com/news/newsletters/2022-08-10/how-ukraine-s-loss-might-be-poland-s-gain>

¹³ <https://www.voanews.com/a/how-displaced-ukrainians-in-poland-find-work-while-benefiting-its-economy/6771810.html>

¹⁴ <https://www.coe.int/en/web/kyiv/-/how-are-social-rights-of-ukrainians-who-have-found-protection-in-eu-ensured-research-by-council-of-europe>

¹⁵ Ibid.

In the UK, each family member who arrives and is granted temporary shelter is given a one-off payment of £200 to help cover immediate payments while the person settles. This assistance is provided through the local council¹⁶.

III. Potential impact of the Ukraine war in Cyprus

Snapshot of pre-war conditions

Cyprus problem occupies political, social, and economic agenda in Cyprus. While the Republic of Cyprus represents the entire island internationally, the northern part of the island is considered as the areas that are not under the effective control of the government of Cyprus. This multifaced problem contained without further in the recent years, since 1974 the ceasefire did not bring any political settlement which could be seen as the baseline of the polycrisis.

Even though the level of economic integration of the Greek and Turkish Cypriot communities in Cyprus is minimal¹⁷, external shocks affect the communities in different levels. For example, 2008 economic crisis hit Greek Cypriot led Republic of Cyprus economy, the crisis further exacerbated in 2013 when the spiralling impacts of crisis hit Cyprus banking sector largely because the Greek Cypriot economy is much more integrated with the European economies which posed also threat to the Eurozone¹⁸. On the other hand, following to 2018 with the depreciation of the Turkish Lira, which is the official currency also in the unrecognized Turkish Cypriot administration, the crisis also led to inflationary pressure in the Turkish Cypriot economy.¹⁹ While aforementioned two crisis might be contained within respective communities; larger crisis such as: Covid19 and the invasion of Ukraine affected both economies but the outcomes were different based on their absorption capacity and their resilience.

From this perspective, Cyprus as an island economy represents an interesting example across the rest of the other regions affected from the war, since the multi-layered conflict poses complicated outcomes. Even though the two economies have structural similarities. Such as both are primarily service led economies, with services accounting for 83% of the gross domestic product of the GCc economy, and 90.8% of the TCc economy. The largest industries in terms of income in the GCc economy are financial, professional, and business services (17.4%), real estate (8.1%) and tourism (2.8%) while in the TCc they are financial institutions (8.9%), real estate (14.8%), higher education (7.6%) and tourism (3.4%)²⁰.

¹⁶ Ibid.

¹⁷ <https://www.abbilgi.eu/tr/assets/docs/tce-mm-march22-tr.pdf>

¹⁸ <https://www.theatlantic.com/business/archive/2013/03/everything-you-need-to-know-about-the-cyprus-bank-disaster/274096/>

¹⁹ <https://www.aljazeera.com/economy/2018/8/17/northern-cyprus-looks-to-ankara-as-turkish-liras-woes-bite>

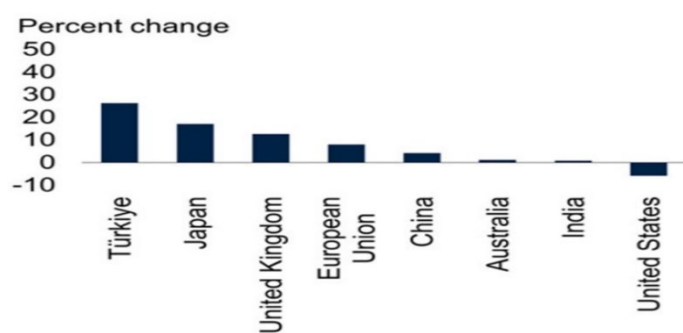
²⁰ It is notable that the figures of 2021 for the TCc underestimate the proportion of tourism as prior to the covid-19 pandemic the tourism sector used to make up 11.7% of the GDP in 2019. In the GCc, Tourism is represented in National Accounts only partially as hotels and resetaurants and thus in an underepresentation of the value added of tourism in the total economy.

Also, the main economic integration avenue in Cyprus formed over the Green Line Regulation. The regulation enables opportunity for the trade from Turkish Cypriot community to Greek Cypriot community as well as Europe via the ports from the government-controlled areas. Also, the regulation enables free movement of Cypriot citizens across the Green Line which creates inflow of workforce from TCc to GCc, enabling TC economy to absorb remittances. Not only that; also, through the regulation; tourists visiting the GCc, can travel to the TCc that enables flow of “visitors” to the TCc and boost the tourism industry.

Lead ways to the polycrisis character of Cyprus and its response policies
Special focus on the tourism, energy, food, and construction sectors in Cyprus

In the case of invasion of Ukraine, both parties were subject to high oil and food prices. Both communities hosted significant flows of Ukrainians.

Figure 1. Change in oil price in local currency



Both communities were impacted differently from the sudden rise of energy prices. The Cypriot energy mix largely relies on oil as the primary source of energy in both sides of the divide. No direct reliance of Russian gas or oil. GCc introduced minimal reductions of for vulnerable groups, while TCc has no such policy. Some loss of shipping due to EU sanctions. Nearly 170% increase in the average TCc electricity bills. The price differentiation of fuel across the divide, increase the demand for fuel in the TCc by the GCc. GCc Transportation inflation rose from 8.3% to 14.2%. TCc transportation inflation rose from 27.39% to 67.07%.

The war has been a catalyst regarding the flows between the North and South. The rise in trade from the northern to the southern area was mainly due to the devaluation of the Turkish lira increasing the purchasing power of the euro in the TCc economy, yet it is notable that this growth trend has accelerated since the start of the war in Ukraine. The increase in prices and the search of alternatives has encouraged green line trade to the benefit of TCc primary product and agricultural product producers. However, both communities import similar things from Russia or Ukraine, meaning there is limited ability from positive trade diversion away from Russia and Ukraine in favour of the northern area.

The impact on the Ukraine crisis is much more evident in the crossings of people across the line. The regulation allows for expenditure of up to €260 on goods from the northern area and thus many of these crossings are to support micro-trade in goods and services to take advantage of price differentiations (Apostolides et al., 2012). The increase in food, but

especially fuel prices has led to an explosive increase in crossings to the northern area of persons that reside in the south to purchase these items.

Table 1: Summary statistics on green line trade and crossings				
Year	Green Line Trade	Crossing (TCs crossing GCc)	Crossing (GCs crossing TCc)	Crossing (Non- Cypriots crossing)
2022	€ 14,765,462.59	1.906.804	2.835.496	1.836.630
2021	€ 6,123,707	915,156	1,023,961	503,842
2020	€ 4,603,640	700,690	504,390	315,423
2019	€ 5,364,157	2,113,598	2,435,381	2,096,263
Source: Turkish Cypriot Chamber of Commerce, TCc “Statistics Office”				

The total transactions made during such crossings are hard to fathom. Credit card evidence indicates that for the months of January to September, €33 million was spent by those that have GCc credit cards in the north, as recorded by the largest credit card operator, JCC (Alithia newspaper, 2022). There are many reasons to believe that the amount of transactions by credit card exceed €40 million. JCC is just one of the operators of credit cards transactions in the south, and other payment providers are providing payments transactions that are not recorded.

In addition, most transactions are in cash. Fuel purchase receipts provide some evidence. In 2022, reports indicated that fuel purchasing from the GCc in the TCc was about 10 million litres a month. That means that purchases of just over €120 million worth of fuel have been undertaken in 2022 by GCs in the northern area, as there is also substantial use of the hotel, restaurant, and casino industry of the northern area of the GCs. The injection for the TCc economy of these interactions is over €200 million, making the GCc a major economic partner and a significant lifeline for exports of goods and services of the TCc.

The ability to interact across the Green Line provides an additional way for people residing in Cyprus to respond to the impact of the crisis in Ukraine. Since the war in Ukraine, there has been an increase in the number of TCs working in the south. Although TCs still represent only 0.4% of the formal employment in the GCc economy (it is known that there is substantial additional informal employment in the construction sector), there was a 15% increase in TCs employed in July 2022 when compared with January 2022. This is set to increase as large organisations and unions are working together to remove any possible obstacles to employment, and as we see more white-collar employment (which tends to be formal and less sensitive to the construction business cycle) of TCs.

The restoration and tourism services of the South became more competitive, hence were in high demand. This led to a significant increase in the number of crossing and inflow of foreign exchange from GCc. That, in return, supported the balance of payments.

The GCc put into place a Stabilization and Recovery Program developed by the EU. In line with the EU sanctions against Russia, it cancelled all flights from Russia. However, in the meantime TCc did not close its borders, and saw significant tourist arrivals from Ukraine and Russia.

IV. Explanation of the focus on Cyprus in the CGE analysis

Turkish (TCc) and Greek Cypriot (GCc) communities' economies are modelled as two economic entities. GCc as an open economy and part of the EU while TCc is a separate entity trading with GCc, Türkiye, and Middle East due its non-recognition issue. TCc is an open small economy, highly dependent on imports from Türkiye. It also benefits from budget support from Türkiye. International donors such as the UN, World Bank and EU have limited engagement and support targeted programs. The merchandise trade between the North and South take place through the Green Line. Since the beginning of the war, demands for goods and services provided by the TCc were in high demand due to the depreciation in TL.

It is important to note that the standard GTAP model does not incorporate macroeconomic policies and is not an intertemporal model, thus giving rise to the fallacy of indeterminacy of investment and the issue of macroeconomic closure. To overcome this challenge, a global closure approach is adopted, whereby the global bank uses the receipts obtained from the sale of savings commodities to individual regional households to buy shares in a portfolio of regional investment goods. This enables some adjustment to investment on a regional level. This analysis refers to two economic areas within the island with separate national accounts, trade linkages and partial integration of the labor market.

A neoclassical closure General Equilibrium (GE) closure is satisfied through equilibrium in all accounting relationships. Investment adjusts to regional changes in savings at the macro-level. It is worth noting that neoclassical restrictions (such as full employment) are not a necessity. For instance, the labor market is at full employment. If necessary, it is possible to introduce unemployment by swapping the real wage rate with labor demand. Hence, introduce disequilibrium for the labor market within the CGE framework. This is feature has been also adopted for the purpose of the current analysis.

V. CGE Analysis of the War's impact on Cyprus

Examination of the innovation strategies of socio-economic factors, globalization dynamics and financial markets as they relate to Cyprus

A baseline is developed based on the below assumptions:

- IMF projections till 2025 for GCc (WEO, 2022). These will be revised as new forecast become available around April 2023.
- 2021 growth performance extrapolated for 2022-25 for TCc
- Sharp decline in 2020 by around 16% for TCc and 5% for GCc
- No further shocks

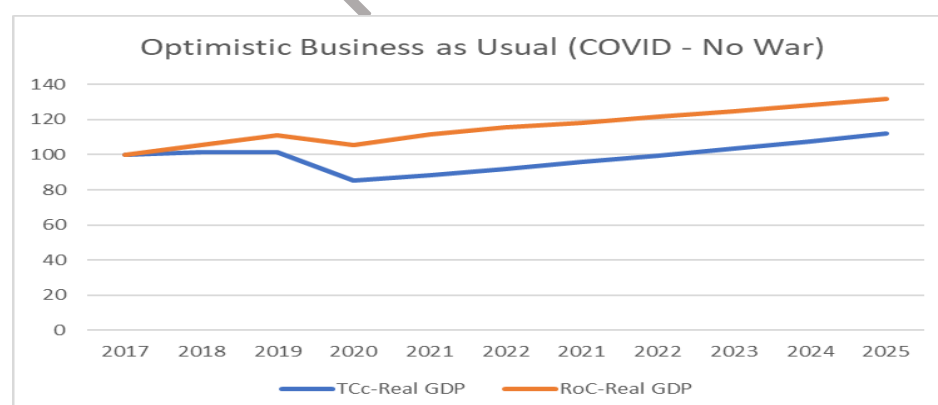
The Turkish Cypriot and Greek Cypriot economies have faced significant challenges in recent years, including the impact of the war in Ukraine. Based on the baseline assumptions developed, the Greek Cypriot economy is expected to experience steady growth in the coming years, according to IMF projections until 2025. On the other hand, the Turkish Cypriot economy experienced a sharp decline of approximately 16% in 2020 due to the COVID-19 pandemic and its economic impact. As a result, the 2021 growth performance has been extrapolated for the years 2022-2025 for the Turkish Cypriot economy.

Despite these challenges, there is hope that the economies of both Turkish and Greek Cypriot regions will recover in the coming years. Due to the different policy orientation toward Russia (TCc followed no sanctions while GCc participated to the EU's sanctions).

The baseline assumptions indicate that there will be no further shocks to either economy. This provides a stable outlook for investors and policymakers who can work towards strengthening the economies through sustainable policies and investments. However, it is important to note that these projections assume that no further shocks will occur, which may not necessarily be the case. At the same time, TCc economy has number of limiting factors (such as the prevalent economic isolations, non-recognition, lack of engagement to settlement process).

In conclusion, while the impact of the war in Ukraine has had varying effects on the Turkish and Greek Cypriot economies, the baseline assumptions developed provide insights into the expected performance of these economies in the coming years. The Greek Cypriot economy is expected to experience steady growth based on IMF projections, while the Turkish Cypriot economy is expected to recover from its sharp decline in 2020 with an estimated %10 growth in the GDP due to the increasing interest in the construction sector. It is important to approach these projections with caution, as they are based on several assumptions, and external factors such as political instability or natural disasters (earthquake in Türkiye February 2023 triggered the concerns for a possible earthquake near Cyprus) could impact these economies.

Figure 2: Optimistic Outlook (Business as Usual)



Simulations reveal a cumulative growth in 2017-2025 of around 12% for TCs and 32% for GCc.

Policy recommendations

Policy suggestions in line with the SDGs for the Turkish and Greek Cypriot economies could focus on creating sustainable and inclusive growth, reducing inequalities, and addressing environmental challenges. Following policy recommendations would be a steppingstone to converge better performance with the SDGs.

Encourage sustainable and inclusive growth both communities can support small and medium-sized enterprises (SMEs) by providing access to finance, technical assistance, and training programs. This can help to create new jobs and promote sustainable economic growth. In addition, policies can be implemented to promote innovation and technology adoption, which can help to enhance productivity and competitiveness. Also, a specifically targeting Green Line trade and intercommunal business opportunities can act as a catalyst.

Governments shall address inequalities by implementing policies that promote social protection, such as expanding access to healthcare, education, and social welfare programs. Additionally, policies can be developed to promote gender equality and support the empowerment of women and marginalized groups.

Policies can be developed to address environmental challenges such as climate change, air pollution, and waste management. The communities can incentivize businesses to adopt sustainable practices by providing carbon tax as a measure to address the inequalities and international organisations can provide grants for sustainable investments. Additionally, policies can be developed to promote renewable energy (including in transports), reduce greenhouse gas emissions, and promote sustainable land use.

VI. Policy recommendations towards resilience

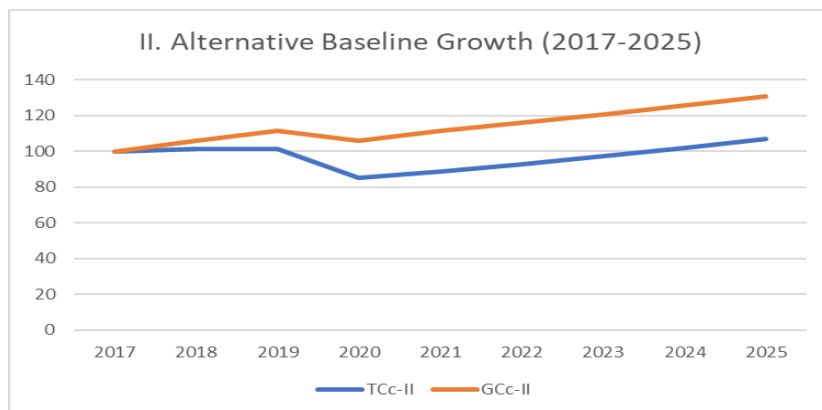
The ongoing war in Ukraine has had significant impacts on the global economy, and an alternative scenario based on continued conflict and sanctions would have further implications for the Turkish and Greek Cypriot economies. Under this scenario, it is assumed that the war will continue until 2025, with no major changes in its intensity. Furthermore, global food prices are expected to remain high, which could put pressure on the economies of both regions.

Despite these challenges, there are also potential opportunities for growth in certain sectors. For instance, the construction and tourism sectors may continue to experience high growth rates, as investors seek alternative markets in the face of global instability. Additionally, green line trade, which refers to trade between the two sides of Cyprus, is expected to double. This could provide a boost to the local economy and create new job opportunities.

It is important to note that these assumptions assume that no further shocks will be experienced in the region. However, this may not necessarily be the case, as political instability or natural disasters could impact the region at any time. As such, policymakers will need to remain vigilant and flexible in their approach, to ensure that the economy remains resilient in the face of unexpected events. Overall, the alternative scenario based on continued conflict

and sanctions highlights the need for policymakers to prioritize policies that promote sustainable growth and address economic vulnerabilities, to ensure a more stable and prosperous future for the Turkish and Greek Cypriot economies.

Figure 3: Alternative Baseline Growth



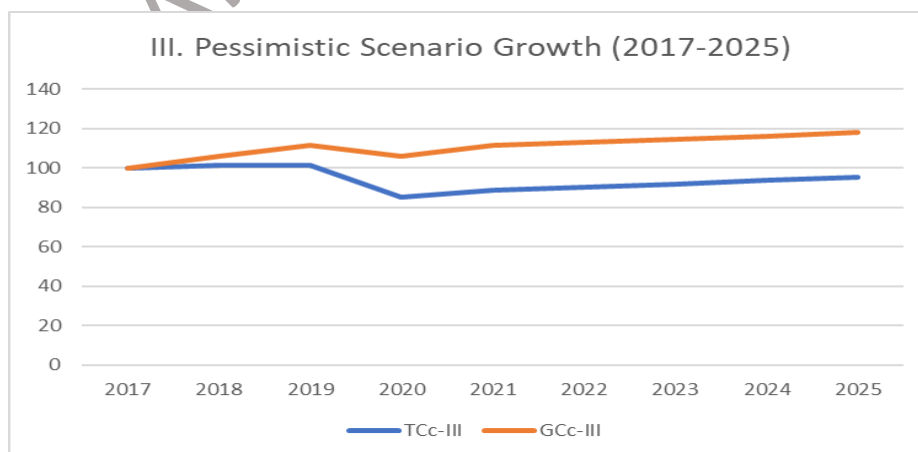
Simulations results in a cumulative growth of around 7.03% for TCC and 30.5% for GCC in 2017-2025.

Policy recommendations

The ongoing conflict in Ukraine and divergence over the sanctions could have significant implications for the economies of Turkish and Greek Cypriot communities. An alternative scenario is considered, where the conflict continues until 2025, with no major changes in its intensity. It is assumed that global food and oil prices will remain high, which could put pressure on the economies of both regions. However, there may also be opportunities for growth in certain sectors, such as construction and tourism, and green line trade is expected to double.

Pessimistic scenario is developed based on the hypothesis of intensified war and sanctions.

Figure 4: Pessimistic Growth Scenario



Simulations result in TCc is expected to in a contraction by around 4.5% in TCc compared to a cumulative growth for GCc grows by almost 18% in 2017-25.

Policy simulation regarding “Reforms and de-escalation” is developed based on adding new assumptions on top of the Alternative Baseline such as:

- EU growth slows down (%-2 in 2022, -2.5% in 2023 from 2021) as per WEO (2022). This assumption will be revised as new forecast becomes available around April 2023.
- Further increase in global energy and food prices.
- Turkiye experiences currency shock.
- Turkiye – EU trade decreases in volume due to political tensions.

The hypothetical scenario of intensified war and sanctions could have a significant negative impact on the economies of Turkish Cypriots and Greek Cypriots. The pessimistic scenario assumes that EU growth slows down by 2% in 2022 and 2.5% in 2023 from 2021, and there is a further increase in global energy and food prices, putting additional pressure on the economies of both sides. The scenario also includes a currency shock in Turkiye and decreased Turkiye-EU trade volume due to political tensions, which could have adverse effects on the economies of both Turkish Cypriots and Greek Cypriots.

Policy recommendations

In this challenging context, policymakers in both communities could prioritize implementing policies that promote economic diversification and stability. This could involve investing in sustainable agriculture and renewable energy, supporting local businesses, and encouraging entrepreneurship and innovation. Additionally, policymakers could focus on promoting financial stability by strengthening banking regulations and promoting macroeconomic stability, which can contribute to the achievement of the Sustainable Development Goals (SDGs) such as industry, innovation, and infrastructure (SDG 9) and reduced inequalities (SDG 10). By prioritizing policies that promote economic diversification and stability, the Turkish Cypriot and Greek Cypriot economies could better withstand external shocks.

Furthermore, policymakers in both communities could work towards policies that promote dialogue, cooperation, and de-escalation. This can contribute to the achievement of the SDGs such as peace, justice, and strong institutions (SDG 16) and partnerships for the goals (SDG 17). Promoting dialogue and cooperation between conflicting parties and supporting vulnerable populations affected by the conflict could help reduce tensions and work towards a peaceful resolution of the conflict. By prioritizing policies that promote dialogue, cooperation, and de-escalation, both communities could contribute to a more stable and peaceful future for the region.

VII. Discussion of policy recommendations towards resilience based on the analysis

Policy actions in line with the globally shared development goals (SDGs) can help to create a more sustainable, equitable, and resilient economy in both Turkish and Greek Cypriot regions. By prioritizing policies that promote sustainable and inclusive growth, reduce inequalities, and address environmental challenges, the communities can work towards achieving the SDGs and improving the well-being of their citizens, alleviate the impact of the War in Ukraine and build resilience towards further shocks.

SMEs are catalyst of change. Policies to support SMEs and local businesses, provide access to finance and training programs, and incentivize investments in sustainable sectors such as renewable energy and eco-tourism. Policies could also be developed to promote social protection, such as expanding access to healthcare, education, and social welfare programs, and supporting the empowerment of women and marginalized groups. Efforts to intervene those problems in an intercommunal manner can also support the confidence building efforts and as a tool for conflict resolution.

Additionally, permissions and be developed to address environmental challenges such as climate change, air pollution, and waste management, by promoting renewable energy, reducing greenhouse gas emissions, and promoting sustainable land use. By prioritizing policies that contribute to the achievement of the SDGs, governments can work towards a more stable and prosperous future for the Turkish and Greek Cypriot economies, even in the face of global instability.

References

Bloomberg. (2022). How Ukraine's Loss Might Be Poland's Gain.

<https://www.bloomberg.com/news/newsletters/2022-08-10/how-ukraine-s-loss-might-be-poland-s-gain>

Brookings. (2022). Ukrainian refugees: Challenges in a welcoming Europe.

<https://www.brookings.edu/blog/future-development/2022/10/14/ukrainian-refugees-challenges-in-a-welcoming-europe/>

Council of Europe Office in Ukraine. (2022). How are social rights of Ukrainians who have found protection in EU ensured. <https://www.coe.int/en/web/kyiv/-/how-are-social-rights-of-ukrainians-who-have-found-protection-in-eu-ensured-research-by-council-of-europe>

Cyprus Mail. (2022). Over 16,500 refugees now in Cyprus.

<https://cyprus-mail.com/2022/05/06/over-16500-ukrainian-refugees-now-in-cyprus/>

DW. (2022). How Bangladeshi migrants end up in Cyprus. [https://www.dw.com/en/how-bangladeshi-migrants-end-up-in-cyprus/a-](https://www.dw.com/en/how-bangladeshi-migrants-end-up-in-cyprus/a-62292496#:~:text=According%20to%20the%20Cypriot%20government,in%20the%20Greek%20Cypriot%20south)

[62292496#:~:text=According%20to%20the%20Cypriot%20government,in%20the%20Greek%20Cypriot%20south](https://www.dw.com/en/how-bangladeshi-migrants-end-up-in-cyprus/a-62292496#:~:text=According%20to%20the%20Cypriot%20government,in%20the%20Greek%20Cypriot%20south)

DW. (2022). Ukrainians face poor job prospects in Germany.

<https://www.dw.com/en/ukrainian-refugees-face-poor-job-prospects-in-germany/a-62600360>

European Commission. (2022). Migration management: Welcoming refugees from Ukraine.

https://home-affairs.ec.europa.eu/policies/migration-and-asylum/migration-management/migration-management-welcoming-refugees-ukraine_en

European Committee of the Regions. (2022). Ukraine and EU local leaders join forces to offer summer camps for thousands of children” [https://cor.europa.eu/en/news/Pages/ukraine-](https://cor.europa.eu/en/news/Pages/ukraine-summer-camps.aspx)

[summer-camps.aspx](https://cor.europa.eu/en/news/Pages/ukraine-summer-camps.aspx)

European Council. (2022). EU temporary protection for displaced persons.

<https://www.consilium.europa.eu/en/infographics/temporary-protection-displaced-persons/>

Fitch Ratings. (2022). Cypriot Bank Outlooks Still Positive Despite Weaker Economy.

France 24. (2022). Cyprus tourism rebounds despite sanctions-hit Russia plunge.

<https://cyprus-mail.com/2022/05/06/over-16500-ukrainian-refugees-now-in-cyprus/>

<https://www.fitchratings.com/research/banks/cypriot-bank-outlooks-still-positive-despite-weaker-economy-10-05-2022>

<https://www.france24.com/en/live-news/20220731-cyprus-tourism-rebounds-despite-sanctions-hit-russia-plunge>

OECD. (2023). Fragile Recovery: Interim Report March 2023.

<https://www.oecd.org/economic-outlook/march-2023/>

Politico. (2022). In Cyprus, a faraway war forces a city to redefine its Russianness.

<https://www.politico.eu/article/in-cyprus-a-faraway-war-forces-a-city-to-redefine-its-russianness/>

PRIO Cyprus Center. (2017). Population and politics in Northern Cyprus.

<https://library.fes.de/pdf-files/bueros/zypern/14903.pdf>

QHA. (2022). Camping opportunity for tiny Ukrainians who escaped the war and took shelter in Istanbul. <https://www.qha.com.tr/haber-arsivi/savastan-kacarak-istanbul-a-siginan-minik-ukraynalilar-icin-kamp-firsati-418940>

Scorpan, D. (2022). Moldovan Summer Camps Opened Their Doors for Ukrainian Refugee Children. *Moldova Live*. <https://moldovalive.md/moldovan-summer-camps-opened-their-doors-for-ukrainian-refugee-children/>

UNICEF. (2023). Outlook for 2023: Tackling the ‘polycrisis’.

<https://www.unicef.org/blog/outlook-2023-tackling-polycrisis>

VOA. (2022). How Displaced Ukrainians in Poland Find Work While Benefiting Its Economy.

<https://www.voanews.com/a/how-displaced-ukrainians-in-poland-find-work-while-benefiting-its-economy/6771810.html>

World Bank. (2021). Exports of goods and services.

<https://data.worldbank.org/indicator/NE.EXP.GNFS.ZS?locations=CY>

Annex – Methodology

The analysis of the impact of the Ukraine crisis in Cyprus has had substantial peculiarities due to its political situation. Thus, to evaluate the impact of the crisis, the first step is to collect, collate and reshape available data in a way that allows comparisons.

There is often a different methodology used when generating data, as the TCc and GCc often follow different standards. In addition, there is more limited availability of the data for the TCc which can limit detailed analysis. It is in this respect that estimators created with a forecasting tool so the report can provide additional insight in a complex and often poor data environment. The report uses CGE model analysis to extent future impact scenarios of the Russia-Ukraine war in Cyprus.

This combination of analysis of existing data and projections of impact using the CGE analysis will allow for longer term review of the impact of the crisis in Ukraine. This impact will be firstly concentrating on key macroeconomic variables, but also identifying the impact in terms of the Cyprus specific problems.

The CGE analysis is based on data collection evaluation and matching from the field. Because different methodologies of data creation the authors, where possible, harmonised the data. There was a conscious decision to compare the economies in Cyprus in growth rates rather than absolute numbers as growth rates are more comparable than absolute numbers.

Scenario building has been undertaken using the CGE modelling. CGE models are a class of economic models that use actual economic data to estimate how an economy might react to changes, such as the Ukraine crisis. Such models are created by creating the interrelationships of the economy. In this case the analytical framework is a multi-sectoral CGE model³ which creates forward and backward linkages of the economy with the outside world to evaluate impact of a crisis on sectoral value creation, employment, and incomes (Aguilar, et al., 2016).

The CGE model requires longitudinal data to calibrate the model prior to extrapolation and scenario building. It also requires the understanding of the economic interactivity as it is presented by the National Accounts input-output table.

The underlying dataset for this CGE analysis and scenario building was constructed in consultation with key local experts.