DOI: https://doi.org/10.37075/SPM.2022.1

Structural Transformation and Export Performance in Georgia: Is There a Need for the New Industrial Policy?

Eka Lekashvili[1]
Lela Jamagidze[2]

Abstract: Structural transformation is a widely debated research issue because of its ties with productivity, labor distribution, incomes and other facets of economic development. It is well explored in developing country settings. There are also studies that give thorough analysis of the issues in developed economies. As for the transitional countries the focus of economic policy-making and research has mainly been on the economic and institutional reforms that aim at transition to functioning market economy. Studies that would give a clear understanding of how these reforms have contributed to productivity growth across sectors, their upgrading and shift from low to high value added activities are scarce. These countries also are missing from industrial policy debates. To fill the gap the present paper analyzes Georgia's economic transformation through the lenses of export performance and discusses the need for new industrial policy.

Georgia has been following a trade-centric approach to development (marked with reforms targeted at export-led growth, trade liberalization, trade facilitation and trade agreements as key policies). The potential to diversify exports and increase sustainable employment will be evaluated through the lenses of the new industrial policy. The data on sectoral value-added, sectoral employment shares, sectoral expenditure shares and sectoral net export shares of total GDP will be applied.

Key words: structural transformation, export, trade, trade policy, new industrial policy, Georgia

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Introduction

Structural transformation is a topical research issue because of its close ties with productivity, labor distribution, incomes, in/equalities and other facets of economic development. Many aspects of structural transformation are very well explored in developing country settings (Africa, Latin America and Asia). There are also studies that give thorough analysis of the issues in developed economies, such as UK, USA, the EU countries, Australia, etc. The issues of structural transformation in transition economies are mainly studied in the context of market reforms and the process of transition of their economic structures to functioning market economies, while inter-sectoral and intra-sectoral transformations in resource allocation, productivity and the related qualitative changes in growth and development are under-explored. Transitional countries are also missing from industrial policy debates.

International trade might be a channel of structural change contributing to the common transition path. Explaining links between trade and structural transformation can help better understand the drivers and

[1] Assoc. Prof. Dr. Eka Lekashvili
Ivane Javakhishvili Tbilisi State University – Tbilisi, Georgia
Faculty of Economics and Business
email: eka.lekashvili@tsu.ge
[2] Assoc. Prof. Dr. Lela Jamagidze
Ivane Javakhishvili Tbilisi State University – Tbilisi, Georgia
Faculty of Economics and Business
email: lela.jamagidze@tsu.ge

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consequences of that process in small open economies, which normally depend heavily on trade. Additionally it will be instrumental to understanding the role of trade policies in structural transformation that can bring positive welfare outcomes in terms of growth, income and productivity.

The goal of the paper is to analyze Georgia's economic transformation through the lenses of export performance and discuss the need for new industrial policy. As a result of intensive structural, regulatory and economic reforms Georgia has moved to an upper-middle income economy rank. Despite important progress, productivity and exports remain low, while unemployment and poverty are still high. Georgia has been following a trade-centric approach to development (marked with reforms targeted at export-led growth and trade liberalization, relying on trade facilitation and trade agreements as key policies), but it continues to export raw materials and agricultural products. Obviously, free-trade agreements have not contributed to the development of new sectors of the economy, while half the labor force is self-employed in low value-added sectors. These issues make us switch attention from institutional reforms to structural transformation in order to understand the processes of industry upgrading, productivity growth and the challenges of transition from low value-added to high value-added activities.

Literature review

There are several studies that focus on structural transformation and industrial policy issues in the context of transition economies. Libman (2008) explores structural transformation in Kazakhstan and also analyzes its links to trade specialization in the case of Moldova. Cerovic et al (2014) show that the most important change in transitional countries concerns the share of industrial output in GDP, which is found to be one of the most important factors of growth after the initial phase of reforms. The authors also give suggestions on the appropriate industrial policy for those countries. Comunale & Felice (2019) assess trade related determinants of structural change covering several East European transition economies. Lekashvili (2020) analyzes new industrial policy as a means of formation of firms by the state, their aggregation, support of innovations and competitive advantages focusing Georgia's open economy settings. Despite the availability of these sources, in transitional countries structural transformation/ industrialization/ economic development has not been the main focus of policy-making and research; The attention has been directed to comprehensive economic and institutional reforms aimed at transition to the functioning market economies and industrial policy has also been a missing element in the transition process (Cerovic, 2014).

Theoretical literature such as Tregana (2008) and Sen (2016, 2019) is much richer about how structural change can contribute to developing economies moving up the income ladder and catching up with the developed countries,. Structural transformation is essential for economic development, a process which may involve benefits from movements of factors of production across sectors, product upgrading, penetration in new markets and/or acquiring new know-how.

A solid background for the research into the topic is provided by comparative advantage based theories. Countries generally export those goods where they have a comparative advantage. Incorporation of the ideas about the endogenous nature of comparative advantage into the debates on the role of industrial policy in structural transformation and export makes it clear that there is a space for government actions to help firms to upgrade and show better performance.

A number of authors have argued that a country's comparative advantage is not static and it evolves over time. Grossman and Helpman (1991) develop the idea on endogenous comparative advantage referred to "dynamic comparative advantage" in the literature. Dynamic comparative advantage relies on the advantages that an economy can potentially achieve in the long run. It might arise from learning by doing, adoption of technologies, or, more generally, technological change. If an economy produces a good for which it does not have a static comparative advantage, with time it might eventually gain a dynamic comparative advantage because domestic firms would be able to reduce

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production costs and become more competitive on global markets, thanks to technological change. Selective trade and industrial policies to induce specialization in sectors where an economy currently lacks a comparative advantage, but exhibits a large potential for productivity growth relative to its trading partner, may be welfare improving for the economy that imposes them Redding (1999).

Another type of comparative advantage related to the concept of latent comparative advantage (Lin and Monga, 2010). It refers to an industry in which the economy has low factor costs of production but the transaction costs are too high to be competitive in domestic and international markets. Firms will be viable and the sectors will be competitive once the government helps the firms overcome coordination and externality issues to reduce the risk and transaction costs. To identify latent comparative advantage, Lin and Monga (2010) propose to look at the goods produced for 20 years in growing economies with similar endowments and a per capita income that is 100 per cent higher than in the economy that is being analyzed. Among these goods, one may give priority to those with existing domestic production. Government should support structural transformation by identifying and removing the constraints limiting competitiveness in these industries. If there are no firms producing these goods in the economy, a range of interventions, such as attracting foreign direct investment and cluster development, can help trigger structural transformation.

Another strand of theoretical literature which encompasses the drivers and determinants of structural transformation is related to global value chains. Together with the increased complexity and fragmentation of production global value chains and global production networks have developed at a large scale. Countries need to master one or a few stages of production of a certain product to be part of global trade (Baldwin, 2012). Tasks in which countries specialize define the share of value that countries add, and consequently the income and employment generated through those tasks. Hence, whether a country supplies critical high-tech components or is responsible for assembly makes a huge difference for structural transformation and development (UNCTAD, 2015).

Methods and data

Structural transformation can be studied using a broad range of measures and indicators and there are several comprehensive datasets available, such as Economic Transformation Dataset (ETD) and GGDC GVCs dataset, but Georgia is not on the list of countries covered. Therefore scattered data from various sources such as UNIDO Competitive Industrial Performance Index; ILO Employment Statistics, Word Bank World Development Indicators, UNCTAD Eora Database on GVCs and Georgia's Statistics Office have been collected and indicators calculated.

The study mainly relies on desk research and statistical analysis methods. The indicators on the patterns of exports and GVC participation, sector value-added, sector employment shares, sector export shares of total GDP, etc. are applied.

Georgia's Economic Characteristics, Structure of Value added and Employment

Georgia is an important case study of the challenges faced by middle-income countries in pursuing structural transformation. During the last decades there were a number of positive shifts in Georgia's economy. Macroeconomic conditions had success manifested by a stable economic growth over the period of 2011-2021, which accounted average 4 percent annually in Georgia. The benefits of growth has been translated into the improved welfare indicators. According to the World Bank estimations the poverty rate measured by the international upper-middle-income line (US$5.50 per capita per day, 2011 purchasing power parity) declined from 59% in 2011 to 42% in 2021[1] in Georgia. The contribution of net exports (both goods and services) to nominal GDP growth was negative, but shows an increasing trend. The average growth in exports during 2015-2017

[1]https://www.worldbank.org/en/country/georgia/

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was increasing thanks to the newly established AA/DCFTA with the EU and a boost in tourism revenues. Remarkably, in 2018 Georgia welcomed 8.3 million tourists and collected USD 3.2 billion from exporting tourism services.

Georgia has long been one of the most liberal and trade-open economies in the world. It has

unilaterally liberalized both its exports and imports, eliminating most tariffs and other regulations, already in the early 2000s. It accessed WTO in 2000 and further major trade liberalisation steps have been undertaken since 2006. It maintains bilateral free trade agreements (FTAs) with eight CIS countries, it also has a FTA with Turkey and EFTA. The Georgia-China Free Trade Agreement was concluded in 2017. There are minimal export restrictions in terms of export taxes or licensing. Georgia does not provide export subsidies, and does not have any export financing instruments.

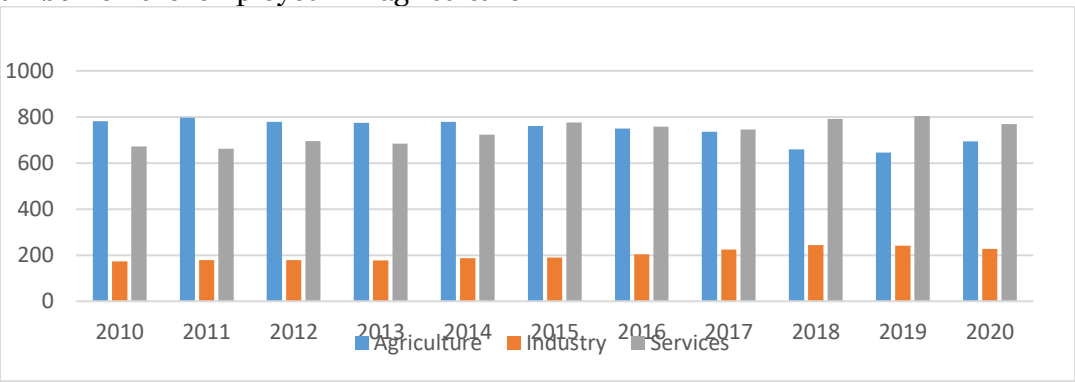
Georgia has moved to the upper-middle income group, GDP per capita (5042 USD) and the overall economic reforms and structural transformation can be assessed as growth-enhancing. These positive shifts were reflected by the structure of the economy. Looking at the GDP patterns and employment data across sectors

Table 1 Sectoral Employment and Value added in Georgia, 2020

Sector	Value added (% of GDP)	Employment (percent of total employed)
Agriculture, Forestry and Fishing	6.1	19.83157
Manufacturing	21.1	11.37469
Construction	11.7	6.863486
Wholesale and retail trade; Repair services	13.3	15.14
Transportation and Storage	6.7	6.369517
Real estate	6.5	9.014629
Public administration, social defence	5.0	7.608338
Human Health and social work	4.9	4.98969
Education	4.1	11.74186

Source: Author's compilation based on Georgia's Statistics Office data

Generally countries on their path to economic development are declining the shares in agriculture, have inverse U-shaped manufacturing and an increasing share of services in GDP and employment. Georgia follows the same path. Through the last decade the number of the employed in agriculture decreased, while services employment was on the rise. In 2021, agriculture contributed around 6.12 percent to the GDP of Georgia, 21.82 percent came from the manufacturing and 59.4 percent from the services sector.



Source: ILOSTAT and World Bank data

Figure 1: Changes in Employment by sector, 2010-2020

Comparing the shares of employment with the value added across sectors it is evident that services sub-sectors with the highest shares in employment create less value added than industry and manufacturing sub-sectors. The data indicate to the structural and productivity

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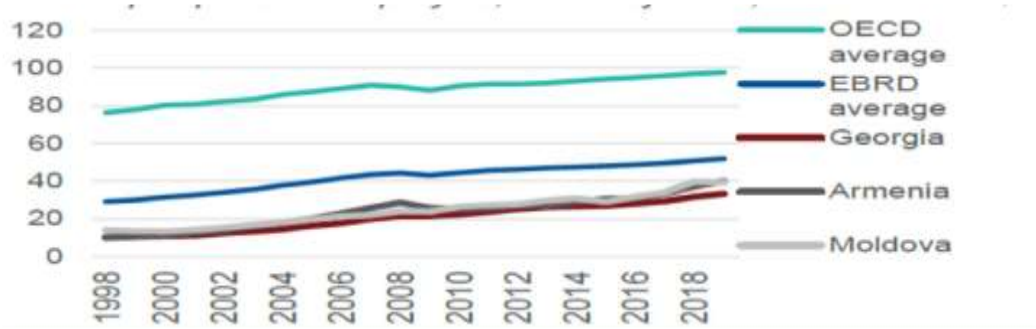
related problems. There is a sharp contrast between salaries by the types of economic activity, which demonstrates low productivity in some sub-sectors. Highly paid sectors are: financial intermediation, transport and communications, construction, electricity, gas and water supply. There are low salaries, and accordingly low productivity in the following sectors: education, hotels and restaurants, agriculture, hunting and forestry. The sectors of transport and communications, financial intermediation, construction, energy, real estate and manufacturing were distinguished as targets of direct investment flows. It should be noted that these sectors are also distinguished by high level of productivity per employee. In parallel with productivity growth, these sectors also have high wages. Despite this international comparisons indicate that the ongoing path of structural change does not guarantee labor allocation from low to high productivity activities. In Georgia labor productivity measured as GDP per person employed is not only below the OECD average, but also is less than in Moldova and Armenia.



Source: The Conference Board Total Economy Database

Figure 2: GDP per person employed, PPP adjusted, Thousand US dollars

Labor allocation from agriculture directly to services, where productivity gains are lower than in manufacturing is a characteristic of structurally under-developed economies (Sen, 2019);

The phenomenon is studied in developing country context and needs further analysis in Georgia as a possible threat for future development and growth. In services there has not been a sustained trend towards upgrading and towards stronger integration with other sectors. Overall there has been growth in relatively lower-value added services, including travel and transport services. Although financial services and telecommunication and information services have also grown in value added, they have only recorded modest increases in employment, and have not played a sufficiently supportive role in growth of high productivity industries.

Economic structure and Export Performance

The features of the economic structure are reflected by the export patterns and performance. In absolute terms export has been increasing through the last decades and due to liberal trade regimes and active participation in regional trade agreement export markets have been diversified.

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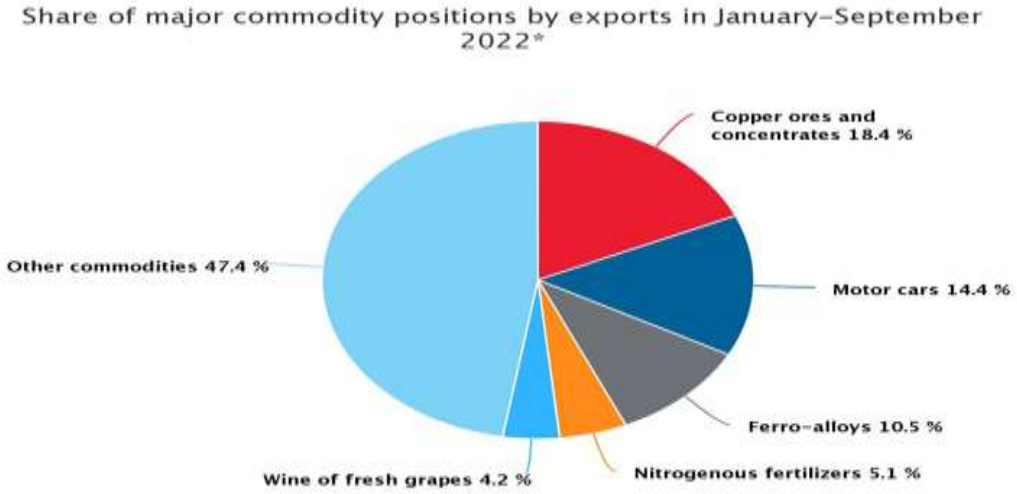
Source: Georgia's Statistics Office Foreign Trade Portal

Figure 3: Georgia's Export Dynamics

However despite positive shifts in geographic patterns, product diversification remained low and it has not improved over time.



Source: Georgia's Statistics Office Foreign Trade Portal

Figure 4: Major Export Commodities

In 2020, Georgia exported a total of $3.92 billion, making it the number 124 exporter in the world. During the last five years the exports of Georgia have changed by $1.15 billion (from $2.77 billion in 2015 to $3.92 billion in 2020). **I**n 2022 copper ores and concentrates reclaimed the first place in the list of top export items, equaling 18.4% of total exports. The share of motor cars (re-export) in the total exports amounted to 14.4 %. The Ferro-alloys exports occupied the third place standing constituting 10.5% of the total exports. These commodity groups followed by nitrogenous fertilizers by 5.1% and wine of fresh grapes by 4.2%.

Georgia's export performance, including its low economic diversification is a result of weak manufacturing performance and low productivity in agriculture. Manufacturing export structure is concentrated on food and drinks. Minerals, along with basic metals and basic chemicals, remain almost as important in the country's goods exports today as they did two decades earlier. A deeper analysis of the export complexity reveals some positive shifts in diversification into new products (according to the Atlas of Economic Complexity data 31 new products have been added since 2005). However skill and technology intensity of manufacturing production remain extremely low.

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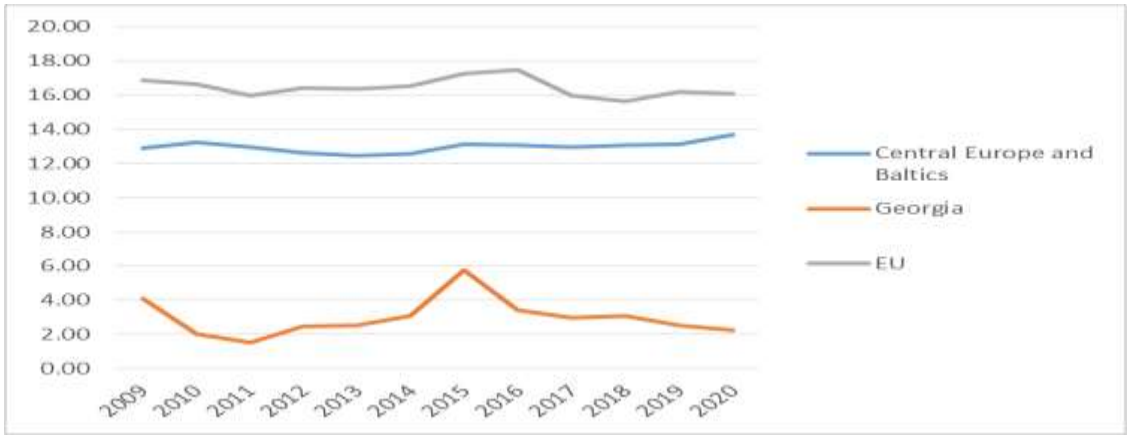
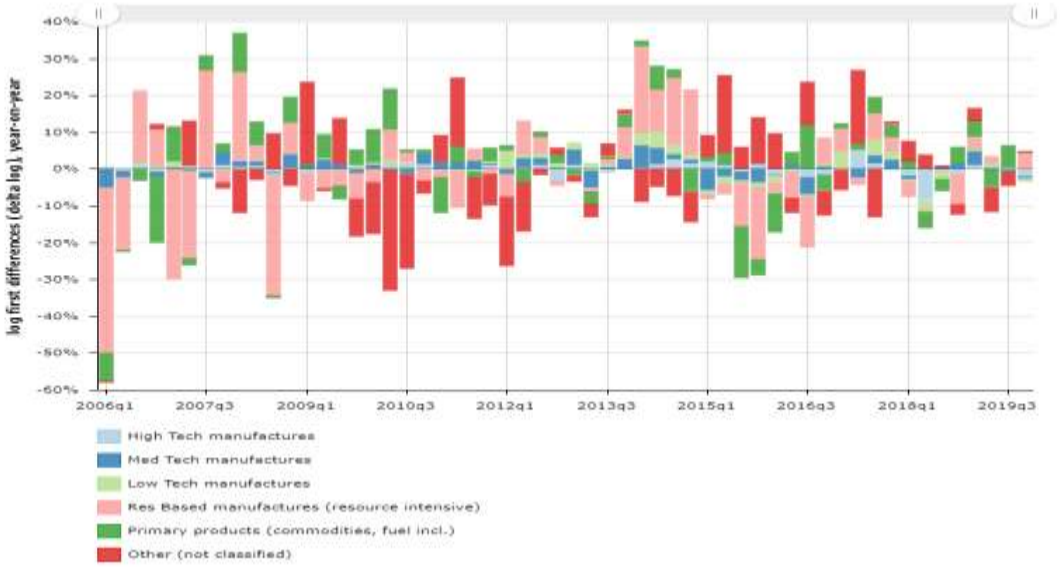


Source: World Bank data

Figure 5: High Technology Exports (% of total manufactured exports)



Source: World Bank Export Competitiveness Database, https://mec.worldbank.org/builderpush

Figure 6: Adjusted market share decomposition of exports by tech, Georgia

As shown by figures 5 and 6 export is dominated by primary products and low skill manufacturing. Technologically export reveals dependence on resource based manufacturing. Comparison with peers in Europe Georgia shows one of the lowest share of high-tech exports in total manufacturing exports. The indicator has even fallen since 2015.

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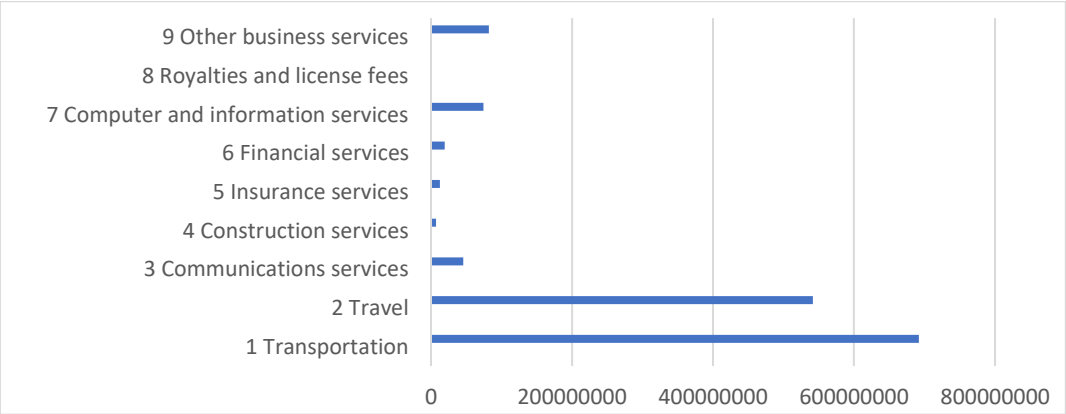
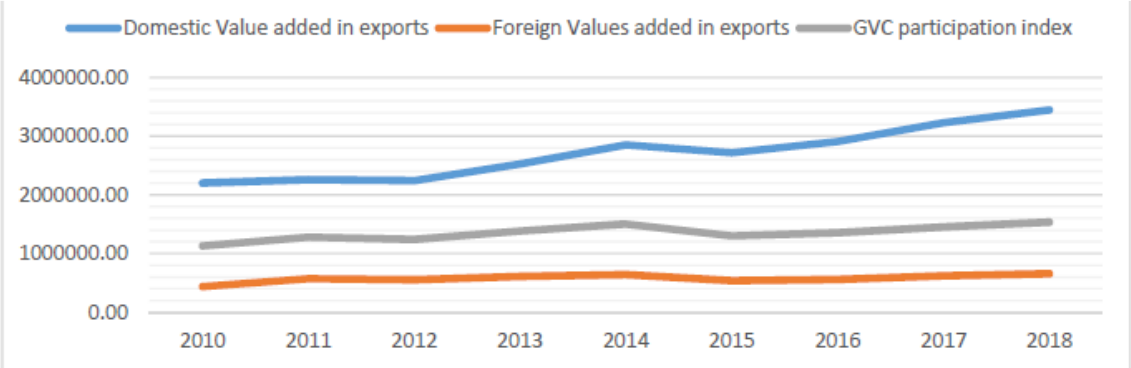


Source: UN COMTRADE https://comtrade.un.org/data

Figure 7 Export of services by major types (US $), 2020

The major category of services exports are travel and transportation. These two categories are followed by other business services. After the sharp fall caused by the COVID pandemic, services exports increased again in 2021. It amounted to USD 2.5 billion, which is 61.2% higher than in 2020. Imports amounted to USD 1.8 billion, which is 25.2% higher than the previous year. The positive trade balance meanwhile was USD 724 million. In 2021 travel reclaimed first place in the list of top export types of services in Georgia, amounting to USD 1.2 billion (48.9% of total exports). Travel is followed by transport services, totaling USD 822.6 million (32.3%); and telecommunications which totaled USD 215.9 million (8.5%). Although services play a major role in positive export dynamics and contribute to positive revenues, under the crises and uncertainties travel and tourism flows are highly volatile and the dependence on these category of export does not ensure resilience and reliability of growth.

Movement of an economy to more profitable and/or technologically sophisticated capital and skill-intensive economic niches can be assessed by means of its participation in global value chains. It involves a selective form of specialization in tasks rather than in the entire production process. Global value chains (GVC) enable companies and economies to access international markets, new technology sources and improve productivity. However those economies which lag behind technologically face the risks to remain locked in in lower value-added activities along the value chains.



Source: Casella, B. , R. Bolwijn, D. Moran and K. Kanemoto. Improving the analysis of global value chains: the UNCTAD-Eora Database. 2019. Transnational Corporations 26(3). New York and Geneva: United Nations

Figure 8: Georgia GVC participation

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GVC participation of Georgia decomposed by domestic value added and foreign value added in export reveals low integration into the international production processes. Both the amount and the growth rate of domestic value added in export are well above foreign value added while the overall GVC participation index does not show any significant improvements during the last decade. Many middle-income countries and Georgia too face the difficulty of moving into more technologically sophisticated segments of GVCs. When they join GVCs focusing on the production of low-value added parts and components there are risks of weakening productivity growth. Integration into GVCs is beneficial if it improves export sophistication known as "product upgrading". The basic channels of these improvements are process, product, functional and inter-sectoral upgrading (Andreoni & Tregana, 2020).

Georgia needs greater GVC participation in order to have more gains for local labor and capital and get better access to international knowledge spillovers and technology transfers.

Industrial Policies for Structural transformation and Better Export Performance

As we can see from the above analysis Georgia's largest goods exports are in low complexity products, agriculture and minerals. Also, Georgia's export growth in the past five years has been driven by services. Structural transformation from low to high productivity sectors, industrial policy and future diversification will be key sources of economic growth. Although the overall path of structural transformation has moved in the right direction, the speed of structural changes has been notably low. The fastest change was observed in the agricultural sector, where the share of employment dropped and the share of employment in services increased, but Georgia is still very far away from the structural composition of successful nations. To catch up with developed countries, Georgia should speed up structural transformation by diversifying industrial exports (moving away from raw materials export); creating a comparative advantage in tradable sectors, such as manufacturing and services sectors.

It is noteworthy that the definition of "industrial policy" has changed since the 1980s: if before it considered direct intervention of government into the economy, the new industrial policy means promoting the business environment for formation of firms, their agglomeration, innovation and competitive advantage in the open economy. Traditional industrial policy has deliberately used such "rigid" means of management and control as money (financial incentives) and law (regulations). Over time, "soft" tools have been added to NIP approach, such as: Public-Private Dialogue (PPD), Public-Private Partnership (PPP), although the limitations of these approaches have been revealed and the requirements for governmental interventions are changing. It is necessary to find and use innovative forms of intervention.

Since the 1990s, industrial policy has focused on enhancing competitiveness, and in recent years there has been an open focus on environmental (sustainable, green) industrial policy. The United Nations Industrial Development Organization (UNIDO) coined the term - Inclusive and Sustainable Industrial Development (ISID). Today, industrial policy is considered the set of policies aimed at structural changes and are grouped as: 1. Competition policy (antitrust regulation, protection of property rights, compliance with international trade rules, etc.) and 2. Policies that help to improve the ability of "firms" and "individuals" to win a competitive battle (research and technology policy, education and training, linkages with firms and universities, etc.). Education and science must be coordinated with the governmental bodies and entrepreneurs for the purpose of success of industrial policy.

Industrial policy should be coordinated with fiscal, monetary, environmental and natural resources, agrarian, competition, public procurement and education, research and technology, defense and health policies.

Conclusion

Georgia and other middle-income transitional countries need to focus on structural transformation issues in order to identify weaknesses of structural change and possible threats to economic development

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(such as middle income trap). Such risks can become the discussion issues for further research. Our analysis shows that Georgia faces the issues of dependence on low-productivity and low-tech intensive manufacturing and also relatively low-value added services. Lack of export diversification and limited participation in global value chains are also serious concerns for the country. The gap between Georgia's average productivity level and that of the Europe and other advanced economies is still significant.

Considering the above industrial policies should address the weaknesses of structural changes in Georgia and its tools should be focused on comparative advantage enhancement through production, technological and organizational capabilities building and innovation and technological change. In addition, Georgia needs policies for improved GVC integration, local production system development and industrial restructuring.

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