GEORGIA: PROBLEMS OF INCREASING NATIONAL ECONOMIC SELF-SUFFICIENCY (Sectoral-Structure Aspect)

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ABSTRACT

This article examines the problems of increasing the self-sufficiency of the Georgian economy through an improvement in its sectoral structure, diversification and expansion of exports, and increased import substitution. In this context, the author explores the concept of structural effect (mainly its sectoral-structure aspects) and the methods of its evaluation. The focus here is on evaluating the level of national economic self-sufficiency.

The level of self-sufficiency of the Georgian economy is studied in terms of broad sectors (groups of industries), and ways to improve its sectoral structure (through accelerated growth of priority sectors/industries) are suggested on this basis. The author charts ways to improve the stra-

tegy and instruments of Georgia's sectoral structural policy, taking into account the opportunities provided by the provisions (guidelines, prescriptions) of the Association Agreement between the European Union and Georgia.

KEYWORDS: ***Georgian economy, national economic self-sufficiency, sectoral structural policy.***

Introduction

The post-communist economic transformation of the economy began more than 20 years ago, but the country's macroeconomic indicators are still less than satisfactory. The relatively high rates of economic growth recorded in the first decade of the 21st century (in some years) are explained by the fact that the recovery started from a very low point after an economic collapse.

In the 1990s, output in many industries (including those producing sufficiently competitive products) fell dramatically; for a number of reasons,[1] there was a massive decline in agriculture. It should be noted that imports of goods and services exceeded exports (and in some groups of industries, even total local production), which indicates an extremely low level of the country's economic self-sufficiency.

Speaking at a political forum entitled "Growth Challenges for Georgia," held in Tbilisi on 18 February, 2014, Prime Minister Irakli Garibashvili noted the need to enhance the international competitiveness of the Georgian economy and to expand and diversify exports and the production of import substitutes (including food products)[2] in order to ensure high rates of real economic growth oriented toward a radical improvement in macroeconomic indicators.

To improve the situation, the sectoral structure of the economy should be changed radically (through accelerated growth of priority sectors/industries); this will make it possible to achieve a significant structural effect, determined by an improvement in key macroeconomic indicators. In order to ensure the economic dynamism required for this purpose, it is evidently necessary to make a detailed analysis of the deficiencies of the current sectoral structure of the economy and outline ways to improve (restructure) it by improving state and market coordination mechanisms.

The "Structural Effect" and Its Evaluation

As noted at the beginning of the article, the Georgian economy lost many important industries after the post-Soviet collapse. In a number of our works,[3] we characterized some of the deficiencies

[1] Most of the reasons for the decline in agriculture are set forth in our works: V. Burduli, "Genezis i puti preodoleniia agrarnogo krizisa v Gruzii," *Proceedings of International Scientific-Practical Conference Dedicated to the 90th Birth Anniversary of Professor George Papava "Actual Problems of Economies of Post-Communist Countries at Current Stage,"* Tbilisi, 2013, pp. 20-27; R. Abesadze, V. Burduli, *Strukturnye i innovatsionnye problemy ekonomicheskogo razvitiia*, Publishing House of Paata Gugushvili Institute of Economics, Tbilisi State University, Tbilisi, 2014, Chapter VII, §7.2, "The Causes of the 2006-2012 Agricultural Crisis in Georgia," pp. 206-216, and others.

[2] I. Garibashvili, "The Country's International Competitiveness Is Very Weak," available at [http://www.radiokalaki.ge/index.php?cid=39&act=view&id=11892] (in Georgian).

[3] V. Burduli, R. Abesadze, "Sectoral, Technological, and Institutional-Organizational Structures of the Georgian Economy: Development Issues in the Context of Globalization," *The Caucasus & Globalization*, Vol. 7, Issue 1-2, 2013;

of the current sectoral structure of the Georgian economy and discussed ways to both revive the most traditional sectors and create new ones.

But a relatively small country lacks the capacity to restore all industries that are currently in decline or to create new ones. In some sectors of the economy (as in agriculture and the food industry), all subsectors that are part of them should be fully operational, which will enable them to meet the needs of the country's population to the maximum possible extent and, where possible, to increase exports of products (such as citrus, other fruits and wine). In some other sectors (as in light industry and production of building materials), it would make sense to develop (or revive), as evenly as possible, most of their subsectors with due regard for their export and import-substitution potential.

Meanwhile, Georgia lacks the capacity to successfully develop all sectors of the power industry or high technologies. In this situation, it is necessary to select the top priority sectors and focus the efforts of entrepreneurs and state coordinators on their accelerated development. That is why when the government makes decisions on coordinating development and when entrepreneurs make investment decisions, it is important to assess both the situation as a whole (through the prism of the entire sectoral structure) and the state of affairs in groups of industries.

At the same time, sectoral restructuring should be geared to achieve a "structural effect," which "should underlie the construction and implementation of a 'national economic model'."[4]

According to Professor Teimuraz Beridze, *the content of the "structural effect"* (which needs to be further specified by economists) *could be spelled out as "an optimal combination of economic sectors and subsectors ensuring maximum economic efficiency."* But in response to his question of how to measure the structural effect, it is very difficult to find a simple answer. Evidently, this implies definiteness, the share of key (core) industries in total GDP, with possible changes in the content of the structural effect in view of progress.[5]

As I see it, the structural effect can be assessed using indicators such as an increase in export potential and import substitution, manufacture of high-tech products, etc. (including based on sector priority criteria), which are systematized in the first section of our article.[6]

However, in my opinion, *the most important characteristic of the structural effect is the level of economic self-sufficiency. Its main indicators are:*

- *a high level of self-sufficiency for groups of industries (for some sectors of light and food industry, building materials industry and energy industry, it is also important to calculate the self-sufficiency ratio);*
- *a positive balance of exports and imports (trade surplus) for groups of industries.*

Economic self-sufficiency (measured as "local production including exports minus imports") in some groups of industries can be achieved through rapid growth of production not in all industries of the group, but only in a "selected few." In this case, exports of their products will offset imports of items in the product mix of other industries in this group (or at best, total exports of goods in this group will exceed imports).

Hence, this article analyzes the state of the sectoral structure of the economy (in terms of groups of sectors/industries such as the energy industry, agriculture, food industry, metallurgy, high technologies, etc.) and assesses the prospects for the development of some of them.

V. Burduli, "Ways of Development of the Sectoral and Technological Structure of the National Economy under Globalization," *Ekonomisti*, No. 3, 2012 (in Georgian); R. Abesadze, V. Burduli, op. cit., and others.

[4] T. Beridze, "National Economic Model: An Alternative to Globalization?" *The Caucasus & Globalization*, Volume 1 (3), 2007, p. 61.

[5] Ibidem.

[6] V. Burduli, R. Abesadze, op. cit.

Let us note that for some sectors (broad groups of more specific sectors/industries), such a grouping is to some extent conditional (*for example, the statistics for high technology industries do not take into account machine tool building, which currently does not exist in Georgia; for lack of some data in statistical reports, in the process of grouping indicators it was impossible to include in the aggregated sectoral indicators, for example, data on genetic engineering and some other high-tech industries more associated with biochemistry, medicine, pharmaceuticals and agriculture, even though their share in the aggregated sectors is very small*). Nevertheless, it allows us to assess the state of the economy from the perspective of sectors and, consequently, to prioritize their constituent industries for development purposes.

Thus, Georgia needs a purposeful transformation of the structural content of its economy.

In this paper, the deficiencies of the sectoral structure are identified and discussed in terms of groups of industries (taking into account local production, exports and imports of goods), and the suggested guidelines for its improvement are aimed to achieve a significant effect. Coordination of purposeful changes in the sectoral structure should be based on an appropriate improvement of government and business regulation mechanisms, as described in the final section of this article.

The current relevance of the structural approach used in this article is indicated, in particular, by an Internet publication[7] that presents the recommendations of the OECD (in this case for Russia) designed to increase GDP in the next two or three years, listing them in order of priority (improvement of the sectoral structure, structural changes in coordination mechanisms). A similar approach to the identification of development priorities based on an analysis of domestic production, exports and imports (viewed from a broader, aggregate perspective) is used in an article by the well-known researcher V. Obolenskiy[8] (particularly, in sections of that article entitled as follows: "The Reproductive Openness of the Russian Economy"; "Is There a Chance to Reduce Dependence on Foreign Markets?"; "What Should Be the Role of the State in the New Industrialization?"; "Input-Output Balance"; "Investment, Monetary Policy and Industrialization," etc.).

From this it follows that such a study is well justified.

Analysis of the Economic Structure in Terms of Sectors (Groups of Industries) and Their Components

An analysis of the dynamics of the composition of GDP by economic activity allows us to establish the extent of progressive structural changes in aggregated groups of industries. This analysis is based on data from a statistical reporting table showing the percentage structure of GDP by type of economic activity[9] and a table for chain-linked volume indices of GDP growth[10] (in these tables, the percentage structure of GDP by economic activity is calculated at current-year prices, and the chain indices, at constant 2003 prices).

As we see from these tables, the share of agriculture, hunting, forestry and fishing in the country's total GDP fell from 16.7% in 2005 to 8.8% in 2011. In absolute terms, agricultural GDP declined

[7] "OESR: Uskorenie rosta VVP v RF vozmozhno lish v sluchae strukturnykh reform," *Novosti Google*, 19 November, 2013.

[8] V. Obolenskiy, "Vneshneekonomicheskie sviazi Rossii: nekotorye uroki globalnogo krizisa," *Voprosy ekonomiki*, No. 5, 2012.

[9] *National Accounts of Georgia 2011. Statistical Publication*, National Statistics Office of Georgia, Tbilisi, 2013, p. 26.

[10] Ibid., p. 28.

as well: in 2010, GDP in agriculture amounted to 77.3% of the figure for 2005, and in 2011, to 83.5%.[11]

The mining and quarrying industry, which has little prospect (except in producing raw materials for the construction industry), has a steadily low share of total GDP: 0.9-1.2%. In the electric power industry, there have been virtually no capacity additions since the construction of the Khudoni Hydro Power Plant came to a halt. In spite of that, the GDP share of the production and distribution of electricity, gas and water was sufficiently stable (2.8%-3.2%; in 2008, 2.6%).

From the standpoint of improving macroeconomic indicators, the most important thing is to ensure accelerated development of manufacturing industries. But their contribution to total GDP changed very little in the period under review, ranging between 9.1% and 9.9% (in 2007, it was 8.1%). At the same time, manufacturing GDP increased by 68.3% from 2005 to 2011 (outpacing the 37.6% increase in total GDP). Nevertheless, due to the relatively low initial level of manufacturing GDP, such a rate of growth was not satisfactory.

At the same time, the manufacturing industry mainly consists of the manufacture of food products, beverages and tobacco (in 2011, its share was 40.8%). Metallurgy accounted for 17.4% (of total industrial output), and the manufacture of "other non-metallic mineral products" stood at 10.2%[12] (more complete information on various branches of manufacturing is given below).

From 2007 to 2011, the share of construction in total GDP fell from 9.1% to 6.7%. This was due,

- first, to the low level of construction of industrial facilities in the country and,
- second, to the decline in the demand for housing among a significant part of the population with very low income.

The GDP share of trade and some other services is increasing, which is now characteristic of successfully developing countries. Simultaneously, the consumer market for information technology has to some extent been saturated, so that its share of total GDP is beginning to decline.

Based on an analysis of the dynamics of the sectoral structure of GDP, it can be concluded that in 2005-2011 the total share of real production (industry, agriculture, construction,[13] transport and communications), which accounts for the bulk of exports, gradually declined as it lost ground to the service sector (trade, public administration, healthcare, social assistance, etc.). With more favorable initial parameters of the sectoral structure, this would have been not so bad. But in today's conditions, a real improvement in macroeconomic indicators (especially in the export-import balance, since balanced foreign trade is of crucial importance for the country's sustainable development) will become possible only if industry and agriculture grow faster than the service sector (where the only exception is tourism, whose accelerated development could also play a significant role in improving the export-import balance).

This is precisely why the following analysis of statistical data includes a study of the situation with the development of industrial and some other sectors. *In this case, a sectoral structural analysis is performed for aggregated industries (i.e. sectors/groups of industries), with a comparison of their production indicators with exports and imports of products (in monetary terms) characteristic of the sector in question and an assessment of the level of self-sufficiency for groups of industries and, where it makes sense, of the self-sufficiency ratio.*

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[11] The problems of agriculture and related industries are examined in detail in some of our works (see, for example: V. Burduli, op. cit., and others). That is why in this article the reasons for the decline in this sector and the ways to revive agricultural production are described only briefly, to the extent necessary to maintain the logic of this study.

[12] Calculated based on data from the table, "Industry: Output by Economic Activity," *Statistical Yearbook of Georgia 2012*, National Statistics Office of Georgia, Tbilisi, 2013, pp. 140-141.

[13] Naturally, construction does not contribute to exports.

In statistical reporting, there are sets of balance sheets for basic food products, which allow us to assess the degree of self-sufficiency in various food items. As an example, let us consider a table showing the meat balance in terms of weight (see Table 1).

Table 1

Meat Balance Sheet (*in thousands of metric tons*)

	2006	2007	2008	2009	2010	2011	2012
Local production	**83.3**	**73.0**	**57.3**	**54.3**	**56.4**	**49.3**	**42.6**
Imports	**32.9**	**53.3**	**62.1**	**61.9**	**61.9**	**71.3**	**77.5**
Exports		**1.2**	**0.8**	**0.2**	**0.7**	**1.2**	**0.9**
Total resources = Total utilization		**128.1**	**123.3**	**118.8**	**120.2**	**123.1**	**122.4**
Self-sufficiency ratio, %		**58**	**48**	**47**	**48**	**41**	**36**

Source: *Agriculture of Georgia 2012. Statistical Publication*, Tbilisi, 2013, p. 78.

Table 1 clearly demonstrates the changes in the situation with meat production and consumption; meanwhile, the construction of such balances for non-food products makes little sense (except in some branches of light industry and building materials industry). As noted above, the increase in imports of some items from various commodity groups (groups of industries) compared to local production can be quite significant. In countries with an effective sectoral structure of the economy, this is usually compensated by increased exports of other goods produced by a particular industry in this sector (group of industries).

That is why in order to assess the effectiveness of the sectoral structure of the country as a whole, it is necessary to compare production volumes for groups of industries with exports and imports of goods grouped into corresponding groups. This allows us to estimate the level of self-sufficiency for a particular group of industries (energy, food and light, etc.), aggregated for the purposes of research.

Let us first consider the energy sector. It is known that there are virtually no oil or natural gas fields in Georgia, which is why the share of oil and gas in total imports is very high: in 2011, it was 16.3% (12.9% + 3.4%) or GEL 1,893 million (1,503 million + 390 million[14]).[15]

At present, the local production of oil and oil products in Georgia is insignificant, and their share of total industrial output does not exceed 0.01%. In these conditions, it is very important to increase the local production of electricity, which should be done not through the use of imported raw materials but by using renewable resources, primarily hydropower.

In 2011, the production and distribution of electricity, gas and water ("electricity, gas and water supply") amounted to 13.8% (GEL 888.3 million) of total industrial output. Thus, an improvement in Georgia's energy balance (with a view to reducing the trade deficit) is possible only by accelerating the development of the hydropower industry. Meanwhile, the development of hydroelectric power in Georgia has been neglected throughout the entire post-communist period, so that today more than half of the electricity in the country is generated with the use of imported hydrocarbons (mainly gas).

[14] In order to compare exports and imports with local production, statistical data for aggregated commodity groups were converted from U.S. dollars to Georgian lari (GEL) at the 2011 exchange rate of 1.65 lari per dollar.

[15] *External Trade of Georgia 2012. Statistical Publication*, National Statistics Office of Georgia, Tbilisi, 2013, p. 136.

A certain role can also be played by solar energy, and this option should be taken into account in developing Georgia's sectoral structural policy (particularly in defining the strategy for the development of energy industries).

Let us now consider the structural parameters of the food sector. In statistical reporting,[16] exports and imports of food products are presented under four headings of the Harmonized Commodity Description and Coding System (Harmonized System or HS):

(1) live animals; animal products;

(2) vegetable products;

(3) animal or vegetable fats and oils;

(4) prepared foodstuffs, beverages and tobacco.

In order to get an idea of the relationship between production, exports and imports, it is necessary to compare output of agriculture (together with fishing, forestry and hunting) with the sums of exports and imports for the first and second of these commodity groups. For its part, output of the food industry (together with beverages and tobacco) should be compared with the sums of exports and imports for the third and fourth commodity groups.

In 2011, agricultural output totaled GEL 2,674.0 million[17]; of this, crop production accounted for GEL 1,237.9 million, and livestock production for GEL 1,336.8 million. Imports for the first two of the above commodity groups added up to GEL 910 million (7.8% of the country's total imports), and exports for these two groups totaled GEL 374.9 million (i.e., imports for these groups were 2.4 times larger than exports).

Output of enterprises in the food industry (together with beverages and tobacco products) amounted to GEL 2,161.6 million (or 33.6% of total industrial output. For comparison: in 1990, the share of the food industry was 38.9%).[18]

Imports for the third and fourth of the above commodity groups added up to GEL 1,059.6 million, or 49% of total local production (9.1% of total imports), and exports amounted to GEL 364.2 million (10.1% of total exports). Thus, imports of food products make up a significant share (16.9%) of the country's total imports. At the same time, export earnings from food products manufactured in these sectors do not offset the cost of their imports (imports of food products are 2.6 times larger than exports).

A sharp decline in food-producing industries was recorded in the early 1990s. Gradually, the situation in agriculture began to improve, and by 2005 the country reached a level of production that was more or less satisfactory for that period.

But after the 2005 tax reform, the authorities made a number of mistakes in coordinating the development of agriculture and the food industry (particularly in the area of tax regulation and pricing) and ignored the requirements of the relevant EU organizations in implementing the national food security policy. All of that led to a sharp drop in local food production.

The relatively large share of food production can be explained by two reasons.

- First, the volume of industrial production as a whole is still not large enough (compared, say, to 1990), and
- second, many food products are made from imported raw materials, often of low quality and with low consumer properties.

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[16] *Statistical Yearbook of Georgia 2012*, pp. 250-255.

[17] Ibid., p. 153.

[18] R. Abesadze, N. Arevadze, "The Georgian Economy at the Turn of the 1990s," *Proceedings of Paata Gugushvili Institute of Economics of TSU*, Vol. IV, Tbilisi, 2011, pp. 236-237 (in Georgian).

In other words, local raw materials are replaced with imported ones, reducing the options for domestic agricultural producers.

During the post-Soviet slump in the economy in the early 1990s, light industry production plummeted. At first, its share (of total industrial output) was 23.6%,[19] but very quickly it fell to near zero.

As regards clothes and footwear, the reasons for the decline in production in these industries are quite understandable. As we know, their products were not quite competitive and simply could not compete with foreign goods: consumers virtually stopped buying local products.

For a number of reasons, production at quite competitive light industry enterprises (such as some large textile factories) also fell; the technological process of silk making was disrupted.

Let us consider the current situation in light industry. The *Statistical Yearbook of Georgia* includes a table showing output in industry.[20] Data for light industry are presented under three headings:

(1) manufacture of textiles;

(2) manufacture of wearing apparel, etc.;

(3) manufacture of leather, leather products and footwear.

In 2011, light industry produced GEL 92.9 million worth of goods (1.4% of total industrial output). So it turns out that over the last 23 years, despite the use of new technologies, these industries have not been revived even in part. Hence the massive imports of the respective products, amounting to GEL 637.5 million (the sum of several rows of the corresponding table),[21] and the insignificant volume of exports, amounting to GEL 54.4 million. Thus, imports are 11.7 times larger than exports and 6.9 times larger than local production.

During the post-Soviet collapse of the economy, the chemical industry was least affected compared to its other key sectors (in 1990, chemicals and petrochemicals constituted 4.9% of total industrial output). This is because the Azot production association and some smaller enterprises managed to stay afloat; in addition, a plant producing metal plastics began operating in the country.[22]

In 2011, this industry produced GEL 457.3 million worth of output (7.1% of total industrial output). Exports (naturally, for the most part included in the volume of output) amounted to GEL 377 million, and imports to GEL 841.6 million. The local production of rubber and plastics was GEL 116.8 million, imports of polymers amounted to GEL 486.6 million, and exports to only GEL 7.6 million. Thus, the trade balance for chemicals and polymers is very negative. At the same time, imports in these industries far exceed their own (local) production.

Metallurgy accounts for a relatively large share of total industrial production. In 2011, its output (together with the manufacture of fabricated metal products) was GEL 996.3 million (15.5% of total industrial output). Imports of base metals and articles thereof amounted to GEL 942.5 million, and exports to GEL 877.2 million. Thus, it is quite obvious that in terms of a balance between exports and imports and the degree of self-sufficiency, the situation in metallurgy is better than in other industries. In spite of this, it is also in need of expansion and modernization. In particular, metal products are currently being replaced with metal plastics, which will require the creation of new production facilities in the future.

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[19] R. Abesadze, N. Arevadze, op. cit., pp. 236-237.

[20] *Statistical Yearbook of Georgia 2012*, pp. 140-141.

[21] Ibid., pp. 250-255.

[22] It is unclear under which heading its products are included in statistical reports: as chemical, polymer or metallurgical products.

Before the post-Soviet decline, Georgia had a well-developed building materials industry. In 1990, it accounted for 5.3%[23] of total industrial output. At present, there are virtually no statistics for this industry.

Output under the heading of "manufacture of other non-metallic mineral products"[24] includes, along with building materials, such items as ceramic products; let us note that there is an opportunity to estimate the balance for this local industry (including exports and exports-imports). In 2011, output under the heading of "manufacture of other non-metallic mineral products" was GEL 606.6 million (9.4% of total industrial output). Imports of "articles of stone, plaster, cement, asbestos, mica or similar materials, ceramic products, glass and glassware" amounted to GEL 167.3 million, and exports to GEL 12.6 million. Thus, the situation in the production of building materials is relatively favorable and, in the case of a targeted sectoral structural policy, it will be possible in the near future to achieve a trade surplus in this area.

The situation in industries associated with woodworking is unfavorable. In the table showing output by economic activity,[25] these industries are presented under three headings:

— "manufacture of wood and products of wood and cork, except furniture" with GEL 88.5 million worth of output in 2011 (compared to GEL 26.6 million in 2010);

— "manufacture of pulp, paper and paper products" with output of GEL 45.0 million (GEL 27.6 million in 2010);

— "manufacture of furniture; manufacturing not elsewhere classified" (unfortunately, data on furniture are not shown as a separate item) with output of GEL 84.6 million.

In 2011, there was a sharp increase in production in all these groups. For each of these groups, I have tried to summarize the data on exports[26] and imports[27] for 2012 (by converting US dollars into Georgian lari):

— processed wood, panels, plywood, paperboard, building materials of wood, articles of cork, etc.: exports GEL 38.6 million, imports GEL 172.2 million;

— paper, cellulose, paper products (except printed matter), etc.: exports GEL 17.6 million, imports GEL 158.3 million;

— furniture: exports GEL 19.1 million, imports GEL 179.8 million.

As we see, in this group of industries the situation is also very unfavorable. Although the indicators of local production (including exports) are given for 2011, and export-import indicators for 2012, we can say that imports in this group are several times higher than local production and, consequently, exports. As a result, the country's overall trade deficit increases significantly.

An interesting situation has arisen with exports and imports of transport vehicles. In the conditions of low domestic production ("manufacture of other transport equipment" stood at GEL 157.7 million),[28] exports of transport vehicles amounted to GEL 901.8 million (or 24.5% of total exports), and imports to GEL 2,228.7 million (19.1% of total imports). The point is that export and import figures include the value of re-exported motor cars, which in 2011 was $444.8 million,[29] or about GEL 733.9 million. A more objective estimate of the balance of exports and imports (both for this industry

[23] R. Abesadze, N. Arevadze, op. cit., pp. 236-237.
[24] *Statistical Yearbook of Georgia 2012*, pp. 140-141.
[25] Ibid., pp. 140-141.
[26] *External Trade of Georgia 2012. Statistical Publication*, pp. 37-39, 58.
[27] Ibid., pp. 85-88, 121.
[28] *Statistical Yearbook of Georgia 2012*, pp. 140-141.
[29] *External Trade of Georgia 2012*, p. 137.

and for the economy as a whole) can be obtained by deducting the value of re-exported cars from the respective figures.

What is the situation in the production of high-tech consumer goods or the provision of high-tech services? In the table showing the volume of production in various industries ("output by economic activity"),[30] high-tech products (apart from transport vehicles) are given under the following headings:

— "manufacture of machinery and equipment;"

— "manufacture of office machinery and computers" (GEL 0);

— "manufacture of electrical machinery and apparatus;"

— "manufacture of radio, television and communication equipment and apparatus;"

— "manufacture of medical, precision and optical instruments, watches and clocks."

Output here adds up to only GEL 94.7 million (or only 1.47% of total industrial output). In the corresponding table,[31] exports and imports of such goods are given under the following headings:

— machinery, electronic and other equipment, etc.;

— various instruments and apparatus.

Imports of such items amount to GEL 1,297.2 million (11.1% of total imports), and exports to GEL 87.8 million (2.2% of total exports). These data clearly show that the worst situation in the Georgian economy is in the high technology sector, which is badly in need of massive imports of information technologies and other high-tech products and equipment. At the same time, it is evident that the cost of these imports cannot be offset by the production and export of similar (high-tech) products. Such products manufactured in 1990 for the most part became obsolete very quickly, with the exception of trucks, aircraft, television sets, etc.

Today, many enterprises are implementing modern technologies that allow them to produce entirely new types of products. This takes place in the face of serious competition between countries for the location of high-tech enterprises in their territory. As regards Georgia, until recently it had little opportunity to attract capital (both domestic and foreign).

General Guidelines for Developing a Progressive Sectoral Policy

From the standpoint of attracting both national and foreign investors to the real production sector, the following countries have an advantage:

(1) Countries where domestic prices for food and other necessities (clothes, footwear, housing and electricity) are lower than world prices. In this case, companies save on wages and, consequently, on sales of products, thus earning higher profits (in order for agricultural product prices in the country to be lower than the world average, it is important to achieve a high degree of self-sufficiency in basic foodstuffs and energy resources).

(2) Countries with a high potential for the production of relatively cheap electricity, which are becoming increasingly attractive.

[30] *Statistical Yearbook of Georgia 2012*, pp. 140-141.

[31] Ibid., pp. 250-255.

(3) Densely populated countries with large markets for goods produced by new enterprises (this condition is important in attracting multinational enterprises).

(4) Countries with effective mechanisms designed to assist and stimulate local businesses, primarily in applying new technologies and ensuring sustainable production of appropriate products (in this case, opportunities for stable exports of the goods produced are very important).

(5) Countries that provide various tax incentives and a favorable organizational environment (either established by law or determined by contracts between the government and corporations).

It should be noted that countries in the first three of these groups are particularly attractive to multinationals.

Georgia has significant opportunities for developing the power industry, and their realization can have a positive effect on the efforts to "correct" the country's trade balance. At the same time, the production of electricity from coal mined in Georgia is currently of no importance (due to the relatively high cost of production).

The country can also achieve significant successes in developing hydroelectric power; another option is to use solar panels (with modern technologies, they could generate 10% of the country's electricity).

But, as already noted, from 1990 to 2012 the authorities paid no attention to hydropower. Today, the country's new government is developing both a strategy for the hydropower industry and measures for its implementation.

At the same time, new small and medium-sized hydropower plants (HPPs) with a total capacity of 500-700 MW (this refers to projects meeting environmental requirements) will hardly be able to satisfy the country's growing demand for electricity (for comparison: Turkey is currently building several nuclear power plants with a capacity of 4,800 MW). That is why, in my opinion, it is necessary to return to the construction of the Khudoni HPP, but the implementation of this project, developed by the Saakashvili Government, may bind the country to the investor company by onerous long-term commitments.

For example, as former energy minister David Mirtskhulava writes in his article, the agreement provides that out of the annual electricity output of the Khudoni HPP (1.5 billion kWh) only 20% will be sold to the government during the four winter months at a reduced rate of 5.4 cents or 9.6 tetri per kWh (for comparison, in 2013, the price of electricity imported from Russia during peak hours was 9.5¢ per kWh). At the same time, he rightly notes that "cheap electricity is one of the main factors of enterprise competitiveness."[32]

As noted above, the availability of cheap electricity is a key factor in attracting production investment to the country. That is why the agreement on the construction of the Khudoni HPP should provide for the sale of all the electricity it generates to the country's population at relatively low prices, in accordance with the cost of its production (for example, the cost of electricity produced by the Inguri HPP is 1.18 tetri per kWh).[33]

At the same time, in order to ensure that profits from the operation of the HPP stay in Georgia, it is advisable to conclude an agreement with the lead investor on the terms of a "co-investment fund." Under its rules, a co-founder who withdraws from the project after a certain period (according to the

[32] D. Mirtskhulava, "Khudoni HPP Will Pay $410 Million in Corporate Tax to the Budget over 20 Years," 30 September, 2013, available at [http://www.bpn.ge/ekonomika/1270-davith-mirckhulava-khudonhesi-biujetshi-20-tselitsadshi-410-milioni-dolaris-mogebis-gadasakhads-sheitans.html?lang=ka-GE] (in Georgian).

[33] Ibidem.

rules of the fund) will gradually have to sell most of its stake to the state (since the Khudoni HPP is a strategic facility).

Today, there is no other economically sound option for the construction of a large hydroelectric facility in Georgian territory (for example, the construction of a very large HPP is hypothetically possible on the Rioni River, but the reservoir required for this purpose would cause significant economic and environmental damage to a number of population centers and agricultural lands located in the area to be flooded).

There is also an opportunity to build one or two HPPs with an average capacity of 100-150 MW.

As we saw above, today the output of high-tech industries is insignificant compared to the period preceding the collapse of the post-Soviet economy. Although it is impossible to create many high-tech enterprises in a relatively small country, it is nevertheless necessary to select a number of priority areas and to formulate and implement a development strategy in these areas.

At the same time, it is necessary to find ways to revive previously existing high-tech enterprises (as in the machine tool industry) based on new technology and to look for opportunities to establish new enterprises.

The adoption of modern technologies and the deployment of a full production cycle on their basis to produce certain products is a very complicated process, which requires not only business coordination, but also government support. Today it is particularly difficult to set up large domestic enterprises because there is serious competition even between countries already producing quality products. But this does not rule out the possibility of setting up and operating large high-tech companies in a relatively small country. Take, for example, the Finnish company Nokia, which is among the world's largest high-tech companies. There is also strong competition between countries for the location of enterprises of leading multinational corporations.

From this it follows that expanding the high-tech industry in a small country is a very difficult task whose solution requires the development of a sectoral structural policy (earlier known as "industrial policy"), which should be implemented by appropriate government organizations, and also by representatives of the business community or large private entities (the recently established Georgian Co-Investment Fund is of interest in this context; one can say that it is an important vehicle of sectoral structural policy involving private entities).

As already noted, it is necessary to revive some traditional high-tech industries on the basis of new technology. As for new industries, along with the development of some areas of the information technology sector (for example, by restoring the production of computer monitors and TV sets; in the past, Georgia had a television manufacturing plant, but since monitors are now produced on the basis of new technology, this sector can be regarded as a new one), more attention should be paid, in my opinion, to products that have not yet reached the stage of mass production (in some countries, the consumption of such products has tended to increase).

Here is a case in point. As mentioned above, some developed countries (especially Germany) have recently seen an increase in the share of energy (including electricity) obtained from solar panels. That is why, in my view, it would make sense to arrange the production of modern solar panels in the country by providing appropriate incentives to businesses coupled with a government campaign to promote their use by the population (as in the U.S. or Germany).

On a global scale, there is now a significant shift of focus in the provision of financing toward clean energy (renewable energy sources). For example, on the very eve of the U.N. Climate Change Summit (which opened on 23 September, 2014), representatives of the Rockefeller Brothers Fund announced the Fund's intention to divest from fossil fuel industries (to sell off assets worth $800 million) and invest in clean energy. Together with the Rockefeller Brothers Fund, some 180 institutions and 650 individuals joined the coalition of investors who pledged to divest their holdings in fossil fuels (a total of $50 billion). That was done as part of the global Divest-Invest initiative, which

provides an economic platform for those who wish to divest from "dirty" fossil fuels and invest instead in clean energy projects.[34]

In my opinion, along with the production of electricity from clean energy sources, in planning new industries in Georgia we should focus on technologies for the production of "super batteries" and composite materials.

Three years ago we noted that with the development of small and sufficiently powerful batteries, electric vehicles could come into common use along with other modern technologies.[35] American scientists have already created lithium-ion batteries where the lithium metal anode is coated with a monolayer of hollow carbon nanospheres and which are much lighter, smaller and more powerful than conventional batteries. In practical terms, the capacity of such batteries could be four times that of conventional batteries. They will help technologies to enter a new era. One can say that the internal combustion engine has acquired a real competitor.[36]

Of course, the production in Georgia of the battery created by American researchers is so far impossible for lack of access to the technology of its production and because of the relatively high cost of the manufacturing process.[37] It would be advisable to recruit a group of Georgian researchers to analyze this new technology (say, under a government grant) so as to help entrepreneurs to start producing such batteries (they can be used not only in electric cars, but also in laptops, smartphones, etc.). Another area of modern technological development required for sectoral restructuring is the production of composite materials (including metal plastics) and articles thereof.

Thus, the creation of composite materials and sophisticated products of such materials is an area of economic development that is highly relevant today. That is why Georgia should create a business environment that would encourage businesses to invest in the development of such industries (primarily through inclusion in appropriate international company and industry value chains).

It is also necessary to monitor the production of new high-tech products and, based on a serious analysis, take decisions on the advisability of using a particular kind of product.

Let us now turn to agriculture and industries that, for the most part, process its products, i.e. the food and light industries. As we see from the above analysis, the level of their self-sufficiency is quite low. The reasons for this have been analyzed in a number of our publications[38] and should be studied separately.

The next group of industries mainly produces products for intermediate consumption and use (or processing): metallurgy, chemical industry, polymer industry (manufacture of plastics and rubber and articles thereof), production of metal plastics, and building materials industry. Global demand for their products (especially for fertilizers, metal plastics and building materials) has been growing steadily. In the event of a rational choice of development areas for this group of industries, the total export-import balance for its products could turn positive in the foreseeable future (today it is negative), and this regardless of the availability of the necessary feedstock in the country. Particular atten-

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[34] "Rokfellery reshili izbavitsia ot neftianykh aktivov," 23 September, 2014, available at [www.interfax.ru/business/398170]; "Rokfellery reshili investirovat v VIE," available at [http://greenevolution.ru/2014/09/24/rokfellery-reshili-investirovat-v-vie/].

[35] V. Burduli, "Vzaimosviaz razvitiia tekhnologicheskikh ukladov i transformatsii ekonomicheskikh system," *Proceedings of International Scientific-Practical Conference Dedicated to the Foundation of Paata Gugushvili Institute of Economics "Actual Economic Problems under Globalization" (21-22 October, 2011)*, Tbilisi, 2011, p. 24.

[36] "Teper akkumuliatory rabotaiut v chetyre raza dolshe," 24 July, 2014, available at [www.gazeta.ru/science/2014/07/28_a_6148149.shtml]; "Uchonye sdelali revoliutsionnyi proryv v zariadke akkumuliatorov," available at [http://appress.com/science/7043-uchenye-sdelali-revolutsionnyi-proryv-v-zaryadke-akkumulatorov].

[37] Ibidem.

[38] R. Abesadze, V. Burduli, *Structural and Innovation Problems of Economic Development*, Chapter VII, "The Need for Coordinated Development of Related Branches of Industry and Agriculture;" V. Burduli, op. cit., and others.

tion should be paid to metal plastics and articles thereof, and also to quality building materials, including for export purposes.

Wood and wood products (building materials, furniture, paper, etc.) play an important role in meeting the needs of the economy and the population. As shown above, imports account for a significant share of such products available in the country. That is why the development of local production in this sector is one of the most important ways to achieve a positive structural effect on the economy.

Unfortunately, uncontrolled logging and export of rough timber were a frequent occurrence throughout the period from 1990 to 2012. As a result, the opportunities for selective logging for the needs of the said industries were significantly reduced. One of the ways out of this situation is to organize production (primarily of furniture) based on imported raw materials with simultaneous use of local opportunities for timber supply.

In order to increase local timber supply to meet the demand of woodworking enterprises, it is necessary to take proper care of the country's forest areas and establish plantations of fast-growing trees (for example, eucalyptus trees have been planted along the perimeter of the Colchis swamps), as practiced in some countries.

In the efforts to achieve a positive structural effect, a certain role could also be played by rational development of the service sector, primarily tourism, whose accelerated growth could lead to significant positive changes in the trade balance (provision of services to foreign tourists in the country amounts to exports of services). The prospects for the development of this industry are a subject of special investigation; various aspects of this problem are considered in the works of K. Kveladze.[39]

The education system also has some potential in terms of serving foreign clients.

An obvious conclusion from the above is that the "reorientation of the economic structure"[40] in Georgia should proceed along the following lines[41]:

(1) Expansion of power generation capacity mainly through the construction of HPPs. In addition, drawing on the experience of Germany and the United States, we could move toward the use of solar energy. Gradually, its share in the country's electric power balance could reach 10%.

(2) Increase in the production of high-tech products (as a share of total industrial output) from its current share of 1.5%. This will make it possible to significantly increase the degree of national economic self-sufficiency, primarily by increasing exports. It is necessary to select several priority areas of development, with a revival of some traditional industries (for example, a multi-product machine tool factory using flexible, information and other advanced technologies or a modern plant making TV sets, monitors and other computer equipment could be opened in the country) and the creation of new ones. It should be borne in mind here that the niche market for the products of such industries should not be oversaturated.

At the same time, it is impossible to locate the entire manufacturing cycle in a single country. This is why the state should help national firms to integrate into international industry-level value chains.

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[39] See, for example: K. Kveladze, "Policy of Innovations in Tourism Development," *Proceedings of International Scientific-Practical Conference Dedicated to the 90th Birth Anniversary of Professor George Papava "Actual Problems of Economies of Post-Communist Countries at Current Stage"*(in Georgian).

[40] T. Beridze, op. cit.

[41] This article examines the sectoral structure only by economic activity, but structural content can also be viewed from other angles such as the distribution of enterprises by size.

(3) Coordinated development of related branches of agriculture and the food industry in order to enhance their import-substitution functions and export orientation.

(4) Coordinated development of related branches of agriculture and light industry as the most urgent, top-priority task.

(5) Accelerated development of production facilities (by modernizing and expanding existing facilities and building new ones) in the chemical, polymer and metallurgical industries and in the production of building and composite materials (including metal plastics). The goal here should be to achieve, after a certain period, a trade surplus for these industries as a whole.

(6) Development of enterprises in the woodworking industry, primarily those producing furniture and building materials.

(7) Development of service industries with an orientation toward an increase in their import-substitution and, if possible, export potential.

Sectoral Structural Policy (Strategies and Instruments)

Some modern principles of neoliberal policy formulated in a number of scientific works (by Joseph Stiglitz, John Williamson, and others) have already found their reflection in the rules and guidelines of global international organizations, which enable states to modernize, within certain limits, their economic policy and to respond correctly to the emerging realities.

In formulating a sectoral structural policy and improving its instruments, today it is necessary to take into account the regulations and preferences provided for by the Association Agreement between the European Union and Georgia. It is precisely within the framework established by its provisions that Georgia has to develop and improve the coordination (strategy and instruments) of economic development designed to support the formation of an innovative neo-industrial (new sectoral) structure.

After the collapse of the economy in the early 1990s and up to 2013, there was virtually no consistent, targeted improvement of the sectoral structure of the economy, which was largely due to the shortcomings and deficiencies of the mechanism for coordinating economic development. One of the main problems is that the country still lacks a sectoral structural policy and an economic mechanism for coordinating its implementation that meets current requirements.

Back in the 1990s, I studied the experience of developed countries and argued the need for an industrial policy in Georgia with an appropriate mechanism for its regulation.[42] In developed countries, such mechanisms imply the existence of financial and credit institutions (excluding various investment funds), fiscal instruments, a sectoral development strategy (or indicative planning), institutional measures such as the adoption of special laws, etc.

Some economists believe that industrial policy in its initial sense no longer exists,[43] but this is not quite so. To be more precise, some elements of government regulatory instruments of industrial

[42] V. Burduli, "Industrial Policy: Institutional Framework and Economic Implementation Mechanism," *Proceedings of the Georgian Academy of Sciences. Economic Series*, Nos. 1-2, 1996; V. Burduli, "Foreign Economic Relations and Industrial Policy," *Politics*, No. 3, 1999 (both in Georgian).

[43] See, for example: O. Ananyin, R. Khaitkulov, D. Shestakov, "Vashingtonski konsensus: peizazh posle bitv," *World Economy and International Relations*, No. 12, 2010, pp. 17, 29.

policy (including private and public-private financial mechanisms) have been restricted mainly by international organizations, on the one hand, and this policy has acquired a new quality, on the other. The point is that today it is no longer possible to coordinate only the development of various branches of industry in the strict sense of the word without taking into account the service sector (including research and innovation) and agriculture, since all of these are in close interaction.

Thus, industrial policy has now developed into *sectoral structural policy*. It covers the development problems not only of various branches of industry, but also of the whole economy.

It should be noted that WTO rules have significantly restricted the use of industrial policy instruments such as government financial support for exports, including in the form of subsidies designed to increase agricultural production (nevertheless, many states continue to use such subsidies). In addition, the opportunities for tariff protection of local production (customs tariffs on competing imports) have been significantly reduced.

In spite of this, all developed and successful countries in the world have adopted some kind of *policy for the development of sectoral structure, using various mechanisms for its implementation.* To coordinate this policy, they use instruments of financial, credit and tax regulation, as well as pricing instruments and measures to create a proper institutional framework meeting current requirements (recently, post-Soviet countries have also shown increased interest in industrial policy).[44]

At the same time, sectoral structural policy and its instruments are now taking ever more advanced, often new forms.

The need to pay more attention to sectoral structure is confirmed by a number of provisions of the EU-Georgia Association Agreement. The Agreement says, in particular, that "Georgia shall strive to establish a functioning market economy and to gradually approximate its economic and financial regulations to those of the EU, while ensuring sound macroeconomic policies" (Title V, Chapter 1, Art 277.2). "To that end, the Parties agree to conduct a regular economic dialogue aimed at: (a) exchanging information on macroeconomic trends and policies, as well as on *structural reforms, including strategies for economic development*" (Art 278).

Chapter 5 of Title VI of the Agreement is devoted entirely to "Industrial and enterprise policy and mining." It says: "The Parties shall develop and strengthen their cooperation on *industrial* and enterprise policy, thereby improving the business environment for all economic operators, but with particular emphasis on small and medium-sized enterprises (SMEs) as they are defined in the EU and Georgian legislation respectively" (Art 313).

For the implementation of an effective sectoral structural policy in Georgia, it is very important to take into account the following provisions of this chapter: "To these ends, the Parties shall cooperate in order to: …

(c) simplify and rationalize regulations and regulatory practice, with specific focus on exchange of good practices on regulatory techniques, including the EU's principles;

(d) encourage the development of innovation policy, via the exchange of information and good practices regarding the commercialization of research and development (including *support instruments for* technology-based business start-ups, cluster development and *access to finance*); …

(g) facilitate the modernization and restructuring of the EU and Georgian *industry in sectors,* where appropriate" (Art 314).

The sectoral structural approach is reflected in the provisions of Chapter 12 ("Cooperation in research, technological development and demonstration") of Title VI: "The Parties shall promote

[44] See, for example: A. Kalinin, "Postroenie sbalansirovannoi promyshlennoi politiki: voprosy strukturirovania tselei, zadach, instrumentov," *Voprosy ekonomiki*, No. 4, 2012.

cooperation in all areas of civil scientific research and technological development and demonstration (RTD) on the basis of mutual benefit and subject to appropriate and effective levels of protection of intellectual property rights" (Art 342). "Cooperation in RTD shall cover:

(a) *policy dialog* and the exchange of scientific and technological information;

(b) facilitating adequate access to the respective programmes of the Parties;

(c) increasing research capacity and the participation of Georgian research entities in the research Framework Programme of the EU;

(d) the promotion of joint projects for research in all areas of RTD" (Art 343).

As we see from these excerpts, the general strategy of national economic development can include more or less specific strategies, primarily sectoral structural policy (in a narrower sense, understood as industrial policy), a policy for the coordinated development of related branches of agriculture and industry, and more detailed sectoral (sector/industry-specific) policies. As for the location of large enterprises (especially divisions of multinationals) in the country, this requires special coordination,[45] but under the terms of the EU-Georgia Association Agreement (which pays particular attention to cooperation in developing small and medium-sized enterprises) this does not quite fit into the framework of modern principles for regulating industrial policy.

Post-Soviet countries are particularly in need of a general strategy for the development of sectoral structure (with the identification of specific strategies within it) and mechanisms for its implementation because in a situation of increasing competition for real investment it is impossible to create an economy with an effective sectoral structure (or, more precisely, to restore the effective sectoral structure with due regard for the new technological requirements).

After 2004, along with a reform of the tax system in Georgia, some of the already existing instruments of economic coordination were used incorrectly (or even abolished). For example, the authorities abolished the mechanism of indicative planning (although without a proper mechanism to promote the development of the sectoral structure of the economy, the achievement of targets set by indicative planning would have been impossible anyway). There were numerous violations in other, especially institutional, mechanisms. In particular, property rights were often violated, and large-scale privatization involved serious breaches of law. Abuses of antitrust law restricted competition, and frequent distortions of legislative initiatives led to a distortion of relations between employers and employees, which is clearly inconsistent with EU requirements for regulating labor relations.[46]

Despite EU requirements, no measures were taken to regulate food security or ensure proper coordination of the development of agriculture implying the use of various fiscal, financial and credit instruments. Moreover, cases where agricultural lands were sold to foreigners (many of whom acquired land for speculative purposes and did not cultivate it) became more frequent, which had a very negative effect on the production capacity of local farmers (in 2013, the authorities announced a one-year moratorium on the sale of land).

All of that had an adverse effect on the state of the sectoral structure, with the result that the economy became even less self-sufficient in most sectoral and product groups.

Under the previous Georgian government, limited government resources were mainly used to finance projects whose implementation made the structure of the economy even less diversified and less self-sufficient. Bidzina Ivanishvili characterized the situation very clearly: "The economy was

[45] Ways to coordinate the location of multinational enterprises in Georgia were discussed in our article: V. Burduli, R. Abesadze, op. cit.

[46] V. Papava, "Georgia's Economy: Post-Revolutionary Development and Post-War Difficulties," *Central Asian Survey*, Vol. 28, No. 2, June 2009.

managed by wrong methods, and the quantitative growth achieved in the country was mainly due to the activity of government structures and decisions taken by one person. Some public investments were effective. I mean the small infrastructure projects implemented by the state, whereas all other construction projects, including the parliament building in Kutaisi, the Batumi Tower, the water park in Anaklia, and other similar facilities, were of inferior quality."[47]

There was also an increase in the amount of funds used to meet external debt service obligations, which significantly complicated the implementation of measures to remedy the economic situation. But in the spring of 2013, serious measures were already taken to revive agriculture by providing financial and technical assistance to farmers, and this has enabled them to increase output.

"The Ministry of Economy and the economic team are developing a medium-term economic development plan"[48]; steps are being taken to create investment and other funds designed to promote economic growth (co-investment fund, landscape fund, etc.). In 2013 and 2014, production growth rates were quite acceptable but clearly insufficient for the solution of the tasks facing Georgia.

That is why, in order to overcome the problems associated with the global challenges in achieving sustainable and accelerated innovative neo-industrial development (such as forming a modern sectoral and technological structure; raising the level of national economic self-sufficiency and, accordingly, improving the trade balance; ensuring priority development of export-oriented and import-substitution sectors; accelerating the development of agriculture and high-tech industries; diversifying production in the country and its regions; developing a system of services for core production, etc.), *it is necessary to continue improving the systems for coordinating and financing the development of the country and its regions.*

The first thing to do is to develop an appropriate strategy and upgrade existing mechanisms (and establish new ones) to financial and support development.

The strategy for the development of Georgia's sectoral structure should be formulated taking into account the current realities of transition to a new technological order, and also the requirements and preferences of the EU-Georgia Association Agreement, WTO, IMF, and other international organizations. In this process, we should start from the following basic tasks:

- outline ways of implementing structural policy with due regard for national priorities and the need for a level of diversification of production, R&D and the social sector acceptable for a small country, so as to increase employment and drastically reduce poverty;
- take account of the need for gradual and constant restructuring of the economy based on the requirements of the modern technological order, with an orientation toward a gradual increase in the degree of its self-sufficiency;
- define the tasks to be addressed in the establishment of the modern technological order, which include the selection of priority sectors on a national and regional level (taking into account regional peculiarities), the development and implementation of a policy to stimulate the formation of growth centers (industrial hubs, innovation centers, etc.), and choice of ways to develop export-oriented, import-substitution and other sectors of particular relevance through the creation of ancillary facilities required for their operation;
- take account of the need to identify national priorities for ensuring an improvement in the quality of economic development and an increase in employment so as to unlock the intellectual potential of employees;
- balance the production and social components of economic development. By social component is meant both a satisfactory level and quality of employment (against the background of

[47] "Bidzina Ivanishvili Believes There Is Speculation Over Economic Recession," available at [www.interpressnews.ge], 4 September, 2013 (in Georgian).

[48] Ibidem.

a significant reduction in unemployment) and public consumption, i.e. a balanced reproduction process ("population/employees-labor market-production-market of goods and public services-public consumption"[49]);

- ensure a balanced structural economic policy at different territorial levels (municipalities, regions and the country as a whole);
- take account of the need to provide financial support for economic restructuring (including grants, the activity of appropriate funds and of fiscal, financial and investment sectors);
- outline ways to mobilize funds (private, public and foreign) and investment resources;
- ensure balanced development of the economy in terms of economic activities with special emphasis on the comprehensive development of agriculture in conjunction with industries processing agricultural products, especially with top-priority (primarily high-tech) industries;
- ensure an improvement in the institutional structure for state and market coordination of the efforts to upgrade production, including the financial and other support sectors (taking into account the need to coordinate the development of the social component of the economy);
- ensure coordination of policy in the development of international relations in the field of investment activity and trade in assets and consumer goods.

It is also possible to develop specific, more detailed strategies (as is evident from the above excerpts from the EU-Georgia Association Agreement) in areas such as innovation activity, new high-tech industries, and related sectors of industry and agriculture, as well as national food security and employment.

Let us take a brief look at ways to improve the instruments for coordinating the development of sectoral structure.

An improvement in the *fiscal* mechanism so as to ensure effective development of sectoral structure implies, in the first place, an improvement in the system of tax rates. This refers, in particular, to the introduction of a progressive tax scale for income and profits taxes (as is customary, say, in the EU countries) in order to collect sufficient funds for public development financing. It is also necessary to introduce a system of tax incentives to accelerate the development of businesses operating in priority sectors.[50]

The fiscal mechanism in Georgia should also be improved at the regional (territorial) level. For example, Prime Minister Irakli Garibashvili said at the political forum "Growth Challenges for Georgia" that "steps should be taken toward decentralization in order to enhance the role of regional units in stimulating economic processes."[51] In this connection, government agencies should consider the principles of mobilizing budget funds at the regional level.

Let us now look at the financial mechanisms that support development.

It should be noted that both members of the business community, the government and other organizations often make unconventional decisions in this area taking into account the latest trends observed in the organization of various funds and institutions in developed countries.

First of all, let us note that in October 2013 the authorities established a Landscape Fund at the initiative of the Patriarch of Georgia. Its main task is to restore the country's forest potential, which is necessary, among other things, to provide the economy with timber.

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[49] N. Glazyrin, "Ob innovatsionnykh sotsialno-proizvodstvennykh kompleksakh," *Ekonomist*, No. 1, 2008, p. 47.

[50] A more detailed analysis of the problem of improving the fiscal mechanism is given in: V. Burduli, A. Abesadze, op. cit.

[51] I. Garibashvili, op. cit.

In attracting investment resources and improving the country's sectoral structure, a significant role can be played by *the Georgian Co-Investment Fund* (GCF), established by a group of major domestic and foreign investors "taking into account current Western practices and standards."[52]

This Fund is, in fact, a new modern tool for implementing sectoral structural policy capable of handling very large investments on a national scale. Experienced specialists taking part in its work can make a proper assessment of investment projects and select the soundest ones. In addition, the Fund shares the risks of the project participants (25%-75%).

At the same time, in the next five to seven years after its establishment, the Fund will begin to withdraw from the project, which will be possible in the following cases:

1. Transfer (sale) of the Fund's stake in the project to a co-owner or partner.
2. Transfer (sale) of the Fund's stake in the project to a strategic or financial investor.
3. Initial public offering on local or international stock exchanges.

An advantage of this type of investment is that instead of using bank loans to finance projects, which implies the need to pay interest (and principal) as scheduled, such a fund invests money in business companies, shares their risks, and does not require interest payments.

In my opinion, another advantage of the Georgian Co-Investment Fund is that major investors taking part in concrete projects can provide access to their niches in world markets for products made by the new companies established with their participation. Clearly, a significant part of investments will be made with the assistance of the Fund, which does not rule out the need to create an investment (or development) bank as is the practice in many countries, as well as other modern investment funds with the participation of public and private capital (in various forms).

Another fund operating in Georgia (since 2011) is the Partnership Fund, which uses the resources of several large state-owned corporations for investment purposes. But its resources are clearly insufficient for providing proper government financial support for rational structural reform. That is why in December 2013 the Georgian government decided to establish a Sovereign Wealth Fund, and a bill to that effect was drafted pursuant to that decision. Later on, in April 2014, it was decided to reorganize the Partnership Fund and establish a Development Bank of Georgia JSC, but this was not done because many believed that the Fund still had potential. Today, the Partnership Fund continues to operate in accordance with the Law of Georgia on Joint Stock Company "Georgian Partnership Fund" (No. 5746 of 2 March, 2012; updated on 20 September, 2013).

The Development Bank of Georgia will be founded in the near future, when the work on its constitutional documents is completed.

Thus, an analysis of the final section of this article leads to the following basic conclusions:

1. Georgia needs a strategy for the development of sectoral structure. A simple return to indicative planning is no answer to the problem: for effective development of sectoral structure, it is necessary to set clear guidelines for the operation of instruments used to coordinate this process. The formation of an effective sectoral structure of the economy is impossible without government support and assistance.
2. Within the strategy for developing sectoral structure in terms of groups of industries (high-tech industries, related sectors of agriculture and industry, building materials industries, etc.), it is necessary to determine and validate priority areas of development, clearly indicating the factors that can ensure accelerated development of a particular sector from the

[52] T. Karchava, "Co-Investment Fund Has Already Accumulated $6 Billion," 30 September, 2013, available at [www.for.ge/view.php?for_id=27126&cat=1]; "Co-Investment Fund: We Will Finance All Good Projects," 7 October, 2013; E. Tukhiashvili, "Direct Investment in the Country Will Amount to $6 Billion," available at [www.kvirispalitra.ge/economic/18928-thanainvestirebis-fondi-yvela-karg-proeqts-davafinansebt.html] (all in Georgian).

perspective of import substitution, an increase in the export potential, and greater self-sufficiency of the economy as a whole. It is necessary to identify the opportunities for self-financing and loans to businesses that would allow them to implement intended effective projects, and also to "activate" appropriate support instruments for attracting the necessary multinational enterprises. In order to reduce investment risks, the sales opportunities for the products to be produced in the event of the implementation of a particular project should be assessed in advance.

3. For the recovery and development of some sectors of industry and agriculture, it is advisable to adopt special laws (as in Japan). As for general laws (such as the Tax Code), they should provide for methods of stimulating innovation and investment activities (as in Sweden).
4. It would make sense to establish a development (investment) bank using public and private resources, with the principles of its operation written into law. The simultaneous activities of the above-mentioned investment funds and the development bank should "supplement" private capital and ensure a high level of investment activity in Georgia.

Conclusion

Thus, for all groups of industries considered above (energy, food, chemical, polymer and light industries, agriculture, building materials, high technologies, etc.), the level of self-sufficiency of the Georgian economy is more or less low. At the same time, for the group of high-tech industries (in accordance with statistics, I have included in this group a relatively wide range of industries from the automotive and machine tool industries to information technologies) and light industry this level is extremely low.

In order to achieve a tangible structural effect in the near future (primarily by increasing the self-sufficiency of the economy), it is necessary, in particular, to focus attention on the construction of hydropower plants and to accelerate the creation and development of import-substitution and export-oriented production facilities in the food and light industries, paying much attention to their resource base.

Without a transition to accelerated development of mainly export-oriented high technology industries meeting the *criteria of priority areas* (such as the production of CNC machine tools, solar cells, etc), any significant improvement in the country's trade balance is impossible.

To promote effective sectoral restructuring of the economy, it is advisable to develop a sectoral structural policy with a set of instruments of both government and business coordination. The Georgian Co-Investment Fund, established by major Georgian business entities, will evidently make a serious contribution to increasing investment activity in the country with focus on appropriate sectoral restructuring of the economy.

At the same time, banking mechanisms used in some countries to promote investment in the construction of production facilities that make economic sense for obtaining a significant structural effect should not be rejected either. It is necessary to establish a bank for reconstruction and development (or an investment bank) to provide long-term soft loans to finance attractive projects (based on a thorough preliminary study of these projects), with joint public-private investment.