#### QUALITY AND EFFICIENCY OF ECONOMIC DEVELOPMENT

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#### Abstract

The quality of economic development is expressed by continuous improvement in the spheres of production, consumption and services, which ensures an increase in the quality of life of the population and environmental stability. Quality economic development includes sustainable growth, social justice, technological innovation, and increased access to education and health services. The efficiency of the development is determined by the optimal use of resources, the increase in productivity and the modernization of the structure of the economy. This implies not only an increase in the rate of economic growth, but also an improvement in operational efficiency, competitiveness of organizations and the investment environment.

The research presents the main ideas of the quality and efficiency of economic development, presenting the features of development processes aimed not only at quantitative growth, but also at qualitative improvement.

The article also discusses the structure of the GDP, the structure of RA foreign trade, including the export and import of high-tech products, emphasizing the role of scientific industrial technologies and knowledge as important factors of the quality of economic development.

*Keywords:* economic growth, quality, efficiency, GDP, export, import, development, evaluation

#### Introduction

It is well known that economic growth is the most important indicator of overall economic development and has not only a purely socio-economic content, but also a political significance. The latter is, perhaps, the reason why the upward movement of this indicator is highly valued, but the quality of growth is not valued as much. Probably under the assumption that in a free market economy, demand determines the content

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and structural indicators of supply, especially at the macro level. Of course, this is true in a general (global) sense, but in individual countries, demand can be satisfied through imports, and their production volumes and structure may not be up-to-date, both in terms of ensuring full demand and in terms of scientific and technological development. That is why it is essential to research and emphasize not only statistical, but also content indicators of economic growth, that is, quality, in order to more comprehensively assess the course of economic development\* (\*This issue was briefly addressed for the first time in the first author's article (Suvaryan 2019). Especially in the era of artificial intelligence, when the fifth technological revolution is underway, science and advanced technologies have become the most important factors of civilizational progress, in particular, also for ensuring the power of the state, since they determine the potential of the country's economy and armed forces.

## The Interrelationship of Quality and Efficiency of Economic Growth

In economic literature and in spoken language, the expressions "economic development" and "economic growth" are used, the latter of which is narrower in its meaning, since it does not express the actual content of growth, that is, what is created: real goods or services, how they are created technologically, what their competitiveness and usefulness are. For the most part, economic development at the macro level is characterized by growth rates relative to GDP volume in different successive periods.<sup>1</sup> Therefore, growth rates can be considered merely as a result of statistical calculation, but it is essential to emphasize its material content and the technological structure of provision, the totality of which can characterize the quality of economic growth.

From this point of view, the importance of assessing the quality of economic growth is emphasized in the economic literature, which takes into consideration its inclusiveness and sustainability, productivity, quality of employment and human development.

Approaches to assessing the quality of economic growth include:

1. Inclusiveness means that growth should be distributed across different strata of society. Indicators characterizing income distribution: The Gini coefficient and the Lorenz curve are traditional indicators characterizing income inequality. Atkinson has developed a methodology that assesses income distribution and its consequences on the well-being of society.<sup>2</sup> Atkinson and Stiglitz, in their works, emphasize the role of inclusiveness as a marginal aspect of growth, and Klassen argues that focusing on the unequal distribution of income and calculating, for example, the Gini coefficient or the poverty level will allow to assess whether the country's economic growth has been widely distributed or not.

<sup>&</sup>lt;sup>1</sup> Samuelson, Nordhaus 2000.

<sup>&</sup>lt;sup>2</sup> Atkinson 1970.

- 2. Assessment of Ecological Impact: The "ecological footprint" and "carbon intensity" are used to assess ecological sustainability. Pearce and Turner introduced the concept of sustainable development, pointing out that growth should not be achieved at the expense of environmental health.<sup>3</sup> Dasgupta further expanded this idea by introducing the concept of natural capital into economic analysis.<sup>4</sup> And Daly, in his work, emphasizes *strong* sustainability, which requires that the ability of the environment to serve future generations is not undermined and is preserved.<sup>5</sup>
- 3. Costanza and a number of other authors have emphasized the importance of accounting for ecosystem services and ecological degradation when assessing economic growth.<sup>6</sup>
- 4. Productivity Indicators: Solow and a number of other authors have studied how improvements in productivity lead to long-term economic growth.<sup>7</sup> The magnitude of GDP per hour worked, total factor productivity, and other similar indicators are used when considering economic growth from a productivity perspective. Kaldor<sup>8</sup> and Jorgenson<sup>9</sup>, in their works, propose methodologies for measuring and analyzing productivity growth.
- 5. Indicators of Employment Quality: The employment/population ratio, average wage, and job stability indicators are used to assess the quality of employment. A detailed guide and metrics in this regard have been developed by the International Labour Organization.<sup>10</sup> Friedman and Becker emphasize that job creation should also be accompanied by an improvement in the quality of jobs<sup>11</sup>, while other authors also emphasize the issues of job stability and wage growth.<sup>12</sup>
- 6. Human Development: The Human Development Index (HDI), developed by the UN, combines indicators of life expectancy, education, and per capita income in order to form a complete picture of the quality of growth.<sup>13</sup> In the context of human development, Sen developed the "Human Development Approach," where health, education, and income are considered as key components of economic growth.<sup>14</sup>
- 7. Economic Diversification Indices: Diversification indices relate to the composition and structure of different types of economic activity, their distribution, and characterize

<sup>&</sup>lt;sup>3</sup> Pearce & Turner 1990.

<sup>&</sup>lt;sup>4</sup> Dasgupta 2001.

<sup>&</sup>lt;sup>5</sup> Daly 1996.

<sup>&</sup>lt;sup>6</sup> Costanza *et al.* 1997.

<sup>&</sup>lt;sup>7</sup> Solow 1957; Mankiw, Romer, Weil 1992.

<sup>&</sup>lt;sup>8</sup> Kaldor 1966.

<sup>&</sup>lt;sup>9</sup> Jorgenson 1995.

<sup>&</sup>lt;sup>10</sup> World Employment and Social Outlook 2016.

<sup>&</sup>lt;sup>11</sup> Becker 1964; Friedman 1962.

<sup>&</sup>lt;sup>12</sup> Blanchard, Olivier and Katz 1999.

<sup>&</sup>lt;sup>13</sup> UNDP (United Nations Development Programme) 1990.

<sup>&</sup>lt;sup>14</sup> Sen 1999.

the "strength/resilience" of the economy. The Herfindahl-Hirschman and Diversification Coefficient indicators assess the state of distribution of different types of economic activity. Hidalgo's works discuss complexity indicators that assess the diversification of the economy.<sup>15</sup> Rodrik, in his works, argues that economic diversification reduces vulnerability to external shocks and promotes sustainable growth.<sup>16</sup>

According to Capra and Henderson, "Instead of assessing the state of the economy with unprocessed GDP figures, we should distinguish "good" growth from "bad" growth, then increase the former at the expense of the latter so that natural and human resources involved in wasteful and insecure production processes can be freed up and reprocessed as resources for efficient and sustainable processes."<sup>17</sup>

There is also a view in the literature that the quality of economic growth is determined by the price at which society has ensured that growth.<sup>18</sup> Obviously, with such an approach, it is not the quality of growth that can be assessed, but the efficiency, which, as is known, is assessed by the ratio of the results obtained and the total costs incurred in a certain period of time.<sup>19</sup> By the way, in terms of content, this indicator is just as flawed as economic growth, if the same statistical magnitude is used as an outcome indicator, which does not reflect the quality of economic development. In a broader sense, "the economy is efficient if it is able to provide consumers with a set of goods and services that are most preferable to them, given the current level of technology and the amount of resources."<sup>20</sup>

The latter formulation of efficiency, also known as the Pareto optimality criterion, has a complementary and normative significance for economic growth<sup>21</sup>, oriented towards the quality of growth.

In terms of economic logic, the quality of economic growth, in addition to the above-mentioned components, is determined by some essential factors, in particular:

- By the nature of growth in terms of resources, i.e., whether it is ensured by attracting new labor and fixed (capital) resources or by increasing the efficiency of their use. The quality of growth is considered high if it is ensured through intensification rather than through the expansion of resources.
- The structure of economic development, i.e., the ratio of the components of output creation. These can be the result of complex technological processes or the product of long-known technologies and communal-household and commercial services. In

<sup>&</sup>lt;sup>15</sup> Hidalgo *et al*. 2007.

<sup>&</sup>lt;sup>16</sup> Rodrik 2008; Hausmann & Rodrik 2003.

<sup>&</sup>lt;sup>17</sup> Capra and Henderson 2013: 10.

<sup>&</sup>lt;sup>18</sup> Lopatnikov 2003: 419.

<sup>&</sup>lt;sup>19</sup> Mescon, Albert, Khedouri 2000: 48-50.

<sup>&</sup>lt;sup>20</sup> Samuelson, Nordhaus 2000: 178.

<sup>&</sup>lt;sup>21</sup> Black 2000: 540.

the second case, highly qualified personnel are not required, and, more importantly, it does not contain the potential for prospective technological development.

- The share of investments ensuring innovative programs in the total volume of capital investments.
- Contribution to increasing the combat capability of the state's armed forces, which is the same as strengthening the state. The problem concerns whether the high knowledge intensity of products is combined with the existence of a developed military-industrial complex.
- The progressiveness of the economic system and the international competitiveness of the produced products (services).
- In terms of the quality of economic development at the macro level, the structure of the gross domestic product expresses the range of products and services produced and the share of each in GDP. However, these are purely statistical data, which can provide an opportunity to make the following observations of substantive significance and essentiality, which stem from the above definition of an efficient economy:
- To what extent is the country's demand for products and services ensured by its own production, i.e., what is the level of self-sufficiency?
- What is the quality level of products and services produced in the country, accordingly, the structure of the GDP predetermines the nature of foreign economic relations with volumetric and structural indicators of export and import?
- What is the technological and knowledge-intensive level of production, which can assess the real state and problems of the relationship between the economy, science, and innovation in the country?

Public activity as an integral system at the macro level can be presented as the interaction of certain key subsystems. Such subsystems of primary importance are science, economy, education, ensuring internal and especially external security, and management of public activities. Throughout human civilization, as a result of the development of science, new technologies, tools of labor, and types of products have been created, which have been accompanied by an industrial revolution. Even today, in the age of artificial intelligence, it is obvious that the determinant in public activity is the influence of science, from which the results of the work of other subsystems are derived, the relations of which are reciprocal, but the primary ones in them are the achievements of science and their applications.

• whether the solution of the most important problem of ensuring the country's external security and increasing the combat capability of the armed forces is ensured by its own production, or to what extent it satisfies the necessary needs.

Below we will turn to the substantive interpretation of the mentioned observations and the necessary solutions to the problems.

# The Structure of Sectoral and Expenditure Components of GDP and the Competitiveness of Products (Services) as Indicators of the Quality of Economic Development

The structure of the sectoral and expenditure components of the country's gross domestic product reflects the content of economic development, as well as the potential and competitiveness of the economy.

The structure of the GDP of the Republic of Armenia in recent years is characterized by the following indicators (Table 1).

Na	Foonemic Sectors	GDP Sectoral		
No.	Economic Sectors	Structure by Year, %		
		2017	2018	2023
1	Agriculture, forestry, and fishing	15	13.7	8.4
2	Mining and quarrying	3.3	2.9	2.9
3	Manufacturing	10.6	11.3	11.1
4	Electricity, gas, steam, and air conditioning supply	4.1	3.7	2.6
5	Water supply; sewerage, waste management and remediation activities	0.5	0.5	0.4
6	Construction	7.3	6.6	6.9
7	Wholesale and retail trade; repair of motor vehicles and motorcycles	11.1	11.3	12.7
8	Transportation and storage	3.0	3.2	9.9
9	Accommodation and food service activities	1.4	1.8	2.3
10	Information and communication	3.3	3.2	5.5
11	Financial and insurance activities	4.9	5.3	7.4
12	Real estate activities	7.8	7.9	8.3
13	Professional, scientific and technical activities	1.1	1.2	1.4
14	Administrative and support service activities	0.9	1.0	0.8
15	Public administration and defense; compulsory social security	4.7	4.2	5.3
16	Education	2.7	2.6	2.5
17	Human health and social work activities	4.2	4.2	5.4
18	Arts, entertainment and recreation	4.6	5.7	2.8
19	Other service activities	0.9	0.9	0.7
20	Activities of households as employers; undifferentiated goods- and services-producing activities of households for their own use	0.1	0.1	0.0

Table 1.	Sectoral	Structure	of the	GDP of th	e Republi	c of Armenia <sup>22</sup>
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According to information from the Statistical Committee of the Republic of Armenia (Table 1), the share of agriculture and related sectors in GDP in 2023 was 8.4 percent, industry (including energy) – 17 percent, construction – 6.9 percent, and the share of

<sup>&</sup>lt;sup>22</sup> Armstatbank 2008.

trade and services – 59 percent. The share of agriculture in GDP decreased from the 2017-2018 level (14-15%), and the share of industry also decreased somewhat (18 percent in 2017). Education and culture indicators also show a downward trend. The share of trade and services has a growth trend: if in 2021 it was 52.8%, then in 2023 it increased by more than 6 percentage points. The share of manufacturing in 2017-2023 was in the range of 10.6-11.1 percent, while the share of wholesale and retail trade in the same period increased from 11.1 percent to 12.7 percent – more than the share of manufacturing. The intra-industry structure of manufacturing is also not good (Table 2). In 2018-2022, the share of the food industry fluctuated within the range of 58.5-63.3 percent, many times exceeding the production volumes of the high- and medium-tech branches of the manufacturing industry (chemical, electrical, machine-building products).

According to the information of the Statistical Committee of the Republic of Armenia, in 2023, the share of high- and medium-tech products and services in GDP was 7.6%, which is progress compared to the previous years' indicator (4.5%). It is also noteworthy that trade and services have a greater significance in economic growth (2023: 6.7 percentage points) than industry and energy (0.32), construction (1.07), and agriculture (0.02). The picture was the same in previous years.

No.	Branches of the Manufacturing Industry	Sectoral Structure of the Manufacturing Industry by Year, %			
		2018	2021	2022	2023
1	Manufacture of food products	38.8	38.8	37.7	33
2	Manufacture of beverages	11.3	13.5	11.7	10.8
3	Manufacture of tobacco products	13.2	9.0	7.7	8.5
4	Manufacture of wearing apparel	1.7	2.7	2.3	2.2
5	Printing and reproduction of recorded media	1.4	1.4	2.1	2.2
6	Manufacture of chemicals and chemical products	1.2	1.0	1.1	1.1
7	Manufacture of other non-metallic mineral products	4.6	6.4	12.9	11.9
8	Manufacture of basic metals	12.9	12.1	10.4	15.6

Table 2. Sectoral Structure of the Manufacturing Industry in the Republic of Armenia<sup>23</sup>

<sup>&</sup>lt;sup>23</sup> RA Statistical Office 2022: 310-311, Statistical Yearbook of Armenia-2024, pp. 327-328

	Manufacture of fabricated metal products, except machinery and equipment		0.9	1.2	1.4
10	Manufacture of electrical equipment	1.1	1.6	0.8	1.2
11	Other branches	12.7	12.6	12.1	12.1

It is known that the expenditure components of GDP are consumption, government purchases, investments, and net exports. Among them, the investment component contains the potential for economic growth, thanks to which new production capacities should be created, as well as basic social and cultural assets<sup>24</sup>. According to the data of the Statistical Committee of the Republic of Armenia, the share of gross accumulation in GDP was 19.7% in 2021, 19.4% in 2022, and 21.3% in 2023, the majority of which was allocated to the creation of fixed assets (for example, 20.7% in 2023). With this indicator, the Republic of Armenia is within the normative framework, since it is accepted that the investment sector makes up 10-20%.<sup>25</sup> Such volumes of gross accumulation can become the basis for stable economic growth, especially for the expansion of the production sector. However, from the structure of construction volumes for the same year, 2023, it turns out that the share of manufacturing in the volume of construction activity was 1.6 percent, while 46.1 percent was allocated to the creation of real estate. The area of residential buildings (sq.m.) in 2023 increased 2.2 times compared to the previous year. To some extent, capital investments in the form of construction were made in the branches of production infrastructure: energy (10.3%) and transport (18.1%), since without them the trade and service sectors cannot function.

Summarizing the presentation, it should be noted that the economy is not efficient for at least two reasons. First of all, it is not self-sufficient. Of course, according to the principle of the international division of labor, it is not mandatory for every country to produce everything; it can meet part of its needs through imports. However, it is undeniable that the country should have not only a modern, technologically developed industry, but also a military-industrial complex that ensures the security of the state.

Second, the country's economy integrates the intellectual and technological potential of its population and is a reflection of it. In this regard, the described picture of the economy does not correspond to the modern intellectual and scientific-technological level of Armenians and the requirements of the time. In the last 200 years, after the industrial revolution, according to Y. N. Harari, science and technology have determined the course of social development. Moreover, "modern states regularly turn to scientists when looking for a solution to every state problem: from energy and healthcare to

<sup>&</sup>lt;sup>24</sup> Samuelson, Nordhaus 2000: 571.

<sup>&</sup>lt;sup>25</sup> RA Statistical Office, Quarterly and annual preliminary data on Gross Domestic Product (GDP) for 2021, 2022, 2023, <u>https://armstat.am/file/doc/99528978.pdf</u>, <u>https://armstat.am/file/doc/99536113.pdf</u> https://bit.ly/4ISJIMd

garbage disposal... The military forces of the world initiate, finance and determine the directions of a large part of humanity's scientific capabilities and technological development."<sup>26</sup>

In the 70s and 80s of the XX century Armenia, for its time, had a developed instrument-making, machine-tool building, electrical and chemical industry, supported by high-quality engineers, technologists, and highly qualified working specialists and sectoral and academic scientific structures.

Naturally, today the problem is the adoption and implementation of a new economic strategy. It is positive that we have a developed service sector, but the country necessarily needs to have a manufacturing industry equipped with advanced technologies, which will contribute to the strengthening of the state, the development of education and science in the country at a higher level\* (\*The relationship between economy and science and their coordinated development have been repeatedly raised by the first author. See, for example, Suvaryan 2024). It is especially necessary to also take into consideration that if economic growth is not based on technical progress, then it cannot become sustainable.<sup>27</sup>

An extremely important issue is the increase in the level of general international competitiveness of the country's economy, which, of course, is the sum of the competitiveness of products produced by individual branches and sectors. Economic growth is of high quality or real, if not only the economy is efficient, but also it or some of its leading sectors have international competitiveness.

The competitiveness of products and services, as is known, is determined by their qualitative characteristics and prices. Without going into the analysis of these multifaceted issues, especially since they are outside the topic, let us note that the international competitiveness of the country's economy is especially expressed through the structure of imports and exports of goods and services. Obviously, a product that has high-quality characteristics can be exported to the international market. Even within the same country, there is an assessment of the competitiveness of products: the consumer prefers high-quality products, and under the current conditions of free market relations, the level of competitiveness of domestic goods can be indirectly assessed by the structure of trade.

Let us look at the movement, structure and geography of exports and imports of the Republic of Armenia in 2020-2023.

The volume of exports of the Republic of Armenia is significantly inferior to imports (Table 3); the latter in 2020 and 2021 exceeded exports by 1.8 times, in 2022 by 1.62, and in 2023 by 1.46 times.

<sup>&</sup>lt;sup>26</sup> Harari 2020: 318-319.

<sup>&</sup>lt;sup>27</sup> Acemoğlu, Robinson 2016: 183.

# Table 3. Volumes of Exports and Imports of the Republic of Armenia in 2020-2023 by Commodity Sections (thousand USD)28

	Exports				Imports			
	2020	2021	2022	2023	2020	2021	2022	2023
Total	2,536,993.5	3,022,408.9	5,419,064.5	8,415,155.1	4,583,273.9	5,356,825.3	8,775,859.2	12,307,957.0
Including:								
Live animals and animal products	78,271.4	107,067.7	170,832.5	98,189.9	131,569.7	166,908.3	261,145.7	248,349.3
Vegetable products	136,210.6	186,565.3	225,944.0	182,576.3	255,755.1	289,327.3	421,935.1	356,687.0
Animal and vegetable oils and fats	73.1	78.5	7,516.5	1,526.6	52,623.0	72,407.2	105,646.0	66,255.6
Prepared food products	562,943.1	623,968.0	882,197.1	885,061.9	397,609.9	434,288.6	579,422.2	617,800.4
Mineral products	814,733.4	982,250.9	1,027,520.8	887,650.7	746,851.5	937,089.0	1,196,064.5	1,113,167.0
Products of the chemical and related industries	29,590.7	41,414.7	83,491.5	120,940.5	417,289.3	454,973.8	588,239.6	622,775.8
Plastics and articles thereof, rubber and rubber articles	15,557.1	19,703.2	63,111.5	66,443.4	196,684.3	234,346.4	327,685.5	351,811.6
Raw hides and skins, leather, fur and articles thereof	5,166.5	5,878.9	11,130.5	21,988.4	15,340.9	24,185.4	28,444.1	42,344.0
Wood and articles of wood	606.9	1,117.4	4,726.6	9,353.0	53,654.7	72,240.0	93,977.9	88,373.5
Paper and paper products	1,256.9	1,690.2	6,742.2	4,771.2	87,233.5	87,351.5	137,730.2	147,545.8
Textile articles	133,532.6	183,498.7	224,409.9	357,657.2	245,183.4	301,547.0	397,899.9	648,713.9
Footwear, headgear, umbrellas	3,012.5	4,697.1	12,640.8	41,456.5	45,199.0	59,838.2	76,689.9	116,616.9
Articl s of stone, plaster, cement	20,124.5	20,273.8	37,247.2	37,209.3	93,633.9	109,322.4	160,974.4	174,657.5

<sup>28</sup> Socio-economic situation of the Republic of Armenia 2023: 159.

Precious and semi- precious stones, precious metals and articles thereof	369,235.2	333,049.5	989,410.8	3,211,869.9	143,701.1	248,473.7	691,595.9	2,302,882.6
Base metals and articles of base metal	229,198.6	364,445.8	460,401.4	452,236.7	360,824.8	390,833.5	624,041.4	602,692.5
Machinery, equipment and mechanisms	42,359.3	59,494.8	718,756.0	1,290,921.6	878,361.4	898,228.3	1,728,318.9	2,459,173.6
Land, air and water transport vehicles	14,057.1	38,697.8	332,562.0	548,276.8	198,564.3	306,544.4	957,936.9	1,832,380.6
Instruments and apparatus	61,681.3	34,292.4	117,571.1	142,955.8	112,847.5	123,360.7	196,927.5	265,833.7
Miscellaneou s manufacture d articles	18,802.8	13,236.0	39,519.5	53,315.9	150,034.4	145,287.2	191,855.2	243,560.7
Works of art	580.0	988.0	3,332.7	753.5	312.2	272.2	9,328.4	6,334.9

Exports consisted of prepared food products and mineral products, precious metals and articles thereof, and precious and semi-precious stones. Their share in the export volume in 2023 was 10.5, 10.6 and 38.2 percent, respectively. Imports are also dominated by prepared food products - 5.0%, mineral products - 9%, precious and semi-precious stones, precious metals and articles thereof - 18.7 percent.<sup>29</sup> The list of imported goods includes products of the chemical and related industries (5.1%), plastics and articles thereof, rubber and articles thereof (2.9%), textile products (5.3%), instruments and apparatus, various industrial goods (4.1%). It is noteworthy that, having the potential for agricultural development, we import more products of plant origin (356.7 thousand) than we export (182.6 thousand). The same picture applies to products of animal origin. This means that there are food security risks.

The Statistical Committee of the Republic of Armenia for 2023 separately presented the indicators of foreign trade in high-tech goods according to the collective grouping of high-tech goods (Table 4).

<sup>&</sup>lt;sup>29</sup> According to the table, the export and import of precious and semi-precious stones, precious metals and articles made from them increased by 3.2 and 3.3 times in 2023 compared to 2022. The export (1.8 times) and import (1.42 times) of machinery, equipment and mechanisms also increased at high rates. These are not regular or stable trends; therefore, they are not interpreted in detail.

#### Table 4

Exports and Imports of High-Tech Goods in 2023 (thousand US dollars)<sup>30</sup>

No.	Commodity Groups	Exports	Imports
1	Medical preparations and instruments	20,958.8	74,862.8
2	Scientific equipment and instruments	72,675.4	169,698.0
3	Electrical equipment	18,852.0	70,508.0
4	Electronics and telecommunications	664,467.5	916,623.4
5	Computer equipment	148,130.1	205,812.7
6	Non-electrical equipment	5,686.8	31,161.5
7	Chemical industry products	10,539.5	34,854.1
8	Aerospace industry products	29,976.8	70,184.3
	Total	971,286.9	1,573,704.9

The export volume of the goods listed in Table 4 constituted 11% of the total export volume from the Republic of Armenia, and the import indicator was 12.6%. In general, the trend is positive, but insufficient, especially since imports exceed exports by 1.67 times.

Now let us present the geography of the RA's foreign economic relations. In particular, let us note the main trade partners of Armenia in 2019-2023 (Table 5).

Table 5. Structure of Foreign	Trade of the Republic	of Armenia by Country,
2019-2023, % <sup>31</sup>		

Country	2019		2020		2021		2022		2023	
	Exp.	Imp.								
CIS, including:	30.3	33.7	29.3	40.8	31	41.8	48	35.9	43.4	34.9
EAEU, including:	28.8	30.7	28	37.6	29.4	38.7	47.2	34.6	42.9	33.9
- Russia	27.8	29.7	26.8	36.1	28	37.2	45.4	32.9	40.6	32.9
- Belarus	0.7	0.9	0.8	1.3	0.9	1.3	1.4	1.4	1.1	0.8
- Kazakhstan	0.2	0.1	0.3	0.1	0.4	0.2	0.3	0.3	0.8	0.3
- Kyrgyzstan	0.1	0	0.1	0	0.1	0	0.1	0	0.3	0
EU	22.1	20.8	16.9	20.4	21.7	19.2	14.3	20.2	8.4	18.3
Bulgaria	7.9	0.6	5.9	0.6	6.6	0.6	3.9	0.4	1.2	0.4
Germany	2.6	4.3	2.2	5.3	2.6	4.2	2	5.2	1	4.6

<sup>30</sup> RA Statistical Office 2023.

<sup>&</sup>lt;sup>31</sup> Socio-Economic Situation of the Republic of Armenia January-December 2019: 135-136; Socio-Economic Situation of the Republic of Armenia January-December 2021: 136-137; Socio-Economic Situation of the Republic of Armenia January-December 2023: 157-158.

Netherlands	5.8	2.4	3.9	1.5	6.3	1.6	4	1.6	2.8	1.5
Italy	2.3	3.3	1.6	3.6	2.1	3.6	1.2	2.8	0.8	2.6
Other EU countries	3.5	10.2	3.3	9.4	4.1	9.2	3.2	10.2	2.6	9.2
Other countries, including:	47.6	45.5	53.8	38.8	47.3	39	37.7	43.9	48.2	46.8
United Arab Emirates	2.2	4.2	4.2	2.1	2.5	2.3	9.9	5.3	26.4	5
USA	2	6.5	2.7	1.7	2.7	2.6	1.4	5.2	0.6	6.8
China	7.3	8.4	11.4	9.5	13	10.3	6.8	8	5.1	7.7
Switzerland	17.3	1.1	17.9	0.7	11.9	0.6	4.7	1.1	1	0.6
Islamic Republic of Iran	3.2	5.9	3.3	6.9	2.2	8.2	2	6.9	1.1	5
Georgia	2.6	8.8	2.3	7	2.3	6.6	3	8.2	1.7	7.7
Other countries	13	10.6	12	10.9	12.7	8.4	9.9	9.2	12.3	14

Armenia is working on diversifying its trade partners and exports in order to reduce dependence on a number of markets. Armenia is a member of the Eurasian Economic Union (EAEU), which affects its trade dynamics, including tariffs and trade relations with member countries. Efforts are being made to improve efficient trade and trade infrastructure, the main purpose of which is to expand export opportunities and attract foreign investment.

## Conclusion

Armenia's foreign trade balance has been negative for the past five years. The country has faced challenges such as global economic disruptions and regional geopolitical problems. However, ongoing efforts are being made to diversify trade partners and improve economic conditions, contributing to a gradual increase in export volumes.

In summary, it is necessary to emphasize the importance of the quality and efficiency of economic development in the process of achieving sustainable development. The quality of economic growth is more important than mere quantitative indicators since it directly affects the quality of life of the population, ensures social cohesion, etc. The efficiency of development should be reflected in the correct use of resources, high productivity, and knowledge-intensive technological innovations that will reduce costs and increase competitiveness. Similarly, the quality of development requires a comprehensive approach that includes investments in human capital, as well as the need to create harmony between quantitative growth, qualitative improvements and efficient use of resources for economic development, which will make it possible to ensure long-term stability and well-being for all strata.

Thus, high-quality or real and sustainable economic growth can be ensured if the economy is efficient and relatively self-sufficient, the country's security, including food security, problems are solved, advanced high-tech industrial technologies are implemented, and the products produced are predominantly internationally competitive.

## BIBLIOGRAPHY

## STUDIES

- Acemoğlu D., Robinson Dm.A. 2016. Why some countries are rich and others poor. Origins of power, prosperity, and poverty. Moscow: ACT (in Russian).
- Atkinson A.B. 1970. On the Measurement of Inequality. Journal of Economic Theory, 2, 244-263. http://dx.doi.org/10.1016/0022-0531(70)90039-6
- Becker G.S. 1964. Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education. Chicago: University of Chicago Press.
- Black J. 2000. Economics. Explanatory dictionary. Moscow: INFRA-M (in Russian).
- Blanchard O., and L. F. Katz. 1999. Wage Dynamics: Reconciling Theory and Evidence. American Economic Review, 89 (2), 69–74. DOI: 10.1257/aer.89.2.69
- Capra F. and H. Henderson 2013. Outside insights: Qualitative Growth. ICAEW.
- Costanza R., d'Arge, R., de Groot, R. Farber S., Grasso M., Hannon B., Limburg K., Naeem Sh., O'Neill R.V., Paruelo J., Raskin R. G., Sutton P., van den Belt M. 1997. The Value of the world's Ecosystem Services and Natural Capital, Nature 387, 253– 260. https://doi.org/10.1038/387253a0
- Daly H.E. 1996. Beyond Growth, The Economics of Sustainable Development. Boston: Beacon Press.
- Dasgupta P. 2001. Human Well-Being and the Natural Environment. Oxford University Press. https://doi.org/10.1093/0199247889.001.0001
- Friedman M. 1962. Capitalism and Freedom. Chicago: University of Chicago Press.
- Harari Yu.N. 2020. Sapiens. A Brief History of Humankind. Yerevan: Newmag (in Arm.).
- Hausmann R. & D.Rodrik 2003. Economic development as self-discovery, Journal of Development Economics, Elsevier, vol. 72(2), 603-633, December.
- Hidalgo C. A., B.Klinger, A.-L. Barabasi, R.Hausmann 2007. The Product Space Conditions the Development of Nations. Science 317 (5837), 482-487. DOI: 10.1126/science.1144581
- Jorgenson D. 1995. Productivity, Volume 1: Postwar U.S. Economic Growth. Cambridge: The MIT Press.
- Kaldor N. 1966. Causes of the Slow Rate of Economic Growth of the United Kingdom. An Inaugural Lecture. London: Cambridge University Press.
- Lopatnikov L.I. 2003. Economic-mathematical dictionary. Moscow: Delo (in Russian).
- Mankiw N.G., Romer D., Weil D. 1992. A Contribution to the Empirics of Economic Growth. Quarterly Journal of Economics 107 (May), 407-437.
- Meskon M., Albert M., Hedouri F. 2000. Fundamentals of Management. Moscow: Delo (In Russian).
- Pearce D. & Turner, R. K. 1990. Economics of natural resources and the environment. Baltimore: Johns Hopkins University Press.
- Rodrik D. 2008. The Real Exchange Rate and Economic Growth. Brookings Papers on Economic Activity, Vol. 2, 365-412. http://dx.doi.org/10.1353/eca.0.0020

- Samuelson P.A., Nordhaus V.D. 2000. Economics. Moscow: Laboratory of Basic Knowledge (in Russian).
- Sen A. 1999. Development as Freedom. New York: Alfred Knopf; 1999, http://www.c3l.uni-oldenburg.de/cde/OMDE625/Sen/Sen-intro.pdf
- Solow R. M. 1957. Technical Change and the Aggregate Production Function. The Review of Economics and Statistics, 39(3), 312–320. https://doi.org/10.2307/1926047
- Suvaryan Yu. M. 2019. Qualitative characteristics and priorities of economic development, Bulletin of social sciences, 2019/2, 87-104.
- UNDP (United Nations Development Programme). 1990. Human Development Report 1990: Concept and Measurement of Human Development. New York: Oxford University press.
- World Employment and Social Outlook 2016. World Employment and Social Outlook: Trends, International Labour Office – Geneva: ILO, 2016, <u>https://bit.ly/4IMKzs9</u>

# STATISTICS

- Armstatbank 2008. Armstatbank, Economy and Finance, National Accounts, Gross Domestic Product, 2008 SNA, GDP Structure by Types of Economic Activity 2008 SNA and Years, <u>https://bit.ly/3GpnDQZ</u>
- RA Statistical Office 2023. RA Statistical Office, Statistical Database, Foreign Trade Indicators of High-Tech Products by Collective Grouping of High-Tech Products, 2023 <u>https://armstat.am/am/?nid=967</u>
- Social-economic state of the Republic of Armenia, in January-December, 2019, p. 135-136 (in Arm.).
- Social-economic state of the Republic of Armenia, in January-December, 2021, p. 136-137 (in Arm.).
- Social-economic state of the Republic of Armenia, in January-December, 2023, p. 157-158 (in Arm.).
- Statistical Committee of RA. Statistical database. Indices of the foreign trade of High Technological products according to collective grouping of High Technological products 2023 https://armstat.am/am/?nid=967
- Social-economic state of the Republic of Armenia, in January-December, 2021, 138, January-December, 2023 p. 159, https://armstat.am/file/article/sv\_12\_21a\_411.pdf, https://armstat.am/file/article/sv\_12\_23a\_411.pdf
- Statistical Committee of RA. Statistical Yearbook of Armenia 2022, p. 310-311, Statistical Yearbook of Armenia 2024, p. 327-328.

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