

## EFFICIENCY OF FOREIGN TRADE OF THE REPUBLIC OF ARMENIA

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<https://doi.org/10.56243/18294898-2023.2-37>

### **Abstract**

The effectiveness of the foreign trade of the Republic of Armenia was evaluated using the coefficients of comparative advantages. The balance of the country is positive when the share of exports in the foreign trade turnover is positive. The difference between the export and import of goods and services has a direct impact on the size of the GDP calculation, thereby having a significant impact on the well-being of the population. The structure of foreign trade turnover and its efficiency by countries and their groups were also evaluated.

**Keywords:** export of goods and services, import of goods and services, efficiency of foreign trade, country's comparative advantage, coefficient of comparative advantage.

### **Introduction**

Foreign trade is one of the main factors of economic growth of the country. This circumstance acquires greater importance especially for such countries with a small and open economy, such as Armenia. In the conditions of globalization and economic integration of the world economy, the role of foreign markets and foreign trade is increasing from the point of view of forming rational and effective links between the country's resources. In this way, the degree of specialization of the country is formed, which predetermines its place in the world economy.

### **Conflict Setting**

The purpose of the research is to evaluate the efficiency of Armenia's foreign trade through the coefficients of comparative advantages, to achieve which the following tasks are set:

- To present the concept of the efficiency of the country's economy and its measurement methodology for the evaluation of the Republic's foreign trade;
- Identify the main factors affecting the effectiveness of Armenia's foreign trade;
- Assess the effectiveness of the main directions of Armenia's foreign trade.

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### Research Results

It is also remarkable that the program considers the inverse relativity of time and speed

The analysis of the balance of payment of Armenia proves that it had a negative value throughout the period of independence. Moreover, if the balance of payments is the sum of the current account, capital account, financial account and errors and omissions, then the negative magnitude of the balance of payments of Armenia is mainly due to the losses of the current account (Tab. 1).

**Table 1**

**Balance of payments and current account of RA 2017-2022, million US \$ [1]**

Years	Balance of payments	Current account and its structure			
		Products and services	Services	Primary income	Secondary income
2017	-1,060,4	-1,243.6	161.7	405.6	664.1
2018	-1,379,5	-1,752.7	10.7	200.3	628.1
2019	-925,9	-1,809.0	-86.9	179.7	632.3
2020	-1,365,5	-1,264.1	118.0	-196.3	982.5
2021	-743,2	-1,107.9	396.9	-406.4	999.1
2022	1,028.7	-418.9	1,630.5	-848.6	1,100.5

Since the negative size of the current account is mainly determined by the differences in the operations of export and import of goods, it is obvious that Armenia imports more goods than it exports.

For any economic activity (regardless of whether it is carried out in an organization, in individual sectors, or on a state scale), it is necessary to evaluate its effectiveness. The latter is such an economic category that characterizes the ratio of the result of economic activity and the means spent or included resources to obtain it. The meaning of what has been said is that the obtained result should provide the principle of compensation for the costs incurred or the resources involved.

The index of economic efficiency assessment, having a universal content and meaning, has specifics of manifestation in different spheres of economic activity. If, for example, the profitability of production in industrial organizations is evaluated by the ratio of the obtained result (profit) and the resources involved in production or incurred costs, then the theory of absolute and comparative advantages is used and applied in the field of foreign economic relations. Basically, external economic activity is carried out through absolute and comparative advantages. The latter have both interpretations and manifestations of the implementation of economic calculations and derived concepts. Among them is the indicator of specialization of the state's economy, which, in fact, characterizes the comparative effectiveness of foreign economic activity. The level of specialization of the country is measured with the help of a number of indicators, among which the coefficient of comparative advantage (CCA) is important, which represents the relationship between net exports (exports minus imports) and foreign trade turnover (exports plus imports). It is obvious that the magnitudes of the coefficient of comparative advantages are in the range (-1; +1). It is equal to -1 when the country only imports and +1 when the country only exports [2]. It follows from what has been said that the greater the

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positive value of the coefficient of comparative advantage, the higher the degree of specialization of the country and, therefore, the greater the efficiency of foreign trade circulation. If we consider that according to the production method of calculating GDP:

$$GDP = G + I + C \pm NX$$

where: G - government spending; I - investments, C - consumption, NX - Net Export, then it can be said that the amount of net export has a direct effect on the amount of GDP.

Tab. 2 shows the main indicators of the foreign trade turnover of the Republic of Armenia and the magnitudes of the coefficients of comparative advantages for the years 1997-2022.

Table 2

**The export and import volumes of the Republic of Armenia and the coefficients of comparative advantages (CCA) in 1997-2022 [3]**

Years	Export (million USD)	Import (million USD)	CCA
1997	0.232	0.892	-0.587
1998	0.220	0.902	-0.608
1999	0.231	0.811	-0.557
2000	0.300	0.884	-0.493
2001	0.341	0.877	-0.440
2002	0.505	0.987	-0.323
2003	0.686	1,279	-0.999
2004	0.723	1,351	-0.999
2005	0.974	1,802	-0.999
2006	0.985	2,192	-0.999
2007	1,152	3,268	-0.479
2008	1,057	4,426	-0.614
2009	710	3,321	-0.648
2010	1,041	3,748	-0.565
2011	1,334	4,145	-0.513
2012	1,380	4,261	-0.511
2013	1,478	4,385	-0.496
2014	1,547	4,424	-0.482
2015	1,485	3,239	-0.371
2016	1,791	3,273	-0.293
2017	2,237	4,097	-0.294
2018	2,413	4,975	-0.347
2019	2,647	5,529	-0.352
2020	2,537	4,564	-0.285
2021	3,016	5,362	-0.280
2022	5,360	8,768	-0.241

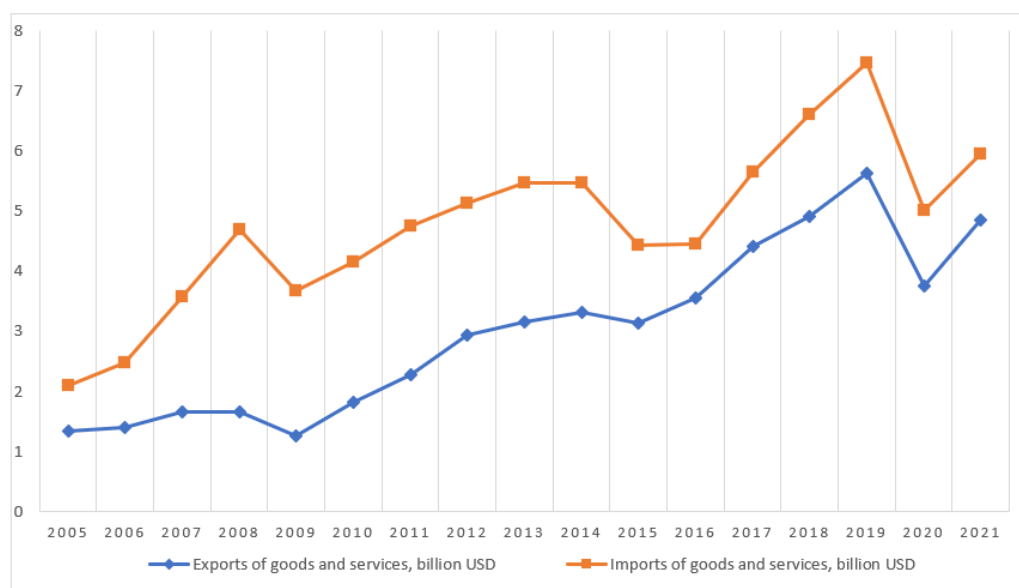
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The analysis shows that in 2003-2006 Armenia had the lowest indicators of the coefficient of comparative advantage (-0.999), which means that in those years Armenia lost its degree of specialization and became a predominantly importing country, as a result of which the state of the country's balance of payments deteriorated significantly. The reason for such an unfavorable situation in the foreign trade of the Republic of Armenia was the inefficient policy of the USD / AMD exchange rate, as a result of which the Armenian dram was unjustifiably appreciated and in the mentioned years it was 578.8 per 1 USD in 2003, 533.5 in 2004, In 2005 - 457.7, in 2006 - 416.0, and in 2007 - 342.1 drams. This created problems for exports. As a result, the revenues of the Republic of Armenia from foreign trade decreased significantly.

### **Analysis of qualitative changes in exports and imports by product groups**

From the analysis of the balance of payments of Armenia, it follows that the losses come from the current account, that is, from the export and import of goods and services.

Below is the structure of export and import of goods and services of the Republic of Armenia in 2005-2021, billion USD.



**Fig. 1 The structure of export and import of goods and services of the Republic of Armenia in 2005-2021, billion USD [4, 5]**

The analysis shows that both exports and imports of product groups do not have a "progressive structure" and these transactions are dominated by goods and services with low innovative features. Thus, in the export structure of the Republic of Armenia, non-scientifically capable, as well as technologically simplest products make up a significant amount.

Fig. 2 shows the share of goods and services in the GDP of the Republic of Armenia, expressed in %, as well as trade openness (the share of the amount of exports and imports in the GDP, in %), 2010-2021.

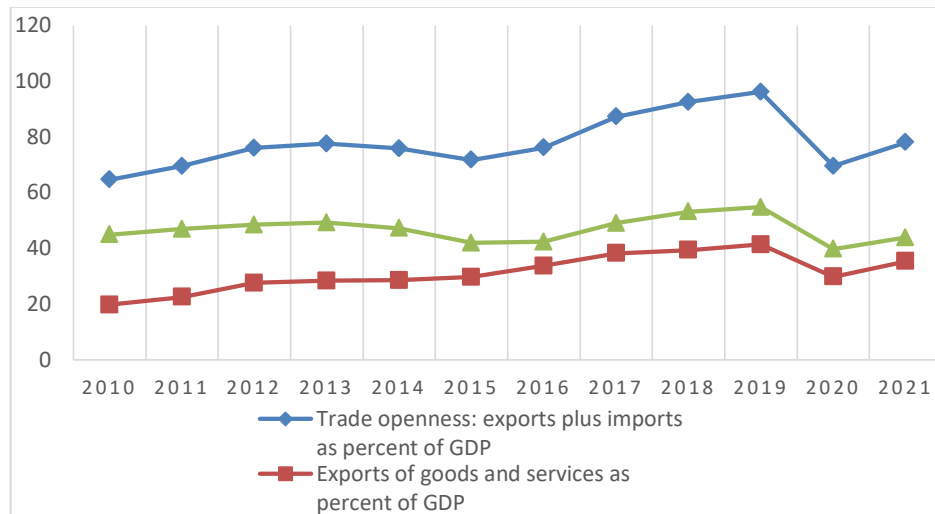
Thus, it can be concluded that the export base of Armenia during the studied period is very limited and needs to be improved.

From the analysis of the studied period, it can be concluded that there is a need to create a program of import diversification and substitution, which should be based on the application of

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the principles of scientific and scientific and technical activities, especially considering that these are high-tech products and services.

This items have the lowest specific weight in the import structure of the Republic of Armenia: works of art; leather raw materials, leather, fur and articles made from them; footwear; hats; umbrellas.



**Fig. 2 The share of goods and services of the Republic of Armenia in the GDP, expressed in %, as well as trade openness (the share of the amount of exports and imports in the GDP, in %), 2010-2021 [6, 7, 8]**

Let's note that the volume of imports into the Republic of Armenia by product groups in 2022 compared to 2017 was 214% (see figure 4). 2017-2022 during the period, the balance of Armenia's trade balance (import minus export) was 15,112,574.6 thousand dollars. Such a negative balance of foreign trade significantly complicates the development of Armenia's economy, as most of this amount becomes foreign debt.

On the other hand, these funds create an opportunity to launch new products and services based on scientific and scientific-technical activities. In this way, it will be possible to increase the volume of exports and noticeably weaken the dependence of the country's economy on foreign markets.

Table 4

**The change in RA export and import volumes according to product categories and growth rate, million USD [9,10,11,12,13]**

Years	2022-2017 growth rate change in export	2022-2017 growth rate change in import
Totally	239.535	214.0229
including live animals and animal products	293.1343	194.7552
products of plant origin	355.7257	220.8602
animal and vegetable oils and fats	650.7792	214.7409
prepared food products	167.3609	164.1087

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mineral products	151.2065	185.4566
products of chemical and allied industries	280.4078	144.2183
plastics and articles thereof, rubber and rubber articles	607.6034	190.29
leather raw materials, leather, fur and articles made from them	107.4493	146.8482
wood and wood products	201.3379	204.8689
paper and paper products	567.4524	177.4611
textile items	156.1141	150.3075
footwear, hats, umbrellas	282970	447620
things made of stone, plaster, cement	1600870	2419410
precious and semi-precious stones, precious metals and articles thereof	29102740	30742370
base metals and articles made from them	26883870	29661320
machines, equipment and mechanisms	4139950	4364000
land, air and water vehicles	1587640	2628350
devices and apparatus	3937850	5280480
various industrial products	4961060	2971250
works of art	89750	70990

The data of the RA, by product groups, given in Table 5 show that in 2017-2022 during the period, they had a negative value, which means that the Republic of Armenia suffered only losses in world trade, which is a consequence of weak technological and scientific products.

Table 5

**Coefficients of comparative advantage of the Republic of Armenia's foreign trade in 2017-2022. [9,10,11,12,13]**

YEARS	2017	2018	2019	2020	2021	2022	Total for 2017-2022
TOTALLY	-0.294	-0.347	-0.353	-0.287	-0.280	-0.241	-0.293
including live animals and animal products	-0.391	-0.446	-0.488	-0.254	-0.219	-0.205	-0.306
products of plant origin	-0.501	-0.402	-0.375	-0.305	-0.217	-0.303	-0.498
animal and vegetable oils and fats	-0.995	-0.997	-0.998	-0.997	-0.998	-0.867	-0.998
prepared food products	0.195	0.161	0.190	0.172	0.179	0.204	-0.256
mineral products	0.023	-0.056	-0.046	0.043	0.023	-0.078	0.000
products of chemical and allied industries	-0.865	-0.864	-0.877	-0.868	-0.833	-0.753	-0.849

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YEARS	2017	2018	2019	2020	2021	2022	Total for 2017-2022
plastics and articles thereof, rubber and rubber articles	-0.887	-0.867	-0.879	-0.853	-0.844	-0.679	-0.831
leather raw materials, leather, fur and articles made from them	-0.303	-0.279	-0.473	-0.496	-0.609	-0.438	-0.553
wood and wood products	-0.902	-0.934	-0.967	-0.978	-0.970	-0.903	-0.942
paper and paper products	-0.970	-0.974	-0.972	-0.972	-0.962	-0.906	-0.956
textile items	-0.319	-0.171	-0.280	-0.295	-0.243	-0.302	-0.463
footwear, hats, umbrellas	-0.883	-0.855	-0.916	-0.875	-0.854	-0.717	-0.850
things made of stone, plaster, cement	-0.688	-0.591	-0.713	-0.646	-0.687	-0.625	-0.705
precious and semi-precious stones, precious metals and articles thereof	0.110	0.032	0.161	0.440	0.135	0.178	-0.261
base metals and articles made from them	-0.041	-0.069	-0.140	-0.223	-0.035	-0.152	-0.385
machines, equipment and mechanisms	-0.876	-0.911	-0.902	-0.908	-0.881	-0.425	-0.762
land, air and water vehicles	-0.880	-0.865	-0.920	-0.868	-0.776	-0.500	-0.760
devices and apparatus	-0.360	-0.377	-0.122	-0.293	-0.548	-0.256	-0.484
various industrial products	-0.426	-0.687	-0.819	-0.777	-0.833	-0.653	-0.733
works of art	0.551	0.553	-0.302	0.300	0.568	-0.474	-0.447

### Foreign and mutual trade turnover and geography.

According to the data of the State Revenue Committee of the Republic of Armenia [14] (except for the information on energy carriers, which is presented by the Ministry of Territorial Management and Infrastructure and energy sector organizations), the indicators of foreign and mutual trade of the Republic of Armenia in 2022 in December and January-December, at current prices, amounted to (Tab. 6).

Table 6

### Foreign and mutual trade of the Republic of Armenia according to main countries and coefficients of comparative advantages, 2021-2022, thousand dollars

	Export	Import	CCA	Export	Import	CCA
	January-December of 2021	January-December of 2021		January-December of 2022	January-December of 2022	
TOTALLY	3,015	5,362	-0.280	5,360	8,768	-0.241
of which:						
CIS countries	930	2,240	-0.413	2,551	3,140	-0.103
Including:						
EAEU countries	882	2,077	-0.404	2,510	3,022	-0.093
including,						

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	Export	Import	CCA	Export	Import	CCA
	January-December of 2021	January-December of 2021		January-December of 2022	January-December of 2022	
Russian Federation	840	1,997	-0.408	2,410	2,875	-0.088
Other CIS countries	47	163	-0.550	41	117	-0.481
Other countries	10	1	0.700	6	4	0.218
EU COUNTRIES	656	1,029	-0.222	772	1,767	-0.392
including:						
Bulgaria	198	32	0.721	208	38	0.690
Netherlands	191	85	0.384	214	136	0.222
Other EU countries	8	26	-0.522	8	60	-0.763
OTHER COUNTRIES	1,429	2,092	-0.188	2,035	3,860	-0.309
United States	81	137	-0.253	78	462	-0.711
United Arab Emirates	74	121	-0.239	534	470	0.063
Islamic Republic of Iran	65	439	-0.741	111	601	-0.688
Switzerland	359	33	0.829	254	96	0.450
China	393	551	-0.168	369	698	-0.308
Iraq	177	4	0.950	249	0,3	0.997
Georgia	68	354	-0.677	156	723	-0.645
Other countries	189	345	-0.290	252	642	-0.435

It follows from the data in the table that in 2021-2022, the Republic of Armenia carried out foreign trade in 3 main directions: with EAEU countries, with European Union countries and with "other countries". Accordingly, the coefficients of the comparative advantages of the Republic of Armenia's foreign trade in 2021 with the EAEU were -0.404, with the EU -0.222, with "other countries" -0.188. And in 2022: -0.093, -0.392, -0.309, respectively. It follows from the given data that in 2021-2022, during this period, the foreign trade turnover of the Republic of Armenia was detrimental with all economic unions and "other countries". Moreover, in 2021, the lowest efficiency in foreign trade circulation was recorded with EAEU countries. And in 2022, with the EU (-0.392). Based on published statistical data, in 2021 the coefficient of comparative advantage of the foreign trade turnover of the Republic of Armenia had a positive value only with Bulgaria, Netherlands, Switzerland



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and Iraq, and in 2022, respectively, Bulgaria, Netherlands, the United Arab Emirates, Switzerland and Iraq.

### Conclusion

Thus, the analysis of the Republic of Armenia foreign trade leads to the idea that it needs radical improvements, because it does not meet the challenges of the modern world economy. It is necessary to develop a new strategy for Armenia's foreign trade, based on high-tech products and services.

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**ՀԱՅԱՍՏԱՆԻ ՀԱՆՐԱՊԵՏՈՒԹՅԱՆ ԱՐՏԱՔԻՆ  
ԱՌԵՎՏՐԻ ԱՐԴՅՈՒՆԱՎԵՏՈՒԹՅՈՒՆԸ**

**Մարկոսյան Մ. Ա.**

*«Քաղաքագիտական, իրավագիտական և տնտեսագիտական հետազոտությունների և կանխատեսումների» ՀԿ*

Գնահատվել է Հայաստանի Հանրապետության արտաքին առևտրի արդյունավետությունը համեմատական առավելությունների գործակիցների միջոցով:

M.A. Markosyan

Երկիրն ունենում է դրական հաշվեկշիռ, երբ արտաքին առևտրաշրջանառության մեջ արտահանման բաժինը դրական է: Ապրանքների և ծառայությունների արտահանման և ներմուծման տարբերությունը ուղղակիորեն ազդում է ՀՆԱ-ի հաշվարկման մեծության վրա, դրանով իսկ էական ազդեցություն թողնելով բնակչության բարեկեցության վրա: Գնահատվել է նաև արտաքին առևտրաշրջանառության կառուցվածքը և դրա արդյունավետությունը ըստ երկրների և դրանց խմբերի:

**Բանալի բառեր.** ապրանքների և ծառայությունների արտահանում, ներմուծում, արտաքին առևտրի արդյունավետություն, համեմատական առավելությունների գործակից

## ЭФФЕКТИВНОСТЬ ВНЕШНЕЙ ТОРГОВЛИ РЕСПУБЛИКИ АРМЕНИЯ

**Маркосян М.А.**

*ОО по политологическим, правовым, экономическим исследованиям и прогнозированию*

Эффективность внешней торговли Республики Армения оценивалась с использованием коэффициентов сравнительных преимуществ. Страна имеет положительное сальдо, когда доля экспорта во внешнеторговом обороте положительна. Разница между экспортом и импортом товаров и услуг напрямую влияет на размер расчета ВВП, тем самым оказывая существенное влияние на благосостояние населения. Также оценивалась структура внешнеторгового оборота и его эффективность по странам и их группам.

**Ключевые слова.** экспорт товаров и услуг, импорт, эффективность внешней торговли, коэффициент сравнительного преимущества.

Submitted on 06.04.2023

Sent for review on 11.04.2023

Guaranteed for printing on 30.06.2023