

Some Trends in the Development of Maritime Industry in the World and in Georgia

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Abstract. The paper "Some Trends in the Development of Maritime Industry in the World and in Georgia" substantiates the place and role of international maritime industry in both the world economy and the economic development of the country. The special importance of maritime transport-logistics systems is emphasized in the further development of the Georgian economy. The abstract conclusions are based on the research and data analysis published by national and international institutions on world economy, international trade of goods as well as international maritime trade, and their interrelationships. Trends in the development of some areas of the maritime industry (international maritime trade, world navy, shipbuilding and training of seafarers) have been studied. Based on the analysis of similar indicators of the Georgian maritime industry, separate conclusions have been made about the further development and efficient use of the Georgian maritime transport-logistics system.

Keywords: Economic Development, GDP, Maritime Trade, Maritime Industry, Maritime Merchant Navy, Seafarers Training, Maritime Business, Maritime Shipping

At the present stage of world economic development, the proper functioning of maritime transport and logistics systems is essential, as about 90% of the total volume of international trade cargo is transported by sea [1]. The world economy and international trade development rates are interlinked to the development rates and trends of maritime trade and industry.

Maritime transport and logistics systems also play a crucial role in the economic development of individual countries, especially in international economic activities since most of the foreign trade (export-import) is carried out through the involvement of maritime transport and logistics systems. The role of Maritime transport logistics in the economic development of Georgia, which is still at a rather challenging stage of state-building, is also important. Unfortunately, the current level and trends of the country's economic development still do not meet the needs of Georgian society. According to the World Bank, Georgia's gross domestic product (GDP) in 2020 amounted to 15.892 million US dollars and ranked 119th among 206 countries [2]. Georgia was ranked 126th in terms of GDP per capita in 2020 [3]. GDP per capita in the world was 10,561 USD (constant 2010 USD), while in Georgia - 4,679 USD. According to the same data, in 2020, Georgia's unemployment rate was 6.5% and ranked 37th (the world unemployment rate was 6.5%) [4, 5].

The document approved by the Government of Georgia - Government Program 2021 - 2024, Towards Building the European State (December 2020), states [6]: "Economic policy of the Government of Georgia will be geared at economic growth. The starting point will be to promote a post-crisis rapid recovery and development of businesses, which in turn should ensure job creation and eradication of extreme poverty". The same document states: "An important area of action is to further strengthen the transit role of Georgia in relation to the European Union and to reap the benefits of a component related to the membership of the European Energy Community (EEC) and integration into the trans-European transport network (TEN-T)." ([6], pp. 7)

Thus, effective use of its international transit function is one of the top priorities of Georgia's economic development. The document developed by the Ministry of Economy and Sustainable Development of Georgia - "Georgia's National Logistics Strategy for 2021-2030", states that "Globalization and growing economic ties with the EU provide a unique opportunity for Georgia's full integration into international trade. The transport and logistics sector must play a crucial role in this process." [7]

Therefore, it is crucial to study the development trends of the Georgian maritime industry, as well as international maritime trade and industry, analyze their interdependence, evaluate the current state of the potential use of the industry, and develop recommendations.

The efficient functioning of maritime transport logistics systems, and the maritime industry as a whole, is important to increase the competitiveness of Georgia's transport communication systems, which are in a highly competitive environment by other alternative communication systems (North, South, and Maritime).

"Maritime industry" is a broad term and includes all kinds of organizations and activities related to the sea, ocean, ships, navigation, maritime trade, and seafarers.

The maritime industry includes the following sectors: [8]

- **Maritime trade** (shipping)-covers the transport of passengers by sea and cargo transportation.
- **Marine industry**, also known as marine engineering, includes shipbuilding, offshore oil and gas extraction, marine recreational activities, marine research, etc.
- **Port activities** - work related to cargo (reloading, sorting, warehousing, storage, etc.), passenger services, and other types of port agricultural activities;

- **Maritime business services** - covers a wide range of maritime business activities, such as maritime insurance, financial and legal services, ship accounting, maritime consulting services, maritime tourism, maritime education, etc .;
- as well as other activities related to the maritime sector.

It is critical to analyze the data published by international institutions to study international maritime trade and industry development trends. The volumes and percentage changes of world GDP, international trade in goods, and international maritime trade by individual years are presented in the table (Table 1).

The data presented in Table 1 show that the growth rates of international trade in goods and maritime trade over the past two decades are mainly higher than the growth rates of the world economy. Indeed:

- In 2000, the world GDP growth rate was 31%, while international trade in goods grew by 85%, and international maritime trade - 49%;
- In 2010, the volume of world GDP increased by 30%, while the global export value of trade in goods increased by 137%, and international maritime trade - by 41%;
- According to 2017 data, the world GDP growth rate was 31%, global trade in goods - 85%, and international maritime trade - 49%.

Table 1.

Volumes of world GDP, international trade in goods and international maritime trade and percentage change by individual years

Years	World GDP volume, (constant 2010 USD), billion USD [9]	Global export value of trade in goods, billion USD [10]	International maritime trade volume (in million metric tons loaded)
1990	38 986	3 496	4 008
	40 %	71 %	8 %
2000	50 949	6 452	5 984
	31 %	85 %	49 %
2010	66 126	15 303	8 408
	30 %	137 %	41 %
2015	76 958	16 556	10 023
	16 %	8 %	19 %
2016	77 988	16 043	10 295
	1 %	-3 %	3 %
2017	80 508	17 738	10 716
	3 %	11 %	4 %
2018	82 905	19 468	11 019
	3 %	10 %	3 %
2019	84 848	19 015	11 076

	2 %	-2 %	1 %
2020	84 540 [11]	17 483	-
	-0.3 %	-8 %	-

Source. The table is compiled based on the sources cited by the author

The volume of international maritime trade is growing every year - at a much higher rate during the growth (prosperity) of the world economy, relatively low - during the recession.

The structure and volume of maritime trade by types of cargo are presented in Table (Table 2).

Data published by the United Nations Conference on Trade and Development (UNCTAD) show that international maritime trade is constantly growing [12]. In recent years, the share of certain types of cargo in international maritime trade is virtually unchanged. In particular, the share of cargo transported by tankers in the total volume of shipments is 29%, the share of cargo transported by bulker is similarly 29%, and the share of other dry cargo is -42%. In addition, the share of tanker cargo in international maritime trade has declined slightly, from 33% to 29%, over the past two decades. Respectively, the share of cargo transported by bulkers and other dry cargo vessels in total shipments increased slightly.

Table 2.

International maritime trade volume by type of cargo (in million metric tons loaded , percentage)

Years	Cargo transported by tankers	Cargo transported by bulkers	Other dry cargo	all:
1980	1 871	608	1 225	3 704
	51 %	16 %	33 %	100 %
1990	1 755	988	1 265	4 008
	44 %	25 %	31 %	100 %
2000	2 163	1 186	2 635	5 984
	36 %	20 %	44 %	100 %
2010	2 752	2 232	3 423	8 408
	33 %	27 %	40 %	100 %
2015	2 932	2 930	4 161	10 023
	29 %	29 %	42 %	100 %
2016	3 058	3 009	4 228	10 295
	30 %	29 %	41 %	100 %
2017	3 146	3 151	4 419	10 716
	29 %	29 %	42 %	100 %
2018	3 201	3 215	4 603	11 019
	29 %	29 %	42 %	100 %
2019	3 169	3 225	4 682	11 076
	29 %	29 %	42 %	100 %

Source: Table compiled by the author based on the source cited [13]

One of the most important sectors of the maritime industry is the merchant navy. Table (see Table 3) presents statistics on the structure of the world merchant fleet.

Table 3.

World Merchant Fleet statistics by ship type (1000 tons of deadweight)

	Oil tankers	Bulk carriers	General cargo	Container ships	Other types of ships	Total fleet
1980	337 896	181 880	112 841	10 290	29 236	672 142
	50,3	27,1	16,8	1,5	4,3	100
1990	235 785	223 619	100 457	22 346	47 770	629 976
	37,4	35,5	15,9	3,5	7,6	100
2000	283 066	274 445	101 520	63 580	71 160	793 771
	35,7	34,6	12,7	8,0	9,0	100
2005	340 748	325 666	91 827	100 226	49 007	907 474
	37,5	35,9	10,1	11,0	5,4	100
2010	450 053	456 623	108 232	169 158	92 072	1 276 137
	35,3	35,8	8,5	13,3	7,2	100
2015	491 058	762 322	76 012	228 230	195 469	1 753 092
	28,0	43,5	4,3	13,0	11,1	100
2016	505 955	779 289	76 481	244 339	205 150	1 811 215
	27,9	43,0	4,2	13,5	11,3	100
2017	535 031	795 586	75 522	245 683	216 351	1 868 174
	28,6	42,6	4,0	13,2	11,6	100
2018	563 188	822 906	75 702	253 633	222 349	1 937 777
	29,1	42,5	3,9	13,1	11,5	100
2019	568 037	846 461	76 425	266 129	232 871	1 989 924
	28,5	42,5	3,8	13,4	11,7	100
2020	601 342	879 725	76 893	274 973	238 705	2 071 638
	29,0	42,5	3,7	13,3	11,5	100
2021	619 148	913 032	76 754	281 784	243 922	2 134 640
	29,0	42,8	3,6	13,2	11,4	100

Source : The table is compiled by the author based on the source [14]

The data show that the volume of the world merchant navy is growing at a fairly rapid pace in terms of total cargo capacity (deadweight) and by 2021 amounted to 2 134 640 thousand tons. Despite the pandemic, the world merchant navy increased by 63 million tons in 2021 compared to 2020 (an increase of 3.1%). Which reaffirms the growing role of the maritime industry in the global economy and international economic relations. As for the structure of the navy, tankers make up 29.0% of the total volume of the fleet, Bulk carriers - 42.8%, dry cargo vessels - 3.6%, container vessels - 13.2%, and other types of vessels - 11.4%. This structure has changed slightly in recent years.

Another important sector of the maritime industry is maritime education. It provides qualified personnel with relevant competencies to a growing international navy. Table 4 shows statistics on the

number of sailors employed in the World Merchant Navy. In 2015 the World Trade Fleet employed 1,647,494 sailors. China (243,635 sailors, 14.79% of the total number of sailors) is in the first place by the number of people employed, the Philippines is in the second place (215,500 sailors, 13.08%), Indonesia is in third place (143,702 sailors, 8.72%), followed by the Russian Federation (97,061 Sailor, 5.89%).

Table 4.

Number of seafarers employed in the World Trade Fleet by country (2015 data)

		Officers	Ratings	Total	Percentage of total world, %		
-	World	773 949	873 545	1 647 494	100.00	100.00	100.00
1	China	101 600	142 035	243 635	13.13	16.26	14.79
2	Philippines	72 500	143 000	215 500	9.37	16.37	13.08
3	Indonesia	51 237	92 465	143 702	6.62	10.59	8.72
4	Russian Federation	47 972	49 089	97 061	6.20	5.62	5.89
5	India	69 908	16 176	86 084	9.03	1.85	5.23
6	Ukraine	39 000	30 000	69 000	5.04	3.43	4.19
7	Turkey	18 568	20 417	38 985	2.40	2.34	2.37
8	Italy	12 988	21 498	34 486	1.68	2.46	2.09
9	Norway	14 768	18 933	33 701	1.91	2.17	2.05
10	Bulgaria	10 890	22 379	33 269	1.41	2.56	2.02
11	United States of America	18 330	14 888	33 218	2.37	1.70	2.02
12	Vietnam (Viet Nam)	19 630	12 815	32 445	2.54	1.47	1.97
13	Poland	25 586	6 603	32 189	3.31	0.76	1.95
14	Brazil	10 526	18 220	28 746	1.36	2.09	1.74
15	Croatia	17 183	10 063	27 246	2.22	1.15	1.65
33	Georgia	3 386	4 584	7 970	0.44	0.52	0.48
34	Latvia	5 500	2 278	7 778	0.71	0.26	0.47

Georgia ranks 33th in this sector of the maritime industry (7,970 sailors, 0.48%). This maritime sector can be the best employment opportunity for Georgian citizens on the world labor market. That is why special attention is paid to the training of Georgian sailors in Georgia. In this regard, with the assistance of the Government of Georgia and the Autonomous Republic of Adjara, the infrastructure of the Batumi State Maritime Academy (BSMA) was upgraded, new educational programs were launched and the Poti branch of the BSMA was opened.

Table 5.

Volume of International Maritime Trade and Some Indicators of Georgia's Transport Industry (2014-2020)

Years	Foreign trade volume, million USD [15]	Number of cargoes transported by transport sectors, million tons [16]	Number of cargoes transported to seaports and terminals, million tons	Number of recycled containers in seaports, units	International maritime trade volume, loaded in millions of tons [17]
2014	11 462.9	46.4	21.3 [18]	446972	-
	-5.7 %	-	-	-	-
2015	9 505.0	44.2	19.2	379816	10 023
	-5.09 %	-4.7 %	-9.9 %	-15.0 %	19 %
2016	9 407.0	42.3	17.6	329805	10 295
	-5.18 %	-4.3 %	-8.3 %	-13.2 %	3 %
2017	10 802.9	41.5	12.1	283319	10 716
	14.2 %	-1.9 %	-31.3 %	-14.1 %	4 %
2018	12 741.5	41.1	15.1	453938	11 019
	17.9 %	-1.0 %	24.8 %	60.2 %	3 %
2019	13 317.6	42.3	17.2	647816	11 076
	4.5 %	2.9 %	13.9 %	42.7 %	1 %
2020	11 396.3	42.9	16.9	490370	-
	-14.4 %	1.4 %	-1.7 %	-24 %	-

Source. Table compiled by the author based the sources cited

To assess the situation in the Georgian maritime industry, we used the volume of Georgia's foreign trade, number of cargoes transported by the transport sector, number of cargoes transported to seaports and terminals, number of containers processed at seaports, and international maritime data. As the presented materials show, the amount of cargo transported by the Georgian transport system varies mostly in accordance with the volume of Georgia's foreign trade. Indeed:

- Foreign trade in 2015 and 2016 decreased from 5.18% to 5.09%. Consequently, The number of shipments transported by the Georgian transport sectors as a whole decreased from 4.7% to 4.3%, respectively, as well as the number of shipments transported to seaports and terminals (9.9% and 8.3%) and the number of recycled containers in seaports (15.0% and 13.2%);
- According to 2020 data, the volume of foreign trade decreased by 14.4%, respectively, the number of shipments transported to seaports and terminals decreased by 1.7% and the number of containers processed at seaports by 24%;
- Despite the increase in the volume of international maritime trade, the volume of cargo processed by the Georgian maritime transport system is decreasing. For example, in 2015 volume of the international maritime trade increased by 18%. Meanwhile, the number of processed cargo in Georgian seaports and terminals decreased by 9.9%, and the number of recycled containers by

15%. In 2016, the volume of international maritime trade increased by 3%, the number of processed cargo in Georgian seaports and terminals decreased by 8.3%, and the number of processed containers by 13.2%. The indicators of other years also show that the development trends of the Georgian maritime sector are determined not by the international maritime trade, but by the development trends of Georgia's foreign trade;

- Georgia is still not able to properly use the international transit function assigned by its strategic position;
- Training of seafarers should become one of the priorities to more effectively use the potentials of the maritime industry;
- More opportunities should be created for the development of maritime business in the country.

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