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The economic power of the Black Sea coastal states

Romeo BOSNEAGU¹, Dumitru CORDUNEANU², Dan DANECI - PATRAU³, Ionut Cristian SCURTU^{4*}, Gelu COCA⁵, Albert BEER⁶

1. Associate professor Ph.D., "Mircea cel Batran" Naval Academy, Constanta, Romania, romeo.bosneagu@anmb.ro, romeo_bosneagu@yahoo.com
2. Lecturer eng. Ph.D., "Mircea cel Batran" Naval Academy, Constanta, Romania, dumitru.corduneanu@anmb.ro, corduneanudtru@gmail.com
3. Lecturer Ph.D. "Spiru Haret" University Constanta, Romania, daniel.daneci[at]spiruharet.ro,
4. *Lecturer eng. Ph.D., "Mircea cel Batran" Naval Academy, Constanta, Romania, scurtucristian@yahoo.com, ionut.scurtu@anmb.ro, corresponding author
5. Master student "Mircea cel Batran" Naval Academy, Constanta, Romania, gelucoca@yahoo.com
6. Master student "Mircea cel Batran" Naval Academy, Constanta, Romania, albertsugaru@zahoo.com

Abstract. The value of the main economic, geographical and social parameters enhanced by each other give the economic power of a country. In recent years there have been positive changes in the economic development of the Black Sea coastal states, less in 2020 first Covid 19 pandemic year, reflected in the current value of the main economic indicators, as follows in this paper. The Black Sea region has not reached this level of developed on multiple levels, it has a special geoeconomic importance due to its position at the intersection of Europe and Asia, its history and millennial civilization, resources and economic possibilities that can ensure a remarkable economic and social evolution in the near future.

Keywords: Black Sea, economic power, analysis

1. Introduction

The economic power of a state is a complex economic concept that sums up, among others, economic parameters such as: Gross domestic product - GDP, Gross domestic product per capita, export / import value, Foreign Direct Investment - FDI, area, population, Human Development Index - HDI, etc.

The Black Sea is a natural inland water basin situated between Europe and Asia, and has the aspect of a deep basin, oriented from west to east, stretching on approximately six degrees of latitude and five degrees of longitude, an intercontinental sea, being connected to the Mediterranean Sea through the Bosphorus Strait and to the Azov Sea through the Kerch Strait.

From early antiquity, Black Sea coast's natives, Phoenicians, Greeks, and later, Romans, Byzantines, Ottomans, Vikings, Venetians, Genoese sailors and others undertook expeditions along the coasts and off the Black Sea for exploration, commercial and military purposes.

The political importance of the Black Sea basin is proven by a dozen military and political actions that were taken during history and also by the desire of the small riparian countries to ensure the access to the sea and the desire of powerful nations to expand their political and economic influence in the area; nowadays the political and military interests of the Black Sea coastal countries lead, on one hand, to divergent actions in order to ensure a good reputation in the area, and on the other hand to convergent actions related to military, political, economic organisations that support

their interests, especially the economic ones. All these confrontations take place in the Eurasian space, that includes powerful nations like Germany, France, Russia, China and India, that relies on five pivots (Ukraine, Azerbaijan, Turkey, Iran, South Korea), from which three are Black Sea coastal countries. The importance of the Black Sea in the evolution of the international maritime transportation is related to the need of bringing back to life the old Silk Road which could connect Europe, the Caucasus area, Central Asia and the Middle East, with the objective to economically develop these areas.

From West to East, the Black Sea coastal states are: Romania, Bulgaria, Turkey, Georgia, The Russian Federation and Ukraine. The Russian Federation, Ukraine and Georgia are part of The Commonwealth of Independent States, Romania and Bulgaria are European Union (2004) and N.A.T.O. members (2007), and Turkey has been a N.A.T.O. member since 1952.

The development of the economy and the seaborne trade between 1990 to 2020 in the Black Sea basin was directly influenced by the evolution of the regional and worldwide economy. The political and economic development of the Black Sea coastal states had a direct impact on the value of exports and the seaborne trade.



Figure 1 Black Sea coastal states

2. Materials and methods

The analysis of the economic power of the Black Sea coastal states is based on the compilation of economic and social data from official national and international sources. Statistical data were analyzed by problematization and deductive reasoning, comparison, and reasoning by analogy. Through the analysis and synthesis of the data, the conclusion of the article was extracted.

3. Results

The statistical analysis of the economic evolution of the Black Sea region, using international sources, is the basis for assessing the economic power of this region.

The economic power of the countries bordering the Black Sea is, in summary, as follows[1,2,3]:

a. GDP and population GN, and GNI per capita – Atlas Method

Latest official GDP figures published by the World Bank and population figures based on United Nations data for the Black Sea coastal states are presented they are further detailed in (Tables 1, 2, 3, 4, 5, 6, 7, 8, 9 and Figures 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13). The analysis of the Gross Domestic Product of the Black Sea coastal states shows that its value is of approximately 3,37% of the world economy total.

Table 1 Black Sea coastal states GDP – World Bank data, 2017-2019

Country	GDP nominal, 2017/2019 billion USD	GDP growth % 2017/2019	GDP per capita USD 2017/2019	GDP per capita growth (annual %) 2019	World GDP % 2017
Romania	212/250	7.26/4.1	10,807/12,408/12,919	4.7	0.26
Bulgaria	58.22/67.92	3.81/3.4	8,331/9,423/9,737	4.1	0.07
Turkey	852/754	7.44/0.9	10,513/10,498/9,042	-0.5	1.05
Georgia	15.08/17.74	4.83/5.1	4,357/4,722/4,769	5.3	0.02
Russian Federation	1,578 /1,699	1.55/1.3	10,720/11,370/11,584	1.4	1.95
Rep. of Moldova	8.13/11.95	4.50/3.5	3,509/4,324/4,498	5.3	0.01
Ukraine	112/153	2.52/3.2	2,640/3,096/3,659	3.8	0.14

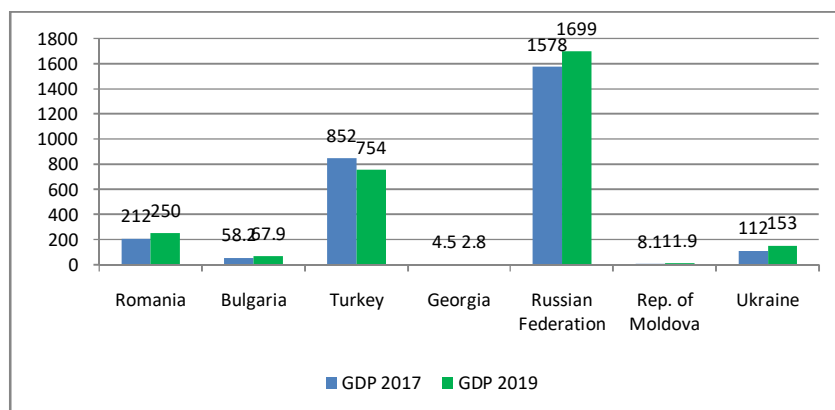


Figure 2 Black Sea coastal states– GDP 2017-2019 (World Bank data)

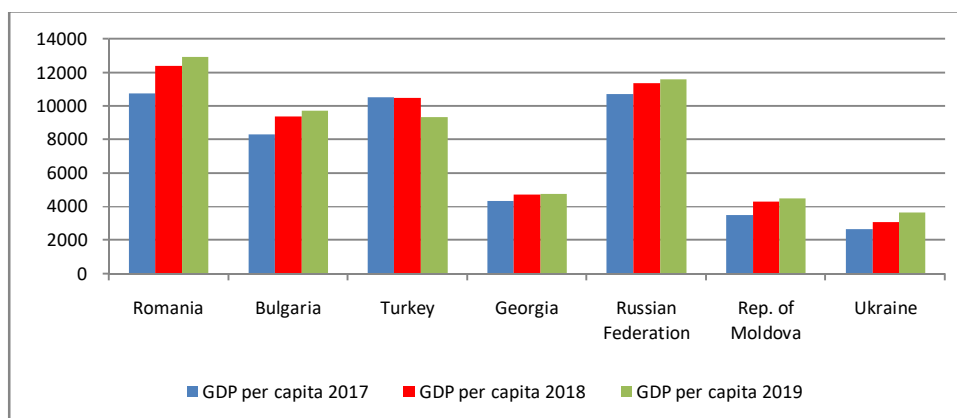


Figure 3 Black Sea coastal countries – GDP per capita 2017 -2019 (World Bank data)

From the data compiled further on nominal GDP and GDP per capita it can be observed notable differences between official figures provided by different international institutions: the International Monetary Fund - IMF, United Nations - UN.

Table 2 Black Sea coastal states - economy world rank [5, 6, 7, 8, 9, 10, 11]

Country	GDP 2019/2020 IMF billion USD	GDP 2020 – annual percent change	GDP 2016 - UN billion USD	GDP per capita 2019 USD	Economy Rank
Romania	263.13/248.62	-4.8%	186.89	13,678	46
Bulgaria	71.75/67.91	-4%	53.24	10,325	73
Turkey	809.55/649.43	-5%	863.71	9,599	18
Georgia	18.89/16.31	-5%	14.33	4,735	118
Russian Federation	1,670/1,464	-4.1%	1.25	11,426	12
Rep. of Moldova	12.79/11.24	-4.5%	6.77	3,171	134
Ukraine	143.0/142.25	-7.2%	93.27	3,365	57

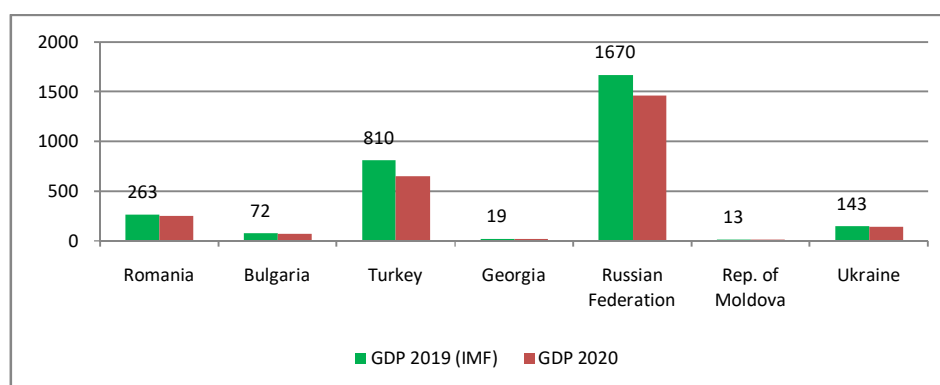


Figure 4 Black Sea coastal states –GDP 2019 (IMF data)

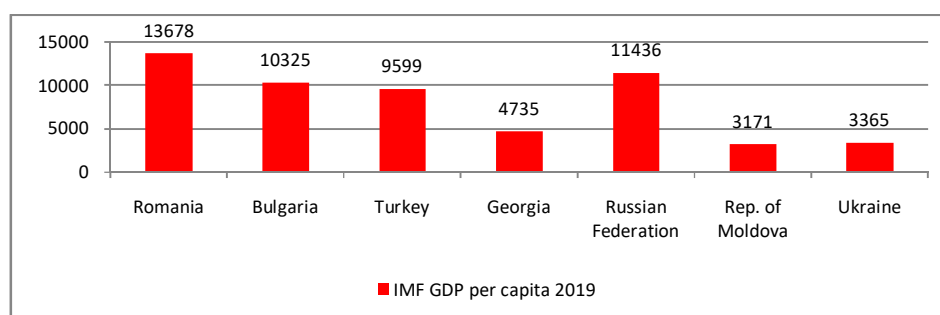


Figure 5 Black Sea coastal states–GDP per capita 2019 (IMF data)

Table 3 Black Sea coastal states– Gross domestic product: Total and per capita, current and constant (2015) prices, annual, 2015-2019 in USD; Per capita GDP at current prices in USD [5, 6, 7, 8, 9, 10, 11]

Country	2015		2016		2017		2018		2019	
	GDP	GDP per capita	GDP	GDP per capita	GDP	GDP per capita	GDP	GDP per capita	GDP	GDP per capita
Romania	177,895	8,928	188,495	9,522	211,696	10,771	239,552	12,281	240,816	12,436
Bulgaria	50,631	7,032	53,784	7,520	58,952	8,300	66,199	9,388	66,919	9,560
Turkey	859,794	10,949	863,712	10,820	852,669	9,368	771,355	8,928	762,617	9,141

Georgia	14,954	3,716	15,142	3,771	16,243	4,052	17,600	4,397	17,440	4,364
Russian Federation	1,366,031	9,422	1,285,014	8,845	1,581,443	10,867	1,660,514	11,394	1,701,119	11,662
Ukraine	90,031	2,026	93,356	2,088	112,190	2,522	130,832	2,957	153,304	3,485
Republic of Moldova	7,745	1,903	8,071	1,985	9,670	2,382	11,309	2,721	11,744	2,905
Total GDP	2,567,081	Average: 6,282	2,507,574	Average: 6,364	2,733,189	Average: 6,845	2,897,361	Average: 7,468	2,953,959	Average: 7,650
% World									3.37%	

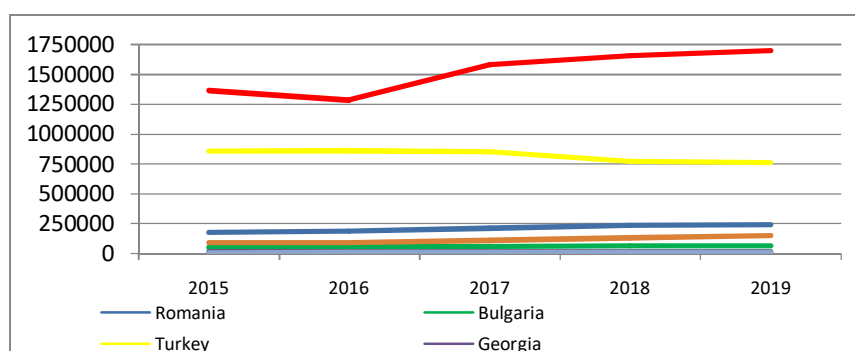


Figure 6 Black Sea coastal states - GDP 2015-2019 (UNCTAD data)

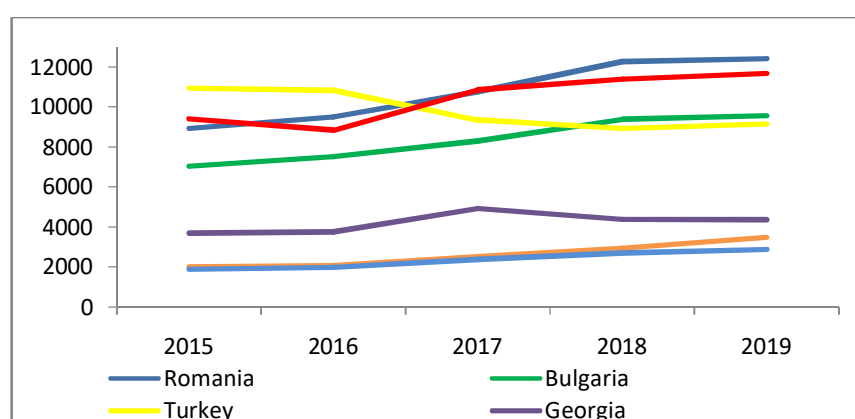


Figure 7 Black Sea coastal states - GDP per capita 2015-2019 (UNCTAD data)

The GDP per capita varies from medium-high to medium-low, and as examples we have the Russian Federation and Turkey as richest countries, and on the other side the Republic of Moldova and Georgia, considered to be the poorest.

b. Black Sea coastal states – export/import

The export/import value of the Black Sea coastal states was USD 1,163,336 million in 2019, from a minimum of USD 5,954 million (Republic of Moldova) to a maximum of USD 534,417 million (Russian Federation) [12, 13].

Table 4 GNI, and GNI per capita Atlas method for the Black Sea coastal states in 2019

Country	GNI, Atlas Method 2019	Percent of the world economy%	GNI per capita – Atlas Method (current USD)2019	Merchandise trade Export/import Mil.USD
Romania	244,497.27	0.29	12,630	60,590/69,874
Bulgaria	65,619.62	0.08	9,410	25,383/29,232
Turkey	801,438.34	1.16	9,610	143,829/207,395
Georgia	17,632.17	0.02	4,740	2,205/7,281
Russian Federation	1,651,559.12	2.15	11,260	341,465/192,952
Ukraine	141,637.01	0.15	3,370	37,859/36,317
Republic of Moldova	10,629.47 (in 2018)	0.01	3,930	1,967/3,987
Total export				616,298
Total import				547,038
Total export/import				1,163,336

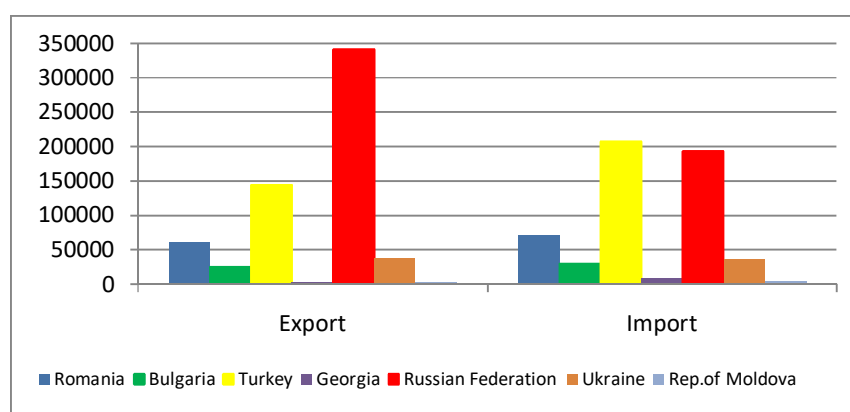


Figure 8 Black Sea coastal states – export/import 2019

c. Black Sea coastal states – FDI inflow

Because the capital of the coastal Black Sea countries is insufficient to support the desired development and investments, the economy of the Black Sea states relies on foreign investments. UNCTAD sources show a decrease in FDI in the period 2007-2012, followed by an increase in jumps in the period 2013-2019, without reaching the maximum value in 2007.

Table 5 Black Sea coastal states - FDI inflows 2007-2019 (Milion USD) [90]

Country/Year	2007	2008	2009	2010	2011	2012	2013
Romania	9,921	13,909	4,665	3,041	2,363	3,199	3,601
Bulgaria	12,389	9,855	3,385	1,549	2,945	1,697	1,837
Turkey	22,047	19,762	8,585	9,086	16,142	13,745	13,463
Georgia	1,750	1,564	0,659	0,814	1,048	1,023	1,021
Russian Federation	56,996	74,783	36,583	31,668	36,868	30,188	53,397
Ukraine	9,891	10,913	4,816	6,496	7,207	8,401	4,499
Republic of Moldova	541	711	208	208	288	244	224
Total	113,535	131,497	58,901	52,862	66,861	58,497	78,042

Country/Year	2014	2015	2016	2017	2018	2019
Romania	3,211	3,839	4,997	5,160	6,218	5,971
Bulgaria	1,540	2,746	1,194	1,071	1,213	1,222
Turkey	12,739	17,717	12,942	10,864	12,981	8,434
Georgia	1,818	1,653	1,603	1,862	1,265	1,267
Russian Federation	29,152	11,858	37,176	25,284	13,227	31,735
Ukraine	410	2,961	3,284	2,202	2,355	3,070
Republic of Moldova	343	227	84	214	307	588
Total	49,213	41,001	61,280	46,657	37,566	52,287

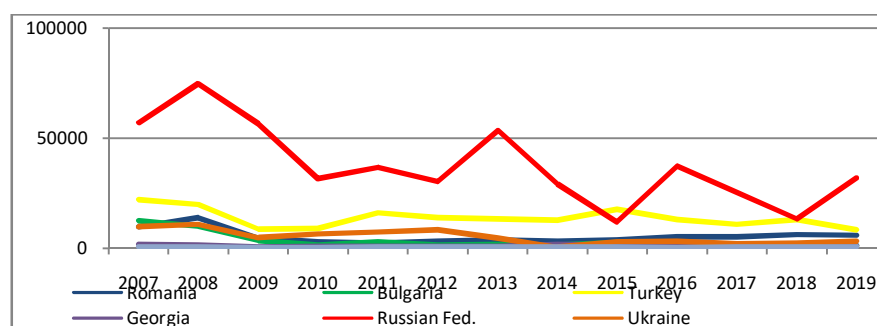


Figure 9 Black Sea coastal states – FDI inflows 2007-2019 (Million USD)

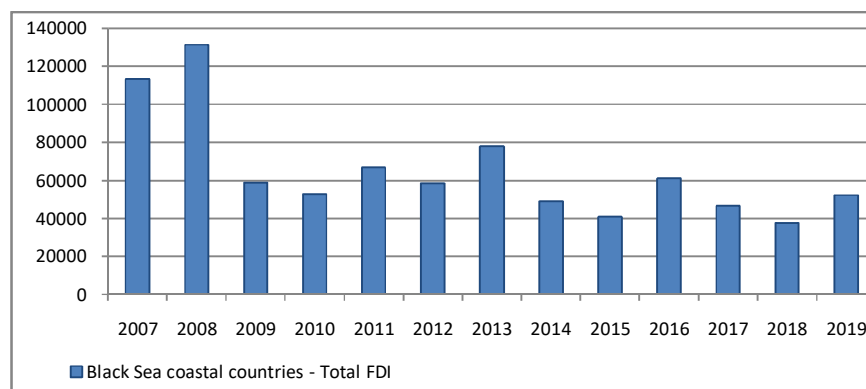


Figure 10 Black Sea coastal states - total FDI inflows 2007 – 2019 (Million USD)

Table 6 Black Sea coastal countries, export/import 2005-2018, in million USD

No.	Country/Year	2005	2010	2015	2018
1.	Russian Federation Export	243,798	400,630	341,419	443,129
	Import	125,434	248,634	193,019	248,704
2.	Turkey Export	73,476	113,883	143,839	167,921
	Import	116,774	185,544	207,234	223,047
3.	Romania Export	27,688	49,579	60,595	79,671
	Import	40,518	62,109	69,824	97,778
4.	Ukraine Export	34,228	51,478	38,127	47,348
	Import	36,136	60,991	37,517	57,046
5.	Bulgaria Export	11,739	20,630	25,371	33,141
	Import	18,163	25,513	29,205	37,881

6.	Georgia	Export	865	1677	2204	3,556
		Import	2,490	5,257	7,300	9,137
7.	Republic of Moldova	Export	1,091	1,541	1,967	2,706
		Import	2,292	3,855	3,987	5,760
Total		Export	392,885	618,788	613,522	777,472
		Import	341,807	591,903	548,086	679,353

d. Black Sea coastal states – population

In the recent period, the population of the big countries, Russian Federation and Turkey, has increased slightly, while the population of the other coastal countries of the Black Sea is continuously decreasing.

Tabel 7 Black Sea coastal states population 2019- 2020 [15, 16]

Country Million inhabitants	2019	2020
Romania	19.36	19.23
Bulgaria	7.0	6.95
Turkey	83.4	84,3
Georgia	3.99	3.98
Russian Federation	145.87	145.93
Republic of Moldova	4.04	4.03
Ukraine	43.99	43.73
Total	307.65	308.15

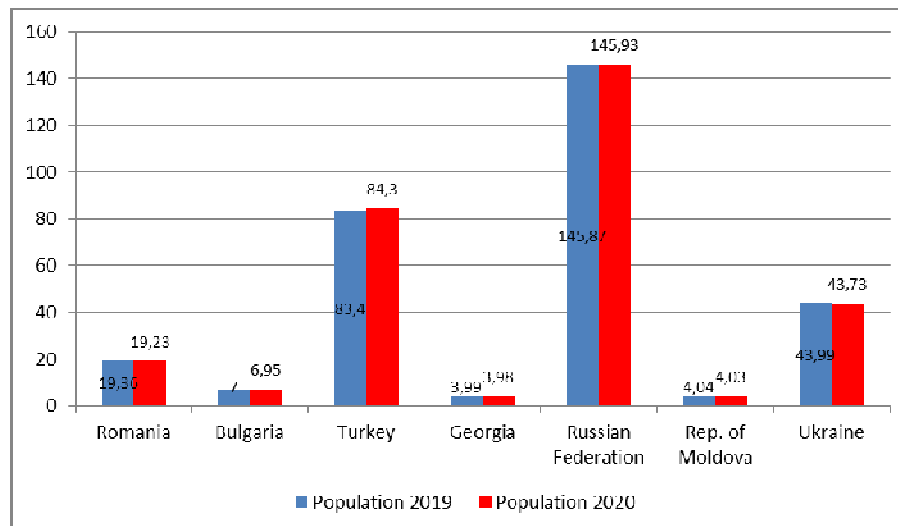


Figure 11 Black Sea coastal states population, 2019-2020 (mil. inhabitants)

An analysis showed that there are differences in development, especially economic and demographic, that may generate conflicts in the future. There are countries with positive demographic growth of +1.9...+1.2% (Turkey), and countries with negative demographic figures (Russian Federation, Romania, Ukraine, Bulgaria, Republic of Moldova). These areas around the Black Sea become an important emigration basin (e.g. Turkey has Istanbul, which has a higher population than Paris and is considered a potential migration reservoir. In the coastal areas of the Black Sea about 16 million people live.

Table 8 Evolution of the Black Sea coastal states' population 1995 – 2025 (millions)

	1995		2010		2017	2025
	Population	% 1985-1995	Population	% 1995-2010		Population
Romania	22.96	-0.1	20.29	-0.2	20.70	18.22
Bulgaria	8.35	+0.5	7.4	-0.2	7.15	6.6
Turkey	58.52	+1.9	72.31	+1.2	80.2	84.86
Georgia	5.28	+0.4	4.25	-0.1	4.93	3.93
Russian Federation	148.28	+0.4	143.15	-0.2	145.5	141.2
Ukraine	50.8	+0.1	45.64	-0.1	44.21	42.37
Republic of Moldova	4.33	+0.2	4.08	-0.1	3.52	3.94
Total	298.51		297.12		302.955	301.12

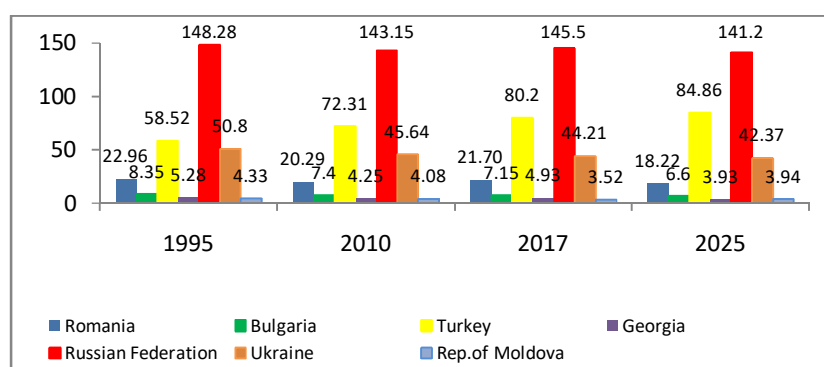


Figure 12 Black Sea coastal states population trend, 1995-2025, after Anderson - 2002

e. Black Sea coastal states – Human Development Index

Regarding the *Human Development Index* (HDI), the Black Sea coastal states are situated in the first category of VHD – *Very High Human Development* (Russian Federation, Romania, Bulgaria, Turkey) and Georgia, Ukraine and Republic of Moldova in the second category of HHD – *High Human Development*.

Table 9 Black Sea coastal states HDI – 2018 [17]

No.	Country/ place in worldwide hierarchy		Category	HDI
1.	Russian Federation	49	VHD	0,824
2.	Romania	52	VHD	0,816
3.	Bulgaria	52	VHD	0,816
4.	Turkey	59	VHD	0,806
5.	Georgia	70	HHD	0,786
6.	Ukraine	88	HHD	0,750
7.	Republic of Moldova	107	HHD	0,711

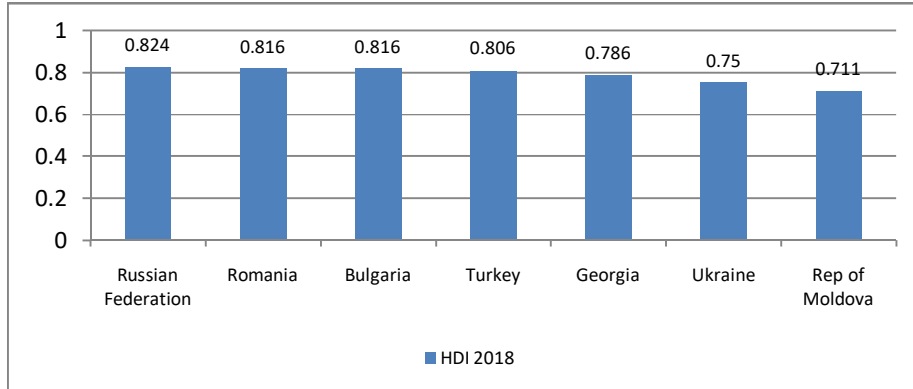


Figure 13 Black Sea coastal states – HDI

4. Conclusions

Between 2017-2019 the nominal GDP in all Black Sea coastal states increased (Russian Federation recorded the highest nominal of 1,699 Billion USD in 2019, higher than the GDP amounted to the other coastal states), except for Turkey, where it fell from 852 billion to 754 billion USD.

The same situation can be observed in terms of GDP per capita, which increased in all coastal countries of the Black Sea (Romania recorded the highest value of GDP per capita of 12,919 USD in 2019), except Turkey where it fell from 10,513 USD in 2017 to 9,042 USD in 2019.

In 2020, in the first year of the COVID 19 pandemic, there was a sharp decrease in the GDP of the Black Sea coastal states, between -4% (Bulgaria) and -7.2% (Ukraine).

The detailed evolution of capital inflows in the Black Sea coastal states in the last years has been oscillating, with significant spikes and decreases, from 113,535 mil.USD (2007) to 52,287 mil.USD (2019).

The total trade volume of the Black Sea coastal countries was in 2018 1,456.825 billion USD (777.5 billion USD export and 679.4 billion USD import), representing 37.7%/25.6% of the EU 27 (2.060/1.908 billion EURO, average exchange rate in 2018 - 1.1811 USD: 2,433/2,253 USD) and 3.9%/3.5% of the world (19.48/19.39 trillion USD).

The population of the Black Sea coastal states was 307.65 mil. in 2019 and 308.15 mil. in 2020, the big countries, Russian Federation and Turkey, has increased slightly, while the population of the other coastal states of the Black Sea is continuously decreasing.

The *Human Development Index* (HDI), the coastal Black Sea states are situated in the first category of VHD – *Very High Human Development* (Russian Federation, Romania, Bulgaria, Turkey) and Georgia, Ukraine and Republic of Moldova in the second category of HHD – *High Human Development*.

By comparison, the economic power of the Black Sea coastal states shows that, although their area is considerable, their population is over 300 million inhabitants, compared to the European Union 27, which had in 2019 a GDP of about 18,292,198 million USD for a population of about 446 million, the Black Sea coastal states have a GDP (2,953,959 million) of only 16.15%, with a population (approx. 264.5 million), that represents 59.3% of the EU 27 population, which shows a difference concerning the need for considerable economic development for the Black Sea region. The GDP of the Black Sea coastal countries represents 3.37% of the worldwide amount, the Russian Federation, and Turkey contribute with 2/3 of this total value.

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