THE POTENTIAL OF THE BLACK SEA PORTS IN CONTAINER TRADE MARKETS

Steve Wray – 22nd May 2018
Associate Director

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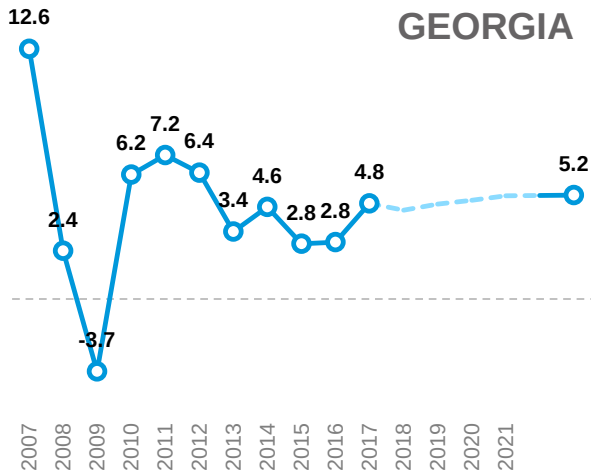
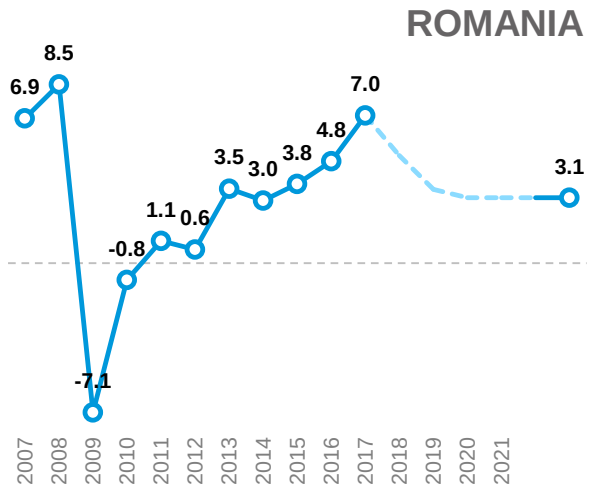
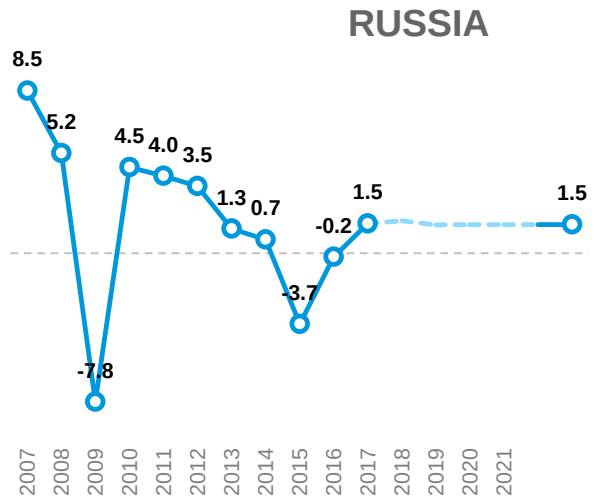
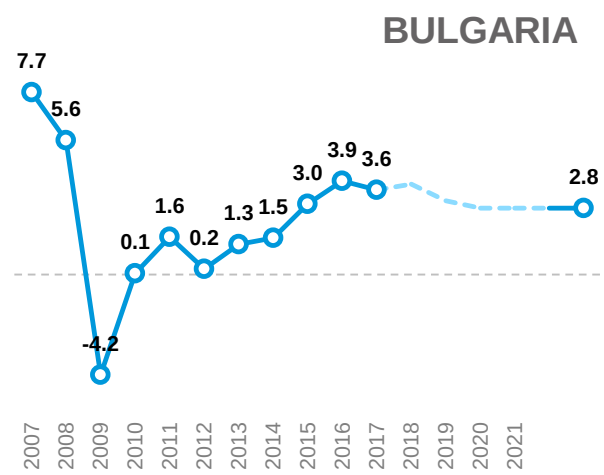
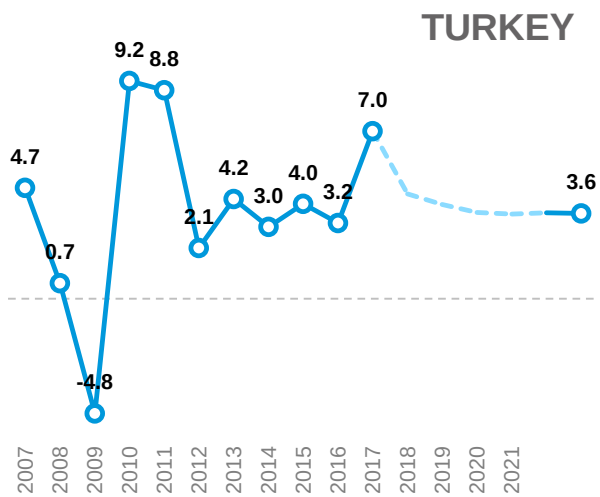
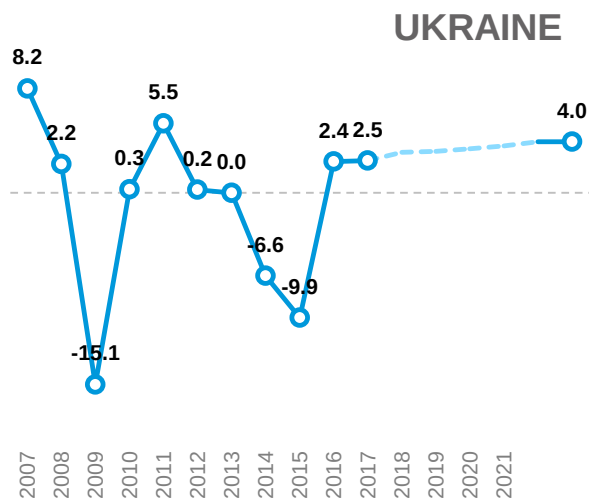




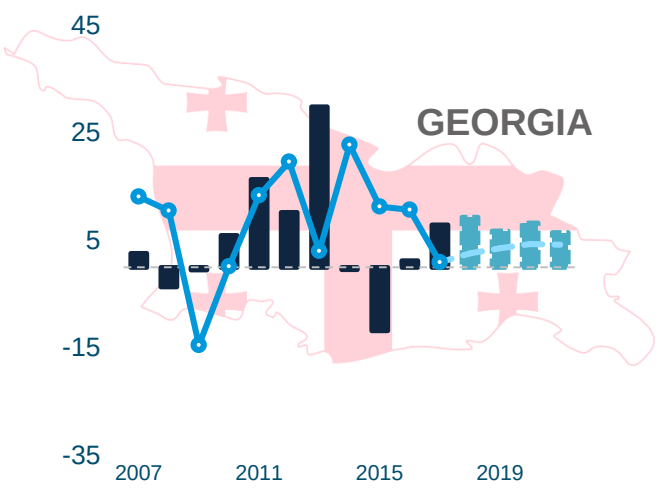


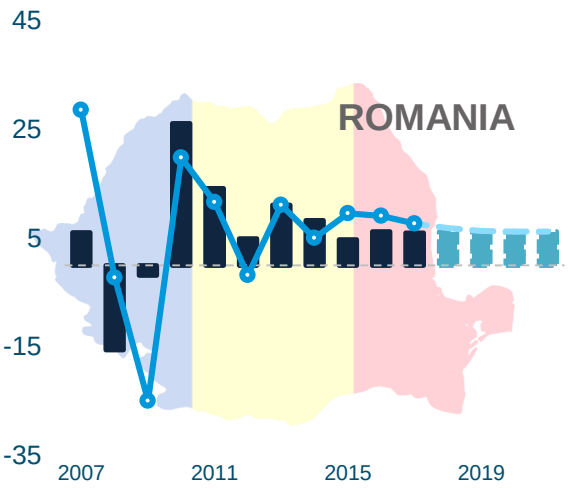


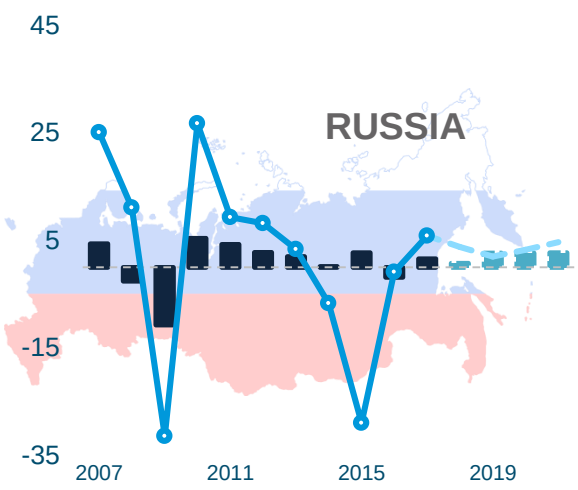


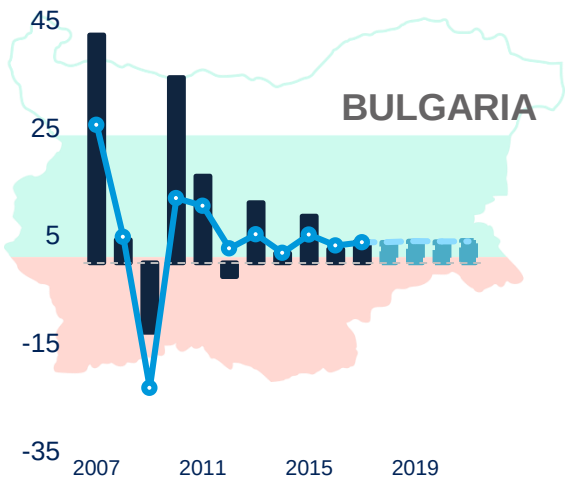


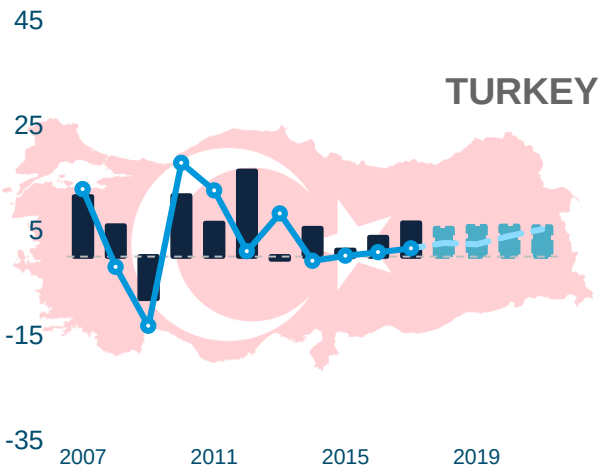
II – IMPORT & EXPORT – ANNUAL % CHANGE

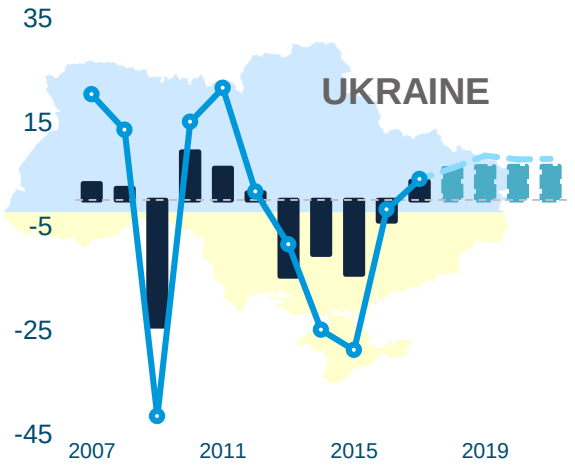












III - CONTAINER SHIP SIZE DEVELOPMENTS

Of the main shipping lines serving the Black Sea, i.e. Maersk, MSC and CMA-CGM are all committed to order more new vessels >10,000TEU. Maersk's order book includes an average vessel size of >14,000TEU.

Rapid developments with regard to size of container vessels. MOL Triumph of 20,170TEU was the largest vessel, but has since been replaced by the OOCL Hong Kong with 21,100TEU capacity.

The focus of attention for ULCSs is for all vessels >11,000TEU. Smaller vessels in this size range are already being regarded as mid-size . ULCSs fall into three distinct categories:

- 11,000-14,500TEU – include new Panamax vessels and older post (old) Panamax designs. These are very important for Black Sea and especially services from Middle East and ISC.
- 14,500-18,000TEU - dominant category of ULCSs already delivered.
- 18,000TEU+ - largest vessels in planned fleet.

Integration of secondary trade lanes with major East-West services via the Med / Black Sea, with an increase in direct calls at main regional t/s hubs designed to help to increase the vessel utilisation.

Current and Potential Container Vessel Sizes

	TEU's	LOA (m)	Beam (m)	Max Draught (m)
Maersk "EEE"	18,270	400	59.0	15.5
CSCL/UASC vessels	18,400	400	58.6	15.5
MOL TRIUMPH	21,700	400	58.8	16.0
New Generation I	22,000	430	59.0	15.5
New Generation IIA	24,000	450	59.0	15.8
New Generation IIB	24,000	450	61.5	16.5

8,000 TEU to 14,000 TEU

E Class Maersk: 397m, 22 rows, 16m

- Port around the world were sized to accommodate the E class Maersk by providing 16m of draft
- Cranes were upgraded to 22 rows

14,000 TEU to 18,000 TEU

Triple E Maersk: 400m, 23 rows, 16m

- Cranes were extended to 23 rows
- No change required for berth or channel drafts

18,000 TEU to 22,000 TEU

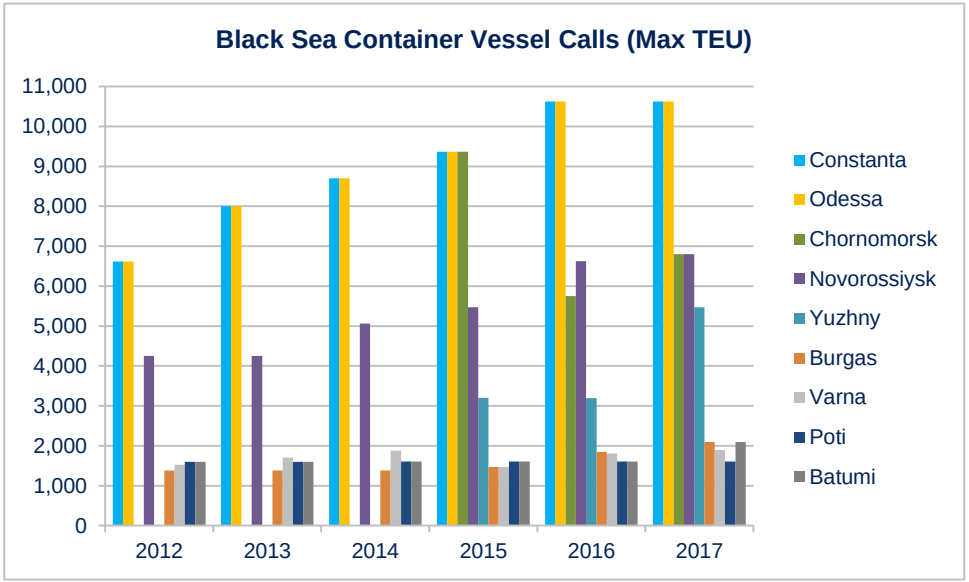
22,000 TEU: 400m, 24 rows, 420m, 24 rows, 16.5m

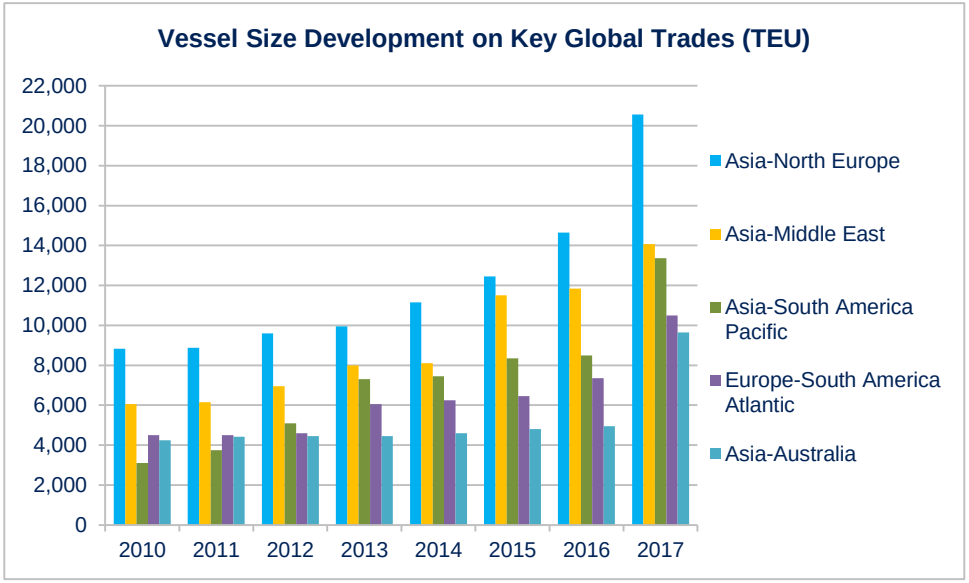
- Declining benefits of scale for vessels >20,000TEU
- Berth length should be able to accommodate but cranes would need 24 rows and deeper draft

III - CONTAINER SHIP SIZE DEVELOPMENTS

CONTAINER VESSEL SIZE DEVELOPMENTS IN BLACK SEA

- Since 2010 Asia-Europe services have been gradually increasing until maximum vessels deployed were 9,600TEU capacity in 2012, increasing to 12,450TEU in 2015 and now (2017) are 20,568TEU.
- Asia-Europe is considered to be one of the main arterial trade lanes, so not surprising that the larger vessels are deployed on these services, but the speed of vessel size increase is important to note.
- Size of vessels deployed in the Black Sea are not as big, but with two direct services now available from Asia, vessel calls have reached >10,000TEU, having had vessels deployed with a maximum capacity of 9,365TEU in 2015 and 6,620TEU in 2012.
- There is the Bosphorous restriction of c.10,800TEU, which will need to be looked at if the Black Sea can compete – Istanbul Canal ?
- Services at Varna remain relatively small, although feeder vessels are starting to increase gradually towards 2,000TEU capacity and in general the expectation is that feeders in the region will increase over time to 3,500TEU capacity.
- Investments at Burgas have seen recent increase in volumes compared with Varna, which remains draft and air draft restricted.





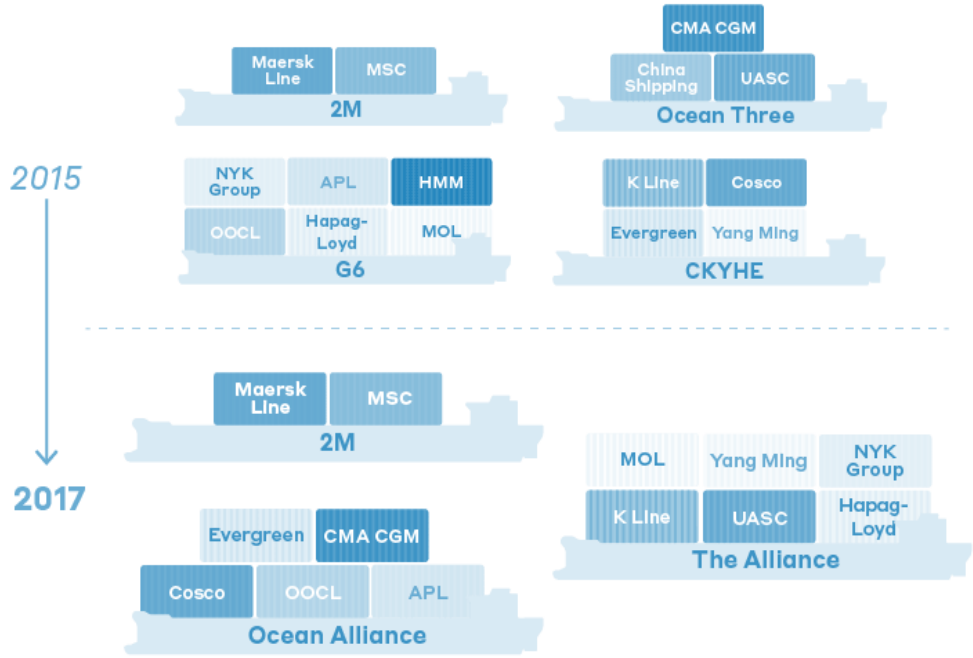
IV - SHIPPING LINE ALLIANCES

Fleet Growth and Alliance Developments are major drivers of market developments

Major trends in the shipping industry

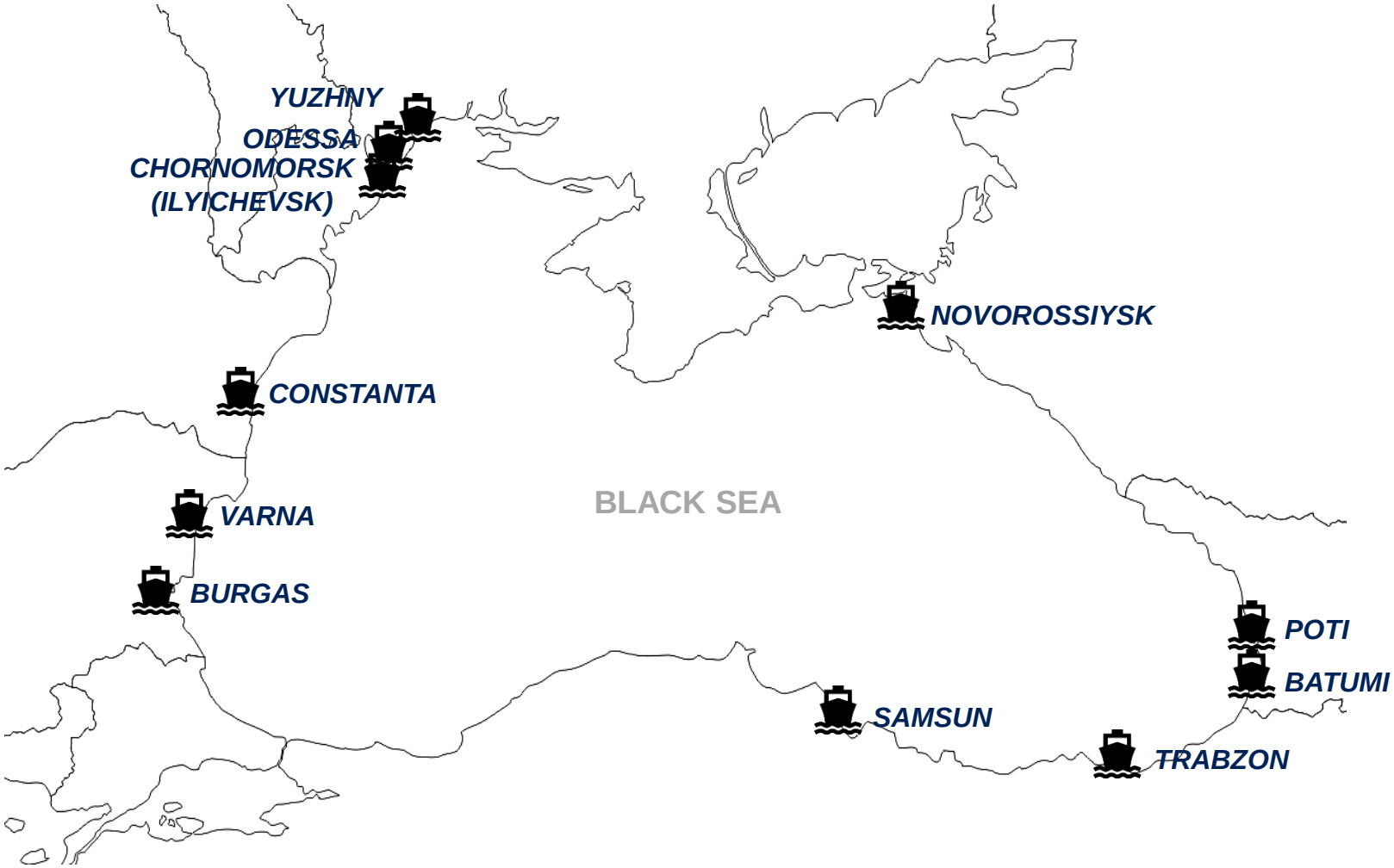
- The global fleet has grown in size, with more vessels of greater capacity . Vessel deliveries >20,000 TEUs are scheduled for this year. Such vessels require deeper draft in ports, longer quay lengths (with deep drafts) and larger cranes. They also place pressure on the terminals to handle larger consignments.
- Consolidation in the shipping industry has resulted in recent merger and acquisition activity, such as
  - the Hamburg Sud acquisition by Maersk,
  - the NOL (APL) acquisition by CMA CGM ,
  - the merger of Cosco and China Shipping,
  - the merger of all 3 Japanese lines into ONE (Ocean Network Express) – operational in 2018,
  - OOCL take-over by COSCO,
  - merger of all Korean lines operationally
- A reshuffling of alliances has taken place in April 2017. The alliances have formed larger negotiation blocks, which increases their negotiation power with ports.
- Shipping lines are taking equity stakes in port terminals. This results in
  - facilities developed in accordance with own requirements,
  - lines ensuring strategic access to their hinterlands,
  - lines not facing delays at their own terminal,
  - lower port tariffs / transportation costs due to the integration of this step in the supply chain.
  - This has been further evidenced with APMT's recent "volte face" in terms of a policy related to serving Maersk services at owned facilities.

Shipping Line Alliance Developments

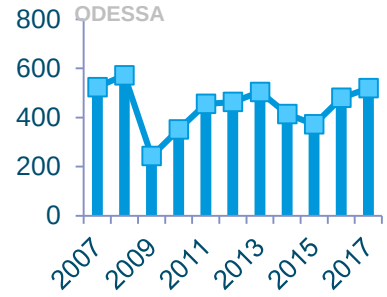


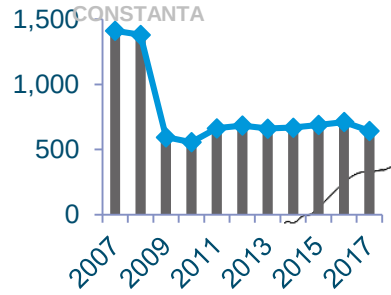
- Stalling global trade has resulted in slow shipping demand growth. In combination with an oversupply of shipping capacity, this has put pressure on the operating margins of the shipping lines. These lines therefore have a strong focus on cost reductions and focus on tariff negotiations in particular.
- Recently this has resulted in the bankruptcy of Hanjin shipping lines, although recent trend is for positive operating profits in recent quarters.

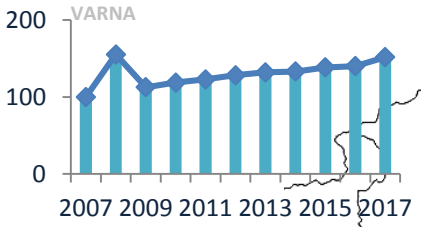
V – KEY PORTS IN BLACK SEA REGION

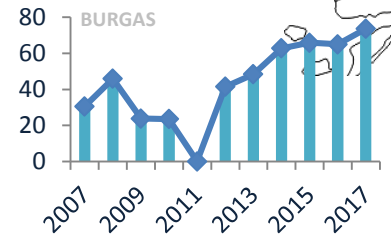


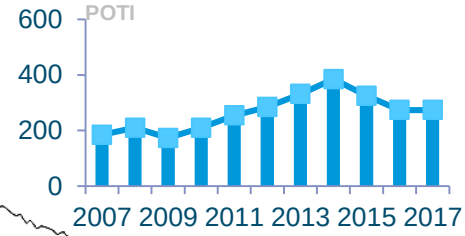
VI – CONTAINER VOLUMES IN BLACK SEA REGION, (000 TEU'S)











YUZHNY

ODESSA

CHORNOMORSK

(ILYICHEVSK)

CONSTANTA

VARNA (5%)

BURGAS (3%)

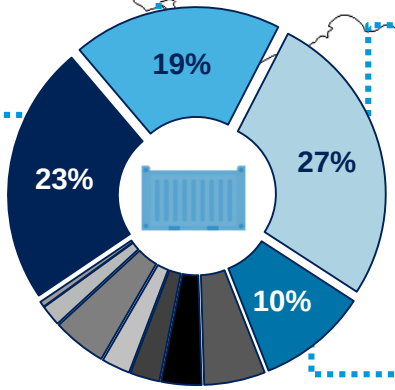
NOVOROSSIYSK

POTI

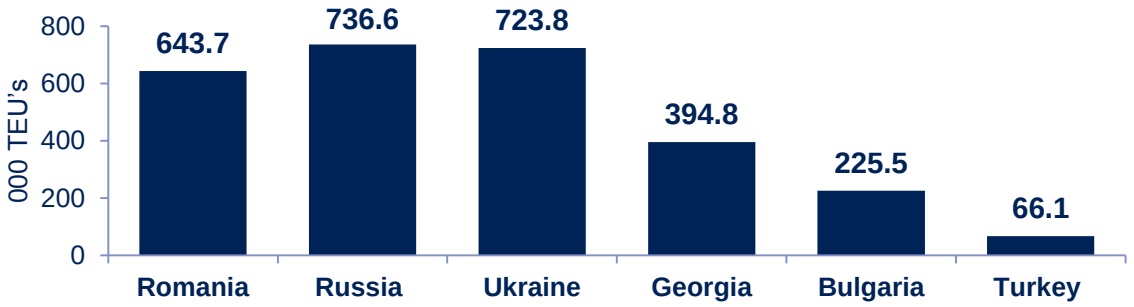
BATUMI

SAMSUN

TRABZON



CONTAINER THROUGHPUT BY COUNTRY IN 2017



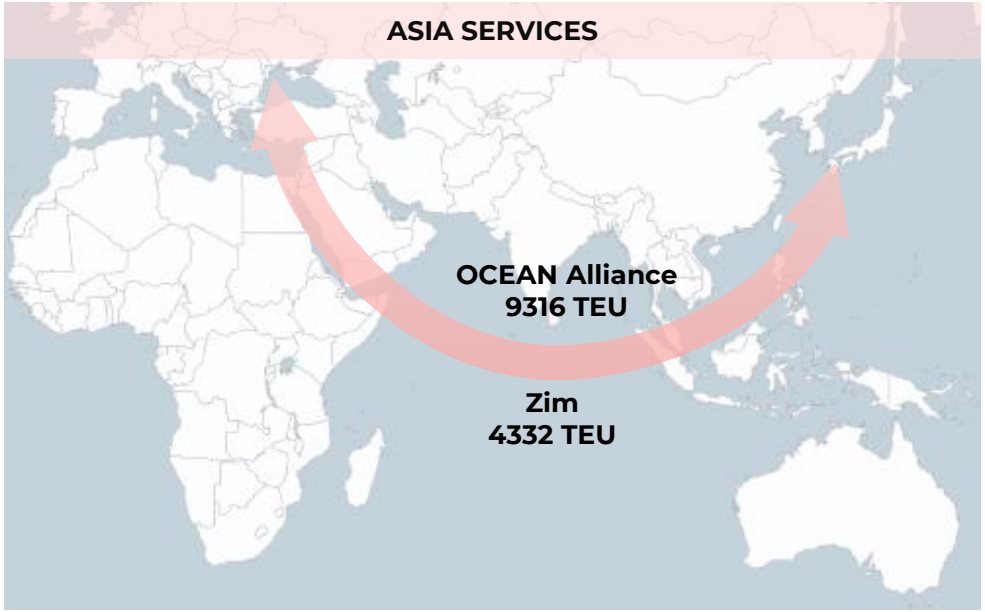
VII – CONTAINERSHIPS SERVICES OVERVIEW IN BLACK SEA PORTS

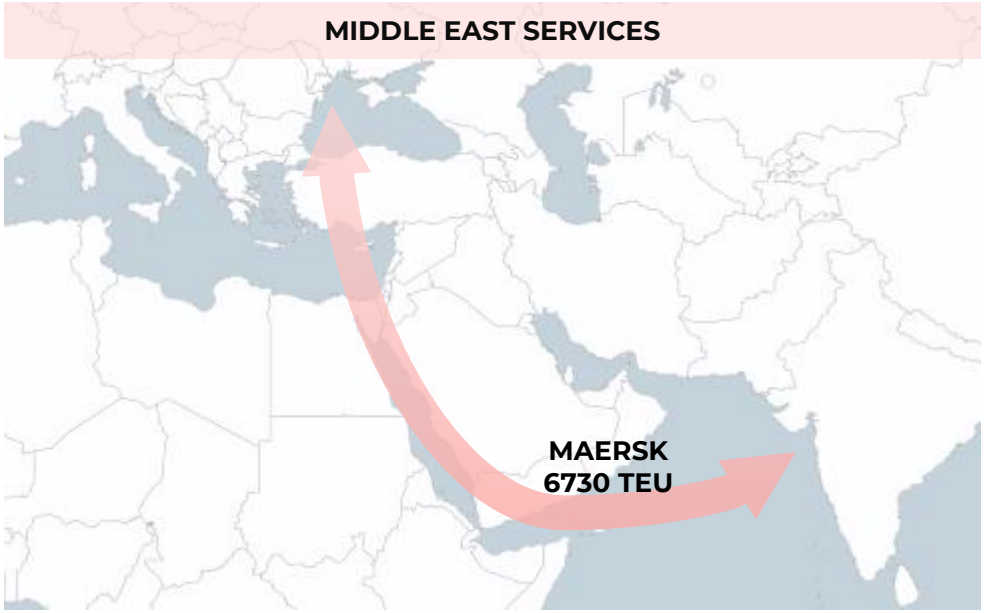
	GEORGIA	BULGARIA	TURKEY	ROMANIA	UKRAINE	RUSSIA
Number of vessels per week	13	17	6	44	55	56
Average vessel size	1,304	1,340	1,514	4,301	4,627	3,265
Total weekly TEU's capacity	15,366	22,775	9,084	189,265	254,473	182,843

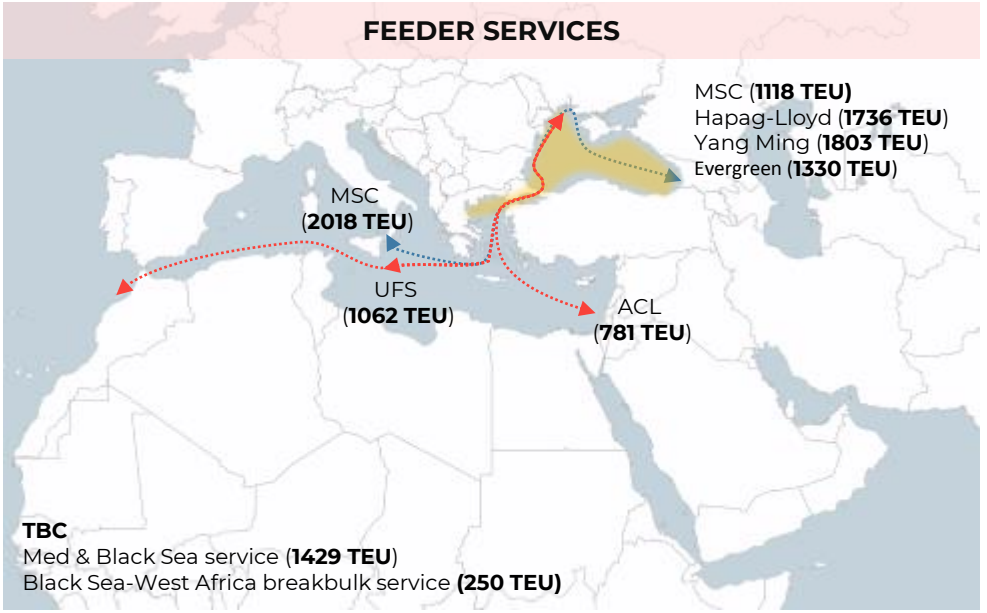
Source: Alphaliner, 2018 May

VIII - CONTAINERSHIPS SERVICES OVERVIEW IN BLACK SEA PORTS

Services at a glance



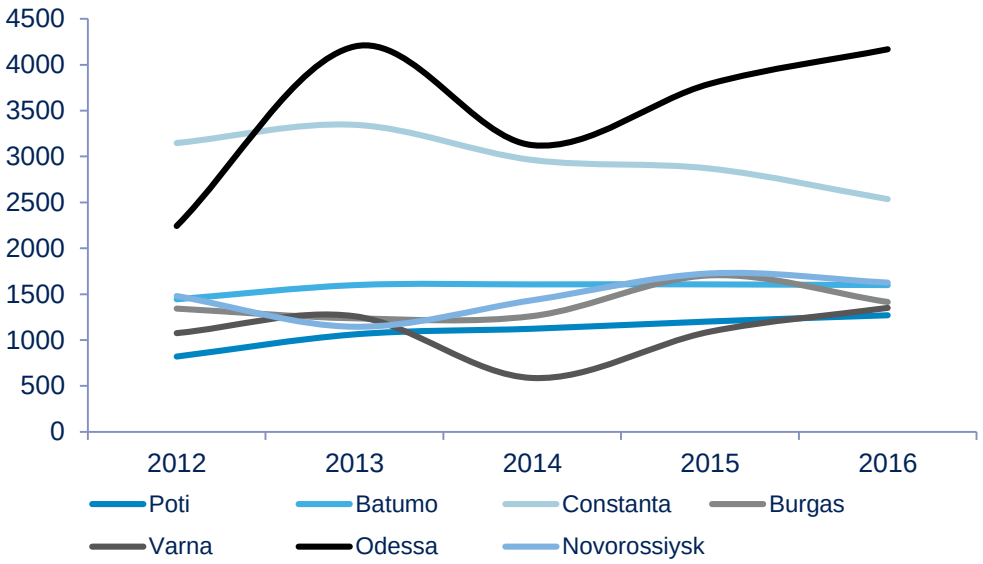




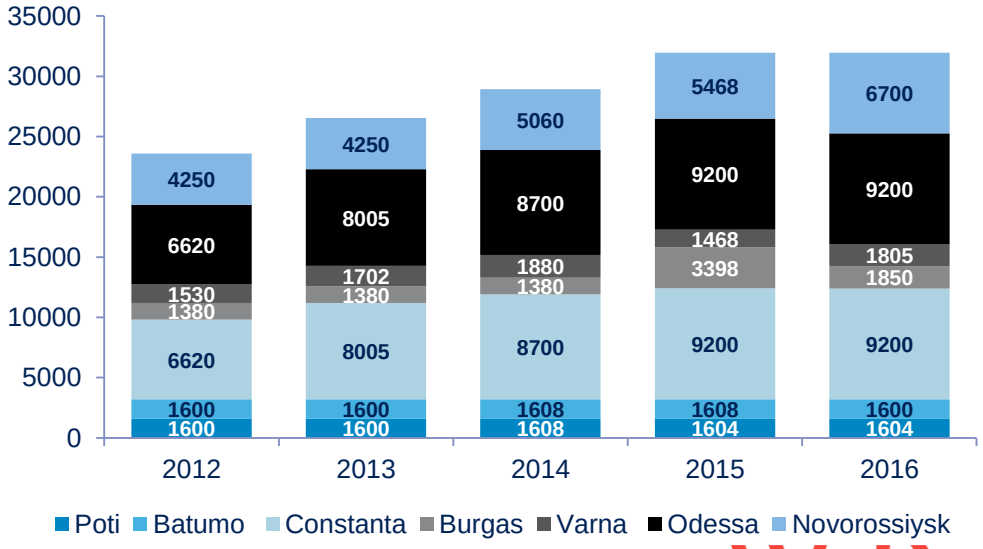
VII – CONTAINERSHIPS SERVICES OVERVIEW IN BLACK SEA PORTS

- Ports with sufficient water depth/ facilities have seen the average and maximum vessel sizes increase. Other ports have stagnated around feeder vessel types.
- Terminal productivity has increased – but there remains a need for further improvements to “world” levels. Bigger vessels call at fewer ports and need to be turned quickly.
- Need for dredging – approach channels and berths. Depth alongside is critical to ‘future-proof’ terminals.
- Longer berths; larger terminal area; increased gate pressure.
- Larger/Havier Quay Cranes - Longer reach; Taller clearance; Twin/Tandem Lifts.
- Increase in load on quay structures and increase in electrical loads and electrical infrastructure.
- New deepwater facilities will be attractive as alternatives to East Med t/s hubs.
- Terminals which do not lift productivity will see market share decline

Average vessel capacity [TEU]



Maximum vessel capacity calling [TEU]



Source: Alphaliner, 2017 May

VIII - BOSPHOROUS STRAIT – PASSING VESSELS REVIEW

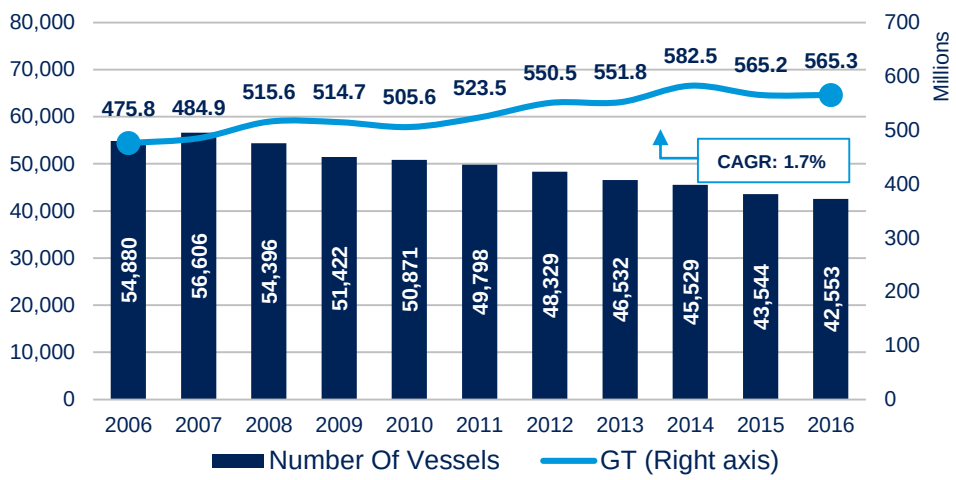
Restrictions regarding transit through the straits apply to both the Dardanelles and the Bosphorous Strait.

- Maximum air draft: 58m (only for Bosphorous);
- Maximum vessel draft: 20m;
- Maximum length(without special permission): 299.99m;
- Special permission can be given for vessels exceeding 300m (10,800TEU);
- Only daylight navigation is allowed then in the straits.

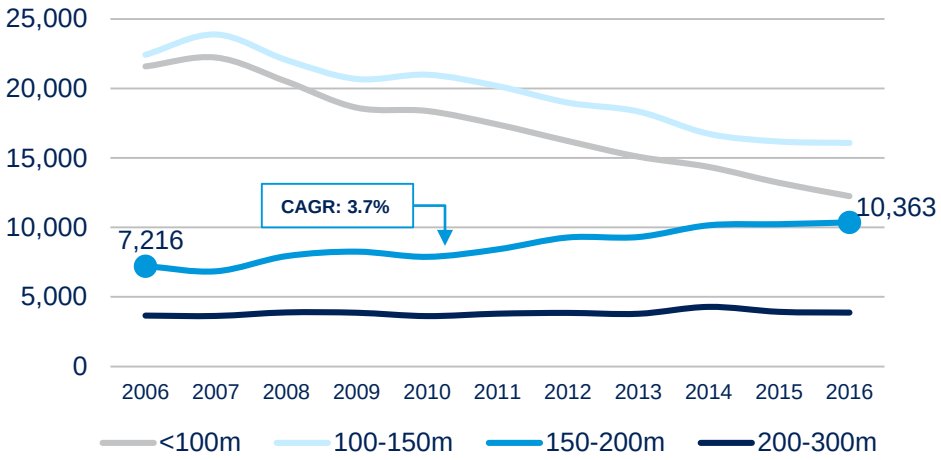
⇒ Istanbul Canal? Increase vessel size potential in Black Sea.

⇒ Ukraine port dues are also very expensive compared with competition for larger vessels. Govt to intervene.

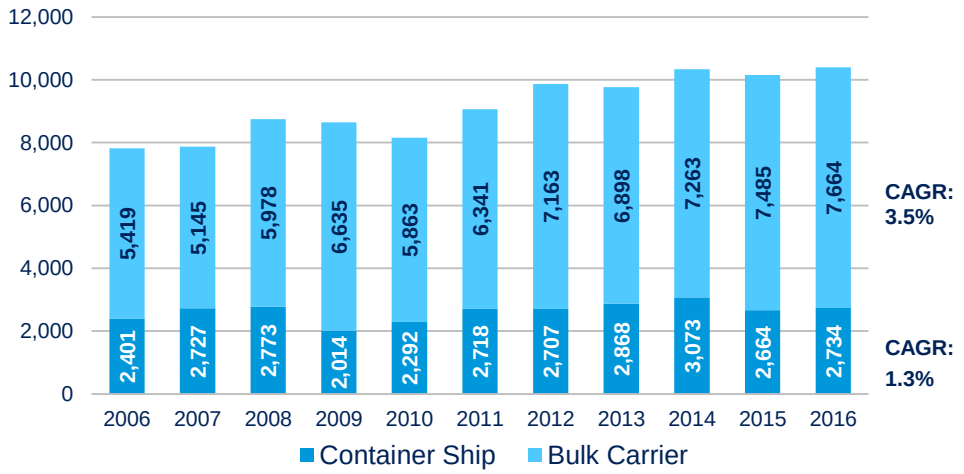
Number of vessels passing through the Bosphorous strait



Number of vessels passing through Bosphorous strait by vessel length



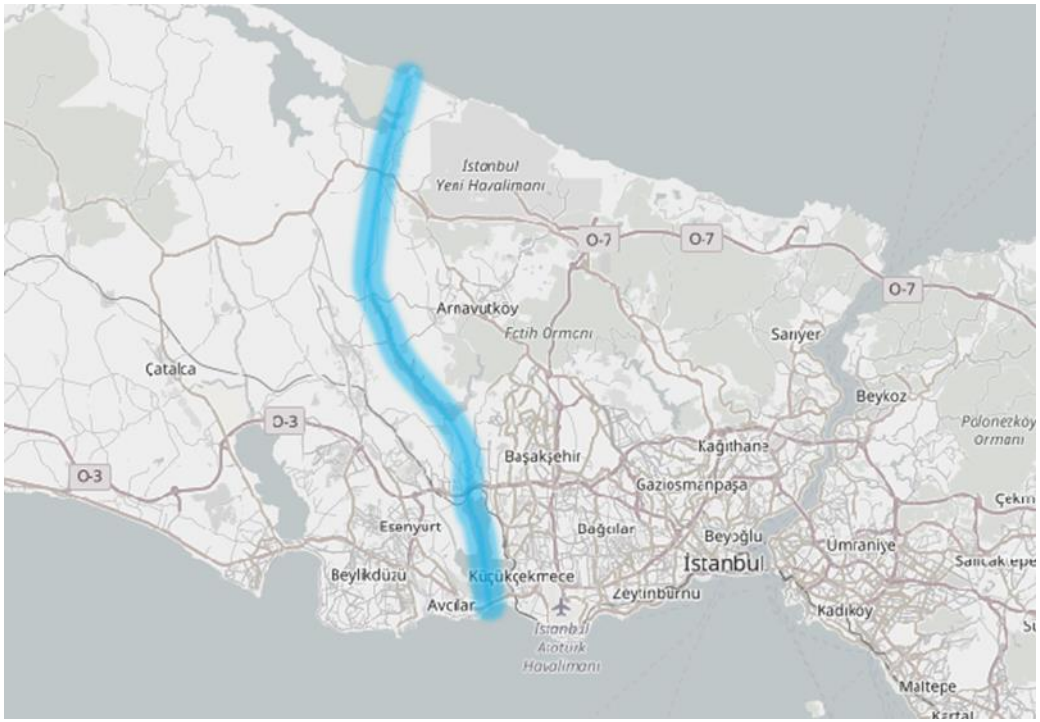
Container and Bulk vessels passing through the Bosphorous strait



Source: Ministry of Transport

IX – TURKISH CANAL

- Possible alternative to the Bosphorous Strait, with potential for larger vessels and less restrictive transits.
- At preliminary stages only, but strong backing in Turkey that suggests it may well go ahead.
- Intention is to develop large port facilities at either end of the Canal too.



X - CONCLUSIONS

- There will be pressure to handle much larger vessels on all deepsea trades.
- These vessels and larger consignment sizes will see the need for longer quays with improved access and larger (and heavier) cranes.
- New deepwater facilities in Black Sea region to attract some mainline/secondary trade services.
- Some opportunity for Black Sea transshipment hub to compete with East Med, although unlikely to be in Bulgaria.
- Although Black Sea region likely to still be served via feeder vessels, these vessels are likely to be bigger feeders.
- New investments in the Black Sea Area:
    - DP World
    - Hutchison
    - Anaklia
    - Upgrading of existing facilities

Major Game Changers:

- Alliance Developments;
- Changing Vessel mix;
- Increased transit through Iran to Caspian Sea States – politically now unlikely;
- Bosphorous Canal / Turkish Canal;
- Ukraine momentum;
- Russia-Turkey improved relations

THANK YOU

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