MARKET OUTLOOK

HPC

Ports in the region – Context

Container ports have two main functions: gateway ports function and transshipment port function. Gateway ports are the maritime gateways to their respective hinterlands and mainly handle export and import cargo. Ports like the Spanish ports of Valencia and Algeciras, the Tanger-Med port in Morocco, Malta's Marsaxlokk, Piraeus Port in Greece and the Port of Beirut in Lebanon, along with the Egyptian ports like Damietta port and East Port Said are transshipment hubs. These serve not only for freight moving throughout the greater Mediterranean region but also act as a connector to ports as distant as the Americas and Far East.

Provided that gateway ports provide a minimum level of performance and their hinterland do not overlap, the port location with its hinterland are the major determinants in the choice of a freight forwarder, carrier or consignor/consignee in selecting a port.

The Mediterranean Sea is one of the busiest shipping routes for commercial traffic and is used by the largest container ships, most of which are deployed on the Far East - Northern Europe routes. The major transshipment hubs shown in the figure below have been established in the east, west and central Mediterranean.

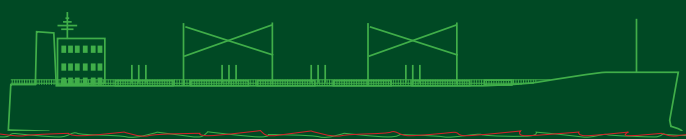


Figure 8: Major transshipment hubs in the Mediterranean

Source: HPC | Image: Google Earth

The Mediterranean Sea can be divided into three regions when it comes to transshipment traffic:

- The Western Mediterranean: Algeciras, Tangier.
- Central Mediterranean: Marsaxlokkk, Gioia Tauro.
- Eastern Mediterranean: Damietta, Port Said, Piraeus, Beirut.

Transshipment in these ports serve two functions: Regional redistribution traffic and sorting between mainline services. To the west and at the northern exit of the Mediterranean, this „relay" transshipment between North Europe and transatlantic services plays an important role.

Despite the increase in transshipment in most Mediterranean ports in recent years, growth has been slower than predicted. This is partly due to the impact of the even larger ships that are also deployed on services calling at Mediterranean ports from overseas ports that serve as gateways to Southern Europe. This trend is more important for services from the Indian sub-continent and the Far East to the Mediterranean.

Overview of Eastern Mediterranean Region

The Mediterranean has nine major transshipment hubs, of these two stand out because of their central location: the island of Malta's Marsaxlokk port and Gioa Tauro in Southern Italy. The strong development of the transshipment volumes at COSCO's container terminal in Piraeus is impressive and a direct correlation of the shipping line's engagement at the terminal.

Figure 9: Transshipment ports hubs in the Eastern Mediterranean

Source: HPC | Image: Google Earth

Transshipment volumes are footloose volumes that bring great risk and uncertainties to the hubs concerned, certainly when carriers are not (directly or indirectly via subsidiaries) financially involved in the terminal operations. Transshipment hubs base their competitiveness on a few critical factors e.g.:

- the geographical position.
- nautical accessibility.
- operational performance (fast and reliable), and
- pricing strategy.

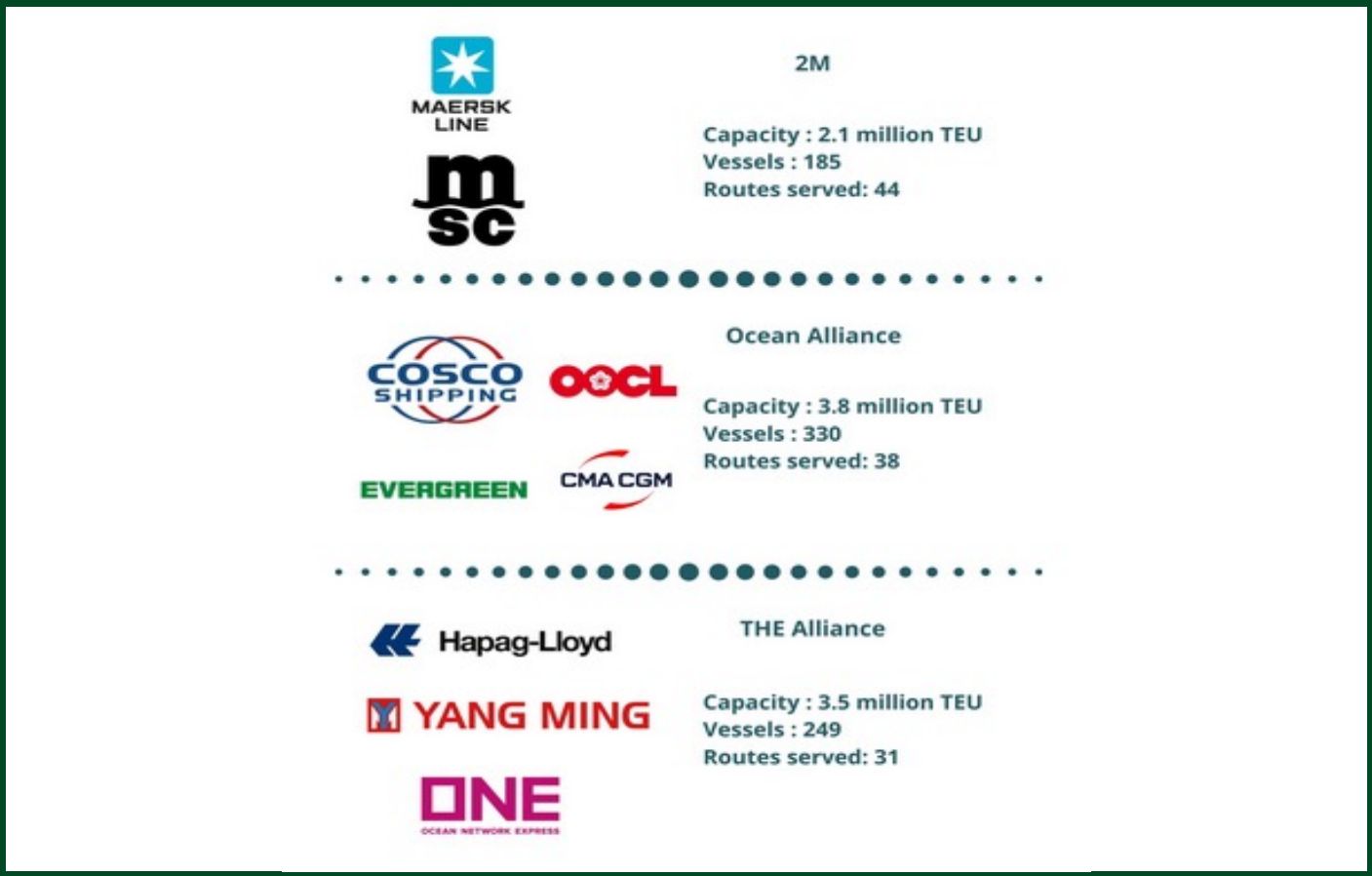
Taking the above into account, the Port of Beirut's position and role as a major transshipment container port and gateway port should be assessed. The assessment should include import and export volumes for Lebanon of other commodities such as dry bulk, liquid bulk and general cargo volumes. The Port of Beirut handles 82% of Lebanon's imports and exports and it controls over 98% of all containers handled at Lebanese Ports. The majority of cargo handled through the ports is destined for the City of Beirut and the Mount Lebanon District (ESCWA & PoB, 2020).

Transshipment Hubs

The development of a limited number of strategic alliances has created a strong concentration in the demand for container handling, putting this in a handful of players. In the Mediterranean Sea, carriers mostly invest in terminals for controlling pure transshipment hubs via wholly owned subsidiaries or partially owned subsidiaries. All main transshipment hubs have some form of involvement (directly or via terminal operating companies) from the top tier container shipping lines to better control costs and operational performance. Examples are e.g., Maersk Line which is based in Algeciras and East Port Said, COSCO Shipping Ports owns the port of Piraeus and has minority shares in a number of Spanish ports, while CMA CGM has a considerable involvement in the Marsaxlokk terminal.

Piraeus' rapid development and growth is predominately due to Piraeus Container Terminal (PCT), a subsidiary of China's COSCO Pacific. The take-over of COSCO and the completion of the upgrading of the container terminal (Terminal III) will increase the capacity to potentially 6.2 million TEU. This move has led to COSCO concentrating the transshipment traffic for the region in Piraeus.

Figure 10: Maritime alliances



Source: HPC

The development so far has shown that pure transshipment hubs experience higher throughput volatility than ports with a mix of gateway cargo and transshipment cargo (see e.g. the development at East Said Port). By striving for a demand mix (i.e. gateway cargo and transshipment cargo), port managers and policy makers involved in port management can expect to reduce throughput volatility and related negative external effects (Notteboom, Parola, & Satta, 2019). In the table below one can see the importance of container transshipment volumes for Port of Beirut and the BCTC container terminal.

Figure 11: Overview of container volumes including transshipment volumes

Country	Port	TEU (2018)	Transship-ment (2018)	TEU (2019)	Transship-ment (2019)
Cyprus	Limassol	394,000	78,800	408,000	81,600
Egypt	East Port Said Port	2,521,021	2,385,237	3,003,840	2,840,177
	El Sokhna	654,510	7,861	634,656	16,569
	West Port Said	584,397	227,819	654,319	268,061
	Damietta	1,150,630	691,391	1,068,002	582,814
Greece	Piraeus	4,409,000	3,571,290	5,160,000	4,179,600
Israel	Haifa	1,463,997	292,799	1,379,000	275,800
Italy	Gioia Tauro	2,328,218	2,211,807	2,522,876	2,396,732
Libanon	Beirut	874,609	431,146	734,645	494,436
Malta	Marsaxlokk	3,310,000	3,177,600	2,720,000	2,611,200
Romania	Constanta	668,016	133,603	666,036	133,207
Turkey	Ambarli (Istanbul Area)	3,194,196	638,839	3,104,882	620,976

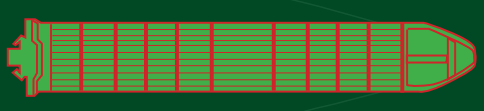
Source: Port of Beirut, secondary research, HPC

Port of Beirut's Role at National and Regional Level

The main hinterland for the port, apart from serving the demand from Lebanon, is transport to/from Syria, Iraq, Saudi Arabia, and Jordan. Estimated transport time for truck transport and transport costs are indicatively shown in the figures below (ESCWA & PoB, 2020).

The Port of Beirut is the most important and dominating port in Lebanon, followed by the Port of Tripoli, 80 km north of Beirut.

In 2019 the container terminal in the Port of Beirut BCTC, handled 1.23 million TEUs, whereas the Port of Tripoli handled approximately 80,000 TEU. The concentration of the population and industrial activities in the Beirut area result in approximately 70 percent of container volumes being distributed to this area and 30 percent to the other parts of Lebanon.



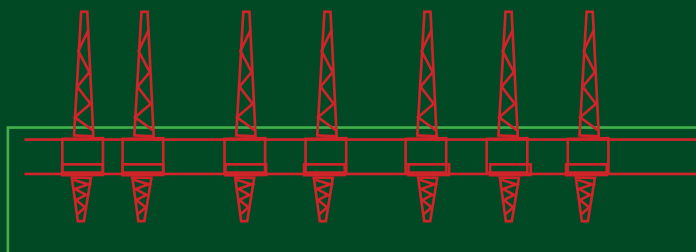
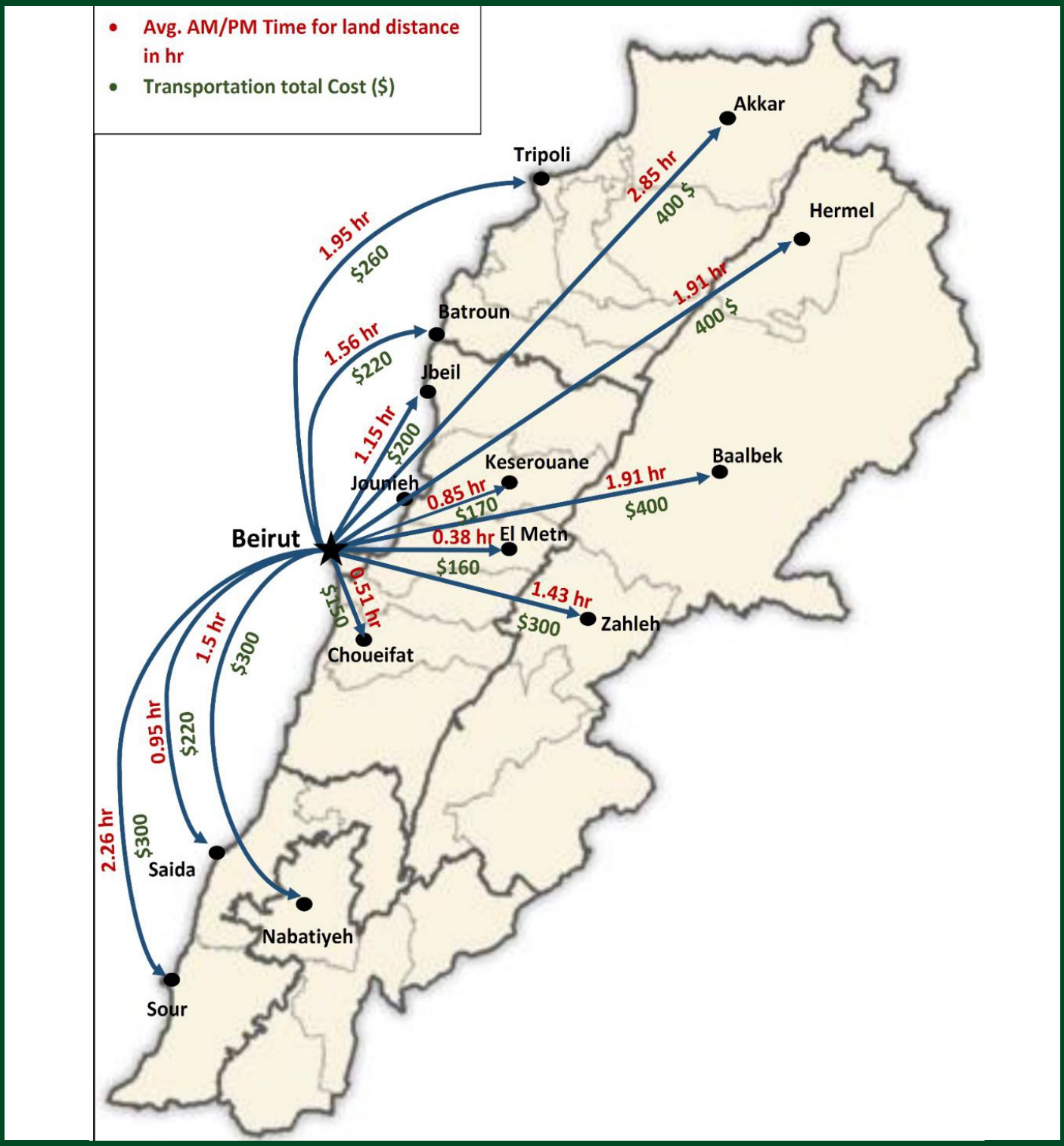


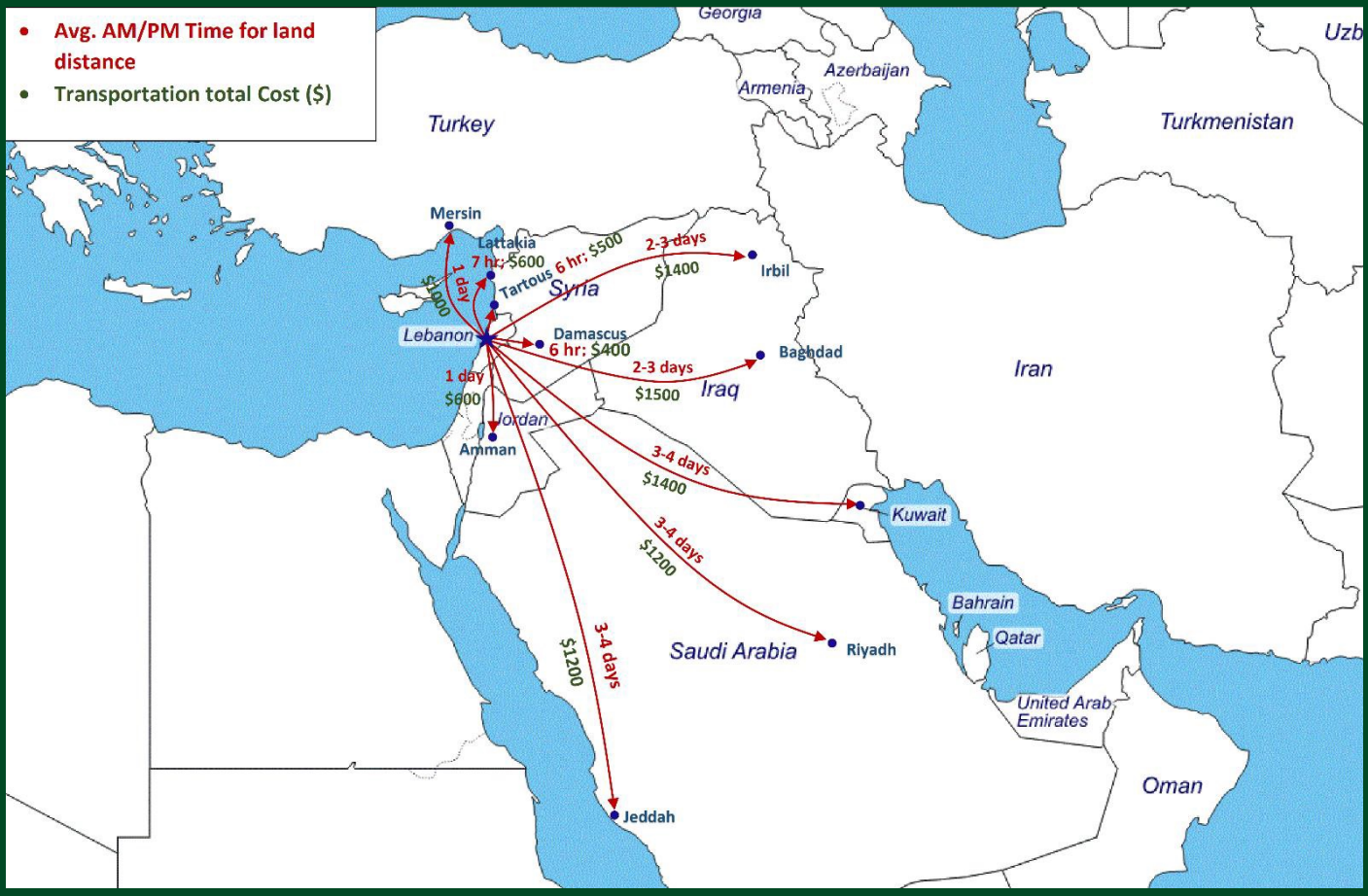
Figure 12: National hinterland transport - Transport time and costs



Source: HPC

Hinterland transports of container volumes to neighbouring countries currently include various destinations in Syria and some minor volumes to e.g. Iraq. These volumes are always transported by breakbulk trucks after the containers have been stripped in the port. Currently no containers can leave Lebanon, therefore Iraq, Saudi Arabia and Jordan have become increasingly competitive discharge and stripping areas. The development of the container terminals in e.g. Um Qasr (Iraq) and Aqaba (Jordan) have already altered the regional playing field, and planned developments in the area, will continue to do make this trade difficult for Beirut to dominate anymore.

Figure 13: Regional hinterland transport - Transport time and costs



Source: HPC

Overview of key industries

Lebanon's macro-economy currently finds itself in a problematic situation. In October 2019, the economy plunged into financial crisis brought about by a sudden drop-off in capital inflow and a corresponding exchange rate crisis. At the end of March 2020, the Government imposed a lockdown to counter COVID-19 and in August 4, 2020, a massive explosion rocked the Port of Beirut, causing severe damage.

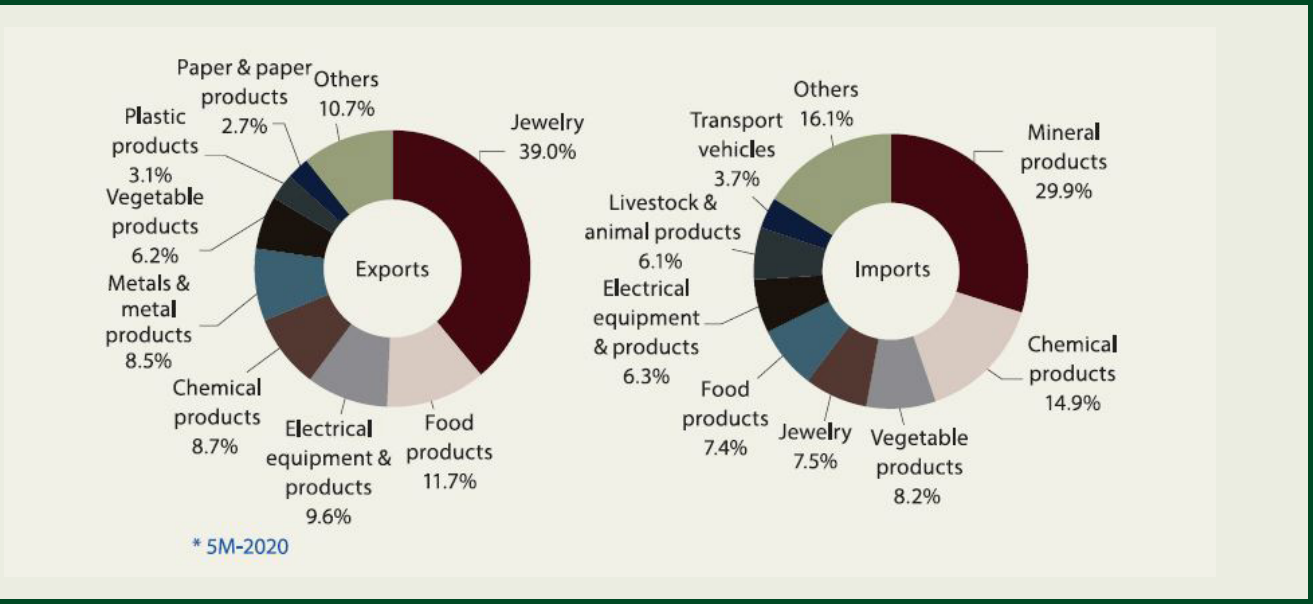
Real GDP is estimated to decrease by 19.2 percent this year and projected to decrease by a further 13.2 percent in 2021. Lebanon is experiencing a substantial contraction in economic activity and one indication of this is that cement deliveries and construction permits have experienced a decline of 55.7 percent 67.9 percent respectively, compared with Q1 2019. Net exports are expected to be the sole positive contributor to GDP, driven by falling import volumes (total value of imports declined by 48.7 percent during the first six months 2020, compared with the same period 2019) (World Bank, 2020).

The implications of a sudden decline in capital inflow for an economy with a high import ratio for its consumption basket, combined with an inability to sufficiently produce substitute goods in the short term, has led to a steady depletion in foreign exchange reserves. Added to this was the inflation rate in 2020 which was estimated to be 70 percent. The latest foreign trade statistics for the first five months of 2020 suggest a net contraction in imports of 50.4 percent, alongside with a decline in exports, which caused a reduction in the trade deficit by 44.3 percent.

The breakdown of exports by product suggests that the most significant decline among the major categories was reported for plastic products with 43.1 percent, followed by paper and paper products with 35.7 percent, chemical products with 26.1 percent, metals and metal products with 21.5 percent and electrical equipment and products with 19.0 percent. The report covered the first five months of 2020 compared to the same period in 2019.

The breakdown of imports by product suggests that the largest decline was reported for transport vehicles being by 70.4 percent, followed by metals and metal products with 69.1 percent, electrical equipment and products with 61.2 percent and mineral products with 57.7 percent.

Figure 14: Breakdown of exports and imports by commodity



Source: Bank Audi sal, Lebanon, Economic Report, 2020

Overview of competing ports development

In terms of competition between ports, one can differentiate between competitiveness between ports that are within the same country and located close to each other; and between ports that are located far away from each other. A different type of competitiveness also exists with regards to the transshipment of containers. As described above, container shipping lines use different terminals based on the perceived optimal routing for the respective shipping line, including the ownership of the container terminal.

Good hinterland connections are of increasing importance for the competitiveness of a port as well as the related processes of developing trade corridors. By doing this, the goal is to integrate the port system into a multimodal transportation network in order to improve market access, fluidity of trade and the integration in an industrial network. In this context, a port must have interfaces between major ocean trade and economic activities of the ports and inland terminals that provide intermodal structures and connections between the fore- and hinterland.

To be able to reduce port-related road congestion a strategy of shifting to other hinterland transport modes, such as rail, inland waterways, pipelines and short sea shipping can be pursued. At the Port of Beirut the main transport mode is by truck, or alternatively short sea transports.

Regarding competition between ports and container terminals in Lebanon the following ports have been considered relevant as potential competitors to the Port of Beirut due to their respective geographical proximity:

- Lebanon – Port of Tripoli.
- Syria – Port of Tartous, Port of Lattakia.
- Israel – Port of Haifa, Port of Ashdod.

To estimate their respective competitiveness different competitive factors have been assessed for the ports concerned.

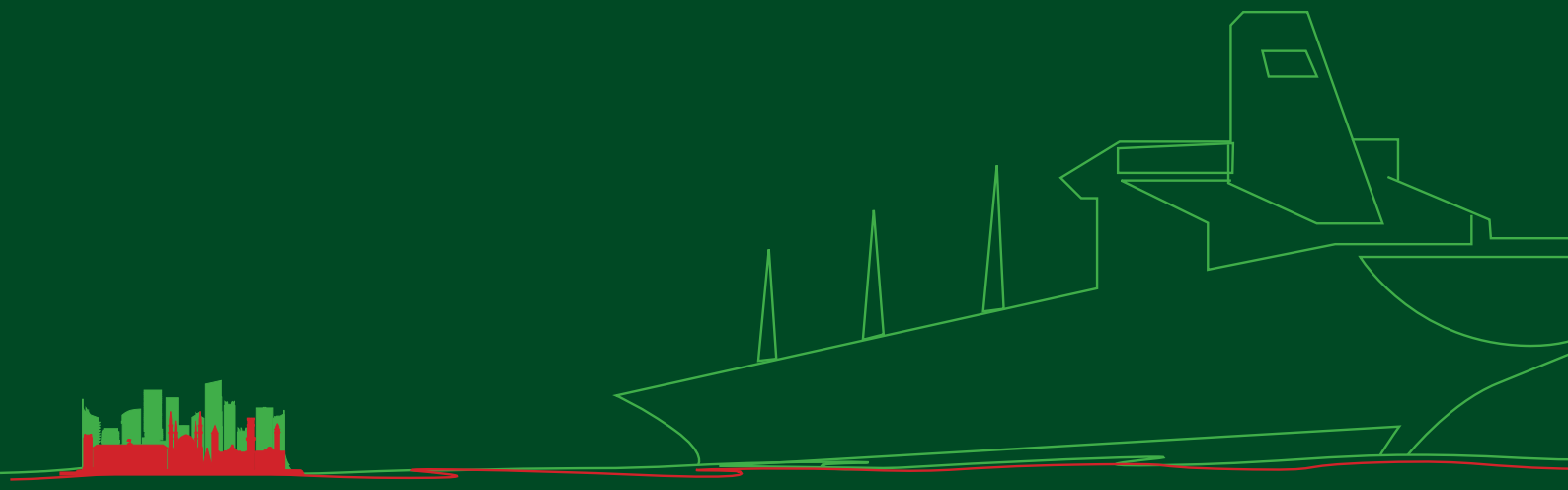
Figure 15: Port competition analysis

Port Competition Analysis	Ports					
Criteria - Assessment of current situation	**Beirut**	**Tripolis**	**Tartous**	**Lattakia**	**Haifa**	**Ashdod**
A. Situation after the explosion 4.8. 2020						
1. Market and Location Strengts						
Close to popoulation centre (>2.5 million inhab.)	5	3	1	1	1	1
Close to production cluster (existence of industrial zones nearby	5	3	1	3	5	3
Strategic location to atract main line shipping services (container)	5	3	1	3	5	5
Regular ship calls (>100/year)	5	3	3	3	5	5
Large number of shipping related companies in the port	5	1	1	3	5	5
Sum	*25*	*13*	*7*	*13*	*21*	*19*
2. Maritime Access						
Sufficient depth >14 m						
*access channel	5	3	5	5	5	5
* berths	5	3	3	3	5	5
Short access channel (less than 4 nm)	5	5	3	3	5	5
Sum	*15*	*11*	*11*	*11*	*15*	*15*
3. Port Equipment Handling Capacity						
More than 8 STS Gantry Cranes	5	3	3	3	5	5
General cargo handling productivity (>500 tons/h) ***Comment: Capacity reduced since 4.8.202*** 0	3	3	1	1	5	5
Dry bulk/Grain capacity - automatic unloading with > 1,000 tons/h, (No grabs used) **Comment: Capacity reduced since 4.8.2020**	1	1	1	1	5	5
Sum	9	7	5	5	15	15
4. Hinterland Access (shipping lines'/forwardes' views)						
Hinterland economic size	5	3	1	3	3	3
Road connectivity						
* good connections to/from the port	5	3	3	3	5	5
* good connections/accessibility to the main local and international network	5	3	3	3	5	5
*intermodal accessibility	0	0	0	0	3	3
	10	6	6	6	13	13
Total	59	37	29	35	64	62

Source: Alphaliner, Port websites, Logistics assessments, UN statistics, interviews, HPC

The competition assessment shows that the Port of Beirut has a leading position together with the Port of Haifa and the Port of Ashdod in terms of technical parameters. The explosion 4th August resulted in the drastic reduction of general cargo and grain handling capacity in the Port of Beirut. Prior to the explosion, the Port of Beirut had the highest ranking.

The Israeli ports Haifa and Ashdod get a high technical ranking but can currently not be seen as real alternatives to the Port of Beirut due to the fact that the current legislation does not allow any imports via Israel to Lebanon. Whether this will change in the future is difficult to assess, but not likely to happen in the short term. Aside from their lower ranking, the current legislation in Syria does not allow Lebanese cargo to be imported via the Syrian ports, which means that they are also not a realistic alternative.



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