



THE EUROPEAN CONTAINER PORT SCENE 2019 AND OUTLOOK FOR 2020



**PortEconomics**

Professor Theo Notteboom, Shanghai Maritime University, Shanghai, China; Ghent University, Belgium; Antwerp Maritime Academy, Belgium; and University of Antwerp, Belgium

The year 2019 brought a range of challenges and opportunities for European container ports. In this contribution we summarize the main developments and present an outlook for 2020.

CONTAINER VOLUMES UP, BUT CONCERNS ABOUT RISING TRADE BARRIERS

The year 2019 will go down in history as a year that brought healthy container volume growth for most European container ports, although growth slowed down in the second quarter. The year-on-year growth figures for the top 15 European container ports in the first nine months of 2019 were particularly high in Piraeus (+20.7%), Valencia (+8.3%), Algeciras (+7.2%), Hamburg (+6.9%) and Antwerp (6.4%), closely followed by Gdansk (+5%), Barcelona (+4.1%), Le Havre (+4%) and Rotterdam (+3.8%). Containerised throughput in Genoa saw a close to zero growth, while Bremerhaven, Felixstowe

and Southampton are expected to end 2019 with traffic losses.

The top four European container ports have remained unchanged since the start of containerization in Europe in the late 1960s: the Dutch port of Rotterdam (14.5 million TEU in 2018), the Belgian port of Antwerp (11.1 million TEU) and the German ports of Hamburg (8.73 million TEU) and Bremerhaven (5.45 million TEU) have always occupied the top spots in TEU terms in the European container port system. These four ports are all located in the so-called Hamburg-Le Havre range in northwest Europe. The hegemony of these top four container ports is now undermined by strong growth in the main container ports in the Mediterranean. The growth figures in Q3 2019 confirm that Bremerhaven is very likely to lose its number four spot in the European container port rankings. In 2019, Piraeus will unseat Bremerhaven to become

the fourth largest container port in Europe. Even Valencia and Algeciras are likely to overtake Bremerhaven in 2019 pushing the German port to position seven in the European container port ranking. However, the position of the top three European container ports remains undisputed. While Rotterdam and Antwerp have recorded healthy growth figures in the past five years, 2019 brought container growth back to Hamburg after many years of stagnation.

The planned Brexit, the uncertainty over the China-US trade war and the difficulties surrounding new bilateral and multilateral trade agreements are just some of the developments affecting free trade. The resulting volatility and uncertainty in global trade flows challenges European container ports and port actors and forces them to demonstrate a high level of flexibility and resilience. The pressure on container flows is likely to remain high in 2020 despite

the partial relocation of manufacturing activities from China to other countries (such as Bangladesh, Vietnam, Indonesia, but also countries in East Africa) and some level of reshoring and nearshoring of industrial and semi-industrial activities. Overall, there are growing concerns about lower GDP growth levels and rising trade barriers which are expected to negatively affect global container volumes and freight rates. Therefore, prospects for 2020 seem somewhat gloomy compared to the results achieved in 2019.

DYNAMICS IN CONTAINER LINER SHIPPING

The risk of persistent slower volume growth is having an impact on the competitive pressure and the behaviour of container shipping lines. The year 2019 did not bring any large-scale mergers and acquisitions in the industry. Thus, it remained very calm at the M&A front after one of the biggest consolidation waves in the container shipping industry in the period 2014-2017 (e.g. Cosco/China Shipping, CMA CGM/NOL, Hapag Lloyd/UASC, Maersk Line/Hamburg Sued and the creation of ONE, a Japanese super carrier combination of K-Line, MOL and NYK Line). Furthermore, the alliance structure in liner shipping remained relatively unchanged throughout 2019 with the three big alliances still shaping the business: 2M, Ocean Alliance and THE Alliance. The only change involved the inclusion of South Korean carrier HMM in THE Alliance after some years of loose partnership with 2M. These alliances continue to have their full impact on port competition. As port loyalty is not guaranteed in the era of mega alliances and large individual carriers, winners of today could be the losers of tomorrow and vice versa. The year 2019 brought quite a bit of action at the regulatory front. After a lengthy consultation round, the European Commission (EC) concluded in late 2019 that the container shipping's consortia block exemption regulation (BER), which allows shipping companies to operate within alliance structures, does not damage competition and should be extended for an additional four years after the expiry of the current BER on April 25 2020. The decision is subject to a short feedback period. The likely prospect that alliances won't be outlawed by the EC reduces the risk of having a (new) shock wave affecting the container shipping market.

The industry will continue to face challenges in 2020. The uncertainty about global trade volumes affects the current demand/supply imbalance and increases the number of blank sailings. Moreover, container shipping companies are preparing for the implementation of the



IMO 2020 Sulphur Cap by shifting to low sulphur fuels or by installing scrubbers. The IMO rules have created a lot of uncertainty and volatility in the bunker market and pushed carriers towards the development of new fuel surcharge policies in the hope to pass on the costs associated with the IMO regulation.

At the same time, carriers continue to introduce ever larger container vessels despite growing concerns on the distribution of costs and benefits of these large ships among the actors involved and on the impact of mega ships on supply chains, terminal operations, public spending in nautical accessibility and the society at large. The year 2019 saw the arrival of ships of close to 24,000 TEU capacity, while several designs for units of more than 25,000 TEU have been revealed. It seems we have not reached the limits yet.

In response to the low margins in shipping and the demand of customers for door-to-door and one-stop shopping logistics services, shipping lines may extend the reach of their activities to other parts of the supply chain. In 2019, numerous container lines continued to extend their scope beyond terminal operations to include inland transport and logistics. The most striking cases of the past year were the take-over of CEVA Logistics by CMA CGM and the integration of Damco in Maersk Line. Many shipping lines are also heavily focusing on digital transformation. Through investments and initiatives in digital infrastructure and services, shipping lines are aiming for the creation of value-adding activities in the optimisation of operations, the development of advanced commercial decision-making instruments, and the development of new services that can generate new revenue streams (e.g. consultancy/advisory services related to logistics chains). Shipping lines are setting up co-operation schemes to support digital transformation processes. For example, Maersk, MSC, Hapag-Lloyd and ONE launched a digital container platform in 2019. This Digital Container Shipping Association (DCSA) has been established with the intention of setting standards for the digitalisation of container shipping to overcome the lack of a common foundation for technical interfaces and data.

TERMINAL CAPACITY PLANS AND BEYOND

Despite the existing market uncertainty, 2019 brought a new wave of large-scale terminal capacity plans and realisations. Rotterdam is capitalising on the two terminals on Maasvlakte 2 which opened about five years ago and on other large-scale facilities such as the Euromax terminal. The APM T terminal at Maasvlakte 1 is going to be transferred to HutchisonPorts. The port of Antwerp is awaiting the formal implementation of a capacity extension plan which should add a combined capacity of more than 7 million TEU spread over several locations in the port area. The Deurganckdock is now at the heart of the container business in Antwerp, particularly after the large scale MPET container terminal (TIL/PSA) moved from the Delwaidedock on the right bank to this dock in 2016. Hamburg has revealed plans for a partial reconversion of an existing port area. The port of Gdansk (1.95 million TEU in 2018) is working on the Central Port concept which could triple the container terminal capacity in the next decades. In the Mediterranean, the plan of Cosco Shipping Ports to increase Piraeus' capacity from 7 million to 10 million TEU by developing a fourth terminal was initially rejected by Greece's Port Planning and Development Committee. However, its realisation is eminent given the key position Piraeus plays in the Belt and Road initiative (BRI) of the Chinese government. The year 2019 was marked by other large-scale developments in the south of Europe such as:

- the opening of the second phase of transshipment hub Tanger Med in Morocco;
- the opening of Vado Gateway Terminal in northwest Italy, a 1.1 million TEU semi-automated facility operated by APM T and with Cosco Shipping Ports and Qingdao Port as minority shareholders;
- the extension plan for the port of Valencia: in May 2019 TIL presented the only bid to develop and operate a new terminal of 136ha and 1,970m berth length which will be developed in three phases between 2022 and 2026;
- the start-up of the concession procedure for the Vasco da Gama Terminal in the Portuguese port of Sines (1.75 million TEU in 2018) with a planned capacity of 3.5 million TEU and 1,375 m quay. The awarding phase is expected to be finalized in late 2020.

China has been in the news for much of 2019, also when it comes to European terminal activities and ports. Some of the highly visible examples of how China is enlarging its footprint in the European port system include Cosco Shipping Ports' control of Piraeus port; Chinese stakes in the new Vado Gateway Terminal; Cosco's involvement in the port of Zeebrugge; the majority stake of Cosco in Noatum Ports (active in Bilbao and Valencia), and the stronger involvement of China Merchants holding in the terminal network of CMA CGM through Terminal Link. New in 2019 is that Chinese players are expanding their investment strategy inland. For example, Cosco Shipping Logistics recently announced the development of a large inland terminal in Duisburg with the following ownership structure: Cosco 30%, Duisport 30%, inland shipping group HTS 20% and Swiss rail operator Hupac 20%. Also, Ocean Rail Logistics, a Greek subsidiary of Chinese Cosco Shipping took a share of 15% in Rail Cargo Terminal-BILK (Budapest) in late 2019. Next to terminal entry by large state-owned players such as Cosco and China Merchants Holding, there are many smaller and less visible transactions all around Europe involving Chinese investment holdings, construction companies and logistics actors with a diverse background. As the BRI is gaining momentum after its introduction in 2013, quite a few European seaports and inland logistics platforms are strategically positioning themselves in the fast developing Eurasian rail landbridges and the evolving Euro-China maritime connectivity.

While capacity extension plans, changes in terminal ownership and Chinese investments continue to shape the European container terminal business, the most remarkable advances in 2019 were made in the area of digital transformation and sustainability. Throughout Europe, container terminal operators have initiated an unprecedented wave of innovation projects in the area of (1) efficiency increases in terminal operations and TOS (quay, yard and gate); (2) advances in energy efficiency in terminal operations; (3) energy transition for yard and quay equipment; (4) on-shore power supply for ships; (5) increased transparency, visibility and optimisation in maritime-terminal-hinterland chains; and (6) reaching a greener hinterland modal split. Many of the newest innovations have been extensively covered in the 2019 issues of Port Technology International.

SMART AND GREEN PORTS

Innovation and IT are high on the agenda of many European container ports. In the past five years, more and more ports have come to understand that coordination

and integration in supply chains is key to their future competitiveness. Port-related actors and port authorities across Europe are developing initiatives to strengthen the interconnectivity of ports in physical, digital and operational networks. The number of initiatives in this area has grown exponentially in 2019 with the emergence of a wide range of platforms, incubators and new forms of partnerships and governance structures to make things happen. In this respect, the year 2019 can be marked as a key year that lifted many smart port ideas from concept to practice.

Sustainability, climate change and the environment are some of the other key concepts that have dominated port news and actions in 2019. Ports and terminals have become hotbeds for initiatives aimed at a further greening of supply chains and at reaching a more sustainable global logistics industry. Many ports have taken on a more enterprising role in dealing with the environmental, energy and climate change challenges, partly because environmental aspects play an increasing role in attracting trading partners and potential investors. A port with a strong environmental record and a high level of community support is likely to be favoured by market players. In 2019, we have been bombarded with a large stream of plans, initiatives and realisations of port-related actors in several fields of action including green shipping; green port development and operations; green inland logistics; seaports and the circular economy; and, actions in the field of knowledge development and information sharing. The long list of initiatives, actions and projects for each of these domains illustrates that the port communities are determined to reduce the environmental footprint of their activities and to make the transition to a more energy-efficient and circular economy. However, port communities also understand that the challenges remain immense and progress made is not at the same level in all domains of action. Many port ecosystems are challenged to drastically decrease their environmental footprints against a background of growth in volumes and investments. This requires drastic and large-scale solutions such as Carbon Capture and Utilisation (CCU) and Carbon Capture and Storage (CCS), a further push towards greener shipping, a strong modal shift and adoption of synchronicity, etc. Ports are part of larger networks and chains thus requiring co-ordination and co-operation between the actors involved in these networks and chains, thereby facilitated by technology, new governance and business models and facilitation and regulation by governments.

CONCLUDING REMARKS

In volume terms, 2019 was a good year for the European container port system. Despite the existing volatility and uncertainty in global trade flows and the huge environmental challenges, European container ports and port actors show a strong commitment to develop new terminal capacity and to move towards greener and more efficient operations. Some of the ports in the Mediterranean and the Baltic area are developing fast, while also the three largest container ports remain on a growth course. Europe's economic geography remains a key determinant of the traffic distribution among Europe's container ports, but the strategies of large market players, such as shipping lines and 3PL companies, and Chinese interests can have a growing impact on cargo routing patterns. As the European container market will remain very dynamic in 2020, the actors involved are challenged to push the digital and green agendas forward in order to remain competitive and resilient.

MORE THEO NOTTEBOOM PAPERS

ABOUT THE AUTHOR

Theo Notteboom is professor in maritime and port economics and management. He is Research Professor at China Institute of FTZ Supply Chain of Shanghai Maritime University in China, Chair Professor 'North Sea Port' at the Maritime Institute of Ghent University and a part-time Professor at Antwerp Maritime Academy and the Faculty of Business and Economics of University of Antwerp. He is co-director of PortEconomics.eu and council member and past president of the International Association of Maritime Economists (IAME).

ABOUT THE ORGANIZATION

PortEconomics is a web-based initiative aiming at generating and disseminating knowledge about seaports. It is developed and empowered by the members of the PortEconomics group, who are actively involved in academic and contract research in port economics, management, and policy. Since October 2012, Port Technology International and PortEconomics have been engaged in a partnership. www.porteconomics.eu

ENQUIRIES

Prof. Dr. Theo Notteboom
theo.notteboom@gmail.com