

THE EFFECTIVENESS OF
GLOBAL TERMINAL OPERATORS (GTO)
IN CONTAINER TRANSPORT AND ITS REFLECTIONS ON TÜRKİYE





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Preface

Global Terminal Operators (GTO) provide port users with the advantages of standardized services, access to international markets, transportation network and affordable freight rates due to calls of the mother ships and thus they have critical and crucial role in the foreign trade of the countries. Especially since GTOs are located and positioned on the main trade routes, they can offer competitive prices to their main customers, port users, Global Container Ship Operators in many parts of the world, thus gaining a competitive advantage in the entire supply chain, not according to a single port/country.

On the other hand, as in many countries where GTOs are in operation, the discussions distracting the public opinion that the foreign capital and investors have been taking over our ports and local port operators. This distracting misjudgement has also been asserted in Türkiye recently. This misinterpretation can easily lead to be end up in a wrong hypothesis that the local port operators and companies are losing their competitive advantage. In fact GTOs have been providing various advantages and competitive prices to the customers and port users as well as strengthened the port industry in terms of the technology, know-how, new investment, jobs etc. as a whole.

The main purpose of this report is to ensure that the content of the discussions on the subject coincides with the realities of the industry. For this purpose, the last 30 years of the global container transportation industry were evaluated in this re-

port and the details of the change GTOs' roles, which used to be a local actor in the past but now have a global identity and the inevitable consequences of this role change for Türkiye were also presented to the public.

We would like to thank our distinguished member ports for their support in the preparation of the report titled "The Effectiveness of Global Terminal Operators (GTO) in Container Transport and Its Reflections on Türkiye" and to our maritime business and port management expert Prof. Dr. Soner ESMER who is also a distinguished consultant of TÜRKLİM.

We hope that the report will be beneficial to the relevant parties.

**Port Operators Association of Türkiye
February 2022**



Executive Summary

Global Terminal Operators (GTO) are operators that carry out cargo/passenger/wheeled vehicle handling activities by investing in multiple countries in order to establish a worldwide terminal network. Port privatization practices that began during the 80s have laid a suitable foundation for the development of GTOs, and especially terminal operators with experience and capital strength, have sought new opportunities in new markets outside their countries.

Even though many entrepreneurs have increased their geographical scope by going through many difficult processes, few terminal operators became a GTO by managing multinational portfolios of terminal assets since the 1990s. GTOs have now become one of the critical players of the global container transportation system, especially where the barriers to entry into the industry are quite high.

The development success of GTOs is based mainly on two economic strategies. These strategies are called horizontal and vertical integration. While terminals develop cooperation with firms that are in the same line of business and produce similar services via horizontal integration (Port + Port, etc.), they cooperate with business branches that serve the same industry but require different levels of expertise (Port + Ship Line, etc.) via vertical integration. GTOs have expanded their global service network by transferring their skills to new markets via horizontal integration, and established strong cooperation with other relevant actors despite their ports and terminals' limited development opportunities.

GTO service levels have increased considerably due to the fact that they cooperated with conta-

iner ship lines, another important player in the container transportation industry, or created their own terminal structures to support maritime transport, which is the core activities of container ship lines. Over time, other business areas such as storage, internal transportation, customs clearance, etc. have been added to the scope of logistics activities in this vertical integration. As a result of these initiatives, it became possible for ship operators, the main users of GTOs, to reduce their total logistics costs and to handle the entire supply chain process by dealing with a single person. As a result of these initiatives, it became possible for ship operators, the main users of GTOs, to reduce their total logistics costs and to handle the entire supply chain process with a single person. Many container ship operators are known to strive to diversify their services by offering other logistics services today.

As cost factors began to be more prominent after the 2009 crisis, much more attention was paid to the choice of port location, risk assessment levels were increased, issues such as the capacity of the regions to be invested in, market development scenarios, uncertainties in cargo and ship traffic, tax structure, public / local government permits, licenses became more and more questioned.

However, the investments of GTOs' continued rapidly, and even the fact that they became pioneers in many issues such as Green Deal and energy efficiency, smart and innovative port operations applications, occupational health and safety, equipment modernization and digital transformation within the scope of the new world order, as well as becoming pioneers in the standards of the industry, turned GTOs into very strong structures on a global basis.

After 30 years of development, total number of GTOs reached 21 by 2020. These figures accounted for 80,5 % of the global container handling capacity and 75% of the world's total container handling capacity. Development is quite rapid. Indeed, it was reported in October and November 2021, when this report was written, that COSCO raised its stake in the Greek ports of Piraeus from 51% to 67% thus updating the share of GTO's to increase again¹. Today GTOs handle more than 80% of the global container handling volume, even though only 15 years ago this share was 55% at 220 million TEU. GTOs deploy in various parts of the world, especially on major maritime trade routes, reducing Global Container Ship Operators' and hence end users' cost in the supply chain and providing a global standard service.

It has been observed that the world's most important GTOs are interested in container terminals in our country and that they obtained privileges at public ports through privatization tenders over time. However, the area in which the GTOs have focused in Türkiye has been private sector ports, not public ports. GTOs are known to make direct investments in Türkiye on their own or through cooperation with existing terminal operators. There are three main reasons why these global players are interested in port management on the Turkish coast.

These are;

- Türkiye's geostrategic importance in the region,
- High potential of Türkiye's local cargo and,

- High volume of Black Sea bound transit containers in Türkiye (especially at the Sea of Marmara ports due to their location in a natural passage such as the Turkish Straits).

For all these reasons GTO activities in our country have gained momentum very rapidly since 2001, and the share of terminals in the partnership structure of the GTOs rose considerably after the 2010s.

By 2020, 8,2 million TEU of the 11,7 million TEU containers handled in Türkiye were handled by GTO partner ports, while the amount of handling in 100% locally owned and/or partnered terminals was recorded as only 2,6 million TEU.

GTO-partnered terminals have had the majority of container ports in Türkiye since 2015. GTO-partner structures accounted for 70,2% of the total while 100% locally partnered/owned terminals accounted for 22,4% and other foreign investors outside the GTOs such as international funds accounted for 7,4% in 2020.

While there are only DP World Yarımca and Turkish origin Yıldırım/Yılport as GTOs that operate a terminal with a 100% share ratio in Türkiye, GTOs also have certain shares in other terminals. In 2011, when The GTOs' handling volume was calculated to be 1,5 million TEU when their ownership share to total was used as a basis in 2011. The local share was calculated as 5 million TEU. Nevertheless, this balance has changed considerably in favor of GTOs over time. At this point, 2019 is a very important year as the total handling share (5,9 million TEU) of GTOs and foreign partners exceeded the local share (5,8 million TEU) for the first time. By 2020, the difference was widened to 300.000 TEU in favor of GTOs. Although the existence of GTOs in our country has some advantages and disadvantages, considering the global conjuncture, it is quite clear that their presence provides significant gains in many aspects. In fact, when the economic contributions of these advantages are taken into account, it can

¹ <https://asia.nikkei.com/Business/Transportation/China-s-COSCO-raises-stake-in-top-Greek-port-Piraeus-to-67>

be easily said that the benefits obtained by GTOs in Turkish foreign trade are considerably higher than the gains or benefits obtained by a GTO at our country. For example, the annual turnover volume of all ports in our country is about 10 billion USD, while the economic value of Turkish foreign trade carried out through our ports is over 200 billion USD. In particular, the standards that GTOs bring to our country in terms of the way they do business, their perspectives on occupational health and safety and performance, the access to international markets, the transportation network and freight advantages arising from the main ship calls are very critical for our foreign trade. These elements make a very important contribution to increasing the competitiveness of our country in international markets.

Owing to the keen interest of ship operators in particular, the existence of GTOs has now become inevitable not only for our country, but also

for all other countries that wish to participate in global trade. Adapting to the system instead of being excluded from the system will also benefit the port users in our country. Türkiye, on the other hand, is an important pioneer and member of the GTO system with the GTOs it owns and Turkish businesses that operate international ports.





TÜRKİYE'NİN GURURU TEKİRDAĞ DENİZİNİN

Dalgalarında



2020
yılında

Hizmet ihracatı
sıralamasında
Deniz Limanları arasında
1. sırada yer alarak,

2021
yılında

1,8 milyon TEU elleçleyerek
VE
Türkiye'deki bütün
transit konteyner elleçlemelerinin
%40'ını tek başına gerçekleştirerek,

2022
yılında

2,2 milyon TEU işlem
hedefleyerek,

SANAYİMİZE HİZMET ETTİK, ÜLKEMİZE DÖVİZ KAZANDIRDIK.

1. History of private terminal operators²

As late as the 1980s, public ownership and operation were the dominant models. While the forms of port governance differed greatly, from the municipally-owned ports in Northern Europe and the United States to the state-owned ports in France, Italy, and much of the developing world which included Türkiye, public ownership was dominant, and publicly managed port operations were prevalent. There were small examples of private businesses operating ports in the United States and European ports, none of which had a strategy to become a global operator. The institutional entry barriers for port terminal operations were remarkably high and limited to specific services. This contrasted with the shipping industry, where private ownership was almost universal.

Containerization³ particularly underlined how operationally deficient public port authorities adapted to growing time and performance requirements imposed on intermodal transport chains. The changes, slow at first, came from two directions:

- First, there was the belief that the transport industry as a whole should be divested to the private sector to promote competition. Ports were among the many sectors targeted by economic liberalization policies.
- Second, there was a policy recommendation from the World Bank that developing countries would do

well to free their highly controlled port industry by issuing concessions to organizations which are able to modernize their port industries and better manage operations. To facilitate required changes, the World Bank published a “Port Reform Tool Kit⁴” and described the impact of the reforms in its own reports.

These developments helped create what has become a global snowball of “Port Government Reforms”. The main theme of these reforms is “Port Devolution”. Through privatization practices, the public sector was gradually transferring its powers to the private sector, in turn demanding ports to be managed better and with more modern infrastructure. The first examples of terminal operators operating in different countries emerged during this period. Stevedore Services of America (SSA), already active in several US West Coast Ports, obtained concessions to operate facilities in Panama and several other smaller ports in Central America; Eurogate obtained concessions to operate Bremen and Hamburg while Contship Italia obtained concessions in Italy and Morocco. The World Bank’s proposed privatization practices allowed this opportunity.

The growing demand in port privatizations around the world and in Türkiye was in line with the astronomical growth of global trade in the 1990s. The privatization practices varied across the full range of privatization practices in the UK and concession contracts. However, the preferred method today is the Public-Private Partnership model. (Table-1)

Table-1 Forms of Port Terminal Privatization⁵

Form of Privatization	Comments
Sale	<ul style="list-style-type: none"> • Terminal is transferred on a freehold basis. • Requirement that it will be used only to provide terminal services.
Concession	<ul style="list-style-type: none"> • Long-term lease of terminal land and facilities. • Concessionaire undertakes specified capital investments to build, expand, or maintain the cargo-handling facilities, equipment, and infrastructure.
Capital Lease	<ul style="list-style-type: none"> • Private sector is not explicitly required to invest in the facilities and equipment. • Normal maintenance and replacement over the life of the agreement.
Management Contract	<ul style="list-style-type: none"> • Private sector assumes the allocation of terminal labor and equipment. • Provides services to the terminal users in the name of public owner. • The public sector retains control over all the assets.
Service Contract	<ul style="list-style-type: none"> • Efficient and transparent procedures.
Equipment Lease	<ul style="list-style-type: none"> • Involving leaseback arrangements or supplier credits. • Amortize the cost of new equipment. • Ensure a reliable supply of spare parts and, often, a guaranteed level of service/reliability from this equipment.

² <https://porteconomicsmanagement.org/pem/contents/part3/terminals-and-terminal-operators/>

³ Carrying cargo in containers instead of bulk at an increased rate.

⁴ Port Reform Tool Kit, <https://ppp.worldbank.org/public-private-partnership/library/port-reform-toolkit-ppiaf-world-bank-2nd-edition>

⁵ <https://porteconomicsmanagement.org/pem/contents/part3/terminals-and-terminal-operators/forms-port-terminal-privatization/>

Privatization has stimulated an almost global trend towards awarding port operational concessions, especially for container terminals. The reasons why container terminals were particularly prone to concessioning were related to the fast growth of international trade requiring massive and rapid capital investments.

If the opportunities to award operational concessions can be seen as an increase in demand, growth has also been greatly affected by an increase in the number of companies seeking concessions, with many becoming large port holdings known today as GTO.

GTOs in holding structure can be divided into three groups according to ownership structures:

- **Independent Stevedores:** Port terminal operators that expanded into new markets to replicate their expertise in terminal operations and to diversify their revenue geographically. For example, PSA International, which operates Mersin International Port (MIP), with headquarters in Singapore, is the largest global terminal operator coming from a stevedore background, followed by Hutchison Ports with headquarters in Hong Kong. Stevedores account for about 50% of the hectares controlled by terminal operators worldwide.

- **Container Ship Operators:** Invested in port terminal facilities to help support their core maritime shipping business. In many cases, hybrid structures are formed with separate business units or sister companies active in liner shipping or terminal operations. The terminal facilities can be operated on a single-user dedicated base or alternatively also be open to third-party shipping lines. APM Terminals, a Maersk Line sister company, and TIL, a MSC sister company, are the largest global terminal operators from a maritime shipping background. Shipping lines account for about 31% of the hectares controlled by terminal operators worldwide.

- **Financial Holdings:** Include various financial interests ranging from investment banks and retirement funds to sovereign wealth funds attracted by the port terminal sector as an asset class, and with revenue generation potential. The majority have an indirect management approach, acquiring an asset stake, and leaving the existing operator to take care of the operations. Very few of the others will directly manage the terminal assets through a parent company. DP World, a branch of the Dubai World sovereign wealth fund, is the largest global terminal operator coming from a financial background. The main reason why financial holding companies became interested in having port terminal assets in their portfolio is that they were perceived to have a high-value proposition. Holdings account for about 19% of the hectares controlled by terminal operators worldwide. (Table-2)

Table 2 - Value Proportions behind the Interest of Equity Firms in Transport Terminals⁶

Asset (Intrinsic Value)	Diversification (Risk Mitigation Value)	Source of Income (Operational Value)
<ul style="list-style-type: none"> • Terminals occupy premium locations (waterfront). 	<ul style="list-style-type: none"> • Sectoral and geographical asset diversification. 	<ul style="list-style-type: none"> • Income (rent) linked with traffic volume
<ul style="list-style-type: none"> • Globalization made terminal assets more valuable. 	<ul style="list-style-type: none"> • Mitigate risks linked with a specified regional or national market. 	<ul style="list-style-type: none"> • Constant revenue stream with limited, or predictable, seasonality.
<ul style="list-style-type: none"> • Traffic growth linked with valuation. 		<ul style="list-style-type: none"> • Traffic growth expectations result in income growth expectations.
<ul style="list-style-type: none"> • Same amount of land generates a higher income. 		
<ul style="list-style-type: none"> • Terminals as liquid assets. 		

This diversity of terminal operators has created a structural change effect in the port operation industry. With terminal operators having a more advanced interaction with the supply chains and container ship operators having worldwide terminal assets, leading terminal operators have started to control major parts of the supply chain and develop different strategies for improving services. These strategies are based on the Horizontal and Vertical integrations, details of which will be given in the following sections of our report.

Figure-1 shows the terminal areas in hectares where the leading container operators are active. Global operators that spread to almost every ocean shore are constantly increasing their activities in global supply chains around the world. 13 terminal operators operate in area over 486 hectares of terminal size, while 52 operators operate in area over 200 hectares. Beyond the three main categories, other types of companies are also involved in container terminals operations with relatively smaller share:

⁶<https://porteconomicmanagement.org/pemp/contents/part3/terminals-and-terminal-operators/value-propositions-interest-equity-firms-transport-terminals/>

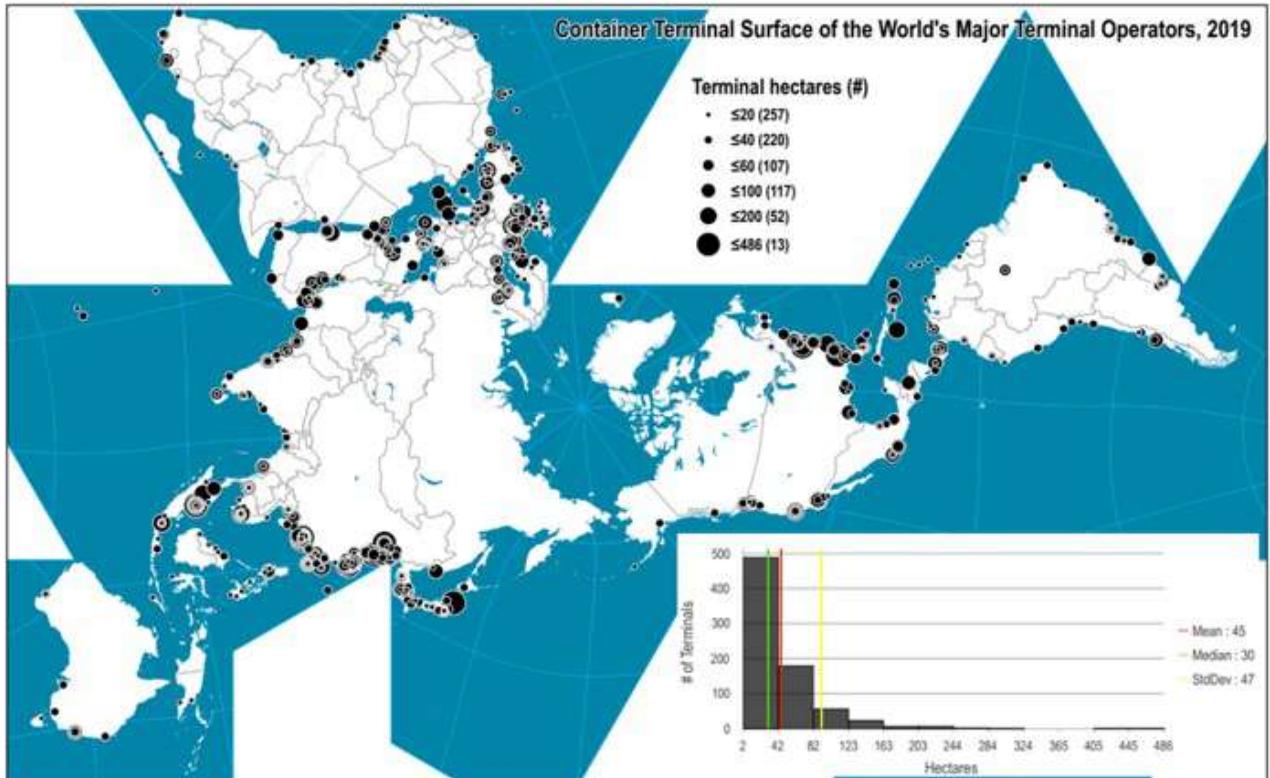


Figure-1. Container Terminals of the World's Major Terminal Operators, 2019⁷

Beyond the three main categories, other types of companies are also involved in container terminals operations with relatively smaller share:

- **Freight transport companies:** They are involved in a wide range of freight services such as shipping agents, freight forwarders, road and rail transport companies, and third-party logistics service providers. Examples include Bollore (France), Arkas (Türkiye), Wilson (Brazil), Kuwait Gulf Link, Rennies (South Africa), Korea Express (South Korea), Nippon Express (Japan), Severstaltrans (Russia), and Kontena Nasional (Malaysia).

Construction companies: Primarily large engineering firms that have become involved in container terminal concessions through Private Finance Initiatives or attempts to secure terminal construction contracts. Examples include Limak and Cengiz Holding from Türkiye as well as Acciona (Spain), Gammon (India), Tribasa (Mexico), Tucuman (Brazil), Samsung Corp, and Hyundai Development (both South Korea).

Equipment manufacturers: These are small specialist companies that have moved into concessions from their original base in equipment servicing. Examples include Portek (Singapore), ABG Heavy Industries (India), and Mi-Jack (USA). It is worth noting that none of the major manufacturers of container terminal equipment (quay cranes, RTGs) have been involved in bids for terminal concessions.

Being involved in terminal operations could be perceived as an unfair competitive practice since they would be providing equipment to competing operators. Major manufacturers are suppliers rather than concessionaires through vertical integration. Cooperation between APM terminals and their equipment manufacturer ZPMC is a nice example⁸.

Property developers: These are companies based mainly in Hong Kong and Southeast Asia, and have diversified from commercial/residential developments into the provision of concessioned infrastructure. Examples include New World, Fairyoung, Henderson (HK), Metro Pacific Investment Corp, and Brisas del Pacifico (Colombia).

Industrial conglomerates: These are either diversified holding companies or large manufacturers (such as steel or cars) regarded by their governments as national champions with the management ability to develop strategic assets. An important sub-set of this group comprises wealthy or well-connected individuals or families who have become involved because of their links to governments. For example, Sabancı and Koç Group in Türkiye, the Motta and Heibron families in Manzanillo (Panama), the Suharto family in Indonesia or Dato Ahmad Sebi at Westports in Port Klang. Other examples of industrial conglomerates that operate their own container terminal ports include CITIC (China), Syanco (Saudi Arabia), FIAT, Mitsui, Tusdeer, CSN (Brazil), Razon Group (Philippines), Evyap Group (Türkiye), Borusan (Türkiye), Ege Gübre (Türkiye), Mardaş (Türkiye) and John Keells Holdings (Sri Lanka).

⁷ <https://portconomicsmanagement.org/pemp/contents/part3/terminals-and-terminal-operators/container-terminals-worlds-major-port-holdings/>

⁸ <https://www.apmterminals.com/en/news/news-releases/2021/211021-apm-terminals-and-zpmc-enter-into-strategic-alliance>

Several of the companies operating container terminals are multi-faceted, often belonging to larger corporate entities covering a wide range of economic activities. Terminal operators within the groups mentioned so far which have ex-

panded the geographical scope of their services and serve in many countries, have gained a global character over time. The details of these businesses, called Global Terminal Operators, are given under the next heading.

2. Global Terminal Operators (GTO)

Like many multinational corporations, global terminal operators are market seekers that expand their business opportunities through an entry into new markets. A terminal can grow organically, but this is a rather slow process. A much faster growth rate can be achieved through the acquisition of terminal facilities in new markets.

Global Terminal Operators: Operators who carry out cargo handling operations by investing in multiple countries with the purpose of establishing a terminal network.

A few companies were able to become major global terminal operators controlling a multinational portfolio of terminal assets since 1990s.

- The setting up of global terminal operators took place in three main waves:
- The first wave included companies like HPH, P&O Ports, and SSA, which expanded their operations on a geographical scale, thereby benefiting from the port privatization schemes in many regions across the world. HPH, which originated as a terminal operator in Hong Kong, first purchased Felixstowe (1991), the largest UK container port. It developed a portfolio of more than 50 terminals worldwide, including in Rotterdam and Shanghai.
- As soon as the strategies of the pioneers proved to be successful, the second wave of companies started seeking expansion internationally, such as PSA, CSX World Terminals, and Eurogate. PSA has been active in securing concessions in China and Europe, including Antwerp and Genoa. Like HPH, PSA takes its origin from globally-oriented ports offering limited local terminal expansion opportunities.

- The third wave of terminal operators emerged when major container carriers entered the terminal industry in an effort to support their core business. This also included financial holdings such as DPW that have grown through acquisitions, such as P&O Ports⁹ for 6,8 billion USD in 2006 and CSX World Terminals¹⁰ for 1,15 billion USD in 2004, and by securing concessions in new markets. Shipping lines have also participated in terminal concessions but to a lesser extent. The most important is the in-house terminal operating company of Maersk; APM Terminals. Besides, Evergreen, COSCO (via COSCO Shipping Ports), MSC (via its majority shareholding in TIL – Terminal Investment Limited), and CMA-CGM (via its majority shareholding in Terminal Link) hold port terminal leases. Between the dedicated terminal operating companies and the shipping lines, a global pattern of concessions is evident.

Despite being global, large terminal operators have a strong regional orientation, which indicates their transnational level. Global container terminal operators show varying degrees of involvement in the main cargo handling markets around the world. Complex and geographically diversified portfolios were established in virtually every freight market of the world. The container terminal has become a fundamental node in global freight distribution, with the managerial and operational expertise offered by global holdings an important element in its performance in terms of capacity and reliability which have been redefined by increased level of standards. Details of key development strategies of GTOs are given detailed under the next heading.

⁹ <http://www.dailystar.com.lb/Business/Middle-East/2006/Feb-11/68291-dubai-ports-to-acquire-po-in-68-billion-deal.aspx>

¹⁰ https://www.joc.com/maritime-news/dubai-ports-buy-csx-world-terminals_20041208.html



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3. The key strategies of GTOs^{11,12}

GTOs began to seek to use their expertise in new markets, seek new income sources and extend their control over other links in the transport chain via Horizontal and Vertical integration.

Terminal operators have developed collaborations with businesses in the same business line as themselves that serve similar services (Port + Port, etc.) in horizontal integrations. On the other hand, with vertical integration, they also cooperate with businesses in the sector with business branches which serve the same sector but require different levels of expertise. For example, when container ship operators, who

are responsible for transporting the cargo at sea, cooperate with container terminal operators, this is explained with the “Vertical Integration” model.

These types of integrations, which are the cornerstones of GTO strategies, have taken on various forms in terminal operators, maritime shipping companies and financial holdings. In addition, it can be stated that there is a third strategy followed by very strong financial holdings. Financial holdings have entered the terminal operations business and diversified their portfolio through terminal assets and have been quite successful in this regard. (Table-3)

Table-3. GTO Typology¹³

Stevedores	Maritime Shipping Lines	Financial Holdings
Horizontal Integration	Vertical Integration	Portfolio Diversification
Port operations is the core business. Investment in container terminals is for expansion and diversification.	Maritime shipping is the main business. Investment in container terminals is a support function.	Financial assets management is the main business. Investment in container terminals is for valuation and revenue generation.
Expansion through direct investment.	Expansion through direct investment or through parent companies.	Expansion through acquisitions, mergers and reorganization of assets.
PSA (Public), HHLA (Private), Eurogate (Private), ICTS (Private), SSA (Private).	Maersk (Private), Cosco (Public), MSC (Private), APL (Private), Evergreen (Private).	DPW (Egemen Servet Fonu), Port America (Fon), Macquaire Infrastructure (Fon), Morgan Stanley Infrastructure (Fon).

The range and scope of these types of integration is increasing day by day. Indeed, one of the most significant and concrete examples of this was made public on December 1st, 2021. According to the information provided, PSA International of Singapore, one of the most important global terminal operators to be mentioned later in the report, announced its acquisition of BDP International, also a global logistics company¹⁴. Such acquisitions and mergers have occurred in the past among ship operators and logistics enterprises (CMA CGM acquisition of Ceva¹⁵, Maersk acquiring Damco¹⁶ etc.). However, it was the first time that a GTO, as a terminal enterprise, has acquired a global logistics company of this size and proportion. These acquisitions provide us with much concrete evidence of terminal operators' aspirations to become dominant in the supply chain, just like ship operators do. Such purchases should be expected to continue in the near future.

Several strategies in addition to Horizontal and Vertical integration explain the growth of GTOs and their diffusion as key stakeholders in port terminals¹⁷:

- **Profitability:** By modernizing port operations, mainly through better equipment, information systems, and management, GTOs managed to increase the profitability of their terminal assets. Because of their scale, management, and efficiency, GTOs operators tend to be more profitable. This in turn increases the attractiveness of the industry. For instance, Hutchison Ports achieved a high level of 35% per year return on investment in the early 2000s. Port management was very lucrative, inciting others to expand existing assets and new players to enter the field. Since 2010, profit margins in terminal operations have become thinner, further underlining the advantage of efficient terminal operation practices.

¹¹ <https://porteconomicmanagement.org/pemp/contents/part3/terminals-and-terminal-operators/>

¹² Drewry, *Global Container Terminal Operators, Annual Review and Forecast 2021/22*.

¹³ <https://porteconomicmanagement.org/pemp/contents/part3/terminals-and-terminal-operators/typology-global-port-operators/w>

¹⁴ <https://www.straitstimes.com/business/economy/psa-to-acquire-us-supply-chain-company-bdp-international>

¹⁵ <https://www.supplychaindive.com/news/CMA-CGM-public-tender-offer-CEVA/548355/>

¹⁶ <https://theloadstar.com/scd-damco-is-gone-where-do-maersk-forwarders-and-shippers-go-from-here/>

¹⁷ <https://porteconomicmanagement.org/pemp/contents/part3/terminals-and-terminal-operators/>

- **Financial assets:** Port holdings have the financial means to invest in infrastructures as they have a wide variety of assets and the capacity to borrow large quantities of capital. They can use the profits generated by their profitable terminals to invest and subsidize the development of new terminals, thus expanding their asset base and operating revenues. Most are listed on equity markets, allowing access to global capital, which supports the freight transport sector as a source of returns driven by traffic growth fundamentals. This financial advantage cannot be matched by port authorities, even those heavily subsidized by public funds. In other cases, terminals have become financial assets that can grow more valuable as the traffic they handle increases. Financial holdings, such as retirement funds, have considered transport terminals and port terminals as assets for their portfolio.
 - **Managerial expertise:** Port holdings excel in establishing procedures to handle complex tasks such as the loading and unloading sequence of container ships and all the intricacies of terminal operations. Many have accumulated substantial experience in terminal design and the management of containerized operations in a wide array of settings. Therefore, they are able to transfer managerial expertise to new terminals. Being private entities, they tend to have better customer service and considerable flexibility to meet the needs of their clients through service differentiation. This also includes the use of well-developed information systems and the capacity to quickly comply with legal procedures related to customs clearance and security.
 - **Gateway access:** From a geographical standpoint, most port holdings follow a strategy to establish privileged positions to access hinterlands. Doing so, they secure a market share and can guarantee a level of port and often inland transport service to their customers. This can also be seen as a commercial strategy where a stronghold is established, limiting the presence of other competitors and creating a situation of monopoly. Gateway access thus provides a more stable flow of containerized shipments since gateways tend to endure as global connectors. The acquisition of a new port terminal is often accompanied by the development of related inland logistics activities by companies related to the port holding.
 - **Leverage:** A port holding is able to negotiate favorable conditions with maritime shippers and inland freight transport companies, namely around rates, access, and level of service. Some are subsidiaries of global maritime shipping lines (such as the A.P. Moller group controlled by the shipper Maersk). In contrast, others are directly controlled by them (such as Evergreen) so they can offer a complete logistical solution to international freight transportation. They are also better placed to mitigate pressures from port authorities to increase rents and port fees. The balance of power is more in maritime shippers' favor than it is of the port authorities they negotiate with.
 - **Traffic capture:** Because of their privileged relationships with maritime shipping lines, port holdings are able to capture and maintain traffic for their terminals. The decision to invest is often related to knowing that the terminal will handle a relatively secure number of port calls. Consequently, the level of traffic and revenue can be secured more effectively.
 - **Global perspective:** Port holdings have a comprehensive view of the state of the industry and are able to interpret political and price signs to their advantage. They are thus well placed to influence the direction of the industry and anticipate developments and opportunities to offer global solutions to terminal requirements in ports around the world. They can allocate new investments (or divest) to take advantage of new growth opportunities and new markets under such circumstances.
 - **Automation:** According to Drewry data, as of 2020, there are 83 fully or semi-automated terminals in the world, most of which are operated by GTOs. These terminals use equipment such as ASC, ARMG, CARMG, ARTG and AutoStrads for on-site transfer, transmitters such as AGV and AShC for waterside transfer and remotely-operated berth cranes for docks¹⁸. Especially the automation levels of Hutchison, PSA, COSCO and DP World are high. This in turn creates a foundation for highly efficient and effective service delivery.
 - **Digitalization:** In recent years more and more GTOs have increased the level of communication in the supply chain through the use of platforms that digitize processes in their supply chains (Trade Lens, etc.). In particular, blockchain technology has been the pioneer of this change. Cryptographic messages have given us considerable ground to safely use and transfer virtual documents. COSCO Shipping and the Port of Qingdao have been pioneers in this field and the process is moving rapidly among the GTOs.
- As in the case of global container ship operators, growth in global terminal operators has led to the focus of ownership around a small number of GTOs at the top. Businesses that rank first among the GTOs today have a significant portion of the global container handling market. The most important consequence of this situation is that these GTOs have a command of the world's most important container ports, and have monopoly power in many small as well as medium-sized ports. On the other hand, there is very strong evidence that in many countries, including Türkiye, their overall performance has improved as a result of opportunities given to the GTOs. The global data of GTOs, which will be mentioned in the following sections of our report, confirm these evidences.

¹⁸Automated stacking cranes (ASC), Automated rail mounted gantry cranes (ARMG), Cantilever automated rail mounted gantry cranes (CARMG), Automated rubber tyred gantry crane (ARTG), Automatic straddle carriers (AutoStrads), Automated guided vehicles (AGV), Automated shuttle carriers (AShC)



Excellence
Prize



ISO 9001
Quality
Management
System



ISO 45001
Occupational Health
and Safety
Management System
Certificate



GPTW Certificate



ISO 10002
Customer Satisfaction
Management System



ISO 14064
Green Port / Eco Port
Certificate



Zero Waste



ISO 14001
Environmental
Management
System



Green Port / Eco Port
Certificate

Kurulduğumuz günden bu yana;
dünya konteyner taşımacılığının bölgesel
lojistik üssü olma vizyonumuzla modern
makina parkurumuz ve yüksek iş hacmini
destekleyen liman otomasyon
sistemimiz ile yüksek standartlarda
liman hizmetleri sunmaya devam ediyoruz.

KUMPORT

4. An overview of GTO data

Drewry, an expert consulting firm on container transportation, has made another classification for GTO holding companies that differs from the previous classification in some aspects. These are;

1. Group - Stevedore Operators: Container terminal operations are the core business. They invest to grow in global markets and expand geographic coverage.

2. Group - Container Carrier Operators: Container ship operations are the core business. They also have a global network of terminals to support regular line freight services.

3. Group - Hybrid Operators: Container ship operations are the core business branch. They operate container terminals to support the major business as in the previous classification, but a separate legal entity has been established for this business. (Figure-2)

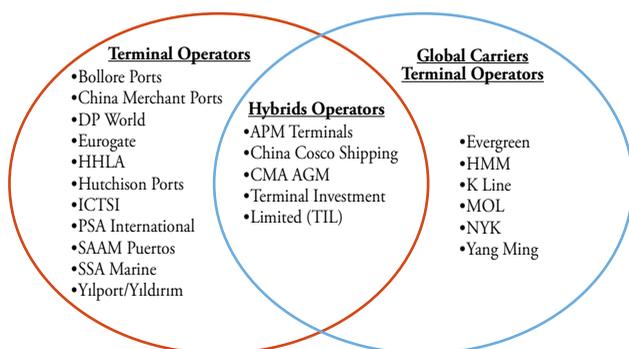


Figure-2. GTOs according to Drewry's classification¹⁹

There has been a drastic change in the distribution of the total containers handled by the 21 GTO mentioned in Figure 2 over the 10-year period since 2010. This change clearly demonstrates the increasing importance of the hybrid structure and the competitive advantage that comes with maritime shipping. While the share of hybrid terminal operators in total handling of GTOs was 20% in 2010, their share rose up to 42% as global ship operators placed emphasis on terminal management as a profit and service center. The increase in vertical integration between terminal operators in Group 1 and ship operators is the basis for this increase in share. (Figure-3)

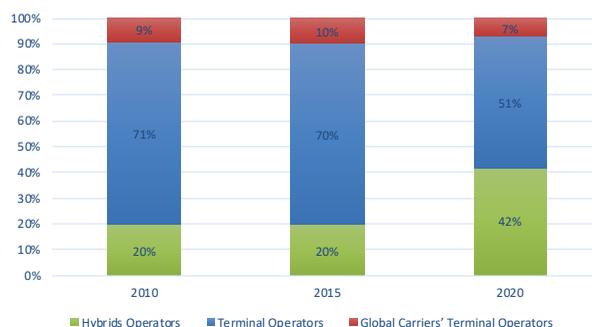


Figure-3. Growth share of GTO operators

Due to the slowing market development in the wake of the 2009 global financial crisis and the compelling effects²⁰ of growing ship sizes, the increased size and equipment capabilities of terminals increased the need for terminals with much greater depth, thus forcing global terminal operators to engage more closely with global ship operators. At the root of this rapprochement, of course, is also the effort of terminal operators to retain, even increase, the freight traffic they have, and take part in newly developed mother ports.

As mentioned, growing vessel sizes is one of the main motivators of GTO growth. According to Alphaliner, an expert consulting firm on global container ship operators and container ships, the global container ship fleet had surpassed the capacity of 25 million TEU by November 2021, reaching 6 286 container ships. It is clear that this capacity increase will continue in 2022, especially when new ship orders are taken into account. Although global shipping volume and global shipbuilding volume are generally parallel, supply surplus occurs especially during times of crisis, creating an environment where global operators are in some sense tested in strength.

As of November 2021, most container ship owners in the top tier in the world announced their third quarter figures and year-end expectations. For example, the estimated EBITDA value of A.P. Moller/Maersk was announced to be between \$22-23 billion for 2021 in its official publications²¹, Hapag-Lloyd announced \$8,2 billion EBITDA for the first nine months²², ONE announced \$7,5 billion for the first six months²³, and CMA CGM announced \$7,1 billion for the third quarter.²⁴

¹⁹Drewry, *Global Container Terminal Operators, Annual Review and Forecast 2021/22*.

²⁰Larger cranes, larger sites, more powerful information systems, deeper docks, etc.

²¹<https://www.maersk.com/news/articles/2021/11/01/maersk-presents-a-record-q3>

²²<https://www.offshore-energy.biz/hapag-lloyd-raises-outlook-for-2021/>

²³https://container-news.com/one-reports-715-growth-in-profit-during-q2/?fbclid=IwAR1IFgZ5zqu55wC3iFQOx2ZzllN2x_WOn1oN_gGn8CA57N8BAVMXa_9318

²⁴<https://gcaptain.com/shipping-line-cma-cgm-posts-5-6-billion-quarterly-profit/>

Similar comments have been made by other container ship operators. Naturally, this was also reflected in ship orders as well. The order numbers and share ratios of mega vessels with higher capacity also increased in the global fleet.

The theoretical projects to reach 28.000 TEU capacity for these mega ships, which currently have a capacity of 24.000 TEU, have now been announced in leading maritime publications. (Table-4)

Table-4. Current and planned theoretical container vessel types^{25, 26}

Vessel Class	B / R / T ²⁷	Length (m)	Beam (m)	Draught (m)	Capacity (TEU)
Megamax-23	24/23/22	399,0	58,6	16,0	20.000
Megamax-24	24/23/25	399,0	61,0	16,5	23.500
Gigamax-25	26/25/25	425,0	63,3	16,5	27.140
Gigamax-25-LNG	26/25/25	425,0	63,3	16,5	26.800
Gigamax-26	26/26/25	425,0	66,1	16,5	28.840
Gigamax-26-LNG	26/26/25	425,0	66,1	16,5	28.420

Today, the design work of 28,420 TEU vessels with a depth of 16,5 meters, 66,1 meters wide and 425 meters long, albeit theoretically, has been carried out²⁸. In the simplest sense, designing the vessel to take 25 rows of containers instead of, for example, 24 rows on the pier-starboard line requires investments in numerous new cranes, cost of which exceeds \$10 million per unit. Therefore, these mega-ships, which serve or are planned to serve in the main trade routes, create the most stress on terminal operators with their new dimensions, and GTOs with strong financial structure use their advantages in hosting these ships. The repercussions of this situation are also experienced in ports in Türkiye. For example, MSC Samar, one of the world's highest capacity container ships with a capacity of 23.756 TEU of type Megamax-24 in Table-4,

docked on November 25th, 2021 at Asyaport port in Barbaros, Tekirdağ and approximately 3,082 TEU containers were unloaded²⁹.

Although the overall decrease in global container handling figures due to the pandemic affected the performance of GTO's in 2020, they remained important in the container transportation system. Chinese COSCO had the largest throughput in 2020 with a total of 104.4 million TEU in its terminals spread around the world, with a share of 13,2% in total. Singapore's PSA followed with 86,6 million TEU handling and 10,9% share, followed by Danish APM Terminals with 83,7 million TEU and 10,6% share. (Table-5)

Table-5. GTOs' throughput league table (million TEU)³⁰

Operator	2019 TEU	2020 TEU	2019/2020 Change	2020 World Share
1 China COSCO Shipping	109,8	104,4	-4,9%	13,2%
2 PSA International	84,8	86,6	2,1%	10,9%
3 APM Terminals	84,2	83,7	-0,6%	10,6%
4 Hutchison Ports	82,6	80,6	-2,4%	10,2%
5 DP World	69,4	69,5	0,1%	8,8%
6 Terminal Investment Limited (TIL)	50,8	55,3	8,9%	7,0%
7 China Merchant Ports	35,6	34,3	-3,7%	4,3%
8 CMA CGM	26,1	25,9	-0,8%	3,3%
9 SSA Marine	13,0	12,2	-6,2%	1,5%
10 ICTSI	11,8	11,8	0,0%	1,5%
11 Eurogate	11,7	10,4	-11,1%	1,3%
12 Evergreen	10,1	9,7	-4,0%	1,2%
13 HMM	9,5	9,5	0,0%	1,2%
14 MOL	7,8	8,4	7,7%	1,1%
15 NYK	8,2	7,8	-4,9%	1,0%
16 HHLA	7,7	6,9	-10,4%	0,9%
17 Yildirim/Yilport	6,1	5,9	-3,3%	0,7%
18 Bolloré	6,0	5,5	-8,3%	0,7%
19 Yang Ming	4,3	4,1	-4,7%	0,5%
20 K Line	3,1	3,0	-3,2%	0,4%
21 SAAM Puertos	3,1	2,8	-9,7%	0,4%
GTO Total	645,7	638,3	-1,1%	80,5%
World Total	802,1	792,9	-1,1%	100,0%

²⁵ Alphaliner ²⁶ <https://en.wikipedia.org/>

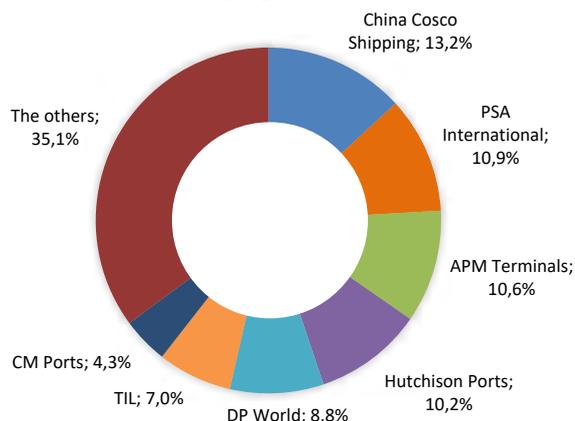
²⁷ Number of containers that can be placed lengthwise (Bay) along the head-stern, side by side (Row) along the port-starboard and (Tier) on top of each other in a cellular vessel.

²⁸ Alphaliner ²⁹ <https://www.7deniz.net/haber-4-futbol-sahasi-buyuklugundeki-msc-samar-tekirdag-da-40155.html>

³⁰ Drewry, Global Container Terminal Operators, Annual Review and Forecast 2021/22.

Top 7 GTOs according to 2020 data had 64,9% of the total throughput, providing important evidence about the concentration within the top ranks. This important share also reveals how critical the GTOs are on a global basis. (Figure-4)

Figure-4. Share values of top 7 GTO's³¹



In some cases, GTOs operate with 100% equity in the terminals they operate, while in some cases (and recently at increasing rates) they are involved in terminal operations at a certain capital and dividend rate. Considering the equity shares in the terminals where GTOs operate, China COSCO ranks first with 59,5 million TEU throughput and 7,5% share in the total, followed by PSA with 47,1 million TEU throughput (5,9%) and APM with 46,2 million TEU throughput (5,8%). All GTOs accounted for 49,1% of the total throughput (392,4 million TEU) in 2020 when equity share is taken into account. (Table-6)

In addition, the revenues of some GTOs published by Drewry are presented in Table-7 to give an idea. For example, APM Terminals, part of the AP Moller group, reported revenues of \$3,8 billion in 2020 from its services at its terminals in many countries around the world.

Table-6. GTOs equity based throughput league table (million TEU)³²

Operator	2019 TEU	2020 TEU	2019/2020 Change	2020 World Share
1 China COSCO Shipping	60,4	59,5	-1,5%	7,5%
2 PSA International	41,5	47,1	13,5%	5,9%
3 APM Terminals	48,6	46,2	-4,9%	5,8%
4 Hutchison Ports	46,8	45,5	-2,8%	5,7%
5 DP World	45,7	44,7	-2,2%	5,6%
6 Terminal Investment Limited (TIL)	44,3	44,0	-0,7%	5,5%
7 China Merchant Ports	28,8	31,8	10,4%	4,0%
8 CMA CGM	10,1	10,1	0,0%	1,3%
9 SSA Marine	8,3	7,9	-4,8%	1,0%
10 ICTSI	7,6	7,2	-5,3%	0,9%
11 Eurogate	7,1	6,3	-11,3%	0,8%
12 Evergreen	8,3	6,3	-24,1%	0,8%
13 HMM	7	6,2	-11,4%	0,8%
14 MOL	6,3	5,9	-6,3%	0,7%
15 NYK	5	4,7	-6,0%	0,6%
16 HHLA	3,2	3,3	3,1%	0,4%
17 Yildirim/Yilport	3,4	3,1	-8,8%	0,4%
18 Bollore	3,2	3,0	-6,3%	0,4%
19 Yang Ming	2,3	2,2	-4,3%	0,3%
20 K Line	2,3	2,2	-4,3%	0,3%
21 SAAM Puertos	2,2	1,9	-13,6%	0,2%
GTO Total	392,4	389,1	-0,8%	49,1%
World total	802,1	792,9	-1,1%	100,0%

³¹Drewry, *Global Container Terminal Operators, Annual Review and Forecast 2021/22*.

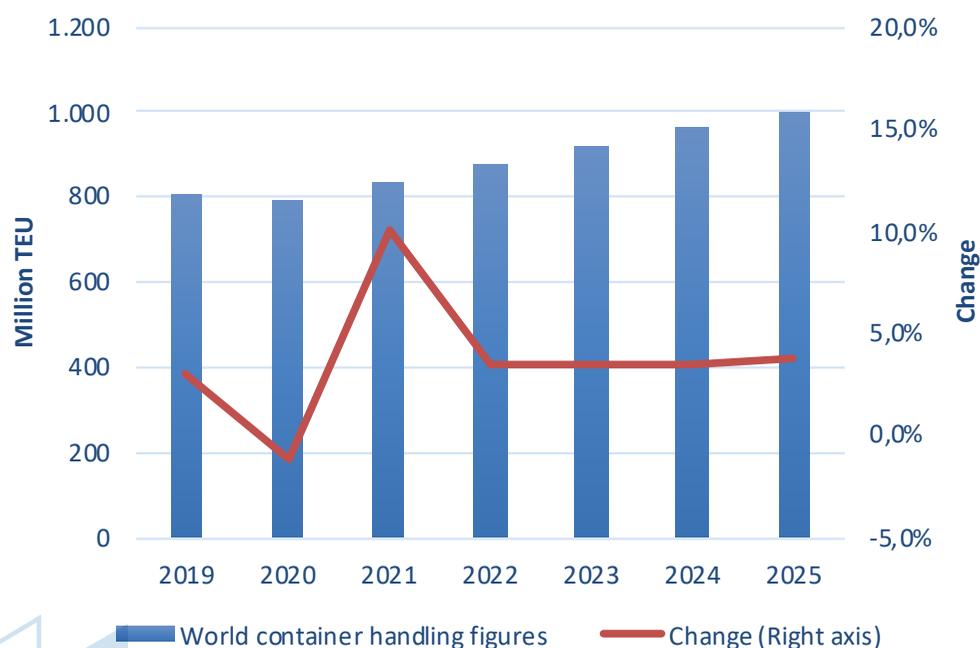
³²<https://www.drewry.co.uk/news/acceleration-in-port-capacity-investment-insufficient-to-support-cargo-demand-growth>

Table-7. Financial results of some GTOs³³

Operators	2019	2020	Change
DP World	7.686	8.533	11,0%
Hutchison Ports	4.515	4.237	-6,2%
APM Terminals	3.948	3.807	-3,6%
ICTS	1.481	1.505	1,6%
PSA International	2.989	3.030	1,4%
China Merchants Port	1.136	1.157	1,8%
HHLA	1.507	1.541	2,3%
COSCO Shipping Ports	1.028	1.001	-2,6%
SAAM	274	250	-8,8%
Eurogate	316	301	-4,7%

GTOs need to keep their capacity above a certain rate in order to achieve sustainable development, as well as continue to invest to increase their profitability. These investments are of course based on certain commercial and economic projections. As a cargo type, container has a higher trend of growth since the 1980s than other types of cargo. Container transportation and the elements in this transportation system gained strength and basic mechanisms were built on a global scale when volume of trade accelerated especially in the 90s. As a result of these efforts and the development of global trade, the global container handling figure reached 224 million TEU in 2000, 543 million TEU in 2010 and 793 million TEU in 2020³⁴.

10,2% increase in global port handling is estimated for 2021 when the effects of the pandemic are tried to be embraced. This equates to an additional 80 million TEU increase in port throughput volume over a year, compared to the 9,5 million TEU reduction recorded globally in 2020. The recovery is expected to be sustained into 2021, at an annual growth rate of 3,0-3,5%. Average growth over the period 2020-25 is forecast to be 5,0%, with total volumes forecast to exceed 1 billion TEU in 2025. Forecasts for world container transport at total and regional basis can be seen in Figure-5 and Figure-6³⁵.

Figure-5. Forecast development of world container port throughput (estimated for 2021 and later)³⁶

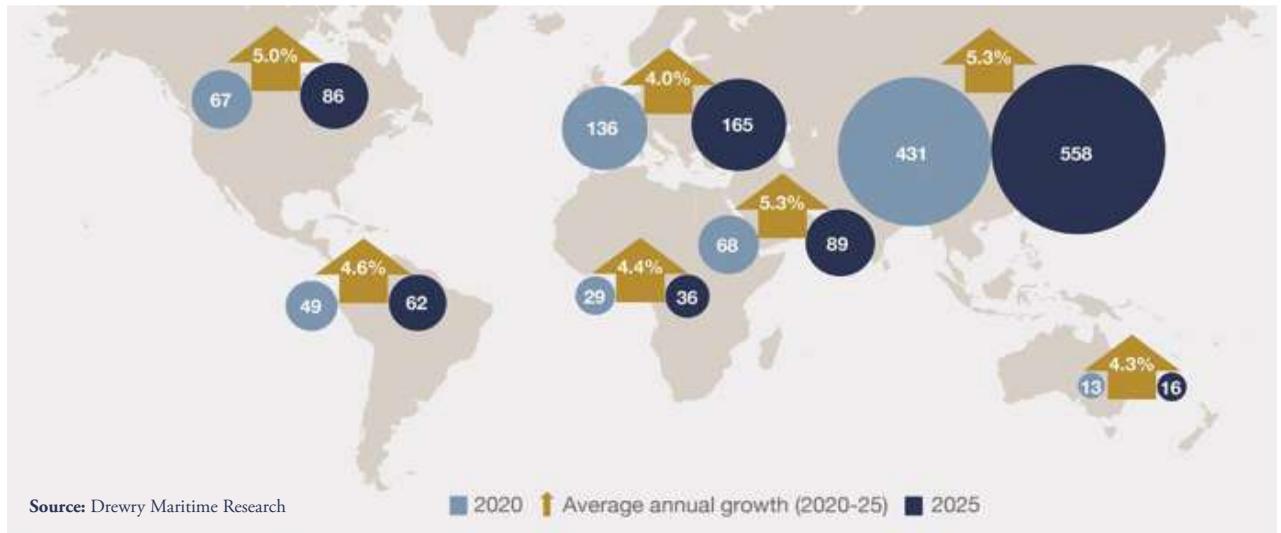
³³Drewry, *Global Container Terminal Operators, Annual Review and Forecast 2021/22*.

³⁴<https://data.worldbank.org/indicator/IS.SHP.GOOD.TU>

³⁵Drewry, *Global Container Terminal Operators, Annual Review and Forecast 2021/22*.

³⁶Drewry, *Global Container Terminal Operators, Annual Review and Forecast 2021/22*.

Figure-6. Regional container port throughput growth estimate (Million TEU)³⁷



On the other hand, it is necessary to create terminal capacities to meet this increase. Global container port capacity is projected to increase by an average 2,5% per year to reach 1,3 billion TEU in 2025. With global demand set to rise by an average 5% annually over the same period, average utilization rates will increase from the current 67% to over 75%, which indicates that the congestion in the global supply chain will

continue in the near future³⁸. (Figure-7 and Table-8)

By 2025, the top six GTOs with the largest capacity are expected to have almost half of the total capacity and all GTOs will account for 75% of the total global capacity by 2025 (Table-8)

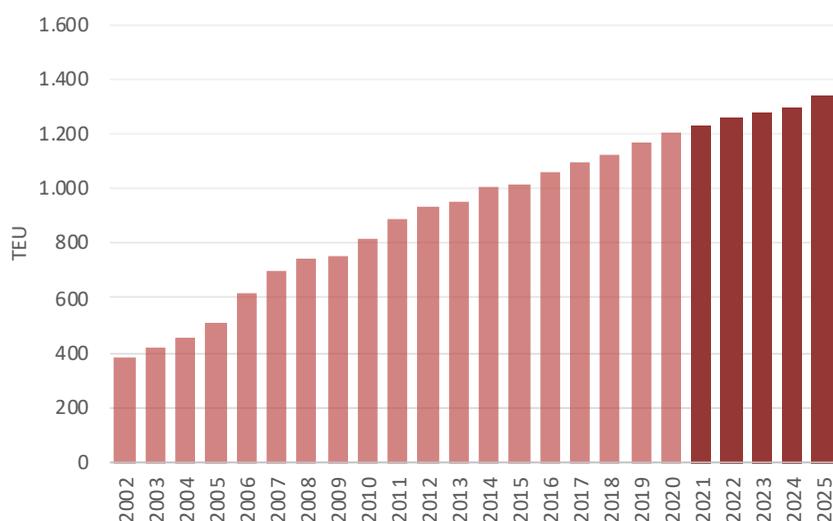
Table-8. Capacity estimates (million TEU)³⁹

#	Operator	2019	2020	2021 estimation	2022 estimation	2023 estimation	2024 estimation	2025 estimation	2020-2025 Capacity Increase Rate
1	China COSCO Shipping	139,2	131,9	137,6	140,6	141,3	141,3	141,3	7,1%
2	PSA International	116,2	117,3	122,5	130,6	133,4	133,9	133,9	14,2%
3	APM Terminals	113,0	112,8	114,3	116,7	117,2	117,9	117,9	4,5%
4	Hutchison Ports	107,6	110,1	113,0	114,8	117,3	118,6	119,9	8,9%
5	DP World	91,0	92,2	100,3	102,9	105,9	107,7	107,7	16,8%
6	TIL	72,8	77,7	84,3	87,6	87,6	84,6	88,1	13,4%
7	CM Ports	44,2	46,0	46,5	47,8	48,2	48,6	48,6	5,7%
8	CMA CGM	43,1	43,1	49,4	51,3	53,5	56,3	56,7	31,6%
9	NYK	22,5	21,9	22,1	22,3	22,8	22,8	22,8	4,1%
10	ICTSI	20,0	21,0	21,6	22,1	22,4	22,7	22,7	8,1%
11	SSA Marine	20,5	20,5	20,7	20,9	21,7	21,7	21,7	5,9%
12	Eurogate	20,6	18,9	19,9	20,0	20,9	20,9	20,9	10,6%
13	Evergreen	17,0	17,2	17,2	17,4	18,4	18,6	18,6	8,1%
14	Yildirim/Yilport	11,9	13,8	15,1	15,9	16,3	16,3	16,3	18,1%
15	HMM	12,1	12,2	12,7	13,1	13,6	14,1	14,1	15,6%
16	MOL	10,7	11,1	10,7	10,7	11,2	11,7	12,0	8,1%
17	HHLA	10,5	10,5	11,0	11,3	11,3	11,3	11,3	7,6%
18	Bollore	9,8	10,3	11,4	13,1	13,7	14,0	14,0	35,9%
19	Yang Ming	8,4	8,4	8,4	8,4	8,4	8,4	8,4	0,0%
20	K Line	5,7	5,4	2,0	2,0	2,0	2,0	2,0	-63,0%
21	SAAM Puertos	5,6	4,3	4,6	4,8	4,9	4,9	4,9	14,0%
	GTO Total	902,4	906,6	945,3	974,3	992,0	998,3	1.003,8	10,7%
	World Total	1.165,0	1.200,0	1.235,0	1.260,0	1.280,0	1.290,0	1.340,0	11,7%
	GTO Share	77,5%	75,6%	76,5%	77,3%	77,5%	77,4%	74,9%	
	Estimated throughput	802,1	792,9	832,5	874,2	917,9	963,8	1000,0	
	Capacity Utilization Rate	68,8%	66,1%	67,4%	69,4%	71,7%	74,7%	74,6%	

³⁷Drewry, Global Container Terminal Operators, Annual Review and Forecast 2021/22.

³⁸<https://www.drewry.co.uk/news/acceleration-in-port-capacity-investment-insufficient-to-support-cargo-demand-growth>

³⁹<https://www.drewry.co.uk/news/acceleration-in-port-capacity-investment-insufficient-to-support-cargo-demand-growth>, Drewry, Global Container Terminal Operators, Annual Review and Forecast 2021/22.

Figure-7. Global container terminal capacity growth (million TEU)⁴⁰

While GTOs generally started their activities in different regions, they gradually penetrated to many parts of the world. Some GTOs have reserved the majority of their total global capacity for first-out geographies, while some have built major capacities around the world. For example, the Yıldırım/Yılport group, a Turkish GTO, has a capacity of 12 million TEU, 53,4% of which is in the Mediterranean and Black Sea region and 36% of which is in the Northern Europe.

After Yılport the GTOs that have the largest share in the Mediterranean and Black Sea region total capacity, where our country is located, are the HMM (30,3%), the TIL (22,5%), APM Terminals (18,6%), CMA CGM (17,9%) and COSCO (16,7%).

An examination of other regions reveals that China Merchants Port has allocated its largest capacity in China and North Asia (79,5%), HHLA in Northern Europe (94%), SSA Marine in North America (59,2%), SAAM in Latin

America (97,8%), PSA in South East Asia (51,9%), Bollre in Africa (91,1%), DP World in the Middle East (35%) and ICTSI in South Asia and Oceania (13,7%) (Table-9).

Table-9. GTO portfolio by region (share of throughput, 2020)⁴¹

Operator	Mediterranean and Black Sea	China and North Asia	Northern Europe	North America	Latin America	Southeast Asia	Africa	Middle East	South Asia and Oceania
Yildirim/Yılport	53,4	0,0	36,0	0,0	10,6	0,0	0,0	0,0	0,0
HMM	30,3	42,7	9,5	17,5	0,0	0,0	0,0	0,0	0,0
TIL	22,5	4,9	21,3	11,2	12,0	10,6	4,9	9,1	3,5
APM Terminals	18,6	16,1	15,4	12,0	5,3	9,9	13,1	4,7	4,9
CMA CGM	17,9	11,4	17,0	4,0	14,7	21,3	8,8	1,1	3,8
China COSCO S.	16,7	69,6	4,5	3,1	0,0	5,4	0,0	0,8	0,0
Eurogate	8,0	0,0	85,5	0,0	0,0	0,0	6,5	0,0	0,0
HHLA	6,0	0,0	94,0	0,0	0,0	0,0	0,0	0,0	0,0
DP World	5,5	17,5	13,8	2,8	8,6	2,6	2,2	35,0	12,0
Hutchison P.	5,1	45,3	19,1	4,0	6,9	12,6	0,8	2,6	3,7
PSA Int.	4,2	21,9	14,1	0,8	1,9	51,9	0,0	0,8	4,4
ICTSI	2,6	2,5	5,0	10,0	22,3	35,5	2,5	5,8	13,7
CM Ports	2,1	79,5	0,0	0,0	3,4	0,0	4,0	0,0	11,0
Yang Ming	0,0	70,3	2,6	27,1	0,0	0,0	0,0	0,0	0,0
Evergreen	0,0	65,0	0,0	24,2	4,8	4,7	0,0	0,0	1,3
K Line	0,0	50,8	2,5	46,7	0,0	0,0	0,0	0,0	0,0
NYK	0,0	47,3	0,0	43,8	0,0	8,9	0,0	0,0	0,0
MOL	0,0	33,5	13,4	34,4	0,0	18,6	0,0	0,0	0,0
SSA Marine	0,0	0,0	0,0	59,2	37,5	3,3	0,0	0,0	0,0
Bollre	0,0	0,0	0,0	0,0	0,0	0,0	91,1	0,0	8,9
SAAM P.	0,0	0,0	0,0	2,2	97,8	0,0	0,0	0,0	0,0

⁴⁰ <https://www.statista.com/statistics/1249068/container-capacity-worldwide/>

⁴¹ Drewry, Global Container Terminal Operators, Annual Review and Forecast 2021/22. ve UNCTAD.

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The fact that the Mediterranean is located on the Far East-Europe route, one of the three most important maritime trade routes in the world, and has an important volume in terms of socio-economic development with the Black Sea countries, makes the region an important posi-

tion for GTOs. Türkiye's geostrategic importance, strong market structure and other reasons to be mentioned in the following sections make it attractive to GTOs. The subject will be detailed later in our report.

5. GTOs in Türkiye

Türkiye, which has coastlines in the Mediterranean and Black Sea, is an important investment area for GTOs. GTO activities in Türkiye, which started solidly in 2001, have reached an important point today. Before moving on to GTO statistics in Türkiye, information will be given about the reasons why GTOs prefer Türkiye.

5.1. Reasons why GTOs prefer Türkiye

There are three important reasons why global terminal operators are interested in port management on the Turkish coast:

Türkiye's geostrategic importance: The geography of Türkiye is located either above or near the east-west lines, where the main trade routes are traditionally located, and the north-south lines, whose importance has increased in recent years. While the Turkish Straits are an inevitable route for Black Sea countries in most cases, Türkiye is also the focus of global projects such as China's "Belt and Road Initiative". Infrastructure investments made in our country in recent years have increased this importance.⁴²

Türkiye's local cargo potential: While the Turkish economy is among the 20 largest economies in the world, it is an important cargo center in the world with its increasing transit cargo, foreign trade volume and production capacity.

Black Sea bound transit container: The Turkish straits are the main gateway for maritime container transportation in the coastal countries of the Black Sea. Railway bypass projects have become more important in recent years, but the significance of the maritime route is still high. The freight movements in the Turkish Straits and Black Sea countries produce a transfer load of over 3 million TEU at the Marmara region ports.

These features of Türkiye provide suitable conditions for GTOs to diversify their income, develop global port networks and increase their market scales in the face of increasing global competition and uncertainty. Furthermore, the growth of integrated logistics solutions, a dynamic population structure, the emergence of an alternative production area for China, and Türkiye being seen as a growth area due to aforementioned reasons are among the factors cited here.

The GTOs as well as foreign investors operating in the container terminals in Türkiye and the ports where these entrepreneurs are located as of November 2021 can be examined in Table 10. The enterprises in Türkiye as GTO are PSA International, TIL, DP World, China Merchants Port, COSCO and Yıldırım Group. In addition to these GTOs, it is seen that some non-GTO port operators manage ports in our country and international fund enterprises have shares in some terminals. (Table-10)

Table-10. Foreign investors and operators in container terminals in Türkiye

Port Name	GTO	Other Foreign Shareholders	Local
Assan Port	TIL	-	Kibar Holding
Asyaport	Global Terminal Limited	-	Soyuer Ailesi
DP World Yarımca	DP World	-	-
Gempport	Yıldırım/Yılport	-	-
Kumport	China Merchants + COSCO	China Investment Corporation + Oman State GR Fund	-
Limak Iskenderun	-	Inframed	Limak
Marport	TIL	-	Arkas
MIP	PSA International	IFM Investors	Akfen
Q Terminals Antalya	-	Q Terminals	-
SOCAR Terminal	-	SOCAR	-
Yılport	Yıldırım/Yılport	-	-

Other details about GTO structure and statistics in Türkiye are presented in the next topic.

⁴² *Baku-Tbilisi-Kars railway project, Marmaray, North Marmara Highway, Yavuz Sultan Selim bridge, etc.*

5.2. GTO operations in Türkiye

Important steps related to GTO activities in Türkiye are summarized below:

- The first GTO investment was triggered by the need to increase the field and dock capacity due to the ever-increasing container volume in Ambarlı/İstanbul. As a result of this capacity need, ARKAS and TIL investment partnership was established in 2001 and MARPORT Port Enterprises Industry and Trade Inc. started to operate after the purchase of Armaport located in Ambarlı. For many years, MARPORT has been the container terminal with the most throughput in our country.
- The second GTO initiative was also handled strongly when Akfen and PSA International consortium took over the privatization of TCDD Mersin port in 2007. Mersin MIP port has the most container throughput in Türkiye in recent years.
- There was a GTO among partners in the largest privatization (1,2 billion USD) in the history of Republic, mainly the privatization of İzmir TCDD Alsancak port in 2007. Hutchison Ports' journey to Türkiye ended before it began when this privatization did not take place due to the conditions in 2009. Hutchison Ports is still known to be interested in ports in our country.
- The Yıldırım Group obtained concessions in the Malta Freeport in 2011 and stepped into the GTO activities, which marks the beginning of an important process for the Turkish port industry. Yıldırım/Yılport is currently among the 21 GTOs and included in all the GTO data in this report.

- MSC's port operator TIL acquired a stake in AssanPort in addition to MARPORT in 2013.

- GTL, the port investment firm of MSC, invested in Asyaport in Barbaros, Tekirdağ with the Soyuer Family in 2015. The port rose to the first place among the ports with most transit container throughput in a very short time and is among the top 3 busiest terminals in total throughput.

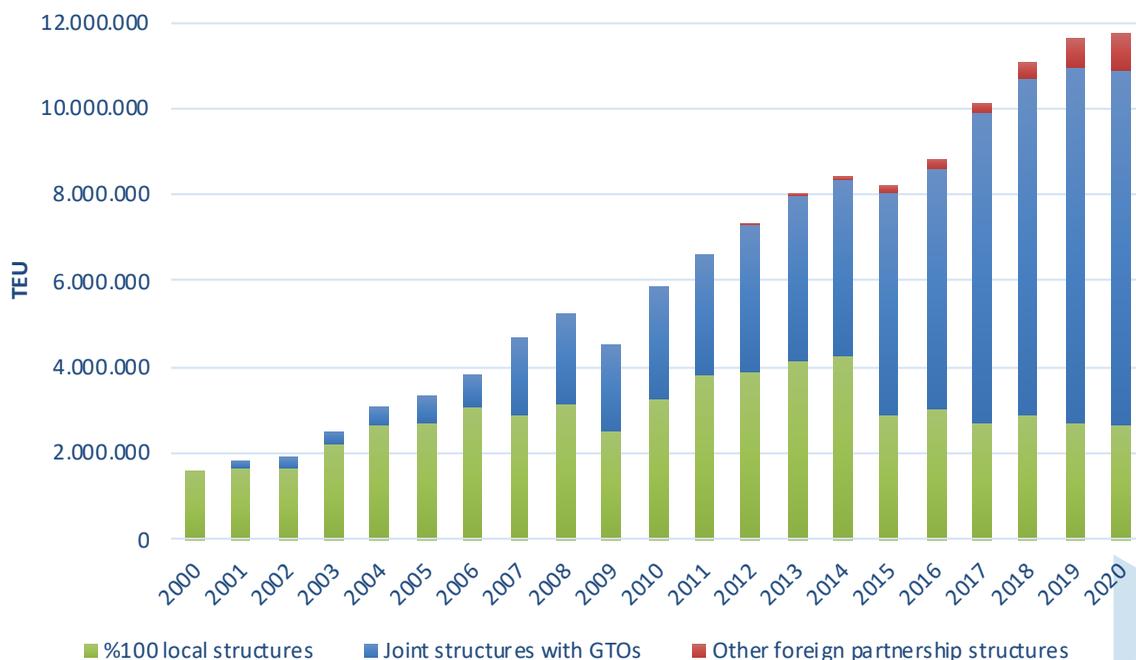
- A consortium, which includes China Merchants Ports and COSCO, acquired a majority stake in Kumport in 2015. Kumport ranks 4th among the busiest container terminals in our country.

- Also in DP World opened its own built terminal in Yarımcı.

- APM Terminals operated SOCAR Terminal between 2016 and 2018 in a strategic partnership with Petlim, but later ceased operations.

In light of all these developments the handling growth of GTOs in Türkiye has accelerated quite rapidly since 2001; especially the share of terminals with the GTO partnership structure in container handling has increased significantly in after the 2010s. By 2020, 8,2 million TEU of the 11,7 million TEU containers handled in Türkiye that year were handled by ports with GTO partners, while the amount of handling in 100% local partner terminals was only 2,6 million TEU by 2020 (Figure-8).

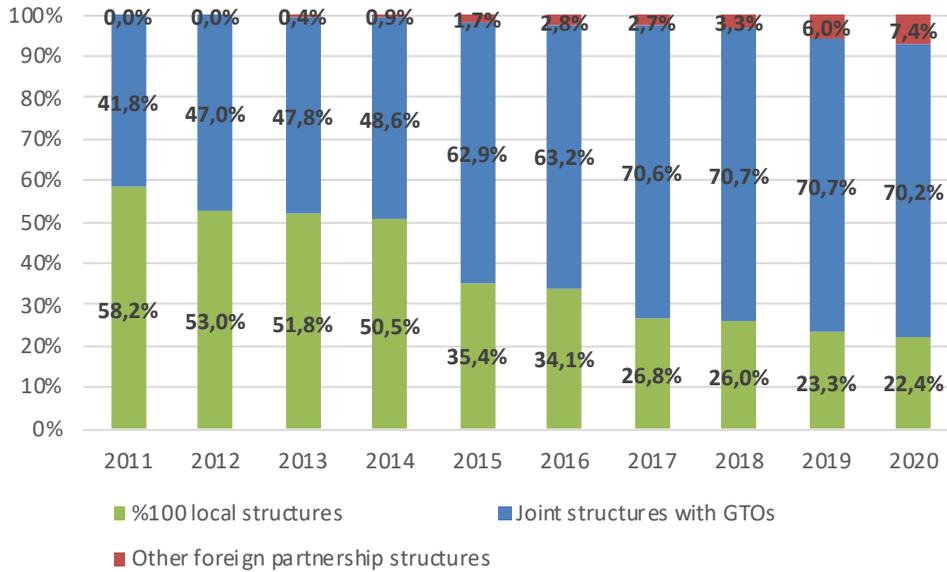
Figure-8. Growth of GTOs' throughput (TEU) in Türkiye(TEU)



It can be historically seen that terminals with GTO partners have achieved a significant share especially after the investments in 2015. When the 10-year period between 2011 and 2020 is examined, terminals with GTO partners are seen to have a share of 41,8%. The remaining 58,2% share is controlled by 100% local operators. Terminals with GTO part-

ners have reached a majority in container throughput as of 2015. This share increased to 70,2% by 2020 while 100% local partner terminals have 22,4%, and other foreign investors other than GTO, such as international funds, have a 7,4% share (Figure-9).

Figure-9. Handling share according to terminal partnership structure



In order to further clarify the GTO structure in Türkiye and to conduct a more comprehensive analysis on the subject, the partnership shares of GTOs are also examined. DP World Yarımca and Yıldırım/Yılport are the only GTOs that operate terminals with 100% share in Türkiye, while other GTOs have certain share in other terminals. When the handling data is evaluated according to these shares, it is seen that the handling share of GTOs was 1,5 million TEU in 2011 and the share of local partners was 5 million TEU, but over time this situation changed significantly. It has been calculated that local partners had 5,7 million TEU shares, GTOs had

5,3 million TEU shares and other foreign partners besides GTOs had 711.000 TEU shares by 2020.

This means that between 2011 and 2020, the share of local operators constantly decreased while the foreign share increased at a faster rate. As a matter of fact the total handling share (5,9 million TEU) of GTOs and foreign partners surpassed the local share (5,8 million TEU) for the first time in 2019 and the difference widened to 300.000 TEU in favor of GTOs in 2020 (Figure-10).

Figure-10. Handling according to equity type (TEU)



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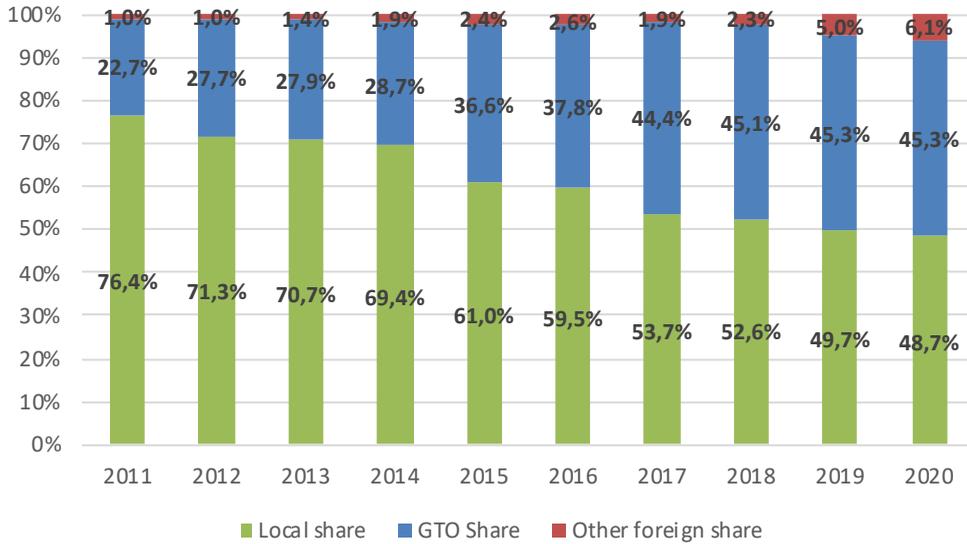
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The share change according to the equity held by local operators, GTO and other foreign operators can also be seen in Figure-11. While local operators had a share of 76,4%, GTOs had 22,7% and other foreign investors had 1% in 2011, this

distribution significantly changed to 48,7%, 45,3% and 6,1% respectively by 2020. Total share (50,3%) of GTOs and foreign investors exceeded local share for the first time in 2019.

Figure-11. Handling share by equity share (%)



This change in favor of GTOs' in Türkiye is parallel to the changes in the world. In fact, this transformation is being carried out by some port operators of Turkish origin in va-

rious parts of the world. The activities of terminal operators originating from Türkiye in the world are briefly presented under the next heading.

#ŞehrinKapısı

Türkiye'nin dünyaya, dünyanın Türkiye'ye açılan kapısı Marport'ta sizin için önemli olan ne varsa güvenle elleçliyor ve iş süreçlerinize destek oluyoruz.
#ŞehrinKapısı hayal edebileceğinizden daha büyük.



102 liman içi
aktarma aracı



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alan



7
rıhtım



41 "Rubber Tyred
Gantry Crane"



10 "Ship to
Shore Gantry Crane"



2.300.000 TEU
kapasite



6. Activities of Turkish enterprises in the World

Turkish businesses in the maritime industry have been seen investing in foreign countries since the early 2010s. In this context, Turkish terminal operators have purchased or obtained concessions in other countries outside of Türkiye. These activities and initiatives are summarized below:

Yilport Holding: Yilport, which has an estimated value of more than 2 billion dollars in port investments in the world⁴³ and is one of the 21 GTOs listed as a container terminal operator, operates Gebze, Solventas, Gempport and Rotaport in Türkiye and continues its terminal management activities in many locations around the world. Apart from Türkiye, the holding has 3 ports in Scandinavia, 9 on the Iberian Peninsula, 2 in Latin America and 1 in the Mediterranean⁴⁴.

Global Ports Holding: It is the world's largest cruise terminal management GTO. Established as an international port operator, the holding company operates Ege Port Kuşadası and Bodrum Cruise Port in Türkiye, operates 21 cruise ports in 13 countries and 4 continents worldwide, one of which is multipurpose (Bar Port) and continues to expand its port network. Founded in 2004, Global Ports Holding operates in a wide range of regions including Mediterranean, Caribbean, Atlantic and Asia-Pacific regions⁴⁵.

Arkas Holding: The holding company, which operates the ports of Marport and Autoport in Türkiye, also signed a growth and modernization project agreement with Terminal del Golfo port in La Spezia, Italy in 2015.

Albayrak Group: The group has Mogadishu Port's 20-year concession in Somalia and Conakry Port's 25-year concession in Guinea apart from operating the Trabzon Port in Türkiye⁴⁶.

Ekol Logistics: In addition to the Yalova Ro-Ro terminal operated in Türkiye, Ekol Logistics owns a 65% stake in Europa Multipurpose Terminals, which is used for Ro-Ro and unit train services in Trieste (Italy)⁴⁷.

As you can see, our country has two global terminal operators, one in the container and the other in the cruise sector, as well as many operators who have started terminal management abroad. Accordingly, it is observed that businesses with Turkish origins are keeping up with the strategic changes in this field around the world, and they have privileges in different countries with their know-how.

⁴³<https://www.dunya.com/ozel-dosya/global-sampiyonlar/yildirim-holding-liman-ve-madende-dunya-markasi-oldu-haberi-479901>

⁴⁴<https://www.yilport.com/en/ports/homepage/All-Ports/24/0/0>

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⁴⁶<https://www.albayrak.com.tr/en/case-studies/port-management/>

⁴⁷<https://www.ekol.com/en/logistics/port/>



İskenderun'dan Dünyaya Açılan Kapı

Assan Port olarak yıllık 250 bin TEU kurulu kapasiteyle "konteyner, genel kargo, proje kargo ve kuru dökme yük gemilerine" 7/24 hizmet veriyoruz.

Doğu Akdeniz, Güneydoğu Anadolu ve İç Anadolu'nun güneyindeki firmalar için demir yolu taşımacılığına imkan veren konumumuz sayesinde teslimat süresi ve maliyet avantajı sağlıyoruz.

Irak ve Suriye için batıya açılan en yakın konteyner terminali olarak 7/24 yüksek standartlarda güvenlik kontrolü sağlanan Assan Port limanımızda, uzman ve deneyimli kadromuzla birlikte müşterilerimize yüksek kalitede hizmet sunmaya devam ediyoruz.

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Overall assessment and conclusion

The 21st century is an era of informatics, innovation and networking. The development of these 3 basic structures pushes the sectors towards a change. It is clear that classical and traditional structures are not sustainable in this process. Technologies that execute the requirements of the age and add innovation on top of it have destructive power over traditional structures, which is why they are called destructive technologies.

Global Terminal Operators follow, purchase, use in the field and even become a part in manufacturing very expensive information technology and innovations in the sector, either by themselves or with their strong financial structures in their ship management or international fund sector. Again, with their strong capital and knowledge, they are located in critical regions in international transportation networks and can predict the direction of development and emerging markets with consistent forecasts. In this way, their efficiency and profitability increase and global network structures are created with the resulting strong capital structures. As GTOs are located in many parts of the world, they can offer competitive prices not in a particular country, but on a regional and global basis, sometimes along the entire route, so they can have a very advantageous position in the supply chain, not in a single port/country. Terminal operators that are not a GTO continue their activities locally and focus on quality of service.

As it is known, in order for a container terminal to compete and continue its services, at least one container ship line must visit the terminal. Therefore, container ship operators are the most critical customers of container terminals. These operators (with a general tendency) already prefer their own terminal structure if they have one, otherwise they turn to GTOs that offer global supply chain advantage. For this reason, the competitive power of terminals that have not been successful in establishing local and international networks is decreasing day by day. It will be very difficult for terminals that do not have a strategic connection with the structures mentioned in this study to survive in the near future. While this destructive transformation has been continuing rapidly around the world since the 90s, it is clear that the issue also has national effects.

When we look at the origin of GTOs, it is seen that almost all of them increased their experience and capital in areas with high load traffic, and then carried their knowledge to different parts of the world with concession contracts. The 80s and 90s were also the years when GTOs were on the rise in the world when the public withdrew from terminal management through privatization practices and public-private collaborations.

GTOs followed the privatization processes of public ports in Türkiye in the 90s and 2000s and were partners in some tenders. The main reason for this interest is Türkiye's place and importance in global maritime routes, as well as its market size. However, when we look at what happened; although the joint venture group including Hutchisson Ports did not invest in Türkiye due to non-completion of privatization process of İzmir Port, GTOs grew up in a different model in Türkiye solely as a result of PSA's concession of Mersin port. The development of GTOs in Türkiye can be explained by the direct investments of GTOs in our country in addition to the entrepreneurship of the private sector in our country.

It is clear that GTOs are the dominant container terminal operations in Türkiye today. Their terminals account for more than 70% of all cargo movements in Türkiye, and they have been the majority shareholder in the equity share capital since 2019. The fact that some GTOs are interested in some strategic port areas in Türkiye is also known within the industry. Therefore, increase in GTOs share in our country in the near future can be expected.

But is this situation a threat to port management in our country?

Although the presence of GTOs in our country has some advantages and disadvantages, it is quite clear that their presence have made significant gains in many aspects considering the global conjuncture. In fact, considering the economic contributions of these advantages, it can be said that the benefit obtained is quite high compared to the benefit obtained by a GTO in our country. For example, the annual volume of turnover of all ports in our country is about 10 billion dollars, while the economic value of Turkish foreign trade carried out through our ports is over 200 billion dollars. In particular, the speed provided by GTOs, access to international markets, transportation network and freight advantages arising from mother ship calls are critical for our foreign trade and make significant contributions in increasing our country's competitiveness in international markets.

In order to give more details constructive effects of global terminal operators which operate ports in Türkiye can be listed as follows:

- Fast and safe handling of various and large quantities of cargo,
- GTOs bringing their know-how in the global field to our country,
- Development of our ports with new investments,
- Increased service diversity,
- Increased employment,
- The introduction of green terminals which are capable and large enough to meet all the needs of third parties as well as suitable for the infrastructure required by the technology into service,
- Change of port corporate structures,
- Increase in efficiency due to competition,
- Increased port values in our country,
- Establishment of global standards, rules and policies related to port management,
- Creating the picture that Türkiye is becoming more globalized and an attractive market.
- If an overview is made based on all the information and data, reasons such as;
 - In today's competitive environment, it becomes a necessity for our ports to be included in international networks,
 - Foreign capital inflow to the country as a result of GTO investments in Türkiye,
 - In addition to modern technology, modern management approach is also ingrained and important know-how is transferred to ports where GTOs invest,
 - Strengthening Türkiye's geopolitical and geostrategic role in the region with these investments, making our country a critical transit hub especially for Black Sea and Central Europe bound container cargo,
 - Bringing port competition in Türkiye to the global level,

has made the GTO system (especially due to the intense interest of ship operators) inevitable not only for our country but also for all other countries that want sustainability in global trade. Adapting to the system instead of being excluded from the system will also benefit the port users in our country.

Türkiye, on the other hand, is an important pioneer and member of the GTO system with the GTOs it owns and Turkish businesses that operate international ports.



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Interviews

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