



**University of Piraeus**

**Department of Maritime Studies**

**MSc in Shipping Management**

**MASTER THESIS**

# **SHIPPING AGENCY**

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**I declare that this thesis is my own writing, and it is true and correct that I did not take any scholarly ideas or work from other dishonestly. All the cited works were quoted in accordance with the ethical code of academic writing.**

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## 1)Abstract

In modern shipping companies, it is necessary, for the best exploitation of the ships, to properly organize the system of its operations. "One of the main issues of any shipping company is to ensure the full cargo, in various ports. For this reason, each shipping company appoints either its employees who have a permanent establishment, or itinerant employees, or maritime agents, in its main ports or places of business.

The Ship Agent, natural or legal person, is important as it provides significant assistance to the carrier. The role of the agent becomes necessary mainly in terms of transportation. It can offer multiple services in sea transportation as well as global shipping. We will then report further information on maritime agents, maritime agencies, their structure and responsibilities.

This paper refers to the maritime agency literature and more specifically to the structure of agencies as well as to the responsibilities of maritime agents. The definition of a shipping agent, his responsibilities and obligations are developed in a simple way. The profession of maritime agent, as for any profession, requires a special profession permit, which is issued by the relevant Port Authority. Access to the profession, the organization and operations of a maritime agency as well as the actions followed by the agent in ticket management are also mentioned. Finally, each agent's insurance is developed, which plays an important role for his future.

## 1) Introduction

A shipping agency acts as an intermediary between shipowners, operators, and various stakeholders involved in maritime operations. Shipping agencies provide a wide range of services to facilitate the smooth arrival, stay, and departure of vessels at ports worldwide. Here is an introduction to shipping agency and its key functions:

1. Representation and Coordination: Shipping agencies represent the interests of shipowners, operators, and charterers at ports of call. They act as a local point of contact,

coordinating communication and operations between the vessel and port authorities, terminal operators, customs officials, and other service providers.

2. **Port Agency Services:** Shipping agencies offer comprehensive port agency services, which include handling administrative tasks, documentation, and regulatory compliance. They assist with vessel clearance, berthing arrangements, pilotage services, and liaising with port officials on behalf of the shipowner.
3. **Cargo Operations:** Shipping agencies oversee cargo operations, ensuring the smooth loading and unloading of goods. They coordinate with cargo handlers, stevedores, and logistics companies to optimize cargo handling procedures, monitor cargo condition, and facilitate the efficient flow of goods.
4. **Crew Assistance:** Shipping agencies provide support services to the crew members of visiting vessels. This includes arranging crew changes, facilitating immigration and customs formalities, organizing transportation to and from the vessel, and attending to crew welfare needs during the vessel's stay.
5. **Documentation and Compliance:** Shipping agencies assist with documentation, ensuring compliance with international regulations, customs requirements, and port-specific procedures. They handle the submission of necessary forms, clearances, certificates, and reports, ensuring that all relevant documentation is in order.
6. **Financial and Commercial Support:** Shipping agencies often manage financial transactions on behalf of shipowners. They handle payments to service providers, settle port dues, and manage financial accounts related to the vessel's operations. Additionally, they may provide advice on cost-effective measures, commercial opportunities, and market intelligence.
7. **Emergency Response and Crisis Management:** In times of crisis or emergency situations, shipping agencies play a crucial role in coordinating emergency response efforts. They work closely with authorities, owners, and relevant stakeholders to manage incidents, ensure the safety of the vessel and crew, and mitigate potential risks.
8. **Local Expertise and Knowledge:** Shipping agencies possess extensive local knowledge and expertise in the ports they serve. They are familiar with local regulations, port

infrastructure, customs procedures, and industry practices. This knowledge helps them provide valuable guidance, navigate challenges, and optimize operations for visiting vessels.

Shipping agencies play a vital role in facilitating efficient and successful maritime operations. By providing comprehensive services and acting as the shipowner's representative, they contribute to the seamless turnaround of vessels, regulatory compliance, and overall operational excellence in the shipping industry.

### **Port Agency Services**

A shipping agent, provides a variety of services that facilitate the operation of a ship while it is in port. These services can be broadly categorized as follows:

1. **Berthing Arrangements:** The port agent arranges for the docking of the ship at the port, liaising with harbor masters, and pilots. They coordinate the necessary tug services and ensure a smooth arrival and departure of the vessel.
2. **Documentation and Customs:** The agent handles all necessary paperwork related to customs and immigration. They ensure compliance with local and international regulations and liaise with relevant port and customs authorities.
3. **Cargo Operations:** They oversee the loading and unloading of cargo, coordinating with stevedores, freight forwarders, and other cargo handling personnel. This also includes arranging inspections of cargo when required.
4. **Supplies and Services:** Port agents coordinate the provision of various services to the ship, such as bunkering (refueling), water supply, waste disposal, and arranging provisions for the crew. They may also coordinate ship maintenance or repairs as needed.
5. **Crew Assistance:** Port agents help with crew changes, arranging transportation, accommodation, and necessary immigration formalities for incoming or outgoing crew members. They also assist with other crew-related matters, like medical emergencies or shore leave arrangements.
6. **Financial Management:** They handle financial matters related to the ship's stay at the port, including port charges, service fees, and other related expenses. The agent ensures transparent accounting and prompt settlement of dues.

7. **Communication and Reporting:** The agent serves as the point of communication between the shipowner/charterer and the local port authorities and service providers. They provide regular updates and detailed reports about the ship's operations at the port.
8. **Crisis Management:** In case of emergencies or unexpected issues, the port agent coordinates with the necessary parties to resolve the situation quickly and efficiently.

These services are critical in ensuring the smooth operation of a ship during its port call, minimizing delays, and optimizing costs. The exact range of services offered may vary depending on the specific needs of the shipowner or charterer, and the capabilities of the port agent.

## Chapter 1: Abbreviations

The shipping industry is known for its extensive use of abbreviations and acronyms. These abbreviations are commonly used in various aspects of shipping, including documentation, operational procedures, vessel specifications, and regulatory requirements. Here are some commonly used abbreviations in the shipping industry:

1. IMO: International Maritime Organization
2. ETA: Estimated Time of Arrival
3. ETD: Estimated Time of Departure
4. LOA: Length Overall
5. DWT: Deadweight Tonnage
6. TEU: Twenty-foot Equivalent Unit
7. MV: Motor Vessel
8. MT: Motor Tanker
9. LNG: Liquefied Natural Gas Carrier
10. LPG: Liquefied Petroleum Gas Carrier
11. VLCC: Very Large Crude Carrier
12. FCL: Full Container Load
13. LCL: Less than Container Load
14. B/L: Bill of Lading
15. COO: Certificate of Origin

16. AIS: Automatic Identification System
17. ECDIS: Electronic Chart Display and Information System
18. ISM: International Safety Management
19. ISPS: International Ship and Port Facility Security
20. SOLAS: International Convention for the Safety of Life at Sea
21. MARPOL: International Convention for the Prevention of Pollution from Ships
22. P&I: Protection and Indemnity
23. H&M: Hull and Machinery
24. BIMCO: Baltic and International Maritime Council
25. IATA: International Air Transport Association (also relevant for air cargo shipments)

These are just a few examples of the numerous abbreviations used in the shipping industry. It's important to note that the shipping industry is constantly evolving, and new abbreviations may emerge over time.

The relationship between shipowners and shipping agents is typically governed by a contractual agreement or agency appointment. This agreement sets out the rights, obligations, and responsibilities of both parties. While specific laws may vary depending on the jurisdiction and the terms of the contract, there are some common legal principles that apply to the relationship between shipowners and agents:

1. Agency Law: The relationship between shipowners and agents is generally governed by principles of agency law. As the principal, the shipowner appoints the agent to act on their behalf within the scope of the agreed-upon authority. The agent has a duty to act in the best interests of the shipowner, follow their instructions, and exercise due care and diligence in carrying out their duties.
2. Fiduciary Duty: Agents owe a fiduciary duty to the shipowner, which means they have a legal obligation to act in the shipowner's best interests and avoid any conflicts of interest. This duty requires the agent to prioritize the shipowner's interests, maintain confidentiality, and avoid any personal gain at the shipowner's expense.
3. Contractual Obligations: The contractual agreement between shipowners and agents forms the basis of their legal relationship. It sets out the specific terms and conditions of the agency arrangement, including the scope of services, fees or commissions, duration of the agreement, and any other agreed-upon provisions. Both parties have a legal obligation to fulfill their contractual obligations as stipulated in the agreement.

4. **Duty of Care and Professionalism:** Agents are expected to exercise a reasonable standard of care and professionalism in carrying out their duties. This includes providing accurate and timely information, acting with skill and competence, and ensuring compliance with applicable laws, regulations, and industry standards.
5. **Indemnification:** The contractual agreement may include provisions regarding indemnification. This means that the shipowner may agree to indemnify the agent against any liabilities, losses, or expenses incurred in the course of their agency services, provided they were acting within the scope of their authority and in accordance with the shipowner's instructions.
6. **Termination of Agreement:** The contractual agreement may specify conditions for termination, such as notice periods or specific events that trigger termination. Both parties have the right to terminate the agreement in accordance with the agreed-upon terms or applicable legal provisions.

It's important for shipowners and agents to have a clear and comprehensive contractual agreement that addresses key legal aspects of their relationship. Consulting with legal professionals experienced in maritime law can help ensure that the contractual agreement reflects the rights and obligations of both parties in compliance with applicable laws and regulations.

The circumstances in which an agent may be obliged to compensate a shipowner can vary depending on the specific terms of their contractual agreement and the applicable laws and regulations. Here are some situations where an agent may be required to compensate a shipowner:

1. **Breach of Contract:** If the agent fails to fulfill their contractual obligations or breaches the terms of the agreement, they may be liable to compensate the shipowner for any losses or damages suffered as a result. For example, if the agent fails to provide agreed-upon services, improperly handles documentation, or causes delays or errors that result in financial losses for the shipowner, they may be held responsible.
2. **Negligence or Misconduct:** If the agent acts negligently or engages in misconduct that causes harm or financial loss to the shipowner, they may be liable for compensation. This could include situations where the agent makes errors or omissions in carrying out their duties, fails to exercise due care, or acts in a manner that deviates from the expected professional standards.



3. **Unauthorized Actions:** If the agent exceeds the scope of their authority or takes actions without the shipowner's consent that result in losses or damages, they may be required to compensate the shipowner. For example, if the agent enters into contracts or makes financial commitments on behalf of the shipowner without proper authorization and those actions result in financial harm, they may be held accountable.
  
4. **Breach of Fiduciary Duty:** If the agent breaches their fiduciary duty by acting in a manner that is contrary to the shipowner's best interests or engages in conflicts of interest that result in harm to the shipowner, they may be obligated to compensate for any losses suffered.
  
5. **Non-compliance with Legal Obligations:** If the agent fails to comply with applicable laws, regulations, or industry standards, and this non-compliance leads to financial losses or damages for the shipowner, they may be required to compensate for those losses.

It's important to note that the specific circumstances and extent of compensation will depend on the facts of each case, the applicable laws, and the terms of the contractual agreement between the shipowner and the agent. Shipowners should consult with legal professionals experienced in maritime law to understand their rights and options for seeking compensation in case of breaches or losses caused by the agent.

## Chapter 2: The Role of a Shipping Agent

### 2.1) Agent's obligations to the Ship owner

As an agent, you have certain obligations to the ship owner. These obligations may vary depending on the specific terms of your agency agreement, but here are some common obligations:

1. **Loyalty:** You are obligated to act in the best interests of the ship owner and to prioritize their interests over your own or any other party. This means you should not engage in any actions that could harm the ship owner or create a conflict of interest.
2. **Due Diligence:** You must exercise reasonable care and skill in carrying out your duties as an agent. This includes ensuring that you have the necessary qualifications, knowledge, and experience to perform your responsibilities effectively.
3. **Communication:** You have a duty to keep the ship owner informed about all matters related to the ship and its operations. This includes providing regular updates on the status of the vessel, reporting any incidents or accidents, and communicating any significant changes or developments that may affect the ship owner's interests.
4. **Compliance:** You are responsible for ensuring that the ship and its operations comply with all applicable laws, regulations, and industry standards. This includes obtaining the necessary permits, licenses, and certifications, as well as adhering to safety, environmental, and other regulatory requirements.
5. **Financial Management:** If you have been entrusted with financial matters, you must handle the ship owner's funds and accounts with the utmost integrity and transparency. This includes maintaining accurate financial records, providing timely reports, and handling financial transactions in accordance with the ship owner's instructions and applicable laws.
6. **Performance of Duties:** You must perform your duties diligently and efficiently, using your best professional judgment and skills. This may involve making decisions on behalf of the ship owner, negotiating contracts, overseeing repairs and maintenance, coordinating with port authorities, and ensuring that the ship's operations are conducted in a safe and efficient manner.
7. **Confidentiality:** You are obligated to maintain the confidentiality of any sensitive information or trade secrets related to the ship owner's business that you acquire during the course of your agency. This duty extends even after the termination of your agency relationship.

It is important to note that the specific obligations of an agent to a ship owner may vary depending on the terms of the agency agreement, local laws, and industry practices. It is advisable to consult the specific agreement and seek legal advice if you have any questions or concerns about your obligations as an agent.

The role of mediators is active, in long-term commercial transactions, which provide independent businesses to their principal and to the public in general. Among the persons connected with the exploitation of the ship, the maritime agent holds a valuable position. A

maritime agent is the natural or legal person who has signed a contract with the shipowner or charterer to undertake the execution of maritime matters on behalf of the latter for a fee and to be able to represent the interests of the ship, i.e., perform tasks for the operating entrepreneur (Ship agent) or the cargo, that is to act on behalf of the charterer and the consignee (Cargo agent).

It must be distinguished between the concept of shipping agent and the concept of consignee. These two concepts stand out from each other. Both the shipping agency contract and the ordering contract mediate the sea carriage contract. Both are involved in drawing up a contract with the sea carrier, which is of interest to their client, with the ultimate consequence that their concepts are confused. But it cannot be agreed between the shipping company and the agent that the latter shall act as a lateral agent of the former.

The maritime agent acts in the name of the shipowner or charterer – whether he expressly communicates it or it follows from circumstances – and consequently for the rights and duties of the customer, the consignee of transport, which is distinguished from the carrier since the latter himself carries out the transport, liability is assumed as a guarantor of the carrier's actions, for the transport of cargo from the consignor to the consignee, therefore and for the deterioration of the goods.

On the contrary, the maritime agent acts as a direct representative and does not assume responsibility for the legal acts being drawn up, exempting the case where he acts without specific authority. Finally, note that the shipping agent acts as a direct agent and especially as a commercial agent. From his activities we conclude that obligations and rights are directly generated for the shipping company. Although there is no legal restriction for the shipping agent to provide services to more than one shipping company, based on exclusivity clauses.

In drawing up a maritime agency contract, rights and obligations of the parties are specified, as well as rights and obligations in their cooperation, which are created in the aforementioned contract. Agency fees are determined by decisions taken from time to time by the Port Stewards Regulatory Committees. These decisions are determined by the Ministry of Mercantile Shipping (YEN) and the Ministry of Employment through a joint decision, which are based on the loading and unloading provisions. However, with the exception of the above there are the ports of Piraeus and Thessaloniki, for which the rights are regulated by decisions made by

the boards of the Piraeus Port Organization and the Thessaloniki Port Organization, which decisions are first approved by the Ministry of Merchant Shipping (YEN).

The shipping agent is provided with remuneration claims for the services he provides to the shipping company. This fee is provided even if it is not included in the shipping agency contract. The fee as well as the time of its payment is defined by the contracting parties. The maritime agent has the right to receive the remuneration from the master of affairs, i.e., the shipowner or the charterer, which is determined on the basis of contract, on the basis of law, collective agreements or commercial customs, i.e., he can demand the remuneration given for this kind of work.

This commission is presented as the clear reflection of the attached agreements to promote the services of the represented entrepreneur. The shipping company, in addition to paying a commission, undertakes, due to exclusivity, the obligation to pay a small fee, which does not depend on the results of the agent's efforts.

The shipping agent, pursuing legal actions for the principal, is not liable under any circumstances. By acting as a direct representative, on behalf of his principal, he does not acquire rights and obligations as well as personal liability for the contracts he draws up in this capacity. But he has responsibility, when he acts without being given representative authority or exceeds its limits.

In addition, he bears no particular responsibility for the execution of contracts or for the possible insolvency of the third-party customer, unless a statutory provision applies or if he himself contractually assumed such guarantee liability (*del credere* guarantee clause). If there is a tort, then it entails personal responsibility. The maritime agent is, however, liable together with the shipowner or the charterer for all maritime duties, which arise from the ratio of the maritime work or on the occasion thereof, when the former draws up a maritime agency contract in Greece as the representative of the shipowner or of the shipowner, who do not have a permanent residence in that country.

The shipping company is the bearer of the essential legal relationship, therefore the subject of the disputes that arise from it. Based on this the maritime agent cannot sue or be sued

for reasons related to the contract between the user of maritime services and the shipping company. The maritime agent has the right to sue or be sued on speculations which he handles himself, provided that he is given a special power of attorney and always in the name of the shipping company, since it is the bearer of both the substantive and the procedural legal relationship.

In general, shipping agents are responsible for any act or omission that affects their legal, professional and ethical obligations to the port authorities. The responsibilities / responsibilities as well as the remuneration of the agent are expressly established in a contract concluded between the agent and the shipowner. This practice is common in the cargo trade, booking agents, etc. Responsibilities of shipping agents include:

- Ensuring berthing for the incoming ship.
- Arrangement of the pilot as well as trailers, if deemed necessary.
- Preparation of documents for customs and port authorities.
- Arrangement for supplying the ship with the necessary supplies.
- Provision of a doctor for the crew or for any other medical assistance.
- Provision of storage warehouses, if required.
- Arrange for necessary repairs.
- Transfer of instructions to the shipowner.
- Organization of transport of goods and supplies.
- Organization for the contact with the stevedores.
- Organization of bunkering operations.
- Concentration of loads.
- Communication with the sender or receiver of goods.
- If there is any damage to the cargo or the ship, he makes the necessary arrangements (if there is a request from the shipowner or master) with the insurance company.

It also undertakes the carrying out of inspections, the services of experts and for the maritime controls that must be carried out.

During pilot operation (picture): pilot operation refers to the practice of using a pilot on board a vessel to navigate and maneuver through ports, waterways, and other challenging areas.



During delivery of goods: A barge which is arranged from the Agent deliver the order (Provisions and stores) to the vessel. Agent coordinates the delivery with the Ship supplier. (Specific day and time)



Source: <https://www.freightcourse.com/what-is-a-ship-chandler/>

During bunkering operation of a VLCC: Bunkering refers to the process of supplying fuel to vessels. It involves the transfer of fuel from a bunker vessel or fuel station to the receiving vessel. Bunkering operation can easily take place in the middle of the sea.



Source: <https://livebunkers.com/safe-bunkering-operation-guidelines>

## 2.2) Shipowner's obligations to the Agent

Shipowners have certain obligations towards the agent representing them, which are typically outlined in a contractual agreement or agency appointment. These obligations include:

1. **Payment of Fees:** Shipowners are responsible for paying the agreed-upon fees or commissions to the agent for their services. These fees may vary depending on the scope of services provided, such as port agency services, documentation handling, and other related tasks. Timely payment of fees is important to maintain a good working relationship with the agent.



2. **Providing Accurate and Timely Information:** Shipowners have an obligation to provide accurate and timely information to the agent. This includes details about the vessel, its schedule, cargo, crew, and any specific requirements or instructions. This information is crucial for the agent to effectively coordinate port operations, handle documentation, and ensure compliance with relevant regulations.
3. **Compliance with Legal and Regulatory Requirements:** Shipowners are responsible for ensuring that their vessel and its operations comply with all applicable laws, regulations, and industry standards. This includes providing necessary documentation, permits, and certificates to the agent, as well as adhering to customs, immigration, and port regulations.
4. **Collaboration and Cooperation:** Shipowners should collaborate and cooperate with the agent in matters related to the vessel's port visit. This includes promptly responding to inquiries, providing necessary authorizations or signatures, and actively participating in resolving any issues or disputes that may arise during the vessel's stay.
5. **Clear Communication and Instructions:** Shipowners should maintain clear and open communication with the agent. They should provide clear instructions regarding their expectations, requirements, and any specific preferences related to the vessel's operations. Regular communication helps the agent understand the shipowner's needs and ensures that the services provided align with their expectations.
6. **Respecting Agent's Expertise and Decisions:** Shipowners should respect the expertise and decisions of the agent, especially in matters related to port operations, regulations, and local practices. Agents are often well-versed in the specific requirements of the ports they serve, and their advice and recommendations should be considered to ensure smooth and efficient operations.

It's important for shipowners to have a good working relationship with the agent, as they play a crucial role in facilitating the vessel's port visit and ensuring compliance with various operational and regulatory requirements. By fulfilling their obligations towards the agent, shipowners can foster a productive partnership and achieve successful port operations.

## Chapter 3: Two main categories of services (Husbandry services & OPA service)

### 3.1) Husbandry services

Husbandry services, in the context of the maritime industry, refer to a range of support services provided to ships and their crews during their port stay. These services are aimed at ensuring the smooth and efficient turnaround of vessels, meeting regulatory requirements, and fulfilling the needs of the ship, crew, and cargo. Here are some common aspects of husbandry services:

1. **Port Agency Services:** Port agencies act as intermediaries between the ship, its owners or operators, and the port authorities. They assist with administrative tasks, documentation, customs clearance, and liaising with port officials. Port agents coordinate various aspects of the vessel's visit, including berthing arrangements, pilotage services, and communication with port authorities.
2. **Crew Assistance:** Husbandry services often involve providing support to the crew members of visiting ships. This includes facilitating crew changes (signing on and signing off), arranging transportation to and from the vessel, and assisting with immigration and customs procedures. Husbandry service providers may also help with crew welfare, such as arranging medical assistance, supplying provisions, or organizing recreational activities during the vessel's stay.
3. **Bunkering and Supplies:** Husbandry services encompass arranging essential supplies and services for the vessel. This includes coordinating bunkering operations (refueling the ship with fuel or lubricants), provision of fresh water, delivery of ship stores and provisions, and waste disposal. The husbandry service provider ensures that the vessel has access to necessary resources to meet its operational needs.
4. **Repairs and Maintenance:** If the vessel requires repairs or maintenance during its port stay, the husbandry service provider can assist in coordinating these activities. This may involve arranging dockyard or workshop facilities, sourcing spare parts, coordinating with repair contractors, and ensuring that repairs are completed efficiently to minimize downtime.
5. **Surveys and Inspections:** Husbandry services may involve arranging surveys and inspections required by regulatory bodies or classification societies. This can include hull inspections, cargo surveys, safety inspections, or checks for compliance with international maritime standards. The service provider assists in scheduling and facilitating these surveys, ensuring that the vessel meets all necessary requirements.

6. **Communication and Documentation:** Husbandry service providers handle communication between the ship and various parties involved, such as port authorities, customs officials, agents, and suppliers. They also assist with documentation, including the preparation and submission of required forms, reports, and certificates.
7. **Financial and Administrative Support:** Husbandry services may include financial and administrative support, such as handling financial transactions, settlement of port dues, coordinating vessel-related payments, and providing account management services.

Overall, husbandry services play a vital role in supporting the efficient and effective operation of vessels during their port visits. These services ensure that ships and their crews receive the necessary support, resources, and assistance, enabling them to comply with regulations, maintain operational readiness, and optimize their time in port.

Crew change operation in a tanker vessel. (picture)



### 3.2) OPA service

The term "Owners Protective Agent (OPA)" refers to a role or service provided by a maritime agent or agency on behalf of the shipowner or operator. The OPA acts as a representative and advocate for the owner's interests, ensuring that the vessel's operations are carried out smoothly and in compliance with contractual obligations and relevant regulations. Here are some key aspects of the Owners Protective Agent (OPA) role:

1. **Representation and Advocacy:** The OPA acts as the shipowner's local representative at the port of call or in a specific jurisdiction. They work on behalf of the owner to safeguard their interests and ensure that the vessel's operations align with contractual obligations, industry best practices, and legal requirements.
2. **Contractual and Legal Compliance:** The OPA assists the owner in navigating contractual agreements, ensuring that all parties involved adhere to their obligations. This may include reviewing contracts, verifying compliance, and resolving any discrepancies or disputes that may arise during the vessel's stay.
3. **Port Operations Coordination:** The OPA facilitates and coordinates various aspects of the vessel's port visit. This may involve liaising with port authorities, terminal operators, service providers, and regulatory bodies to ensure the smooth handling of the vessel's arrival, berthing, loading/unloading of cargo, and departure.
4. **Customs and Immigration Assistance:** The OPA can assist with customs and immigration formalities, ensuring compliance with local regulations and facilitating the smooth clearance of the vessel, crew, and cargo. This includes coordinating the submission of necessary documents, providing information on customs procedures, and liaising with relevant authorities.
5. **Commercial and Financial Support:** The OPA may provide commercial and financial support to the shipowner or operator. This can include managing financial transactions related to the vessel's stay, coordinating payments to suppliers and service providers, and providing advice on cost-effective measures or potential commercial opportunities.
6. **Crisis Management and Emergency Response:** In the event of a crisis or emergency situation, the OPA plays a critical role in coordinating response efforts. They work closely with the shipowner, authorities, and relevant stakeholders to mitigate risks, handle incidents, and ensure the safety and well-being of the vessel, crew, and cargo.

7. **Information and Communication Management:** The OPA acts as a central point of contact for information and communication related to the vessel's operations. They relay essential updates, instructions, and notices from the owner to the ship's personnel and vice versa. The OPA may also provide regular reports and updates on the vessel's activities and relevant port developments.

The Owners Protective Agent (OPA) plays a crucial role in protecting the shipowner's interests, ensuring operational efficiency, and facilitating compliance with legal and contractual obligations during the vessel's port visit. Their expertise and representation help streamline processes, minimize risks, and support successful ship operations.

### 3.3) Charterer's Agent

Charterers are entities or individuals that hire or lease a vessel, either for a specific voyage (known as a voyage charter) or for a certain period of time (known as a time charter). Charterers often work closely with shipping agents to facilitate the chartering process and ensure the smooth operation of the vessel. Shipping agents provide various services to charterers, including:

**Vessel Selection and Booking:** Shipping agents assist charterers in identifying suitable vessels for their specific cargo requirements or transportation needs. They provide information on vessel availability, capabilities, and rates, helping charterers make informed decisions.

**Negotiating Charter Terms:** Shipping agents negotiate charter terms on behalf of the charterers, including freight rates, laytime (the time allowed for loading and unloading), demurrage (additional payment for exceeding the agreed time), and other contractual terms and conditions.

**Charter Party Documentation:** Shipping agents help prepare and review charter party agreements, which outline the terms and conditions of the charter. They ensure that all relevant clauses and provisions are included and assist with the documentation process.

**Liaising with Owners and Operators:** Shipping agents act as intermediaries between charterers and vessel owners or operators. They communicate charterers' requirements, coordinate vessel inspections, and facilitate discussions and negotiations between the parties involved.

**Port Agency Services:** Shipping agents handle port agency services for the chartered vessels, ensuring smooth berthing, efficient loading and unloading operations, and compliance with port regulations. They coordinate with port authorities, arrange necessary services, and assist with customs clearance and other port formalities.

**Cargo Handling and Logistics:** Shipping agents coordinate cargo handling operations, including the loading, stowage, and discharge of cargo on chartered vessels. They work closely with

terminal operators, stevedores, and other relevant parties to ensure efficient cargo operations and minimize any potential disruptions.

**Documentation and Administrative Support:** Shipping agents assist charterers with the preparation and processing of various shipping documents, including bills of lading, cargo manifests, and other required paperwork. They ensure compliance with regulatory requirements and facilitate the smooth movement of cargo.

**Claims and Dispute Resolution:** Shipping agents provide assistance in handling claims or disputes that may arise during the charter period. They help charterers gather evidence, liaise with insurers or P&I clubs, and work towards resolving any issues in a timely manner.

**Financial and Operational Support:** Shipping agents may provide financial and operational support to charterers, including assistance with financial transactions, bunkering arrangements, crew changes, and other operational matters related to the chartered vessels.

The extent of services provided by shipping agents to charterers may vary depending on the specific requirements of the charter and the scope of the shipping agent's expertise and capabilities.

Here are some well-known Shipping agents that have a strong reputation and offer reliable services in various parts of the world:

1. **Inchcape Shipping Services:** Inchcape is a global port agency and maritime services provider with a vast network of offices in numerous ports worldwide.
2. **Wilhelmsen Ships Service:** Wilhelmsen is a leading provider of maritime services, including port agency services, and operates in many major ports around the world.
3. **GAC Group:** GAC Group is a global shipping, logistics, and marine services provider that offers port agency services in numerous ports across different regions.
4. **ISS World Services:** ISS World Services is a global port agency and logistics company with a presence in many ports worldwide, providing a range of services to shipowners and operators.
5. **WSS (Worldwide Shipping & Chartering):** WSS is a global ship agency and maritime services provider with an extensive network of offices in various ports, offering a range of services.
6. **Peterson Group:** Peterson Group provides port agency services, logistics, and other marine services across a broad spectrum of industries in many ports globally.

7. S5 Agency World: S5 Agency World is a port agency and shipping services company with a focus on emerging markets and a presence in numerous ports worldwide.
8. Sharaf Shipping Agency: Sharaf Shipping Agency is a global shipping and logistics company that offers port agency services in several ports across different regions.
9. Barwil Agencies: Barwil Agencies, a part of the Wilhelmsen group, provides port agency and other maritime services in several ports globally.
10. Jardine Shipping Services: Jardine Shipping Services is a global port agency and logistics provider, serving a wide range of industries in various ports worldwide.

It's important to conduct further research and consider factors such as the specific port, local expertise, reputation, and customer reviews when selecting a port agent that best suits your needs.

### 3.4) Analyze the cost of every service and further analysis at every cost.

The cost of husbandry services in shipping can vary widely depending on a range of factors, including the size and type of the vessel, the location and nature of the port, and the specific services required. Some of the key factors that can impact the cost of husbandry services include:

- Port fees and charges - Many ports charge fees for services such as berthing, pilotage, and towage. These fees can vary widely depending on the port and the services required.
- Local regulations and taxes - Some ports may impose additional taxes or regulations that can impact the cost of services. For example, some ports require ships to pay a pollution control fee or a ballast water discharge fee.
- Crew changes: The cost of coordinating crew changes, including transportation and accommodation, can also be a significant expense.
- Fuel prices - Fuel prices can have a significant impact on the cost of bunkering, which is one of the most significant husbandry services required by ships.
- Market competition - The cost of services can be influenced by market competition, with ports and service providers competing to offer the most cost-effective services.
- Currency exchange rates - The cost of services can be impacted by exchange rates, which can fluctuate over time.

To manage the cost of husbandry services, many shipping companies and owners work with specialist agents or brokers who can negotiate prices and coordinate services on their behalf. By working with experienced agents, owners can often secure more favorable pricing and ensure that services are provided efficiently and effectively.

In summary, the cost of husbandry services in shipping can vary widely depending on a range of factors. To manage costs, owners and shipping companies often work with specialist agents or brokers who can negotiate prices and coordinate services on their behalf.

The cost of an Owner's Protective Agent (OPA) in shipping can vary depending on a number of factors, including the duration and complexity of the vessel's port call, the size of the vessel, and the specific services required. Some of the key factors that can influence the cost of an OPA include:

- Time spent in port: The longer a vessel spends in port, the more time the OPA will need to spend coordinating services and protecting the interests of the vessel's owner. As a result, vessels with longer port calls are likely to incur higher OPA costs.
- Size and complexity of the vessel: larger vessels or vessels with specialized equipment may require additional coordination and oversight from the OPA, which can increase the overall cost of their services.
- Local fees and charges: In some ports, local authorities may charge fees or require permits for the appointment of an OPA, which can add to the overall cost of their services.
- Dispute resolution: If disputes or issues arise during the port call, the OPA may need to spend additional time and resources to resolve these issues, which can add to the overall cost of their services.
- Currency exchange rates: The cost of an OPA may also be influenced by currency exchange rates, particularly if the OPA is based in a different country than the vessel's owner.

Despite these factors, the cost of an OPA is typically a small fraction of the overall cost of a vessel's port call. This is because the OPA's primary role is to protect the interests of the vessel's



owner, which can ultimately lead to cost savings through efficient service coordination and dispute resolution.

In summary, while the cost of an OPA in shipping can vary depending on a range of factors, it is typically a small fraction of the overall cost of a vessel's port call. The primary role of the OPA is to protect the interests of the vessel's owner, which can ultimately lead to cost savings through efficient service coordination and dispute resolution.

In the picture below we can see a Proforma Disbursement Account with all relevant costs.

Proforma Disbursement

Prepared by ██████████  
 PRINCIPAL ██████████  
 ETA ██████████  
 Beam : 74.14 FT  
 Cargo onboard: CBM  
 CBM Capacity : 12,262 CBM  
 Fuel Capacity: MT  
 Condition : Laden  
 Category : Regular  
 Direction : Southbound  
 Bow Thruster : No

Date : ██████████  
 VESSEL : ██████████  
 GRT : ██████████  
 LOA : ██████████  
 Displacement : 21,780 Tons  
 PCUMS : 11,578 Tons  
 Bunker operation: NO  
 Booking : YES  
 FW Surcharge : 7.79%

Detail Description		DA Currency Amount USD		
<b>Tolls Calculation for LPG</b>				
DWT BANDS		fixed tariff /	Lock type	capacity tariff / cbm
Toll Fixed Tariff	Regular	60,000.00		60,000.00
Tolls Capacity Tariff		12,262.00	CBM	1.60 19,619.20
<b>Total fixed tariff per CBM USD</b>			<b>Laden</b>	<b>0 79,619.20</b>
Sub Total				79,619.20
Bank charge 0.25%				199.05
7%VAT over bank charge				13.93
<b>TOTAL Canal TOLLS</b>				<b>79,832.18</b>

Fresh Water surcharge fixed fee | 10,000.00  
 Fresh water surcharge varibale 6,218.93

	Local Currency Amount USD	Bank Charge	7% VAT	Total USD
Wire Handling	3,200.00	8.00	0.56	3,208.56
Tugs at locks	4,685.00	11.71	0.82	4,697.53
Towing Locomotives	3,000.00	7.50	0.53	3,008.03
Security fee	1,250.00	3.13	0.22	1,253.34
Canal Inspection	275.00	0.69	0.05	275.74
PCSOPEP Fee	660.00	1.65	0.12	661.77
Booking fee (if applicable)	10,500.00	26.25	1.84	10,528.09
Emergency Equipment and Surveillance Services	2,000.00	5.00	0.35	2,005.35
Compulsory preventive fumigation	375.00			375.00
Launch hire	680.00			680.00
Agency fee	1,050.00			1,050.00
VUMPA Entry fee	119.00			119.00
Admeasurement service charge (First Transit)	1,000.00			1,000.00
Agency fee for Ships Plans approval	150.00			150.00
	0.00			0.00
	0.00			0.00
	0.00			0.00
	0.00			0.00
	0.00			0.00
	0.00			0.00
	0.00			0.00
<b>SUB TOTAL ANCILLARY EXPENSES</b>	<b>45,162.93</b>			<b>45,231.33</b>

**TOTAL CANAL TRANSIT EXPENSES 125,063.51**

Kindly remit the funds to the following bank account

## Chapter 4: Rules of every port

### 4.1) Differences between Tankers & Cargo vessels.

A cargo ship is a merchant ship that transports goods, cargo, and materials from one port to another. It is designed in such a way that it requires cranes and other mechanisms to load and

unload materials and the tank is made up of welded steel whose lifespan may be of 25 to 30 years even after being scrapped. An oil tanker is a tank ship as its name suggests itself. It transports oil and its products from one port to another.

Apparently, it is also known as petroleum tankers as it transports refined and unrefined products from refineries to market or vice versa. Moreover, two different types of oil tankers; crude oil tankers and product tankers.

Goods, Cargo, oil, and other materials are exported from one country to another and it makes an eminent impact on the GDP of a country. Therefore, it is an eminent factor considered by the country. A cargo ship is used to transport goods, cargo, and materials from one port to another. Besides, a cargo ship is a merchant ship that was invented by Malcom McLean. And it is expected to have 25 to 30 years of lifespan even after being scrapped as it is made of welded steel.

Cargo ships are considered to handle mostly international trade and cross oceans' and seas' carrying goods. Even the unloading and loading of goods require cranes and other mechanisms for doing so. Moreover, it has been categorized into seven types, such as feeder ships, general cargo vessels, container ships, tankers, dry bulk carriers, multi-purpose vessels, reefer ships, and roll-on/roll-off vessels.

In fact, these types of cargo ships have specific materials to be carried. It also differs in size, dimensions, and capacity accordingly. Furthermore, being a significant carrier, it contributes to pollution as well. As cargo vessels are fueled with bunker fuel that has a higher sulfur level due to its low cost. Thereby, it results in huge sulfur emissions. However, it is being replaced with a lower level of sulfur and nitrogen oxide content.

Oil is also transported through different carriers that are called oil tankers. It is also known as a petroleum tanker. The major work of an oil tanker is to transport bulk oil and its product. Besides, an oil tanker is a type of tankship that was invented by Ludvig Nobel. And it is expected to have 20 years of lifespan. Apparently, it has been categorized basically into two types; such as crude tankers and product tankers. Crude tankers transport unrefined crude oil from extraction sites to refineries, while products transport refined crude oil from refineries to their respective markets.

Moreover, it is also classified according to their work and sizes. As size varies from inland or coastal tankers to the mammoth ultra large crude carriers. Even there are specialized types of oil tankers, such as navel replenishment oiler and ore-bulk-oil carriers. Furthermore, being a significant carrier, it contributes to air and water pollution as well. As an oil tanker carries crude oil Which contains polycyclic aromatic hydrocarbons that are extremely hazardous for marine life. So, Oil spills have a devastating impact on marine life. Apparently, they could be prone to underdevelopment, diseases, and abnormal reproductivity. With that, it also impacts air due to bunker oil which is considered to be a high-level pollutant.

Merchant ships and tanker ships are essential ships for the transport of oils and cargo from one continent to another or one country to other. However, merchant ships and tanker ships carry different materials from one another and they are very distinct from each other. Therefore, the Cargo ships and Oil tankers are very distinct, yet people tend to mistake them for similar ships.

1. A Cargo ship is a merchant ship, while an Oil tanker is a tank ship.
2. A Cargo ship transports goods, cargo, and materials from one port to another, while an oil tanker transports refined oil to market or unrefined oil to the refineries.
3. The Cargo ship was invented by Malcom McLean, while the Oil tanker was invented by Ludvig Nobel.
4. Cargo ships are categorized into seven types of cargo ships according to the type of goods carried. Meanwhile, an Oil tanker has only two basic types of oil tanker depending on their destination and type of oil carried.
5. Cargo ships are much more durable as their lifespan is of 25 to 30 years after being scrapped. Meanwhile, the Oil tanker has only 20 years of lifespan.

#### 4.1i) Green Award

The Green Award is an independent certification program that recognizes and promotes environmentally friendly and safe maritime operations. It aims to encourage best practices in the shipping industry, reduce environmental impact, and enhance sustainability. Here is an analysis of the Green Award and its significance:

1. **Criteria and Certification Process:** The Green Award certification is awarded to ships that meet stringent environmental, safety, and quality criteria. These criteria cover various aspects, including vessel design, emissions reduction, waste management, crew training, and operational procedures. Ships are assessed by independent auditors, and those meeting the requirements are granted the Green Award certification. Furthermore, all Green Award certified vessels are offered a 6% discount on all water sampling and analysis
  
2. **Environmental Benefits:** The Green Award promotes environmentally responsible practices in the shipping industry. Certified ships typically have advanced technologies and measures in place to reduce emissions, such as using low-sulfur fuels, employing energy-efficient equipment, and implementing waste reduction and recycling programs. By incentivizing eco-friendly practices, the Green Award helps mitigate the environmental impact of shipping activities.
  
3. **Safety and Quality Standards:** In addition to environmental aspects, the Green Award also emphasizes safety and quality standards. Certified ships must comply with international regulations and guidelines, ensuring that they meet the highest standards of safety, security, and operational excellence. This focus on safety helps reduce accidents, protect crew members, and enhance overall maritime operations.
  
4. **Market Recognition and Reputation:** The Green Award certification holds significant value in the shipping industry. It serves as a credible and internationally recognized endorsement of a ship's environmental and safety performance. Certified ships often enjoy a positive reputation and may be preferred by charterers, cargo owners, and ports that prioritize sustainability and responsible practices. This recognition can lead to

commercial advantages, such as increased business opportunities and improved market competitiveness.

5. **Continuous Improvement and Knowledge Sharing:** The Green Award encourages continuous improvement among certified ships. It provides a platform for knowledge sharing and exchange of best practices, allowing ship operators to learn from each other's experiences and innovations. This collaborative approach promotes the adoption of new technologies, operational efficiencies, and environmental initiatives across the industry.
6. **Industry-wide Impact:** The Green Award's influence extends beyond certified ships. By setting high standards and promoting sustainable practices, it creates a positive ripple effect throughout the shipping industry. It inspires other ship operators to improve their environmental and safety performance, spurring the adoption of greener technologies and practices on a broader scale. This collective effort contributes to the overall reduction of the maritime sector's environmental footprint.
7. **Challenges and Opportunities:** While the Green Award has made significant strides in promoting sustainability in shipping, there are challenges that need to be addressed. These include encouraging more ships to participate in the certification program, continuously updating criteria to align with evolving industry standards, and addressing potential concerns regarding the certification's robustness and credibility.

In conclusion, the Green Award plays a crucial role in advancing sustainable practices and raising environmental and safety standards in the shipping industry. By recognizing and incentivizing ships that meet rigorous criteria, it promotes environmental responsibility, fosters innovation, and contributes to a more sustainable maritime sector.

## 4.2) Major port analysis

### 4.2.1 Piraeus

The Port of Piraeus is the largest port in Greece and one of the busiest ports in the Mediterranean Sea. Located near Athens, the capital city of Greece, Piraeus serves as a significant gateway for maritime trade and passenger transportation. Here are some key details about the Port of Piraeus:

1. **Size and Facilities:** The Port of Piraeus covers a vast area and consists of multiple terminals and facilities. The port has three main harbor areas: the Main Port, Zea Marina, and Mikrolimano. The Main Port is the largest and handles various types of cargo, including containers, liquid bulk, dry bulk, and vehicles. It is equipped with modern infrastructure, warehouses, and storage facilities.
2. **Connectivity:** Piraeus is a crucial hub for international shipping, connecting Greece to major ports worldwide. It serves as a vital link between Europe, Asia, and Africa. The port has established extensive maritime connections, with regular shipping services to numerous destinations across the Mediterranean Sea and beyond.
3. **Trade Volume:** The Port of Piraeus handles a significant volume of cargo, making it a major player in the regional and global trade network. It has experienced substantial growth in recent years, particularly in container traffic. In 2020, despite the challenges posed by the COVID-19 pandemic, the port handled around 5.7 million twenty-foot equivalent units (TEUs) of containers.
4. **Passenger Traffic:** In addition to its cargo operations, Piraeus is a prominent hub for ferry services and cruise ship tourism. The port accommodates numerous ferry routes connecting mainland Greece with various Greek islands. It also serves as a popular cruise ship destination, with many cruise lines including Piraeus as a port of call for Mediterranean cruises.
5. **Port Development:** Piraeus has undergone significant development and expansion in recent years. The port is operated by the Piraeus Port Authority (PPA), which has implemented modernization projects to enhance its infrastructure and operational efficiency. One notable development is the cooperation between the PPA and the Chinese shipping company COSCO, which has led to the expansion and privatization of the port's container terminals.
6. **Economic Impact:** The Port of Piraeus plays a crucial role in Greece's economy. It generates substantial revenue, provides employment opportunities, and supports various industries such as logistics, shipping services, and tourism. The port's growth and development have contributed significantly to the economic development of the surrounding region.
7. **Cultural Significance:** Piraeus has historical and cultural significance in addition to its economic importance. It has been a key port since ancient times and played a significant role in the maritime history of Greece. Today, it continues to be a vibrant and bustling area, with a mix of commercial activities, restaurants, and entertainment venues.

Overall, the Port of Piraeus is a vital transportation and trade hub, connecting Greece to the global market. Its strategic location, extensive facilities, and ongoing development projects position it as a major player in the Mediterranean shipping industry.

The Port of Piraeus handles a wide range of goods and commodities that are transferred through its facilities. Here are some of the main types of goods that are commonly transported and transferred at the port:

1. **Containers:** Piraeus Port has container terminals equipped with modern handling facilities to handle containerized cargo. Containers carrying various goods such as manufactured products, consumer goods, raw materials, and machinery are transferred through the port.
2. **Bulk Commodities:** The port also handles bulk cargo, including dry bulk commodities such as grains, coal, iron ore, and minerals. These goods are typically transported in large quantities without individual packaging.
3. **Liquid Bulk:** Piraeus Port has facilities for handling liquid bulk cargo, such as petroleum products, chemicals, liquefied natural gas (LNG), and other liquid chemicals. These goods are transferred through specialized terminals equipped with appropriate storage and handling infrastructure.
4. **Ro-Ro (Roll-on/Roll-off) Cargo:** The port facilitates the transfer of Ro-Ro cargo, which includes vehicles, trucks, trailers, and other wheeled cargo. These goods are typically driven onto specialized vessels or ramps for easy loading and unloading.
5. **General Cargo:** Piraeus Port handles a variety of general cargo, which includes a wide range of goods that do not fall into the categories mentioned above. It can include project cargo, machinery, equipment, packaged goods, and more.
6. **Cruise Ship Passengers:** Piraeus Port is a popular destination for cruise ships in the Mediterranean. It serves as a gateway for tourists visiting Athens and other nearby attractions. The port welcomes a significant number of cruise ship passengers, who disembark and explore the city and its surroundings.

It's important to note that this is not an exhaustive list, and the types of goods and commodities transferred through the Port of Piraeus may vary based on trade dynamics, market demands, and other factors. For specific details regarding the current goods and commodities being transferred, it is advisable to consult the port authorities or relevant shipping agents for the most accurate and up-to-date information.







Figure 1: Port of Piraeus

Source: <https://www.naftikachronika.gr/2021/03/17/limani-peiraia-stin-4i-thesi-ton-koryfaion-limanion-emporevmatokivotion-stin-evropi-gia-to-2020/>

#### 4.2.2. Shanghai

The Port of Shanghai is the largest and busiest port in the world, located in Shanghai, China. It is a major international seaport and a crucial hub for global trade and shipping. Here are some key details about the Port of Shanghai:

1. **Size and Facilities:** The Port of Shanghai is made up of several port areas, including the Yangshan Deep Water Port, Waigaoqiao Port, Wusongkou Port, and the Shanghai Port International Cruise Terminal. Combined, these port areas cover a vast area and have numerous berths and terminals to handle various types of cargo.
2. **Container Handling:** The port is renowned for its container handling capabilities. It has multiple container terminals equipped with advanced technology and infrastructure, allowing for efficient loading, unloading, and storage of containers. It serves as a major transshipment hub for international container shipping, connecting to various destinations worldwide.
3. **Cargo Diversity:** The Port of Shanghai handles a diverse range of cargo types, including containers, bulk cargo, general cargo, liquid bulk, and specialized cargo. It facilitates the transportation of goods such as manufactured products, machinery, electronics, raw materials, automotive components, chemicals, and more.

4. **Connectivity:** The port has extensive connectivity, both domestically and internationally. It is well-connected to inland areas through an extensive network of railways, highways, and waterways. The port's strategic location on the East China Sea provides direct access to major shipping routes and allows for efficient global trade connections.
5. **Economic Significance:** The Port of Shanghai plays a crucial role in China's economy. It serves as a key driver of international trade, facilitating imports and exports for industries across the country. The port's activities contribute significantly to the regional and national GDP and provide employment opportunities.
6. **Expansion and Development:** The port has undergone significant expansion and development in recent years to meet the growing demands of global trade. The construction of the Yangshan Deep Water Port, located on an island southeast of Shanghai, has added additional berths and enhanced the port's capacity to handle larger vessels.

It's important to note that as the Port of Shanghai is a dynamic and constantly evolving hub, there may have been developments or changes since my last knowledge update in September 2021. For the most up-to-date and detailed information about the Port of Shanghai, it is advisable to consult official sources and the port authorities directly.



For years, the Port of Shanghai has been competing with the Port in Singapore for the title of the largest port in the world. In 2010, Shanghai's Port surpassed its rival by 500,000 TEU, thus becoming the largest port in container throughput.

In 2013, a total of 33 million TEUs were loaded and unloaded in Shanghai. The numbers are growing every year.

Besides, the appropriate port layout allows it to receive the largest container ships in the world. It has 100+ ton lifts, as well as fixed, mobile, and floating cranes. The port has at least 125 docks and 19 terminals. It has three break-bulk terminals and two bulk cargo terminals in the Luojing, Wusong, and Longwu areas. Its cruise terminal has the capacity to handle one million passengers every year. Only this port in China accepts IMO import cargo as LCL. Some of the Shanghai port's areas:

- Yangshan Deepwater Port Area,
- Waigaoqiao Terminal,
- Shanghai Port Cruise Terminal,
- Haitong Ro/Ro Terminal,
- Luojing Terminal.

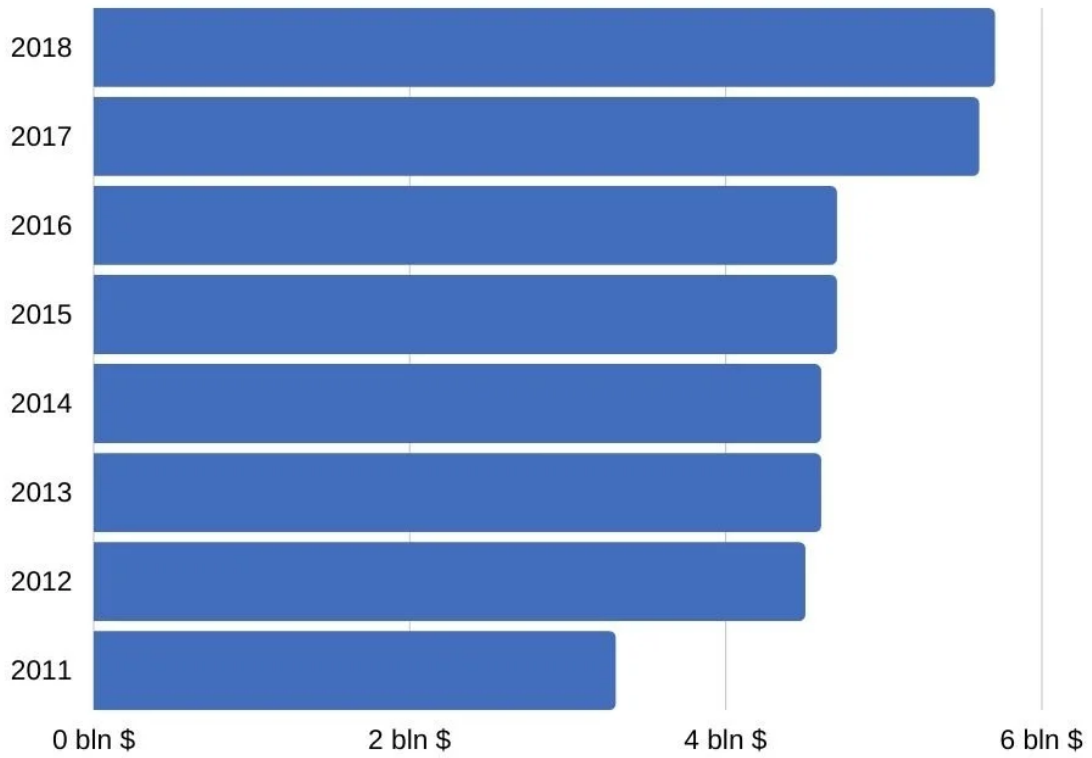
In 2017, container handling in the Shanghai port exceeded 40 million TEU. This result made it possible to beat the current world record in transshipments. It has been setting records ever since.

As one of the world's largest container ports, Shanghai's port has seen an increase in transshipments by 142 percent between 2007 and 2016.

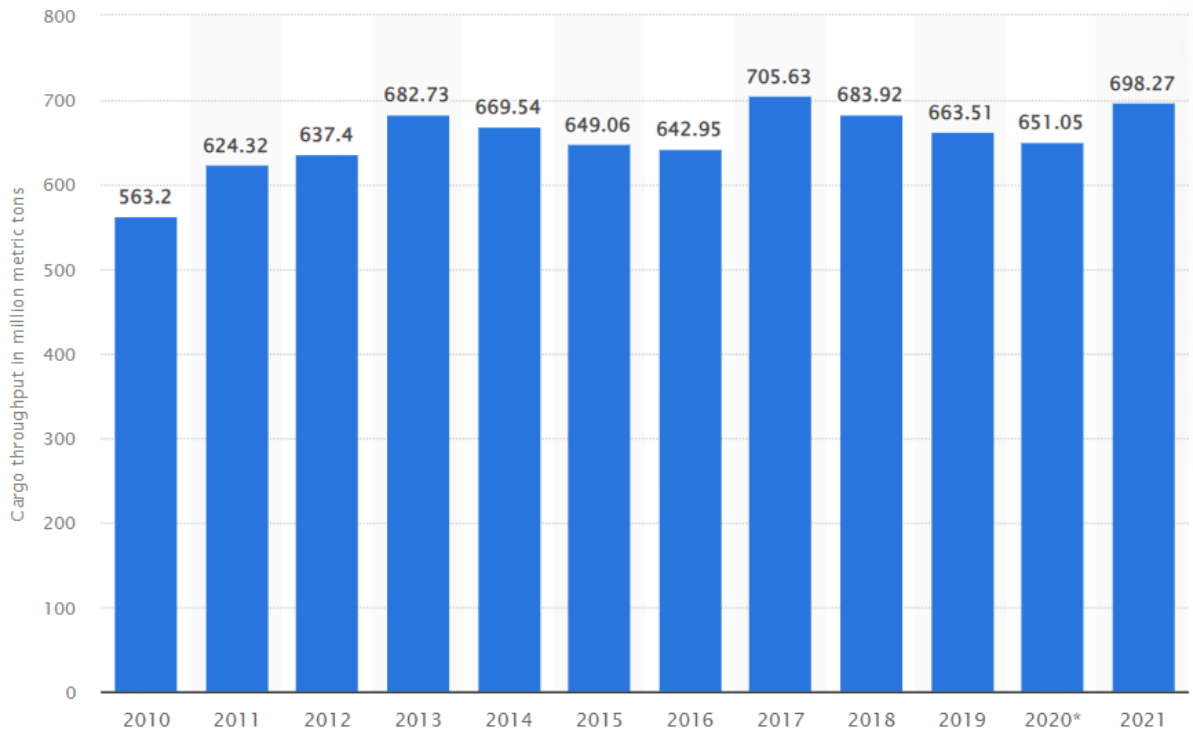
Last year, the port launched trial operations in a new, automated container terminal, described as the world's largest unmanned terminal. The Yangshan Port can handle 4 million TEU and aims for 6 million TEU. Thus, the port of Shanghai wants to maintain its leading position among international shipping centers. Along the way, it invests in smart and green port's development, making shipping more environmentally friendly.

Every month, more than 2,000 container ships depart from the Port of Shanghai, heading for various parts of the world. The port serves 281 shipping routes, covering the most important global links. Such a port is more attractive to shippers and carriers.

## Shanghai International Port's revenue



Annual cargo throughput of Shanghai Port in China from 2010 to 2021:



Source: <https://www.statista.com/statistics/1318259/cargo-throughput-port-of-shanghai/>



Source : [https://lloydslist.maritimeintelligence.informa.com/LL1142313/Shanghai-port-geared-up-to-build-\\$7bn-new-terminal](https://lloydslist.maritimeintelligence.informa.com/LL1142313/Shanghai-port-geared-up-to-build-$7bn-new-terminal)

#### 4.2.3. Gibraltar

GIBRALTAR Port is a Large Sized Port. The types of ships that frequently call at GIBRALTAR port are Sailing Vessel (40%), Pleasure Craft (24%), Yacht (8%), General Cargo (3%), Oil Products Tanker (3%). The last ship to arrive at this port is GIBPILOTS EUROPA, 15m and 51s ago. The maximum length of ships recorded entering the port is 348 meters. The maximum draft is 10.4 meters. Maximum capacity (DWT) is 114218t. GIBRALTAR Port is located in West Mediterranean, Gibraltar in Gibraltar Country at coordinates N 36° 08' 37.67" - W 005° 21' 53.09". The official UN/Locode of this port is GIGIB.



Figure 2: The port of Gibraltar

Source: <https://www.marinetraffic.com/el/ais/details/ports/186?name=GIBRALTAR&country=Gibraltar>

The strait is the mouth from where the Mediterranean Sea joins the Atlantic Ocean and has been known since ancient times as the Herculean Columns. Located geographically at the southernmost tip of the Iberian Peninsula, it separates it from Africa. With a width of between 7.7 and 14.6 nautical miles, a length of around 60 km and a depth between 300 and 900 meters, it is one of the most important straits in the world, as it ensures access - via the Suez Canal - to the Indian Ocean.

The westernmost tip of the Strait between Cape Trafalgar (Spain) and Cape Spartal (Morocco) is 27 miles long. The easternmost end of the Strait between Europa Point (Gibraltar) and Ceuta is 14 miles long. According to estimates, the number of passing merchant ships exceeds 100,000 per year and 300 per day.

According to the Franco-British declaration of 1904 (also known as the "entente cordiale", i.e. a cordial understanding whose main objective was the alliance of the two great powers, France and Britain, against German competition and expansionism) and the UN convention (to which we will refer later) there is freedom of passage through the Strait of Gibraltar. In fact, Article 7, which is set out below, excludes the construction of fortresses or strategic facilities, precisely to ensure freedom of navigation:



*“In order to ensure the free passage of the Strait of Gibraltar, the two Governments agree not to permit the construction of fortifications or strategic works on that part of the coast of Morocco which consists between, but not including, Melilla and the hills governing the right bank of the Sebou River. However, this condition does not apply to the places currently occupied by Spain on the Mauritanian shores of the Mediterranean”.*

The above treaty may exclude the Spanish territories of the region, but all the states concerned, around the strait, Great Britain, Spain and Morocco, have often proclaimed the status of freedom around the strait<sup>10</sup>, but the Convention on the Law of the Sea fills the legal vacuum.

Brief history and UN Convention on the Law of the Sea:

Until the opening of the Suez Canal in 1869, the Strait of Gibraltar was the only means of ocean access to and from the Mediterranean Sea. The long-standing strategic importance of the Strait has been recognized throughout history, and this is reflected in the struggles that have taken place between important maritime powers for control of the Strait. The closure of the Suez Canal between 1968-1975 (as a result of the well-known "Suez crisis") highlighted the importance of the Strait as the only means of maritime access to the Mediterranean Sea. In more recent decades, the role of the Strait in conjunction with the Suez Canal as main shipping routes for trade between Europe, China and the developing markets of East and South Asia, and as a route for the circulation of tankers carrying Middle Eastern oil for European markets, has only served to confirm the importance of the Strait in the 21st century.

The current law of the sea has had a significant impact on navigation in the Strait of Gibraltar. As the Law of the Sea has gradually recognized the right of coastal states to assert territorial maritime claims, straits of certain width have been transformed from water bodies into open seas areas subject to territorial maritime status. Initially, because the Strait of Gibraltar was longer than 6 nautical miles at its narrowest point, it remained an open sea corridor through which ships could pass under the usual international law regime of a 3 nautical mile territorial sea.

However, since the breadth of the territorial sea was extended to 12 nautical miles under the 1982 United Nations Convention on the Law of the Sea, straits such as Gibraltar were prone to overlapping territorial maritime claims by adjacent coastal States, which might have the

capacity to place significant restrictions on freedom of navigation. In the case of the Strait of Gibraltar, this was a particular issue because of its strategic importance and because of the ability of three states to claim overlapping territorial maritime claims over the waters of the Strait.

Part III of the United Nations Convention on the Law of the Sea ('Straits for International Navigation') provides a separate status for straits used for international navigation. While, Part III of the UN Convention on the Law of the Sea addresses the conditions of many different types of straits, the Strait of Gibraltar falls into the main category of straits. As the Strait of Gibraltar is a strait through which there is no high seas corridor and is used by international navigation for passage between a part of the high seas or the exclusive economic zones (Exclusive Economic Zone, "EEZ") in the Atlantic Ocean and another part of the high seas or EEZ in the Mediterranean Sea, it is a strait through which the right of innocent passage applies.

In conclusion, in this regard, it is worth mentioning the following facts about the passage of Gibraltar. According to 2006 estimates, the interferry traffic (from Europe to Africa and vice versa) of Gibraltar included more than 5 million passengers, 1.3 million vehicles and 190,000 lorries. The importance of the "sea bridge" between Southern Europe and North Africa is such that it takes into account the paramount importance of building an undersea railway tunnel between the Straits, which will facilitate the transport of goods and people, thus reducing maritime traffic, which in turn would reduce some of the congestion in the Strait.

It has been mentioned many times in this paper that Gibraltar's strategic location explains why, for centuries, the Rock has been used as a naval fortress and why so many battles have been fought for this important peninsula at the entrance to the Mediterranean. In the 2nd half of the 18th century, ships bound for India via the Suez Canal were refueled in the port of Gibraltar. Today, this peculiarity of geography has allowed Gibraltar to become a maritime trading center at the crossroads of Mediterranean and Atlantic shipping routes.

Gibraltar is a bustling commercial center and with around 60,000 ships passing through the Strait of Gibraltar each year, the Rock has developed into an important supply port - the largest in the Mediterranean - and offers a wide range of other maritime services<sup>14</sup>. The local airport is just a few minutes from the port, from where there are several daily flights to various UK destinations. According to a statistical report by the Port of Gibraltar the quantity of ships moored or moored within the port limits in the year 2020 is approaching 9,500.

#### 4.2.4. Singapore

Singapore's port remained the busiest transshipment port in the world in 2021, while recording a record container traffic of 37.5 million TEU.





Figure 3: The port of Singapore

Source: <https://www.reporter.gr/Eidhseis/Naytilia/509317-H-Sigkapoyrh-paramenei-sthn-koryfh-twn-limaniwn-pagkosmiws>

The Port of Singapore is one of the busiest and most important ports in the world. It is located on the southern coast of Singapore, an island country in Southeast Asia. The port is strategically positioned along major shipping routes, making it a crucial hub for international maritime trade.

Here are some key facts about the Port of Singapore:

1. **Size and Facilities:** The Port of Singapore is made up of several terminals and facilities, spread across different areas. The main terminals include the Keppel Terminal, Brani Terminal, Pasir Panjang Terminal, and Jurong Port. These terminals are equipped with modern infrastructure, advanced container handling equipment, and extensive storage facilities.
2. **Connectivity:** The port is well-connected to over 600 ports in more than 120 countries around the world. It serves as a major transshipment hub, connecting ships from different regions and facilitating the transfer of cargo between vessels. The port also has an extensive network of shipping lines, ensuring regular and efficient maritime services.
3. **Trade Volume:** The Port of Singapore consistently ranks as one of the world's busiest ports in terms of total cargo tonnage. It handles a significant portion of global container traffic and is a key gateway for trade in the Asia-Pacific region. In 2020, the port handled over 36 million twenty-foot equivalent units (TEUs) of containers.
4. **Economic Importance:** The port plays a vital role in Singapore's economy, contributing significantly to its GDP and employment. It supports various industries, including manufacturing, logistics, and trading. The port's activities generate substantial revenue and create numerous job opportunities.
5. **Efficiency and Technology:** The Port of Singapore is known for its efficiency and adoption of advanced technologies. It has implemented automated systems, such as automated cranes and robotic equipment, to streamline operations and enhance productivity. The port also utilizes digital platforms and data analytics to optimize processes and improve overall efficiency.
6. **Environmental Initiatives:** Singapore is committed to sustainable and environmentally friendly practices in its port operations. The port has implemented measures to reduce emissions, conserve energy, and promote eco-friendly shipping practices. It also supports initiatives for clean and green port development.

Overall, the Port of Singapore is a vital global maritime hub, facilitating international trade and contributing to Singapore's economic growth. Its strategic location, state-of-the-art infrastructure, and efficient operations have established it as a key player in the global shipping industry.

The summary of Maritime performance of Singapore referring to official sources such as the Maritime Port Authority of Singapore (MPA) for the first 6-month period of 2023.

## SUMMARY OF MARITIME PERFORMANCE OF SINGAPORE

Key Port Indicators	May 2023	Y-O-Y Growth (%)
Vessels Arrivals (M GT)	266.70	▲ 11.4
Vessels Arrivals (Number)	10,324	▲ 32.1
Container Throughput (M TEUs)	3.41	▲ 9.2
Cargo Throughput (M Tonnes)	48.17	▲ 1.9
Bunker Sales (M Tonnes)	4.52	▲ 11.8

[www.mpa.gov.sg](http://www.mpa.gov.sg)



Source: <https://www.mpa.gov.sg/who-we-are/newsroom-resources/research-and-statistics/port-statistics>

#### 4.2.5. Santos

The concession contract for Latin America's largest port will have a duration of 35 years, renewable for five years. The organization accepts offers between January 31 and March 16, and

organizes a public hearing with no date yet set. The draft contract will be submitted to the Federal Court of Auditors for review following the public consultation. The company to which the contract will be awarded will be required to make \$ 250 million in mandatory investments. In addition, it will need to allocate about \$ 550 million to finance the construction of the Santos-Guarujá undersea tunnel.

The project is designed to allow pedestrians, cars and bicycles to pass under the ship access channel to the port of Santos. The funds will be transferred in three annual instalments, 25% immediately after the contract, 35% in the second year and 40% in the third. Eduardo Nery Machado Filho, general manager of Antaq, explained that the tunnel will be built independently of the new port administration and will require a new bidding process to select new investors. Work to increase the depth of the access channel will cost \$130 million. Its draught will increase from 15 to 17 meters by 2033 to accommodate larger ships, and another \$36.4 million will be redirected to modernize the port structure or improve city-port relations.



Figure 4: The port of Santos

Source: <https://www.reporter.gr/Eidhseis/Naytilia/510415-To-limani-toy-Santos-idiwtikopoieitai>

According to data from the Maritime Attaché Santos, in 2015 52 ships under the Greek flag arrived at the port of Santos (SP), of which 17 tankers and 35 cargo ships. Of the 17 tankers, 14 were engaged in cabotage. Of the freighters, 2 carried containers and the rest sugar, corn and soybeans to Asia (22 ferries to China, Indonesia, Malaysia, Vietnam, Japan, Bangladesh, S.

Korea and Singapore), Africa (5 ferries to Nigeria, Egypt and Algeria), the Middle East (5 ferries to Saudi Arabia, UAE, Jordan and Iraq) and Europe (1 ferry to Italy). Of the total ships, 3 trucks (2 containers and 1 dry cargo) unloaded in Santos. The rest sailed empty and loaded.

The traffic under the Greek flag of ships in the port of Santos is reduced by 43% in the first five months of 2016 compared to the same period last year. The decrease is attributed to the flagging of tankers on cabotage routes, although a significant reduction in dry cargoes to Asia is still recorded. 3 cabotage tankers and 10 trucks arrived, of which 2 unloaded and continued unladen on a domestic route. The rest of the trucks sailed empty and loaded sugar and cereals to Africa (3 ferries to Algeria, Nigeria), Asia (2 ferries to India, China), Middle East (2 ferries to Iraq, Saudi Arabia) and Europe (1 ferry to Holland).

#### 4.2.6. Rotterdam

The Port of Rotterdam is one of the largest and busiest ports in the world, located in the city of Rotterdam in the Netherlands. It is a key hub for international trade and serves as a gateway to Europe. Here are some important facts about the Port of Rotterdam:

1. **Size and Capacity:** The Port of Rotterdam covers a vast area of over 40 kilometers and consists of several port basins and industrial areas. It has a total throughput capacity of over 461 million metric tons per year, making it the largest port in Europe.
2. **Strategic Location:** Rotterdam's location on the Rhine-Meuse-Scheldt delta gives it excellent access to the hinterland and makes it an ideal transit point for goods destined for Europe. It is strategically positioned on the North Sea, providing direct access to the Atlantic Ocean.
3. **Container Handling:** The port has state-of-the-art container terminals capable of handling large container vessels. The container terminals are equipped with advanced infrastructure, including automated container handling systems, to ensure efficient operations. The ECT Delta Terminal and the APM Terminals are two of the major container terminals in the Port of Rotterdam.
4. **Energy Hub:** Rotterdam is a major energy hub, with extensive facilities for oil refining, natural gas, and chemical production. It is home to several oil refineries and petrochemical plants, making it a crucial center for the energy industry in Europe.



5. **Industrial Complex:** The Port of Rotterdam houses a diverse range of industries, including manufacturing, logistics, and distribution. It has dedicated areas for specific sectors, such as the Maasvlakte for container handling, the Botlek area for chemical production, and the Europoort area for oil and gas activities.
6. **Inland Connectivity:** Rotterdam has excellent inland connectivity through an extensive network of waterways, pipelines, roads, and railways. It is well connected to the European hinterland, allowing for efficient transportation and distribution of goods.
7. **Sustainable Practices:** The Port of Rotterdam places a strong emphasis on sustainability and environmental responsibility. It is actively working on reducing carbon emissions, promoting renewable energy, and implementing innovative technologies to make the port operations more sustainable.
8. **Digitalization and Innovation:** Rotterdam is at the forefront of digitalization and innovation in the maritime industry. It is implementing smart port solutions and using data-driven technologies to optimize port operations, improve efficiency, and enhance supply chain visibility.

The Port of Rotterdam plays a crucial role in Europe's economy, facilitating trade and serving as a vital link in global supply chains. Its strategic location, extensive infrastructure, and commitment to innovation contribute to its status as a leading global port.

Rotterdam is indeed a global trading hub and a crucial gateway to Europe. As one of the largest and most important ports in the world, it plays a significant role in facilitating trade between Europe and other regions. Here's how Rotterdam serves as a global trader between Europe and the rest of the world:

1. **Connectivity:** Rotterdam is exceptionally well-connected with an extensive network of waterways, railways, and roadways. This comprehensive infrastructure ensures efficient transportation of goods to and from various parts of Europe, making it an attractive location for trade.
2. **Transshipment Hub:** Rotterdam acts as a major transshipment hub, connecting global trade flows. Goods from all over the world are transshipped through Rotterdam to reach their final European destinations. Its vast container terminals and efficient logistics services enable seamless transfer of cargo between different modes of transportation.
3. **Container Handling:** The port has advanced container terminals equipped with state-of-the-art technology to handle large volumes of containerized cargo. These terminals facilitate the smooth movement of goods, including consumer products, machinery, electronics, and other manufactured goods, to and from Europe.

4. **Diverse Trade:** Rotterdam handles a wide variety of commodities and goods, including bulk cargo (such as coal, iron ore, and grains), liquid bulk (such as crude oil and petroleum products), chemicals, automobiles, and general cargo. This diversity makes Rotterdam a well-rounded trading hub catering to various industries.
5. **Free Trade Zone:** Rotterdam operates as a free trade zone, offering numerous advantages for international businesses, such as reduced customs duties and simplified import/export procedures. This status encourages trade and investment and makes it an attractive location for global companies.
6. **Trade Services:** Rotterdam offers a wide range of trade-related services, including logistics, warehousing, inspection, certification, and financial services. These services support efficient trade operations and enhance the competitiveness of the port as a global trading center.
7. **Business-friendly Environment:** The Netherlands, including Rotterdam, has a business-friendly environment, a stable economy, and a transparent legal framework. These factors attract international companies to establish their regional headquarters, distribution centers, and trading offices in the region.

In conclusion, Rotterdam's strategic location, excellent connectivity, diverse trade capabilities, and supportive business environment have solidified its position as a key global trader between Europe and the rest of the world. The port's significance in international trade continues to grow, contributing significantly to the European economy and the global supply chain.

Rotterdam is one of the largest ports in the world and handles a wide variety of cargoes. Here are some of the major types of cargo that pass through the Port of Rotterdam:

### **Dry bulk**

The dry bulk segment saw an increase of 1.7% to 80.1 million tonnes. The Agri bulk segment is always strongly influenced by harvest yields in different parts of the world. There were reduced imports from Ukraine last year and high energy costs also caused less processing of Agri bulk. High energy costs were also a major reason for the lower production in the German steel industry. As a consequence, imports of iron ore declined by 15.5%. The throughput of coal, which in addition to being used in blast furnaces is primarily burned in power plants, rose sharply by 17.9%. Coal was cheaper than natural gas and it also reduces dependence on natural gas (in particular from Russia). In order to burn less natural gas in gas-fired power plants, the

Dutch government lifted the production cap that had just been introduced for Dutch coal-fired power plants. Imports of Russian coal have been banned since August. More coal was therefore imported from the USA, South Africa, Australia and Colombia. Biomass throughput rose by 13.7%. Other dry bulk fell by 14.2%. The main causes are stockpiling due to the uncertainty of supply lines, and high prices for the shipping of containers: cargo that can also be transported in bulk, such as industrial minerals and fertilizers, is therefore being transported in this way more often.

### **Liquid bulk**

The volume of liquid bulk grew by 4.0% to 212.8 million tonnes. The 5.9% increase in crude oil was attributable to two factors. The first was higher crude oil throughput. Early in the year, this consisted of Russian crude oil, to India in particular. Late in the year, it comprised crude oil on its way to Poland and Germany, replacing oil previously delivered by pipeline from Russia. The second cause was that the refineries in Rotterdam and the hinterland processed a lot of crude oil. Refineries in Northwest Europe switched to non-Russian oil (particularly from Iraq, Saudi Arabia, Angola, Nigeria and Norway). Because that oil comes from distant locations, the number of supertankers (very large crude carriers) increased from 27 in 2021 to 156 in 2022. The 10.8% decline in the throughput of oil products was mainly due to the structural fall in the imports and re-exports of fuel oil and the sanctions targeting Russia.

LNG rose by 63.9%. There was very strong demand for LNG as an alternative to the natural gas entering Europe by pipeline from Russia. 30% of the LNG came from the USA in 2022. It is noteworthy that an LNG vessel also arrived from Australia. There were three reasons for the 15.3% increase in other liquid bulk. First of all, there was a shift from transport by tank container to transport by chemical tanker. In addition, there was more additional stockpiling at buyers due to logistical difficulties. In this way, in a context of disrupted transport chains, they ensured that they had enough supplies of raw materials. Finally, there was a substantial increase in renewable products, particularly bioethanol.

### **Containers and breakbulk**

Container throughput fell by 5.5% in TEU and by 9.6% in tonnes. The difference between the two was due to a sharp increase in arrivals of full containers from Asia in the first nine months of the year because of high demand for consumer goods. At the same time, exports declined and so many more empty containers were shipped back. The container sector was still affected by disruptions in the logistics chain in 2022 due to strong demand for transport in combination with difficulties associated primarily with lockdowns (COVID-19) and capacity issues. That resulted in overcrowded terminals and distribution centers in the port and hinterland, and uncertainty about delivery times.

Transshipment cargo in particular therefore moved to other ports where capacity was still available. Cargo volume to the hinterland was higher in 2022. However, the main explanation for the decline in container throughput was the war in Ukraine and the subsequent sanctions

targeting Russia. Before the war, over 8% (in TEU) of Rotterdam container traffic was related to Russia. Rotterdam had a 40% market share in this traffic. These volumes all but disappeared after March. In the fourth quarter, high inflation and lower consumption, in combination with high stocks, led to a further reduction in container throughput. The consequence of all this was that the rates for container transport fell to pre-COVID levels and ships were increasingly able to sail on time by the end of the year.

Roll-on/roll-off traffic (Ro-Ro) was 13.5% higher. This figure paints a slightly rosy picture because of the end of the Brexit transition period on 1 January 2021. That led to additional transport in late 2020 and a dip in Ro-Ro transport in early 2021.

Another break bulk was 10.4% higher. A major factor was the increase in imports of steel and non-ferrous metals. The sharp rise in energy prices made European industrial production relatively expensive, with a subsequent increase in imports of steel and non-ferrous metals from, among other places, Asia, where demand was low due to COVID-19. In addition, high container rates meant that, as in the 'other liquid bulk' sector, more cargo was shipped as break bulk.

**THROUGHPUT PORT OF ROTTERDAM**

	<b>2022</b>	<b>2021</b>	
	January - December	January - December	difference in %
<b>INCOMING AND OUTGOING</b>			
Iron ore and scrap	25.579	30.264	-15,5
Coal	28.981	24.576	17,9
Agribulk	8.063	8.587	-6,1
Other dry bulk	17.444	15.281	14,2
<b>Subtotal dry bulk</b>	<b>80.066</b>	<b>78.707</b>	<b>1,7</b>
Crude oil	103.948	98.174	5,9
Mineral oil products	58.913	66.076	-10,8
LNG	11.495	7.013	63,9
Other liquid bulk	38.415	33.326	15,3
<b>Subtotal liquid bulk</b>	<b>212.772</b>	<b>204.589</b>	<b>4,0</b>
<b>Containers</b>	<b>139.657</b>	<b>154.485</b>	<b>-9,6</b>
Roll on/Roll off	27.252	24.013	13,5
Other general cargo	7.641	6.916	10,5
<b>Total breakbulk</b>	<b>34.893</b>	<b>30.928</b>	<b>12,8</b>
<b>Total throughput</b>	<b>467.389</b>	<b>468.709</b>	<b>-0,3</b>
<b>Number TEU (x1000)</b>	<b>14.455</b>	<b>15.300</b>	<b>-5,5</b>

Unit: Gross weight in 1,000 metric tons  
Source: Port of Rotterdam

**THROUGHPUT PORT OF ROTTERDAM**

	2022	2021	
	January - December	January - December	difference in %
<b>INCOMING</b>			
Iron ore and scrap	23.251	27.482	-15,4
Coal	27.740	23.444	18,3
Agribulk	7.256	7.741	-6,3
Other dry bulk	14.561	13.222	10,1
<b>Subtotal dry bulk</b>	<b>72.808</b>	<b>71.888</b>	<b>1,3</b>
Crude oil	101.072	96.818	4,4
Mineral oil products	32.565	35.916	-9,3
LNG	11.347	6.388	77,6
Other liquid bulk	23.140	19.691	17,5
<b>Subtotal liquid bulk</b>	<b>168.123</b>	<b>158.812</b>	<b>5,9</b>
<b>Containers</b>	<b>74.522</b>	<b>79.798</b>	<b>-6,6</b>
Roll on/Roll off	10.884	9.878	10,2
Other general cargo	5.025	4.793	4,8
<b>Total breakbulk</b>	<b>15.910</b>	<b>14.671</b>	<b>8,4</b>
<b>Total throughput</b>	<b>331.363</b>	<b>325.170</b>	<b>1,9</b>
<b>Number TEU (x1000)</b>	<b>7.506</b>	<b>7.955</b>	<b>-5,7</b>
<b>OUTGOING</b>			
Iron ore and scrap	2.328	2.782	-16,3
Coal	1.241	1.132	9,6
Agribulk	807	846	-4,6
Other dry bulk	2.883	2.059	40,0
<b>Subtotal dry bulk</b>	<b>7.258</b>	<b>6.819</b>	<b>6,4</b>
Crude oil	2.876	1.356	112,2
Mineral oil products	26.348	30.161	-12,6
LNG	148	625	-76,2
Other liquid bulk	15.276	13.636	12,0
<b>Subtotal liquid bulk</b>	<b>44.649</b>	<b>45.777</b>	<b>-2,5</b>
<b>Containers</b>	<b>65.135</b>	<b>74.687</b>	<b>-12,8</b>
Roll on/Roll off	16.368	14.135	15,8
Other general cargo	2.616	2.122	23,3
<b>Total breakbulk</b>	<b>18.984</b>	<b>16.257</b>	<b>16,8</b>
<b>Total throughput</b>	<b>136.026</b>	<b>143.539</b>	<b>-5,2</b>
<b>Number TEU (x1000)</b>	<b>6.950</b>	<b>7.345</b>	<b>-5,4</b>

Unit: Gross weight in 1,000 metric tons  
Source: Port of Rotterdam



### 4.3) Canal analysis

The Panama Canal is a man-made waterway located in Panama, Central America, which connects the Atlantic Ocean to the Pacific Ocean. It is one of the most significant engineering achievements in the world and has had a profound impact on global trade and maritime transportation. Here are some key points about the Panama Canal:

1. Purpose: The primary purpose of the Panama Canal is to provide a shorter and more efficient route for ships traveling between the Atlantic and Pacific Oceans. By avoiding the longer journey around the southern tip of South America (Cape Horn), ships can save time, fuel, and operating costs.
2. Construction: Construction of the Panama Canal began in 1904 by the United States and was completed in 1914. The project involved the excavation of a 50-mile (80-kilometer) waterway through the Isthmus of Panama, which required the removal of millions of cubic meters of soil and rock.

3. **Lock System:** The Panama Canal uses a system of locks to raise and lower ships as they transit through the canal. There are three sets of locks: Gatun Locks on the Atlantic side, Miraflores Locks in the middle, and Pedro Miguel Locks on the Pacific side. The locks use gravity and water displacement to lift ships to the level of Gatun Lake and lower them back down to sea level on the other side.
4. **Dimensions:** The maximum dimensions of ships that can transit through the Panama Canal are known as Panamax size. As of the current expansion project completed in 2016, the maximum dimensions are approximately 366 meters (1,200 feet) in length, 49 meters (160 feet) in width, and 15 meters (50 feet) in draft.
5. **Expansion:** In order to accommodate larger vessels, the Panama Canal underwent a major expansion project that was completed in 2016. This expansion involved the construction of new locks, known as the Neo-Panamax locks, which are wider and deeper than the original locks. This allows for the passage of larger container ships, known as New Panamax vessels, with significantly increased cargo capacity.
6. **Importance to Global Trade:** The Panama Canal plays a crucial role in global trade, serving as a vital link between the Atlantic and Pacific shipping routes. It provides a shorter route for ships carrying goods between Asia, Europe, and the Americas, and significantly impacts international trade patterns.
7. **Revenue and Operation:** The Panama Canal is operated by the Panama Canal Authority (ACP). The ACP collects tolls from ships transiting through the canal, generating substantial revenue for Panama's economy. The tolls are based on factors such as the size of the vessel, the type of cargo, and the route taken.
8. **Environmental Considerations:** The Panama Canal is committed to sustainable operations and environmental conservation. Efforts are made to conserve water through the reuse and recycling of water in the locks. Environmental management programs are also in place to protect the surrounding ecosystem and wildlife.

The Panama Canal continues to be a vital transportation route and a symbol of human ingenuity. It has had a profound impact on global trade, connecting economies and enabling the efficient movement of goods between the Atlantic and Pacific Oceans.

The fees for transiting the Panama Canal are based on a toll structure that takes into account various factors such as the type of vessel, its size, and the type of cargo being transported. The tolls are determined by the Panama Canal Authority (ACP) and are subject to periodic adjustments. Here are some key points regarding the Panama Canal fees:



1. **Tonnage Measurement:** The tolls for the Panama Canal are calculated based on the Panama Canal Universal Measurement System (PC/UMS). This measurement system considers the vessel's dimensions, including its length, width, and draft.
2. **Vessel Types:** The Panama Canal categorizes vessels into different types, including passenger vessels, container ships, bulk carriers, tankers, vehicle carriers, and others. Each category has its own toll structure based on its size and capacity.
3. **Panama Canal Net Tonnage:** The tolls are generally based on the Panama Canal Net Tonnage (PC/NT) of the vessel. The PC/NT is calculated using a specific formula that takes into account the vessel's total enclosed spaces, cargo capacity, and other factors.
4. **Toll Calculation:** The tolls are calculated by multiplying the PC/NT of the vessel by a specific toll rate applicable to its category. The toll rates can vary depending on factors such as the vessel's size, its transit direction (from the Atlantic to the Pacific or vice versa), and the type of cargo it carries.
5. **Additional Charges:** In addition to the basic tolls, there may be additional charges for specific services or circumstances. For example, vessels carrying hazardous materials may incur additional fees. Optional services like pilotage (guidance by a canal pilot) and tug assistance may also have separate charges.
6. **Reservation Fees:** Vessels can make reservations for transit slots in advance, and a non-refundable reservation fee is required to secure a slot. This fee is separate from the tolls and ensures availability within a specified timeframe.
7. **Fee Adjustment:** The Panama Canal Authority periodically reviews and adjusts the toll rates to account for factors such as inflation, operational costs, and market conditions. These adjustments are made to ensure the sustainability and efficiency of the canal's operations.

It's important to note that the specific toll rates and fees for transiting the Panama Canal can change over time, as they are subject to updates by the Panama Canal Authority. It's recommended to refer to the official website of the Panama Canal Authority or contact them directly for the most up-to-date and accurate information regarding fees and tolls.

In general, the operation of the Panama Canal under ACP since 1999, has undergone radical changes and innovative ideas, mainly regarding canal management and profitability. The ACP

has proven that the Panama Canal could be a well-maintained machine which in any case, could be used either on the basis of tourism or for civilian purposes. Basically, the first earnings began to appear around 1990, and mainly three main reasons:

- First, for more than 25 years, container ships operating in the Pacific Ocean usually preferred to unload containers at west coast ports and then transported them through the land transportation system and primarily by rail, all the way to the east of the United States of America. This transport system began to have problems after the lesser frequent routes were cut off, resulting in congestion on the remaining routes. This resulted in a gradual increase in routes through the Panama Canal.

- Secondly, the Port of Los Angeles at that time was the main entrance to the Pacific side, resulting in congestion very soon since its structure and equipment were not sufficient to cover such a large volume of container handling. Also, in addition to the shortcomings in the port's facilities, an equally important reason was the political instability that prevailed in the port of Los Angeles with a milestone in 2002 where all the ports of the west coast remained closed for more than ten (10) days. This resulted in the huge financial ruin of the container managers until then, who paid special attention to the transport of their cargoes by sea.

- A third and equally important reason that contributed to the increase in the profits of the Panama Canal was that cargo managers began using ships with a larger capacity than the Panamax until then to improve the economy of scale. The new and larger ships were now used on the Asia-Europe Sea routes, and their passage through the Suez Canal was much more convenient. As a result, Panamax-type ships were transported on the Asia-America sea routes via the Panama Canal, which apparently increased by the number of crossings compared to the past.

The Panama Canal uses a system of water locks to raise and lower vessels as they transit between the Atlantic and Pacific Oceans. The locks are essential for overcoming the significant difference in elevation between the two oceans. Here's how the water locks function in the Panama Canal:

1. Lock Structure: The Panama Canal has three sets of locks: the Miraflores Locks on the Pacific side, the Pedro Miguel Locks in the middle, and the Gatun Locks on the Atlantic side. Each set consists of a series of chambers, or lock gates, through which vessels pass.

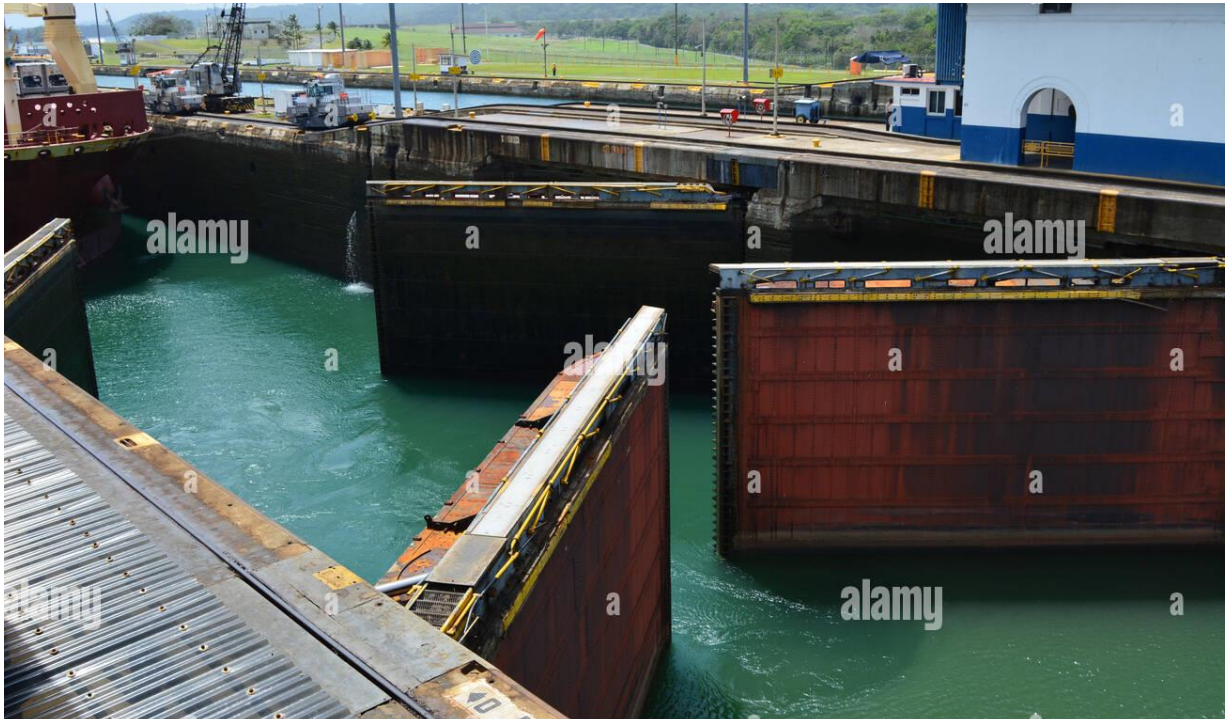
2. **How They Work:** The lock chambers are filled with water or emptied to raise or lower the vessel's water level, allowing it to move between different elevations. Each lock chamber has two large doors, called miter gates, at each end to seal the chamber and retain water during the lockage process.
3. **Raising Vessels:** When a vessel enters a lock chamber from the lower sea level, the miter gates behind it are closed, and water is gradually admitted into the chamber from the higher-level water source, either from a reservoir or a nearby lock chamber. As water fills the chamber, it raises the vessel to the higher level.
4. **Lowering Vessels:** Conversely, when a vessel enters a lock chamber from the higher sea level, the miter gates in front of it are closed, and water is slowly drained from the chamber into the lower-level waterway. As the water level decreases, the vessel is lowered to the lower sea level.
5. **Lock Operation:** The operation of the locks involves a sophisticated hydraulic system that controls the flow of water into and out of the chambers. This system maintains precise water levels, allowing for safe and efficient vessel transit.
6. **Lock Dimensions:** The lock chambers in the Panama Canal are quite large to accommodate a wide range of vessel sizes. The dimensions of the lock chambers are approximately 33.53 meters (110 feet) wide, 304.8 meters (1,000 feet) long, and 26.7 meters (88 feet) deep.
7. **Transit Process:** When a vessel transits the Panama Canal, it typically requires multiple lockages to reach the desired elevation on either side. The vessel is guided and assisted by electric locomotives, called mules, that run along tracks on the lock walls to keep the ship centered and prevent it from contacting the lock walls.

By utilizing the water locks, the Panama Canal effectively raises and lowers vessels to navigate the difference in water levels between the Atlantic and Pacific Oceans, allowing for safe and efficient transits through the canal.

Water locks system in the picture below:



Source: <https://www.marineinsight.com/guidelines/how-the-water-locks-of-panama-canal-work/>



alamy

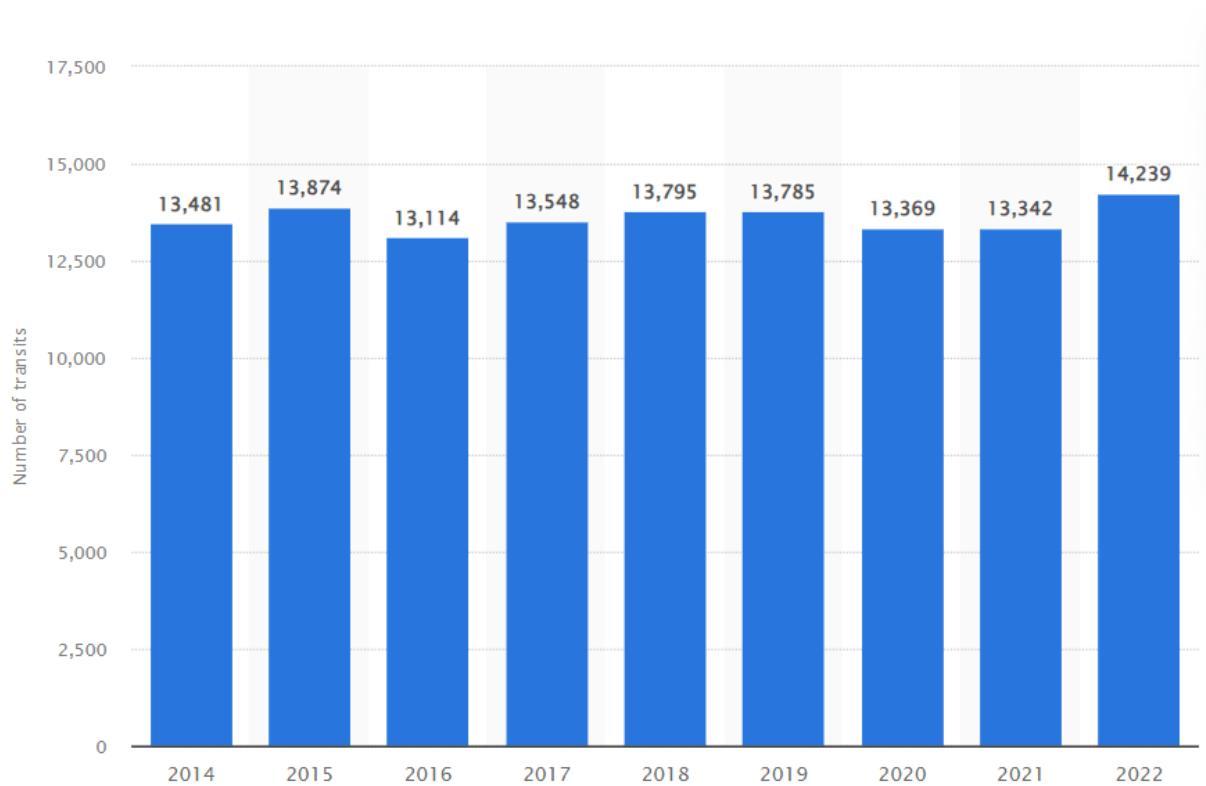
Image ID: FKCR67  
www.alamy.com



Figure 5: The Port of Panama

Source: <https://maritimes.gr/el/nautilia/limania/37212-thetiko-proshmo-gia-ta-limania-toy-panama-para-thn-pandhmia>

Number of transits in the Panama Canal from 2014 to 2022 :



The Panama Canal (ACP) authorities, observing the rapid increase in container shipping and mostly the number of ship crossings through the Panama Canal, first proposed expanding the canal in 2014. The plan to expand the Panama Canal was considered necessary and of great importance since they wanted the canal to remain competitive according to the upcoming developments and forecasts in maritime transport, mainly for two very important reasons: The first and foremost reason was that the total world tonnage is constantly increasing, making use of larger and larger ships, many of which are now PostPanamax. Ships of this type, which over time occupy a greater share of maritime transport, would very soon become a problem for the Panama Canal since ships of this size require canals and tanks larger than the already existing Panama and which could no longer be served, greatly reducing its competitiveness.

- Secondly, the channel already makes use of 85% of its capacity and given the over-demand at times, it results in congestion and delays all too often. The above reasons are perhaps the main reasons for the decrease in the competitiveness of the channel and as a natural consequence of the profits. According to the statistical data from the canal authorities from August 2012 onwards, the number of ships using the canal follows a noticeably declining course.

Cargo volumes at Panama ports increased by 15.9% during January-May 2020, despite the pandemic, according to statistics from the Panama Maritime Authority. The cargo volume for the first five months of 2018 amounted to 3.26 million TEU compared to 2.78 million TEU in the previous year. The Manzanillo International Terminal (MIT-Panama) handled 1.08 million tons. TEU, up 18.2%. In 2019, Maersk/Hamburg Sud, CMA CGM and Hapag Lloyd made a redesign of the international network. The changes resulted in the 'creation' of around 400,000 TEU per year of cargo handled which mainly benefited Panama and Colombia (Cartagena)," says MIT marketing spokesman Juan Carlos Croston.

According to the most optimistic scenario, regarding the traffic in the channel, it has been estimated that there will be an increase of about 585 million PCUMS tons, by 2025. On the other hand, the projections for the minimum increase will not be less than 480 million PCUMS tons by 2025 (ACP, 2006). Which if translated into percentage points results in the overall increase will range between 72% - 110% (ACP, 2006). Theoretically, with a sufficient increase in the capacity

of the canal, the canal will not only increase its competitiveness but will also become the global shipping financial center.

The authorities of the Panama Canal, taking into account the future forecasts as well as the two problems that are becoming more and more noticeable day by day, decided to create a new, parallel and larger pair of tanks than the existing ones, in order to fully meet the upcoming needs.

The Suez Canal is an artificial sea route that passes through the Suez Isthmus in Egypt and connects the Mediterranean Sea with the Red Sea. The canal separates Africa from Asia and provides the shortest sea route between Europe and the Atlantic with the Indian and Western Pacific oceans. The creation of the canal took almost 10 years with Egyptian labor and was opened for navigation for the first time in November 1869. Due to the fact that it is the shortest route between east and west, it can save ships valuable time and operating costs. This is particularly important in view of the development of world trade and maritime transport. (it is the cheapest method of transportation and serves about 80% of the total volume of cargo transported worldwide). Characteristic advantages of Suez:

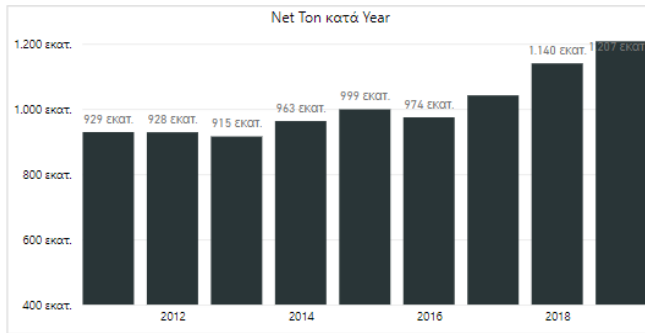
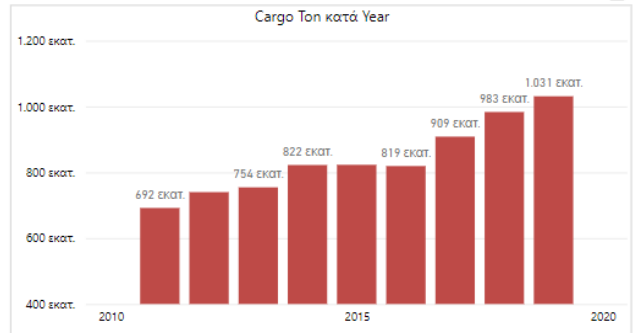
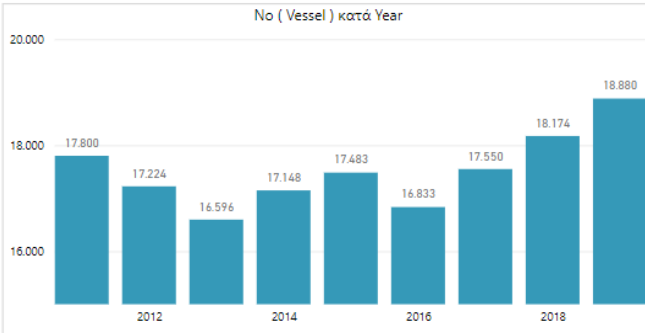
1. It is the longest canal in the world without mechanisms that
2. control the height of the water level between the two seas that unites
3. Navigation is allowed day and night

In particular, the Suez Canal is the largest canal in the world, with a total length of 168 km. while, adding the anchorage points and the length of the intermediate lake, its total length reaches 190 km. It has a maximum width, in some places, of 160-200 meters and the depth after the last dredging works can reach up to 16-19 meters. It runs north-south through the Suez Isthmus, connecting the Mediterranean Sea with the Red Sea. It starts at Port Said, a port of entry into the Mediterranean, and ends at the port of Suez, located in the cove of the Gulf of the Rubella of the same name.

Number of transits in the Suez Canal from 2012 to 2018 along with the request form that every vessel must fill in order to transit Suez Canal :



## Yearly Statistics



Year	No ( Vessel )	Net Ton (Ton)	Cargo Ton (Ton)
2011	17.800	929,0 εκατ.	691,8 εκατ.
2012	17.224	928,5 εκατ.	739,9 εκατ.
2013	16.596	915,5 εκατ.	754,5 εκατ.
2014	17.148	962,7 εκατ.	822,3 εκατ.
2015	17.483	998,7 εκατ.	822,9 εκατ.
2016	16.833	974,2 εκατ.	819,2 εκατ.
2017	17.550	1.041,6 εκατ.	908,6 εκατ.
2018	18.174	1.139,6 εκατ.	983,4 εκατ.
2019	18.880	1.207,1 εκατ.	1.031,2 εκατ.

### Rebate Request Form

Date : .....  
 Form : .....  
 To : Suez Canal Authority  
 Att. : Director of Planning & Research Department

**Vessel's Particulars:**

Name : .....	Type : .....
Ex name/s : .....	Year built: .....
Call Sign : .....	SCNT : .....
DWT : .....	
Last Transit : .....	
Capacity in cu. m (for LPG & LNG): .....	
Capacity in cu. ft. (for reefer): .....	
Max Draught : .....	
TRN. Draught : .....	
Beam : .....	
Design Speed : .....	
Design Fuel Consumption (IFO): .....	
Design Fuel Consumption (DO): .....	
Cargo Kind : .....	
Cargo Quantity : .....	
TPI or TPC : .....	

**Voyage Calculation:**

Actual Speed : .....	
Last Port of Origin : .....	
First Port of Destination : .....	
Distance in n. miles via Suez: .....	
Distance in n. miles via cape or panama: .....	
Diff. in Distance : .....	
Whether cond. In days via Suez: .....	
Whether cond. In days via cape or Panama: .....	
Duration in Days via Suez : .....	
Duration in Days via Cape or Panama: .....	
Bunkering Ports : .....	
Daily Bunker Consumption (IFO): .....	Daily Bunker Price (IFO) : .....
Daily Bunker Consumption (DO): .....	Daily Bunker Price (DO) : .....
Daily Time Charter : .....	
SC Tolls : .....	\$
Other Charges : .....	\$
Panama Tolls : .....	\$
Other Charges : .....	\$
Cargo intake via Suez : .....	Ton
Cargo intake via Cape : .....	Ton
Freight per ton : .....	\$
Cargo lost value : .....	\$
Total cost via Suez : .....	\$
Total cost via Cape or Panama: .....	\$
Diff. in cost : .....	\$
Suggested Rebate : .....	%
Date of sailing : .....	
Date of E.T.A deviation : .....	
Date of E.T.A. Suez Canal: .....	
Remarks: .....	

The Suez Canal charges fees for vessels transiting through the waterway. The fees are determined based on various factors, including the type of vessel, its size, and the type of cargo it carries. Here are some key points regarding the Suez Canal fees:

1. Measurement System: The Suez Canal uses a tonnage measurement system known as the Suez Canal Net Tonnage (SCNT). This measurement takes into account the vessel's size, including its length overall, breadth, and draft.
2. Vessel Types: The Suez Canal categorizes vessels into different types, such as container ships, tankers, bulk carriers, Ro-Ro (roll-on/roll-off) vessels, and others. Each vessel type has its own toll structure based on its size and capacity.

3. **Suez Canal Net Tonnage:** The tolls are generally calculated based on the vessel's Suez Canal Net Tonnage (SCNT). The SCNT is calculated using a specific formula that considers the vessel's total enclosed spaces, cargo capacity, and other factors.
4. **Toll Calculation:** The tolls for transiting the Suez Canal are calculated by multiplying the vessel's SCNT by a specific toll rate applicable to its category. The toll rates can vary depending on factors such as the vessel's size, transit direction (northbound or southbound), and the type of cargo it carries.
5. **Additional Charges:** In addition to the basic tolls, there may be additional charges for specific services or circumstances. For example, vessels carrying hazardous materials or having special requirements may incur additional fees. Optional services like pilotage and tug assistance may also have separate charges.
6. **Fee Adjustment:** The Suez Canal Authority periodically reviews and adjusts the toll rates to account for factors such as inflation, operational costs, and market conditions. These adjustments are made to ensure the sustainability and efficiency of the canal's operations.

It's important to note that the specific toll rates and fees for transiting the Suez Canal can change over time, as they are subject to updates by the Suez Canal Authority. It's recommended to refer to the official website of the Suez Canal Authority or contact them directly for the most up-to-date and accurate information regarding fees and tolls.



Figure 6: The port of Suez

Source: <https://www.moneyreview.gr/business-and-finance/international/41211/ever-given-epiase-limani-gia-proti-fora-meta-tin-peripeteia-sto-soyez/>

It should be borne in mind that the Mediterranean and Red Seas do not differ in altitude between them. Also, for the most part, the canal is navigable in one direction, so the times when ships move from north to south and vice versa are specific. The primary thought of opening a canal in the area was the one allegedly planned under Pharaoh Seti I or Ramesses II (according to some ancient text) around the 13th century BC that would connect the Nile River delta with Erythra. However, it took another 1000 years for the issue to return around the 8th century, but again this interest was stopped.

So, in 1854 the French diplomat and engineer Count Ferdinand Lesseps who aroused the interest of the Viceroy of Egypt Said Pasha takes the order of construction (drilling) and begins the project. In 1858 the established construction company manages to co-sign a contract for 99 years of exploitation and then cede it to Egypt. And so we arrive on April 25, 1869 where the drilling is completed and on November 17, 1869 it is given free to navigation where the official inauguration finally takes place. The total cost of its construction reached the then 100 million dollars. Greek Dodecanese people from Kassos and Kastelorizo also participated in its construction, some of whom settled permanently in the area. Its importance in Global Navigation is enormous. By connecting the Mediterranean with the Red Sea, it creates a truly commercial artery of Europe – SW, South and SE Asia to the Far East. Naturally, the history of the canal was identified with that of Chora.

Following the coup d'état on 23 July 1952 and the departure of King Farouk from the country, the Revolutionary Council immediately turned its attention to the British occupation of the canal. Thus, constant resistance actions began to manifest themselves with the support of the military government. The hopes of the English that the Egyptian military would show more understanding of their strategic presence, and even during the "cold war", were eventually dashed.

Churchill's own government was forced to admit that the presence of 80,000 soldiers on a base surrounded by an enemy population could not provide any military value. In 1956, Nasser nationalized the canal, ending British rule, resulting in an Anglo-French project against Egypt that failed, but kept the canal closed until 1957. Later in the Six-Day War in June 1967, during

the Arab-Israeli War, the canal suffered serious damage that kept it closed for seven years of mediation and the newest Israeli-Egyptian conflict in October 1973. Finally, after the pro bono disposal of some dredgers by I. Latsis and other Greek shipowners, the canal was cleaned of shipwrecks and given to the service of maritime transport in May 1975.

Ships crossing the canal pay to the Egyptian state a gross net tonnage toll calculated on the basis of "Suez Canal Tonnage" approximately 23% above British estimates. Ships are also subject to compulsory pilotage from entry to exit. The ships currently crossing the canal are up to 150,000 dwt loaded, but also larger since they are empty cargo, thus allowing draught. It is understood that tankers over 150,000 dwt laden as well as those of 200, 300 and 400 mm. they sail alongside the Cape of Good Hope (Cap Route) significantly aggravated by the large distance difference. But there are also cases in which large ships can unload part of the cargo into smaller ones in order to have the permissible draft to pass.

Then, as soon as they pass through the canal, they reload the cargo from the smaller ships and thus save a lot of money and time. It is noted that the Suez Canal, although it has been classified as a neutral sea, has violated the term twice first by Egypt itself in 1956 and in 1967 during the Arab-Israeli war.

## Chapter 5: How Shipping companies choose an agent (cost, quality of service fast response etc.)

As we mentioned before the role of a Shipping agent is significant for the shipping companies so, when choosing a shipping agent, shipping companies typically consider a range of factors to ensure that they select an agent who can provide high-quality service, meet their specific needs, and operate in a safe, reliable, and cost-effective manner. Some of the key factors that shipping companies may consider when choosing an agent include:

- Experience and expertise: Shipping companies may look for agents with extensive experience in the industry, as well as specialized expertise in specific markets or types of cargo. This can include knowledge of local regulations, customs procedures, and port infrastructure, as well as expertise in handling specialized cargo types or transport modes.
- Reputation and references: Shipping companies may consider an agent's reputation in the industry, as well as their track record of success and client references. This can involve

checking online reviews, asking for references from other clients, and seeking out feedback from industry associations and other relevant sources.

- **Service quality and performance:** Shipping companies may evaluate an agent's service quality and performance based on factors such as on-time delivery rates, cargo handling processes, communication and reporting capabilities, and customer service responsiveness.
- **Safety and compliance:** Shipping companies may prioritize agents who operate in a safe and compliant manner, with a strong focus on safety, environmental responsibility, and regulatory compliance.
- **Cost and value:** Shipping companies may evaluate an agent's pricing and cost structure, as well as the value of the services provided in relation to the cost. This can involve considering factors such as efficiency, reliability, and service quality in addition to price.

Overall, shipping companies typically evaluate a range of factors when choosing an agent, with a focus on finding an agent who can provide high-quality service, meet their specific needs, and operate in a safe, reliable, and cost-effective manner. By carefully evaluating these factors and selecting the right agent, shipping companies can ensure that they receive the support and services they need to operate efficiently and successfully in the global marketplace.

## 5.1) Long term cooperation with a Shipping Agent.

Long-term cooperation with a shipping agent can provide a range of benefits for a shipping company, including improved efficiency, cost savings, and greater reliability. Some of the key advantages of long-term cooperation with a shipping agent include:

- **Familiarity with the company's needs:** Over time, a shipping agent who has worked with a company for an extended period will become intimately familiar with the company's needs, requirements, and preferences. This can help to streamline operations, reduce delays, and improve overall efficiency.

- **Cost savings:** Long-term cooperation with a shipping agent can often result in cost savings for the company, as the agent will have a better understanding of the company's needs and be better able to negotiate favorable terms with suppliers and service providers.
- **Improved communication:** As a shipping agent becomes more familiar with a company, communication between the two parties is likely to improve. This can help to ensure that issues are identified and addressed more quickly, reducing the risk of delays or other problems.
- **Greater reliability:** Over time, a shipping agent who has worked with a company for an extended period will develop a reputation for reliability and dependability. This can help to build trust between the two parties and further strengthen the relationship.
- **Access to industry knowledge and expertise:** A shipping agent who has worked with a company for an extended period will have a wealth of knowledge and expertise about the industry. This can be valuable for the company in terms of staying up-to-date with industry trends, regulations, and best practices.

Overall, long-term cooperation with a shipping agent can provide a range of benefits for a shipping company, including improved efficiency, cost savings, and greater reliability. By building a strong and mutually beneficial relationship with a shipping agent, companies can position themselves for long-term success in the industry.

## 5.2) The role of a middleman between Shipping companies & Agents. (The purpose of a middlemen – Greek language, same time zone etc.)

The role of intermediary companies in timeless commercial transactions, which provide self-existent businesses to their principal and the public at large, is active. In the persons connected with the operation of the ship, a remarkable position is held by the shipping agent. A shipping agent is a natural or legal person who has signed a contract with the owner or operator in order to undertake the execution of maritime matters on behalf of the latter for remuneration

and to be able to represent the interests of the ship, i.e., to perform duties for the operator (Ship agent) or the cargo, i.e., to act on behalf of the charterer and the consignee (Cargo agent).

We must distinguish between the concept of a shipping agent and that of a commission agent. These two concepts protrude from each other. Both the maritime agency contract and the order contract are mediated in the contract of carriage by sea. Both are involved in drafting a contract with the maritime carrier, which is of interest to their customer, with the ultimate consequence of confusing their concepts. But between the shipping company and the agent it cannot be agreed that the latter will act as an oblique representative of the former.

The role of a middleman between shipping companies and agents can vary depending on the specific circumstances of the relationship. In general, a middleman may act as a liaison between the shipping company and the agent, providing a range of services to facilitate communication, coordination, and collaboration between the two parties. Some of the specific roles and responsibilities that a middleman may assume in this context include:

- **Contract negotiation:** Middlemen may help to negotiate contracts between shipping companies and agents, ensuring that the terms of the agreement are fair and beneficial to both parties.
- **Service coordination:** Middlemen may help to coordinate the provision of services to the shipping company by the agent, ensuring that all necessary services are provided in a timely and efficient manner.
- **Dispute resolution:** Middlemen may help to resolve disputes between shipping companies and agents, working to find a mutually agreeable solution that satisfies both parties.
- **Information exchange:** Middlemen may facilitate the exchange of information between shipping companies and agents, ensuring that both parties are informed of important developments and changes in the industry.
- **Payment processing:** Middlemen may assist with payment processing, ensuring that payments are made on time and in accordance with the terms of the agreement.

Overall, the role of a middleman between shipping companies and agents is to facilitate the relationship between the two parties and provide support and coordination services to ensure that



the ship's needs are met efficiently and cost-effectively. By working closely with both shipping companies and agents, a middleman can help to optimize the performance of the entire supply chain and ensure that ships are able to operate effectively in ports around the world.

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