

Episode 14
Let's practice.
Example 5.
A Global Maritime Shipping
Initiative.
Part B. Understanding shipping.

You are learning with the Spring Saga of the year From January 22nd to June 28th, 2024. www.eleonoraescalantestrategy.com





### **Outline**

- Introduction
- The history of Marketing: The background of value propositions



What is a value proposition?



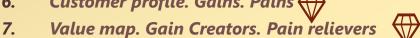
Problem solving in the context of value propositions.



The philosophy behind the Osterwalder Canvas



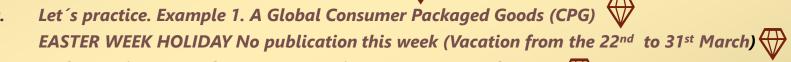
Customer profile. Gains. Pains













- Let's practice. Example 2. A Fast-moving Consumer Good (FMCG)
- Let's practice: Example 3. A Technological Computer Peripheral Equipment Manufacturing



- Let's practice: Example 4. A Luxury Precious Stone Mining
- Let's practice: Example 5. A Global Transportation Services Enterprise



4 publications

- Let's practice: Example 6. A Financial Sector initiative
- Let's practice: Example 7. An agriculture-food security product
- Strategic Reflections about Value Propositions. *16.*
- *17.* Summary and conclusions.

This outline is subject to change if the author considers it appropriate.





**Tentative Schedule Program (subject to change)** 

**Page 1/3** 

**Today** 

Week 1 22-01-24

Introduction

Week 2 06-02-24

Week 2 09-02-24

Week 3 13-02-24

Week 4 16-02-24

Week 5 23-02-24

Week 6 01-03-24

Week 7 08-03-24





background of

value propositions

What is a value proposition?

Problem solving in the context of value propositions

Researching & Updating knowledge. No publication today

The philosophy behind the Osterwalder Canvas

Customer profile. **Gains. Pains** 

Value map. Gain Creators, Pain Relievers

The Summer saga of the year will kick-off as of July 12th, 2024.

This outline is subject to change if the author considers it appropriate.

R&D





### **Tentative Schedule Program (subject to change)**

**Page 2/3** 

Week 8 15-03-240

Week 9 22-03-24 Easter Week 29-03-24

Week 10 05-04-24 Week 11 12-04-24

Week 11 19-04-24

Week 12 26-04-24















Fit between customers and value map

Let's Practice. Example 1



**Easter Vacations** No publication this Friday





Let's Practice. Example 3



Research, Reading, and Preparation Example 4

Let's practice Example 4



The Summer saga of the year will kick-off as of July 12th, 2024.





### **Tentative Schedule Program (subject to change)**

**Page 3/3** 





Week 13 03-05-24 Week 14 10-05-24

Week 15 17-05-24

Week 16 24-05-24

Week<sub>17</sub> 31-05-24 Week 18 07-06-24

16

Week 19 14-06-24

Week 20 21-06-24

Week 21 28-06-24



Research

Reading and

Preparation

Example 5

No publication

Practice. Section A



Let's Example 5



Let's Practice. Example 5. Section B



Let's practice. Example 5 Section C



Let's Practice. Example 6



Let's Practice Example 7



Strategic Reflections about **CVPs** 

Strategic Reflections about **CVPs** ш

Summary and **Conclusions** 

If necessary, we will extend **Example 5 to a fourth episode.** 

The next Summer saga of the year will kick-off as of July 12th, 2024. Our next saga will be:

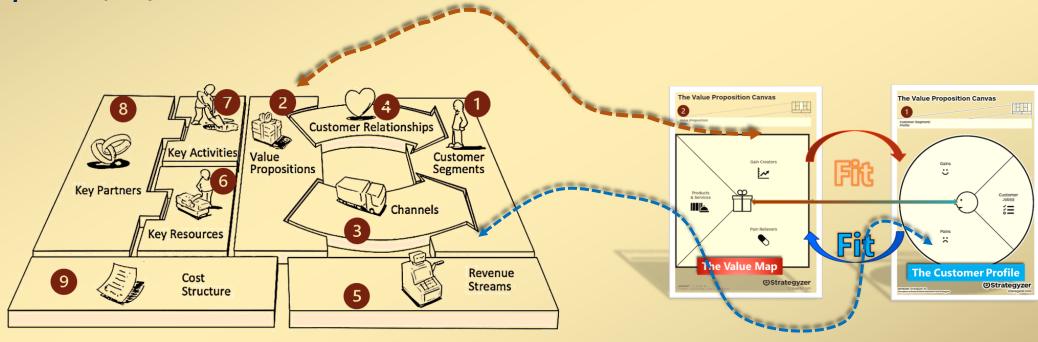
"A Glance to the Foundation of Business: Trade, Warfare, Women and Slavery."





Today is another chance to practice. Our fifth example takes us to Copenhagen, Denmark

Please remember that we are simply at the initial step of business modeling: building the Customer Value **Proposition (CVP)** 



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A new team of entrepreneurs have contacted us to help them with a special mandate. They wish to introduce a disruptor project to 5 shipping companies: Maersk, Mediterranean Shipping Co, Cosco Group, CMA CGM Group and Hapag-Lloyd.

This team of 5 entrepreneurs are all in their 60s.

- 1. A former Maersk employee, R&D scientist who recently retired after 35 years of maritime profession. He was the Head of one specialized innovation unit at the number one shipping company in the world.
- 2. An inventor and researcher, specialized in the Oil and Gas Industry, who has been involved in the design of new sustainable vessels.
- 3. A former employee from one of the top 5 shipping companies who was responsible of efficiency matters in logistics and its integration with terrestrial transportation.
- 4. A retired top specialist in logistics, who was a former employee of Boston Consulting Group and Royal **HaskoningDHV**
- The most recognized investor of private equity in the maritime-terrestrial shipping industries who can pull the financial resources easily.

- The entrepreneurs have contacted us to help them to build a solid CVP that could not only make sense to the greatest 5 shipping companies, but that can attract them as independent members of the project Board of Directors. The entrepreneurs' new venture will be called "Vision 2050".
- The innovative project is part of the efforts of the Quintuplet Entrepreneurs team to leave a legacy to the shipping industry.
- This legacy project has the power to transform the industry in terms of its "energy source" for a more sustainable approach.
- The Quintuplet team has a goal in mind: to help the leaders of the industry to renew and transform its business model into a green ecological one.
- The entrepreneurs have the support of 5 royal families from Europe and Japan that are really interested in transforming and improving the supply global chains.



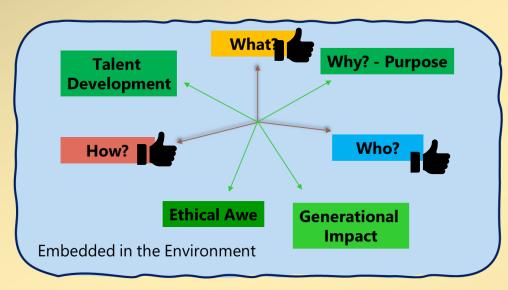




### Let's begin see a snapshot of this industry.

We will grasp a general overview of the shipping business.

Our publication of today is about understanding the general overview of the maritime industry, the players, and what is happening in the shipping industry at the moment.



An upgrade of the Strategic Innovation Paradigm Based on the original framework for Strategic *Innovation from C. Markides (1997)* 

### Today we will begin to study 4 sections of our Strategic innovation Paradigm

- 1. What is the shipping industry?
- 2. Who are the players of the shipping industry?
- 3. How is the shipping industry undertaking at this moment?

The project "Vision 2050" is being designed by the quintuplet entrepreneurs' team, and it answers the rest of the framework questions: Purpose, Talent Development, Ethical Awe and Generational impact, everything tied to our love for protection and caring for the oceans. Our CVP must be aligned with all these factors.

Our Strategic Innovation Paradigm has been upgraded with 5 additional dimensions. The original framework is from Professor C. Markides (https://sloanreview.mit.edu/article/strategicinnovation/)





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We will grasp a general overview of the shipping business.

What is the Global Shipping Industry?

The Global Shipping Industry is the foundation of International Trade. According to the WMU studies in Maritime Affairs (19) shipping today is:

- It is the prime method of transportation of commodities and merchandises over any distance that requires an ocean or sea passage
- It is the cheapest and most cost-effective means of transport compared to other high-value, low-density formats
- It is the most environmentally friendly means of transport
- It is essentially safe (with rare exceptional losses, groundings and collisions)

The Global Shipping Industry is the foundation of International Trade. From the point of view of logistic benefits vs costs, the global shipping transport is a low cost, high-volume business, preoccupied with small incremental savings that produce a competitive advantage: Martin Stopford mentions examples of these incremental changes:

- a. A ship a little bit bigger
- b. A shallow draft
- c. A better cargo-handling gear,
- d. A technological improvement, etc.

It is through the sum of all these small incremental changes that the market tackles this complex logistic task.

Zone	Area	Transport sector	Vehicle		
1	Inter- Regional	<mark>Deep-sea shipping</mark> Air Freight	<mark>Ship</mark> Plane		
2	Short Sea	Coastal Seas	Ship or Ferry		
3	Land	Rivers and Canal Road Rail	<mark>Barge/Flatboat</mark> Lorry Train		

The Global Shipping Industry is the foundation of International Trade. According to our domain of strategic management:

- Global shipping is an essential part of business modeling for any good/service or passenger that make use of supply global chains.
- It is the foundation for supply global chains.
- It is the pillar of our economic fundamentals: More than 80% of our global trade requires ocean-shipping.
- The shipping industry embraces other multiple logistic industries of the world economy that upkeeps for one of the most essential vehicle of the modern international transport system
- Its core deployment only happens because of the geographic oceanic system, which is the milieu of the maritime trading network as we know it today.







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Who are the players of the Global Shipping Industry?

The Global Shipping Industry is handled by numerous stakeholders. Each of them entangled to each other by different causes.

**Communication and Navigational Network Specialists Governments Shippers Welfare Charity Seafarers Technical Support Specialists** Navy/National **Shipping Educators Defense authorities Containers Builders, Leasers and Operators Ship Brokers Ports, Harbors and Canals Operators Safety/Security Providers Shipbuilders/repairers of ships Ship Owners Regulators Oceanic Academic Researchers Custom Agents Weather Forecasting Suppliers Terminal Operators Recycling, Shipbreaking/Demolition Providers IT support Specialists Marine equipment manufacturers** Charterers **Terminal equipment and Maintenance Suppliers Union Workers Associations** Insurers **Protection & Indemnity Clubs Fuel Bunkering Engineers Marine-shipping lawyers Sustainability Advisors Shipping Accountants Shipping Consultants/Advisors Modern Pirates Private Equity Sponsors Commercial Court Affiliates National-Intl. Associations for Trade-Shipping Arbitrators Others Warehouse Representatives Emergency/Salvage operators Ship financiers/Investors Commercial Bankers** 17/05/2024 Source References: 10 **International Trade Leaders** Eleonoraescalantestrategy.com All rights reserved 2016-2024 Slide 33





Let's begin see a snapshot of this industry.

We will grasp a general overview of the shipping business.

Let's understand the general overview of the maritime industry before showing you the competitive map of the main players: shippers, shipbuilders, marine-shipping equipment manufacturers and port-terminals operators.

What are the activities performed by humans at the oceans and in the oceans?









**Fisheries** 





### **Vessel Operations**

· Tourism-Cruise Shipping

Naval Shipping

Ports

### Shipbuilding

- Shipbuilding (merchant) Merchant Shipping
  - Shipbuilding (naval) Maintenance-Repairs
  - Recycling ships
  - Marine equipment

### **Resources Extraction**

- Oil and Gas
- Renewable energy
- Minerals and Aggregates
- Marine Fishing
- Marine Aquaculture
- Algae-Seaweed
- Seafood processing

### **Maritime tourism**

Maritime Tourism

- Others

  - Oceanography Research-Development
  - Marine Services
  - Marine Technologies
  - Ocean Surveys
  - Education and Training
  - Submarine telecoms

Note: Share of these activities (2004) % in monetary turnover is shown in Source: Martin Stopford







### Let's begin see a snapshot of this industry.

We will grasp a general overview of the shipping business.

Our objective of attention is related mainly to Vessel Operations, which represent half of the human activities at the oceans. Particularly we are focusing our attention on the Merchant Shipping segment.



### What are the goods transported by merchant ships?



Attributable to climatic (agricultural products, forestry products) or geological (ores and fossil fuels) conditions.

Transformation conferring added value. Materials and parts used to make other goods.

Goods shipped to large consumption markets (cities). Flow and inventory management.



Less than Truckload (LTL) A shipment that would not by itself fill the truck to capacity by weight or volume.

Source: https://transportgeography.org/contents/chapter7/freight-transportation-value-chains/sequencesvalue-chain/





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### What is the **Merchant Shipping?**

A merchant ship or vessel is one that carries merchandises or goods which are related to the activities of merchants (one who buys goods to sell them for a profit or one who supply goods to donate them) or activities that play a role in the commercial trade). The type of goods transported in the sea are the foundation of the type of merchant vessels utilized for that objective.

The merchant sea transport vessel type depends on what is going to be shipped. See some examples at your right.

#### **EXAMPLES**

#### Energy

•Oil, Gas (LNG, LPG), Coal & Coke, Molten Sulphur, Bio-fuels

#### Mining

- Metal ores: Iron ore, scrap Steel, manganese ore, alumina, etc.
- · Minerals: Salt, Sulphur, limestone, Sand and < gravel.

#### Agriculture

- Dry goods: wheat, coarse grains, oilseeds, animal feeds, rubber, skins
- Refrigerated: fruit and vegetables, meat and fish, flowers.
- Liquid: vegetable oils, Wine, Fruit juices, Molasses
- Live animals

#### **Forestry**

· Logs, lumber, Wood chips.

#### **EXAMPLES**

#### Oil refining

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Raw

· LPG, naphtha, gasoline, diesel, gas

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#### Chemicals

- Organic
- Inorganic
- Chemical products for producing fertilizers

#### Construction **Materials**

- Structural steel sections
- Building materials
- Additives
- Pipelines.

#### **Textile Mills**

 Processed fibers. Fabrics

#### **EXAMPLES**

#### **Motor vehicles**

• Cars, trucks, farm vehicles, motos

#### Computer and **Electronics**

**Electric Appliances** 

#### **Food Processing**

 Meat, diary, sugar refining

#### **Textiles and Leather final** products

· Carpets, bags, curtains, apparel ready to wear. shoes and Clothing

#### **Wood and paper**

 Furniture, office supplies

**Medical Equipment,** 

17/05/2024

Source References: Slide 33





### Let's begin see a snapshot of this industry.

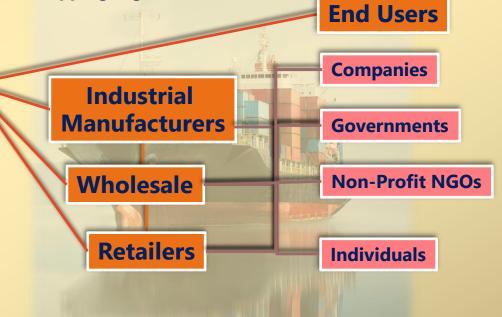
We will grasp a general overview of the shipping business.

Our objective of attention is related mainly to Vessel Operations, which represent half of the human activities at the oceans. Particularly we are focusing our attention on the Merchant Shipping segment.



Who are the final customers of the **products of Merchant Shipping?** 

The Direct-to-consumer model and the Internet Amazon model has disrupted the traditional historic concept of distribution through a cascade of wholesale-retailers. The fact that China is the main supplier of commodities, raw materials, WIP processed goods and final manufactured products for hundreds of other businesses can't be overlooked either.



The type of products which are transported and the parcel size distribution network to the different customer segments of merchant shipping has created different type of ships. IT is the turn to study them on next slide.





Let's begin see a snapshot of this industry.

We will grasp a general overview of the shipping business.

Particularly we are focusing our thoughtfulness on the Merchant Shipping segment.



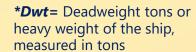
### **Bulk Transport**

Any individual parcel big enough to fill a ship (over 2000 to 3000 tons). They have represented between 50% to 75% of the ships.



### **Specialized Cargo Transport**

Specialization ships is about adapting to the needs of a specific customer group of large parcels of nonhomogeneous cargo



What is the Global

**Trade Shipping** 

**Segments** 

**Classification?** 



### **Liner Transport**

General Cargo parcels under 2000-3000 tons. Any individual parcel too small to fill a ship or hold.



#### **Called Tankers or Tank Vessels**

- Vessels vary from ULCC (ultra-large crude carrier) of 250,000 tons or more of dwt\*, to Small coasting, canal or inland waterway vessels carrying above 2000 tons.
- They carry crude oil, liquid chemicals as caustic soda, vegetable oils, wine,



#### **Dry Commodities Ships**

- Vessels designed to full shiploads of the world's primary dry commodities: coal, iron ore, grain, phosphates, bauxite, fertilizers, sugar, cement, etc.
- All these vessels are the real work-horses of the oceans



 Modern pure car and truck carriers (PCTC) can carry over 6,000 vehicles. Ro-Ro are part of these ships.



Carry package lumber in standard sizes with holds designed for these sizes



 Refrigerated holds and refrigerated special ships designed for that purpose.



Transport gases such as butane, propane, methane, ammonia or ethylene by sea who are liquefied.





Dangerous chemicals in large tankers with large numbers of segregated tanks.





Container ships, have increasingly taking on the tasks of general cargo ships on long-haul routes since 1966.



 General cargos which transport everything. The type of cargo: loose, containers, palletized, pre-slung, refrigerated containers, (re heavy-awkward cargo, and liquid containers or drums.





Let's begin see a snapshot of this industry.

We will grasp a general overview of the shipping business. Particularly we are focusing our attention on the Merchant Shipping segment.

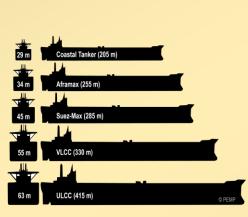


**Bulk Transport** 

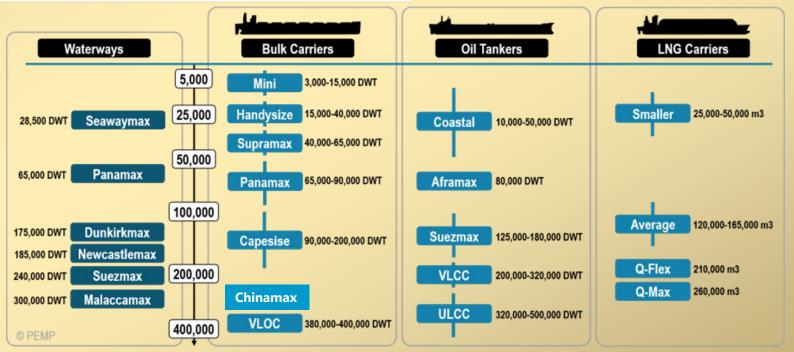


### What size of Bulk Carriers are we talking about?

Bulk vessels are specifically designed to carry large quantities of non-packaged cargo (e.g. wet materials, coal, grain, and iron ore) over long distances.



https://porteconomicsmanagement.org/pemp/cont ents/part8/ports-and-energy/tanker-size/



Source: https://porteconomicsmanagement.org/pemp/contents/part3/bulk-breakbulk-terminal-design-equipment/bulk-ship-classes/





### Let's begin see a snapshot of this industry.

We will grasp a general overview of the shipping business. Particularly we are focusing our attention on the Merchant Shipping segment.



**Specialized Cargo Transport** 



### What Specialized Cargos are we talking about?



Dole California, a containerized reefer ship



USS Cole is brought home aboard heavy lift ship Blue Marlin



Livestock carrier Al Shuwaikh leaves Freemantle



A semi-submersible log carrier barge



Motor Vehicle/car carrier Pisces Leader

https://www.navalgazing.net/Merchant-Ships-Specialized-Cargo-Ships





Let's begin see a snapshot of this industry.

We will grasp a general overview of the shipping business. Particularly we are focusing our attention on the Merchant Shipping segment.

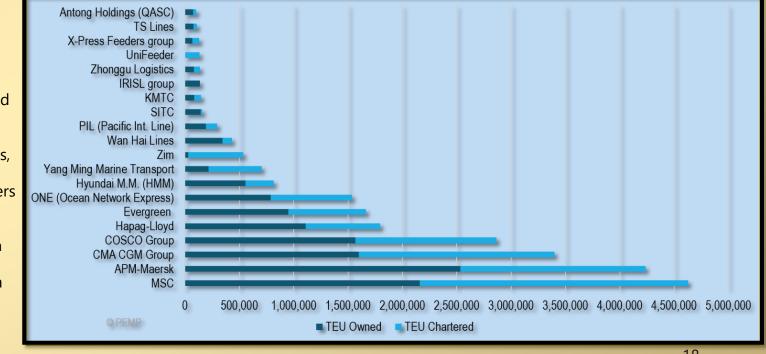




What about the Liners? Let's explore the Containers

World's Largest Maritime Container Shipping Operators, January 2023

- All over the internet (public sources) there are plenty of statistics about the containers, but little about consolidated figures of all types of ships of the corporations.
- When we land into shipping companies, all of them charter voyages, which means, they hire (charter) ships of others under a specific contract. It is like outsourcing a vessel.
- The charter implies a contract between the ship company and the real shipowner to carry a specific cargo in a specific ship for a negotiated price per ton which cover all the costs.







Let's begin see a snapshot of this industry.

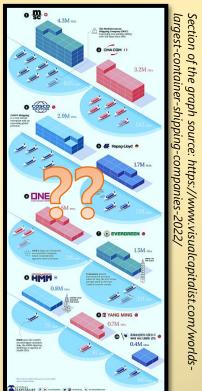
We will grasp a general overview of the shipping business. Particularly we are focusing our attention on the Merchant Shipping segment.



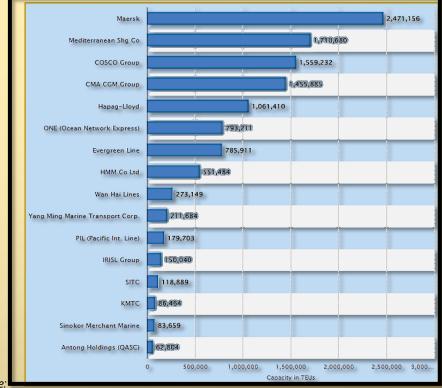


What about the Liners? **Let's explore the Containers** 

- It is very important to filter the data that is available on the internet. Many of the graphs available hold discrepancies, because of not discerning when it comes to data definitions.
- For our saga, we show you all these matters, because it is relevant to review the numbers and cross check with multiple references.
- Shipping statistics authorities as the UNCTAD, MDS Transmodal, World Cargo Database, Clarkson Research, Drewry and authors as Stopford, Notteboom, Rodrigue and Pallis are your best bet.



The world's leading container ship operators as of April 30, 2022, based on TEU capacity of own ships



https://www.statista.com/statistics/197667/owned-teus-of-worldwide-leading-container-ship-operators in-2011/





Let's begin see a snapshot of this industry.

We will grasp a general overview of the shipping business.

Particularly we are focusing our attention on the Merchant Shipping segment.

Merchant Shipping

### What about the evolution of the Container Ships?

- The container ships were the revolution of the liner ships in the mid-1960s.
- This transformation of the liners involved a new concept of transportation: The TEU.
- A TEU means Twenty-foot Equivalent Unit, which is the size of a cubic volume cell in which the cargoes of less or equal volume of a TEU can be transported
- Nowadays the figure of a TEU in shipping represents a connection with global production, to the point of consider it for a key performance indicator: TEU to GDP
- "The TEU to GPD multiplier is an important ratio since it is often used in port traffic forecasting, which tends to be associated with national economic growth prospects."

Source References: Slide 33

20-Foot Equivalent Unit (TEU):

Width:

Height:

Tare Weight:

20 ft

8.5 ft

1.8 - 2.4 tons

8 ft

https://porteconomicsmanagement.org/pemp/contents/part1/ports-and-containershipping/largest-maritime-container-shipping-operators/

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ULCS (2013-) 18,000 - 21,000 TEU

MGX-24 (2019-)

21,000 - 25,000 TEU

Early Containerships (1956-Containers across 137x17x9 (LOA - Beam - Draft) 500 - 800 TEU Fully Cellular (1970-) 1.000 - 2.500 TEU Containers high below deck -Panamax (1980-) 3,000 - 3,400 TEU Panamax Max (1985-) 3,400 - 4,500 TEU Post Panamax I (1988-) 4.000 - 6.000 TEU Post Panamax II (2000-6.000 - 8.500 TEU **VLCS (2006-)** 11,000 - 15,000 TEU New-Panamax (2014-) 22 bays 10

400x61x16

**Containers** 





Let's begin see a snapshot of this industry.

We will grasp a general overview of the shipping business.

Particularly we are focusing our attention on the Merchant Shipping segment.



What about a philosophical discussion of the TEU to **GDP** multiplier?

After every higher peak, there are at least 10 years of sustained (almost stable) TEU to GDP multiplier level. Then a crisis occurs. And a new cycle begins.

Containers

- · According to Notteboom. Pallis, and Rodrigue; the ratio TEU to GDP gives us a hint of what is occurring in terms of international trade and GDP.
- The TEU/GDP multiplier is calculated by the relationship (ratio) between container growth rates (%) in terms of total volumes handled by ports over GDP growth rates (%) for the same year.
- For example: Between 1990 to 1999, the TEU/GDP multiplier was around 4.2 (on average): for each percentage unit of GDP growth there was an equivalent of 4.2 of container volume growth. What occurred then to explain this? It was the beginning of offshoring to East Asia. The global container shipping network grew. Let's see the next slide, please.

Slide 33

Source References:

TEU to GDP Multiplier 1985-2022

Source: World Bank for GDP growth (In Constant 2015 dollars). UNCTAD, Drewry Shipping Consultants and own elaboration for container throughput growth. Graph Source: https://porteconomicsmanagement.org/pemp/contents/part1/maritime-shipping-andinternational-trade/teu-to-qdp-multiplier/





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Shipping segment.

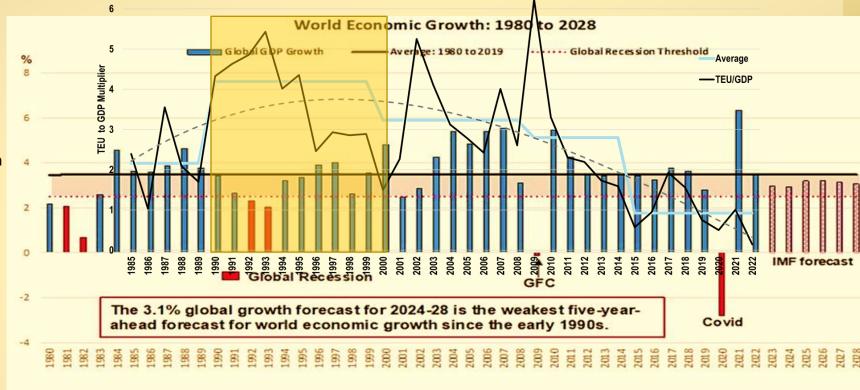
### **Containers**

### **TEU/GDP Multiplier analysis**



- We have overlapped two graphs: the GDP% growth and the TEU/GDP multiplier ratio in our quest to find correlations.
- If you observe the same 1990s decade: the GDP growth was low (around 2.4% per average), which tells us that TEU growth must have been between 9 to 12%.
- This is the decade in which the container ships jumped to be around 45% of total shipping.
- Since then, the TEU/GDP multiplier has followed a "steady going down" trend, with exception of the year 2009. Source References:

Slide 33



Source: International Monetary Fund, World Economic Outlook database (Oct 2023)





### Let's begin see a snapshot of this industry.

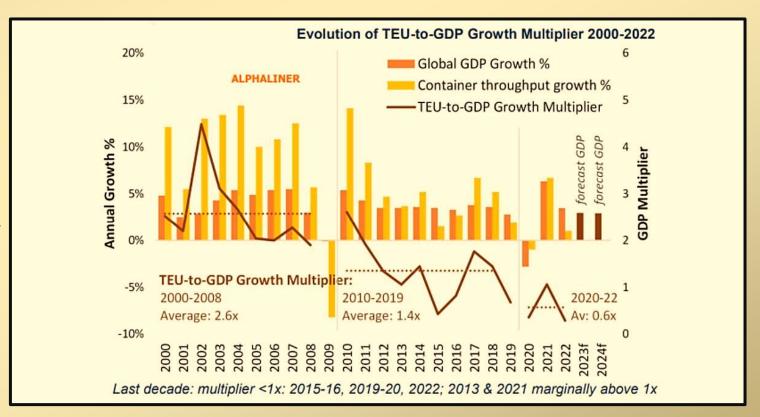
We will grasp a general overview of the shipping business. Particularly we are focusing our attention on the Merchant Shipping segment.



### **TEU/GDP Multiplier analysis**



- According to Alphaliner, Container shipping's TEU-to-GDP multiplier has continued to weaken since the pandemic, with the last ten years now showing an average multiplier below 1.
- The ratio hit its peak in the 1990s and was still a robust 2.6x in the 2000s.
- This indicator has always been a reliable pointer for the market, in such a way that container trade could be relied on to expand by multiples of GDP growth.
- The situation of the low ratio could be caused because the container throughput growth will never return to the 1990s numbers. We believe we are arriving to a plateau of maturity in terms of container ships.







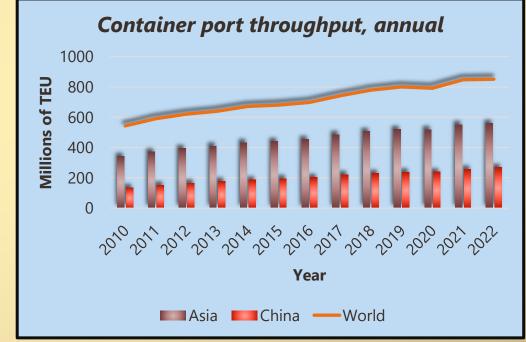
Let's begin see a snapshot of this industry.

We will grasp a general overview of the shipping business. Particularly we are focusing our attention on the Merchant Shipping segment.

Why is China driving the container ship growth?



- According to Fitch, China's port throughput growth may slow in 2024, with the risk of a decline, amid weak external demand and manufacturing globally.
- Cargo and container throughput at China's eight major seaports rose by around 5% in 2023 compared to 2022; Fitch believes the growth was driven by new shipping lines, additional container capacity, the Regional Comprehensive Economic Partnership (RCEP), China's Belt and Road Initiative, the ramp-up of multimodal transport, and an increase in transported containers via the China-Europe Railway.
- The Red Sea conflict may continue to disrupt global supply chains in 2024, but the volume via the New Western Land-Sea Corridor, RCEP, China-Europe Railway and sea-river transport will provide a cushion for China's throughput growth.



China's containers represent the 31.6% of the world. Asia holds 66% of all containers worldwide.

Container Port Throughput presents the estimated total number of containers handled, per country, expressed in twenty-foot equivalent units (TEUs). A TEU represents the volume of a standard 20 feet long intermodal container used for loading, unloading, repositioning and transshipment. https://unctadstat.unctad.org/datacentre/dataviewer/US.ContPortThroughput





### Let's begin see a snapshot of this industry.

We will grasp a general overview of the shipping business. Particularly we are focusing our attention on the Merchant

Shipping segment.







- ASIA represents the 65.8% of global container ships (2022), while China is 31.6% (2022). Data from UNCTAD. China is driving the container ship not because of its share in the global transport shipping today, but because its place in the value chain, as the builders of all ships. Nowadays, China is the place where more than 90% of ships are built. Additionally, when China, as a nation of container ships, held exponential growth of TEU throughput in the 1990s decade. This model successfully disrupted the whole shipping industry as it was known. This innovation provided a factor of differentiation, a master-class competitive advantage, and this will never occur anymore, unless a new ship may arise soon.
- China's production of goods involves its transportation to many ports over the world. The economies of scale allow Chinese costs to be the lowest of the market, for shipbuilding and for delivery of bulk and container ships, but only "in times of stable routes".

If the worldwide container ship business is still growing, why is it that the TEU/GDP multiplier is so low?. This trend was low since the 2010s. My answer is that the Container transportation has arrived at maturity (life cycle curve).

- The TEU growth has diminished because the impact of moving from bulk to container conversion has reached a plateau. In the 1990s, the needs of shipping from bulk to a containerized mode of transportation was growing on hype given its first adoption stage, but it could be that now it has come to a period of stability, and the GDP growth dictates the growth of the containers.
- · Has the TEU shipping arrived at mature stage under the current economic premises of trading?
- The China low-cost production model is suitable for Low Income Countries without any type of protection from local regulators for their own local industries.







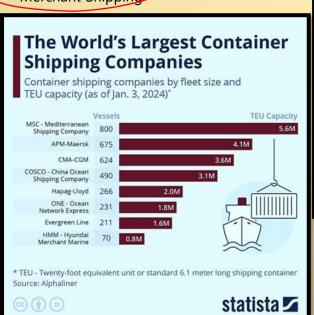
Let's begin see a snapshot of this industry.

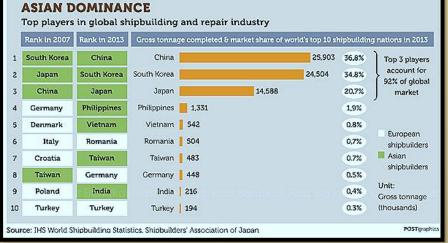
We will grasp a general overview of the shipping business. Particularly we are focusing our attention on the Merchant Shipping segment.

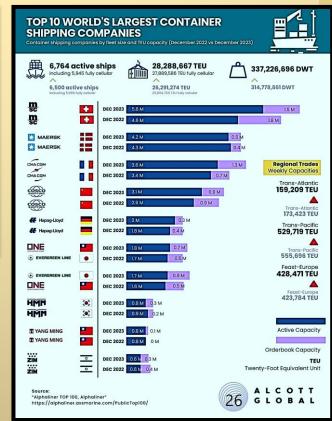


Who are the top shipper companies in the world?

It depends on what type of segment of ships are we talking about. There are several public graphs that I have collected during these days. The data is subject to further review.











Let's begin see a snapshot of this industry.

We will grasp a general overview of the shipping business. Particularly we are focusing our attention on the Merchant Shipping segment.



Where are the maritime routes taken by these ships?

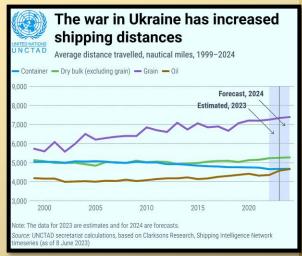
Figure 9.1 The world's major shipping routes, 2007 Source: Martin Stopford 2007

17/05/2024

The maritime routes connect specific places: a crucial interface between sea and land. These places are called ports who are the epicenters of loading and discharging containers, bulk products and other cargoes. Three ocean zones are connected through sea shipping: The Atlantic, the Pacific and the Indian Ocean.



https://www.economist.co m/the-economistexplains/2024/01/18/howviable-is-arctic-shipping



The Ukraine conflict and the Middle-East tensions in the Red Sea are affecting the pricing of ship rates, which are re-routing to avoid problems.





17/05

## Value Propositions: Theory and Cases.

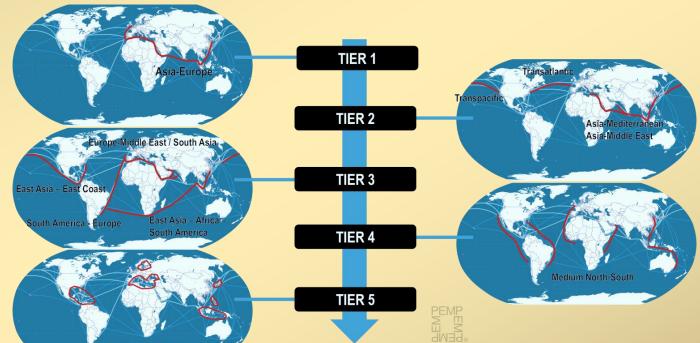
Let's begin see a snapshot of this industry.

We will grasp a general overview of the shipping business. Particularly we are focusing our attention on the Merchant Shipping segment.



What are the maritime routes taken by these ships?

According to Noteboom, Pallis & Rodrigue, the maritime routes hold a global hierarchy in terms of importance. This hierarchy is a function of the amount of trade, the maximum ship size allocated, and the general strategic importance of the route. The Tier 1 route is of the highest importance, while Tier 5 routes are considered of low relevance.



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#### Tier 1.

- The Asia-Europe trade route is the most important in the world, going through strategic locations such as the Strait of Malacca and the Suez Canal. Through its numerous transshipment hubs (e.g., Singapore, Colombo, Dubai, Suez, Algericas/Tanger Med), it consolidates and deconsolidates the trade flows of several regions in between (e.g., Southeast Asia, South Asia, Middle East), an attribute to no other trade lanes can perform at such a scale.
- Three of the main routes (Tier 1, Tier 2 and Tier 3) utilize the Red Sea (Suez Canal), and their operations have been re-routed. Since November 2023. The Houthis have been launching attacks against ships. By rerouting the ships, there is sustained delay on trade, with shipping costs raising again.





Let's begin see a snapshot of this industry.

We will grasp a general overview of the shipping business. Particularly we are focusing our attention on the Merchant Shipping segment.

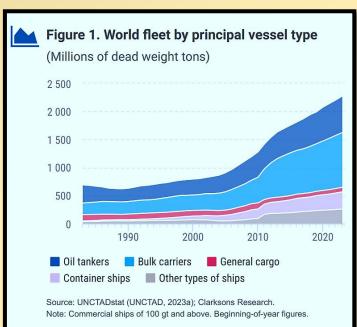


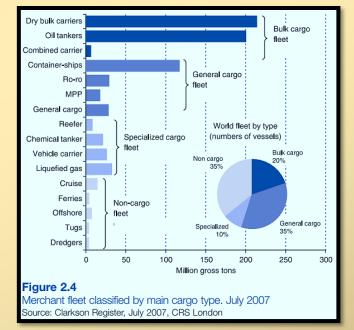
What is the world's merchant fleet and its composition?

According to UNCTAD Handbook of Statistics, in January 2023, the world's merchant fleet consisted of 105,500 vessels of at least 100 gross tons (gt) of which 56,500 ships were over 1000 gt.

Of the ships built in 2022, in gross tonnage terms, 93 per cent were completed in China, the Republic of Korea or Japan. Ship recycling happened predominately in India, Bangladesh or Pakistan.

Over half of the world fleet tonnage in dwt is owned by Asian Companies.





Note: The unit dead weight tons (dwt) is used to indicate the cargo carrying capacity of a ship. The dwt Is the maximum amount of cargo that can be loaded on a ship without exceeding its operational design limits.

Gross tons (qt) reflects its size. The latter is relevant to measure shipbuilding and recycling activity, while the former is used to capture the capacity to transport cargo.





Let's begin see a snapshot of this industry.

We will grasp a general overview of the shipping business. Particularly we are focusing our attention on the Merchant Shipping segment.



What is the world's merchant fleet and its composition?

I would like you to understand the difference between FOC and the real ownership of the vessels.

Anyone can register a vessel under a FOC of preference. Around 40% of all the planet ships are registered in Panama, Liberia and the Marshall Islands. However, the owners of the ships are not necessarily connected to the FOC. See explanation of the term FOC below.

Tonnage										
(Thousands of dead weight tons)										
Economy of ownership (Ranked by tonnage owned)	Flag of registration (Ranked by tonnage registered)									
	Liberia	Panama	Marshall Islands	China, Hong Kong SAR	Singapore	China	Malta	World		
Greece	120 061	23 019	89 276	658	1 185	0	58 279	393 033		
China	25 900	37 513	12 762	84 767	5 813	121 810	2 531	301 997		
Japan	29 820	120 706	17 183	2 477	10 883	0	853	237 673		
Singapore	25 357	13 170	10 317	6 582	68 494	1 101	4 234	140 825		
China, Hong Kong SAR	7 667	22 257	4 232	72 339	3 999	196	1 098	117 287		
Korea, Republic of	5 919	41 284	28 992	862	818	2	119	97 144		
Germany	30 037	663	3 502	1 125	4 222	0	3 164	76 981		
China, Taiwan Province of	11 884	20 787	1 272	3 585	12 158	3	0	58 549		
United Kingdom	19 881	2 999	9 098	96	261	0	3 998	58 024		
Norway	4 913	1 486	5 821	7 984	3 677	0	997	55 519		
World	378 323	364 519	299 144	199 989	134 763	123 423	108 968	2 253 539		
Sources: UNCTADstat (UNCTAD, 2023a); Clarksons Research.										

A flag of convenience (FOC) or open registry is an idiosyncratic but ubiquitous phenomenon in the world shipping industry. FOC is a special shipping business practice whereby a merchant ship is registered in a country other than that of the ship's owners, and the ship flies that country's flag.

Note: Commercial ships of 1000 gt and above.





Let's begin see a snapshot of this industry.

We will grasp a general overview of the shipping business. Particularly we are focusing our attention on the Merchant Shipping segment.



How is the shipping industry undertaking?

To understand the factors affecting the maritime trade flows after the COVID 19 pandemic, it is important to understand the theory, the drivers of the transportation systems. Each of these drivers affects shipping.

#### TRANSPORT SYSTEMS

#### **Finance**

- · Finance mechanisms
- · Pricing and returns
- Public / private partnerships

#### **Economics**

- Economic growth
- Global trade
- Economic integration
- Transportation costs

#### **Politics & Policy**

- Governance
- Security
- Regulation / taxation

#### **Demography & Society**

- Population growth
- Aging / retirement
- Urbanization
- Changing work patterns

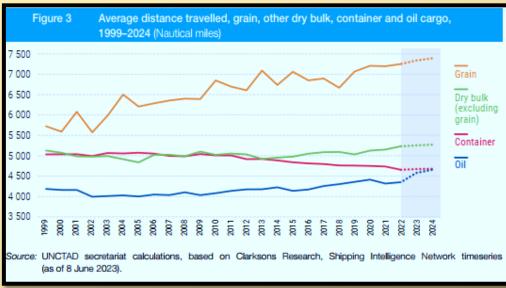
#### **Energy & Environment**

- · Energy availability
- Alternative fuels
- Climate change

#### **Technology**

- Information technologies
- Materials technology
- Engine technology
- Automation

Source: adapted from ICF International (2008) Long Range Strategic Issues Facing the Transportation Industry, Final Future-focused Research Framework, National Cooperative Highway Research Program, Project 20-80, Task 2. https://transportgeography.org/contents/conclusion/future-



The war of Ukraine and the Red-Sea Tensions are putting pressure in the increment of nautical miles. Shipments of grains and oil are traveling longer distances since 2022 than any other year on record. Buyers of commodities have changed suppliers in other countries, which require longer hauls.

transportation-systems/driver-change-future-transportation/





Let's begin see a snapshot of this industry.

We will grasp a general overview of the shipping business. Particularly we are focusing our attention on the Merchant Shipping segment.



### How is the shipping industry undertaking?

To be continued. Next week we will proceed to explain the relation between shipping cycles, cost structure, the environment and the quintuplet entrepreneurial project "Vision 2050".

From the point of view of business fundamentals, shipping transportation still exists because to this day, there is no other way to move high volumes of tons of goods (in dry or liquid bulk, containers, specialized or general cargo), at a low cost, over long distances.



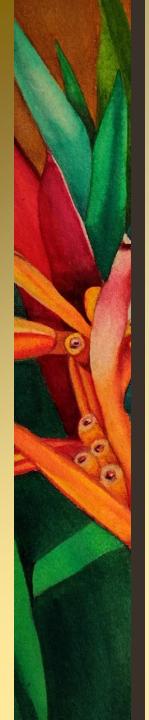
*Image Source:* Safetyforsea website.

Source References: Slide 33

But what could happen if we open our eyes to a new green "vision 2050" scheme that will dramatically change the next generation of vessels, following an environmentally-friendly logic that:

- 1. Help these vessels to travel at higher speed without the power of petroleum
- 2. Use other maritime routes that could care for the integrity of the bio marine life and the ocean's ecosystem,
- 3. Reducing hazards of spill-outs of dangerous goods to zero
- 4. Comply with a circular economy design
- Travel at cheapest costs than the current ones?
- Transform the ports all over the world.

We will continue our study of the maritime industry next week. See you then.





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### Our next publication will be the continuation of this case.

Stay tuned.

"Every single schism of our world is linked to the way we use the sea" Eleonora Escalante Strategy.

Value Propositions: Theory and Cases. From January 22nd to June 28th, 2024.