



# Value Propositions: Theory and cases

## Episode 16

Let's practice.

Example 5.

**A Global Maritime Shipping  
Initiative.**

**Part D. Shipping Markets and  
Shipping Cycles**

*You are learning with the  
Spring Saga of the year*

*From January 22nd to August 9th, 2024.*

[www.eleonoraescalantestrategy.com](http://www.eleonoraescalantestrategy.com)



# Value Propositions: Theory and Cases.

## Outline

1. **Introduction** 
2. **The history of Marketing: The background of value propositions** 
3. **What is a value proposition?** 
4. **Problem solving in the context of value propositions.** 
5. **The philosophy behind the Osterwalder Canvas** 
6. **Customer profile. Gains. Pains** 
7. **Value map. Gain Creators. Pain relievers** 
8. **Fit between the Client and the Value Map** 
9. **Let´s practice. Example 1. A Global Consumer Packaged Goods (CPG)**   
**EASTER WEEK HOLIDAY No publication this week (Vacation from the 22<sup>nd</sup> to 31<sup>st</sup> March)** 
10. **Let´s practice. Example 2. A Fast-moving Consumer Good (FMCG)** 
11. **Let´s practice: Example 3. A Technological Computer Peripheral Equipment Manufacturing** 
12. **Let´s practice: Example 4. A Luxury Precious Stone Mining** 
13. **Let´s practice: Example 5. A Global Transportation Services Enterprise** 
14. **Let´s practice: Example 6. A Financial Sector initiative**
15. **Let´s practice: Example 7. An agriculture-food security product**
16. **Strategic Reflections about Value Propositions.**
17. **Summary and conclusions.**

7 publications

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



# Value Propositions: Theory and Cases.

Tentative Schedule Program (subject to change)

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Week 1  
22-01-24

Week 2  
06-02-24

Week 2  
09-02-24

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Week 5  
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Week 6  
01-03-24

Week 7  
08-03-24



Introduction

The history of Marketing: The 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 second saga of the year will kick-off August 2024.

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



# Value Propositions: Theory and Cases.

## Tentative Schedule Program (subject to change)

Page 2/4



The second saga of the year will kick-off August 2024.



Eleonora Escalante



# Value Propositions: Theory and Cases.

## Tentative Schedule Program (subject to change)

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**Confirmed.**  
We have extended the Example 5 of the Global Maritime Industry to 7 episodes



# Value Propositions: Theory and Cases.

## Tentative Schedule Program (subject to change)

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Week 19  
21-06-24

Week 20  
28-06-24

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Week 22  
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02-08-24

Week 26  
09-08-24



Let's Practice  
Example 5  
Section F



Let's Practice.  
Example 6  
Section A



Let's Practice.  
Example 6.  
Section B



Let's practice.  
Example 7  
Section A



Let's Practice.  
Example 7  
Section B



Strategic Reflections  
about  
CVPs  
Part I

Strategic Reflections  
about  
CVPs  
Part II

Summary and  
Conclusions

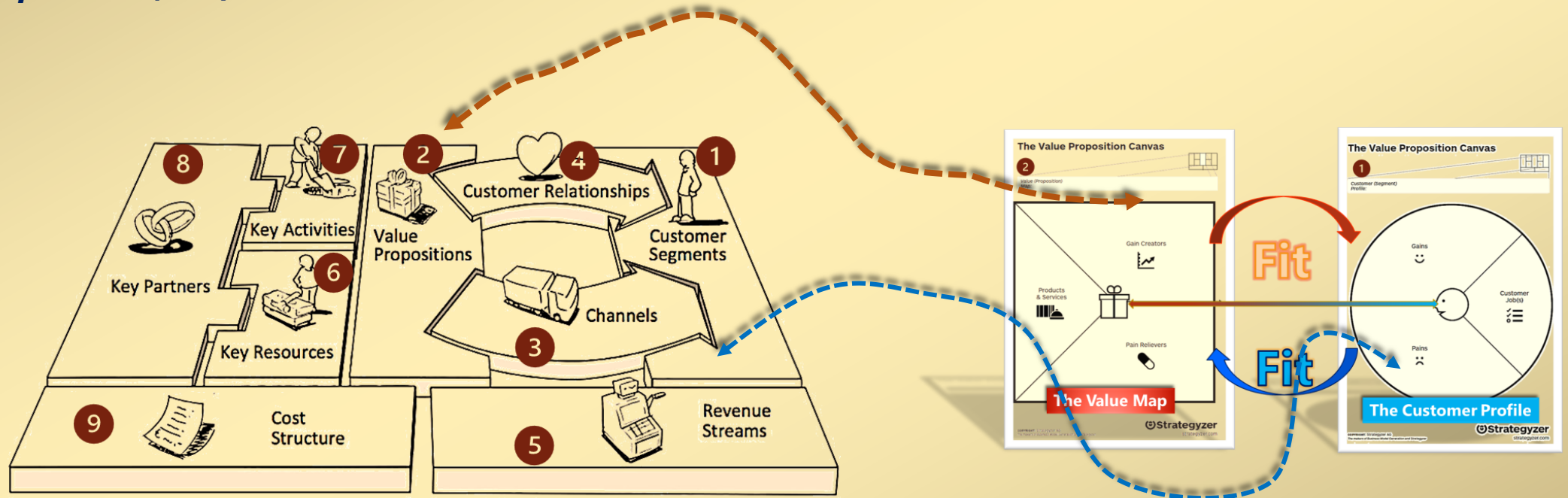
This year we will only publish two sagas. The second saga of the year will be:  
**"A Glance to the Foundation of Business: Trade, Warfare, Women and Slavery."**  
 Tentatively it will start on the 30<sup>th</sup> of August 2024.



# Value Propositions: Theory and Cases.

*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)**



Adapted from 'Business Model Generation', Alexander Osterwalder, Wiley 2012.  
www.businessmodelgeneration.com  
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Eleonora Escalante



# Value Propositions: Theory and Cases.

***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***
- 5. The most recognized investor of private equity in the maritime-terrestrial shipping industries who can pull the financial resources easily.***

***"90% of everything you buy has been brought to you by sea".***  
***World Shipping Council***

- 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.



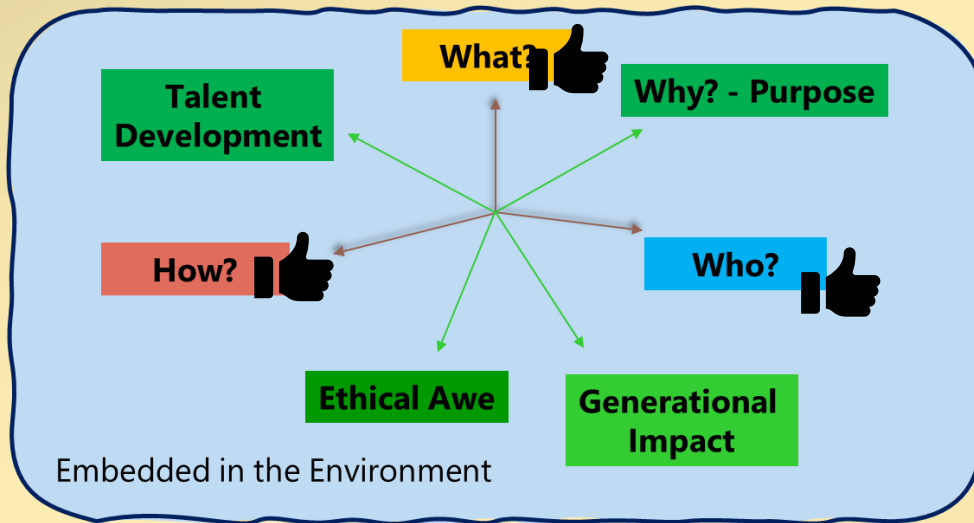


# Value Propositions: Theory and Cases.

*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 the economic fundamentals of the shipping business: The Fossil Fuels (Oil, Coal and Gas) are driving the shipping industry. We will try to answer why shipping makes sense from the point of view of these industries. In our next publication, we will explore the shipping cycles, cost structure, and the relationship of this business with the environment*



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

Today are studying Shipping using the 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?

**We are here**

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/strategic-innovation/>)



06/06/2024

# Ship Markets

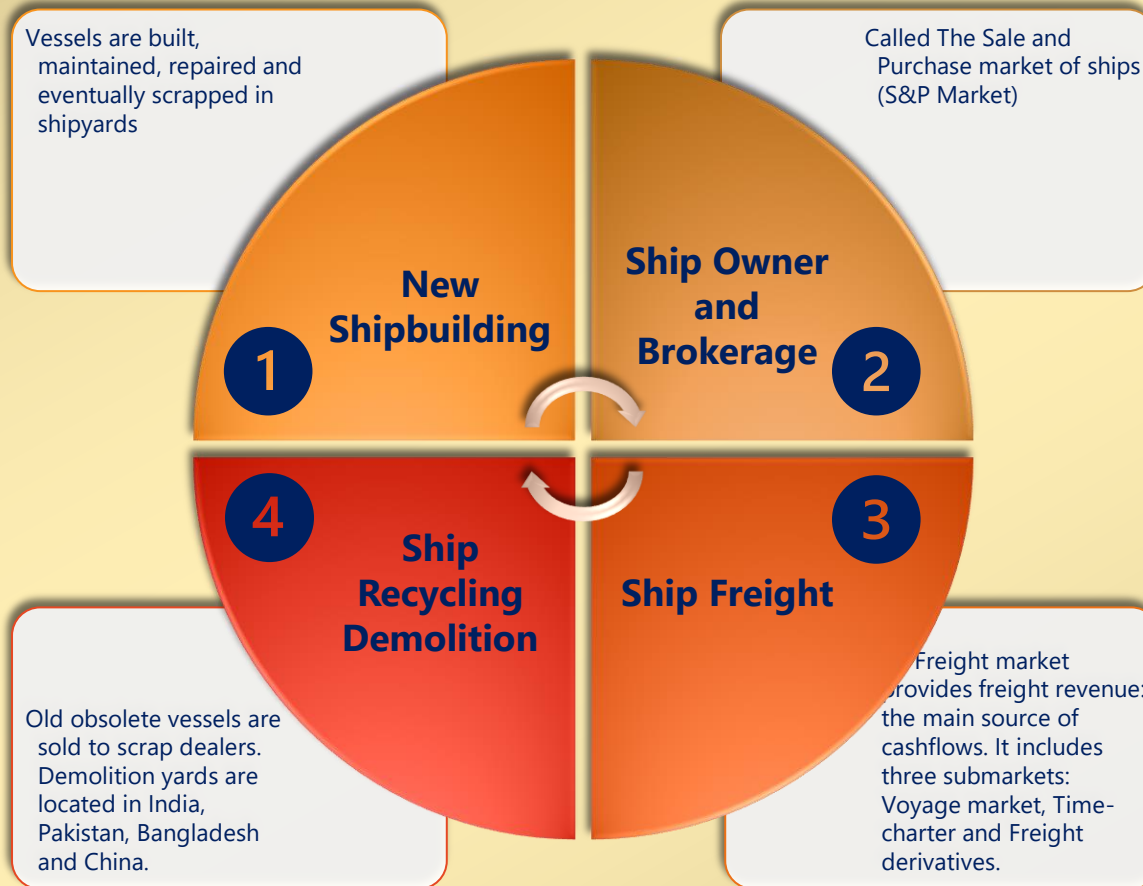


# Value Propositions: Theory and Cases.

*Let's continue exploring the shipping business.*

*Before moving to the shipping market economics, let's continue learning about the shipping markets*

*There are 4 different markets in shipping, all are interconnected in between (globally)*



**Today we will continue comprehending the shipping industry.**

*When we speak of the global maritime industry, we can't ignore the philosophical essence of shipping through the seas:*

1. *Ships are designed and built*
2. *Ships are traded (sell, resell and purchase) through a brokerage system.*
3. *Ships serve to transport things (in bulk or containers) and people.*
4. *Ships are recycled or/and demolished*

*These 4 activities that are related to ships, introduce us to 4 main shipping markets, all of them integrated in between.*



# Value Propositions: Theory and Cases.

Let's continue exploring the shipping business.

Before moving to the shipping market economics, let's continue learning about the shipping markets. It is important to understand the foundations of these 4 markets, because the entrepreneur's solution involves the participation of each of these segments.



## 1. The New Shipbuilding Market

- According to M. Stopford all over the world there are about 284 major shipyards.
- Most of the ships are built in China. More than 50% of them are being built in China (2023)
- New building market companies are built according to a set of specifications, and for different purposes. Shipbuilders prefer standard designs under series orders.
- The contractual process to build a ship is complex
- The construction of the ships takes between 2 to 3 years from the contract date.
- The newbuilding market implies shipbuilding capabilities of rigorous quality, with flexible capacities for any type of industrial purpose (Steel mills, LNG, bulk, containers, etc..)
- The global shipbuilding market is measured by the order book of ships outstanding to be delivered in firm in the coming 2-3 years. It is expressed in millions of CGT (Compensated Gross Tonnage)

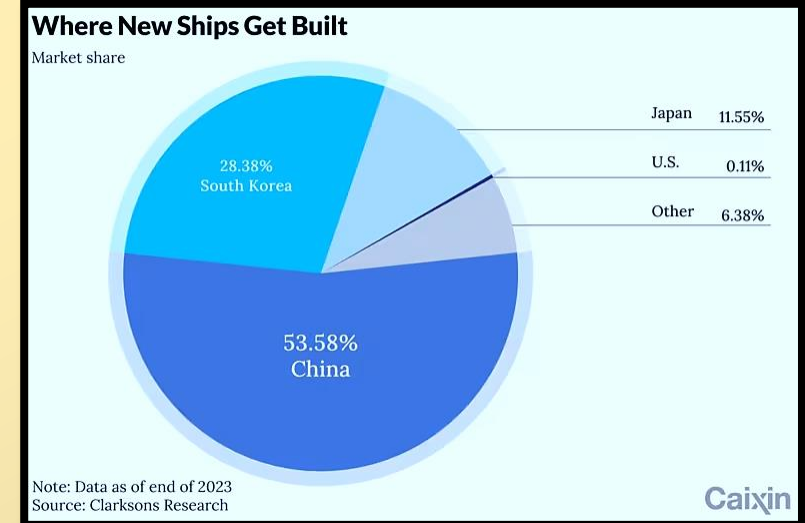


Image Source: <https://asia.nikkei.com/Spotlight/Caixin/U.S.-takes-aim-at-China-shipbuilding-an-industry-it-lost-decades-ago>

The top 5 main corporations building ships are:



中国船舶重工集团公司  
CHINA SHIPBUILDING INDUSTRY CORPORATION



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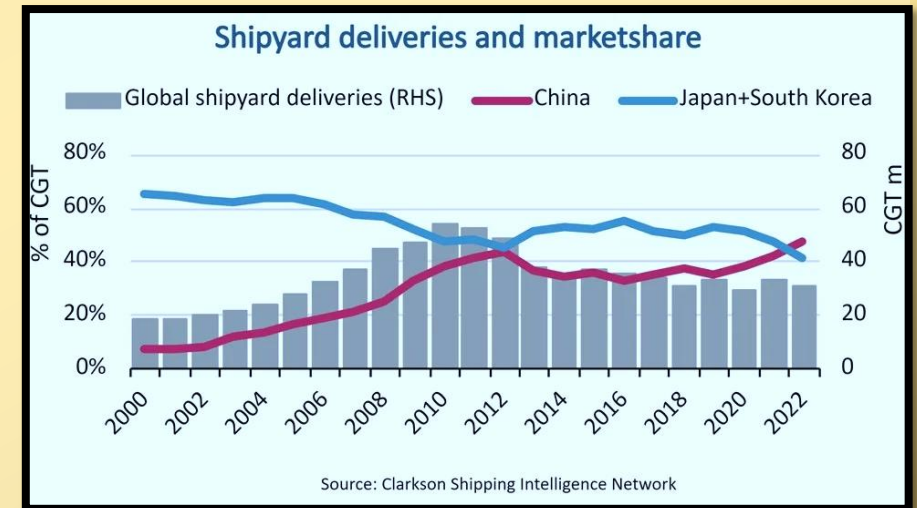


## 1. The New Shipbuilding Market

- China, South Korea and Japan represent around the 93% of the shipyards in the world.
- The global factory of the world (China) is busy building LNG (gas), bulk and container ships.
- Find the map with some of the Chinese shipyards registered in 2010.



Locations and Affiliations of China's Major Shipyards. [https://www.andrewerickson.com/wp-content/uploads/2010/04/China-Maritime-Study-1\\_China-Shipbuilding-Industry\\_Collins-Grubb\\_2008-August.pdf](https://www.andrewerickson.com/wp-content/uploads/2010/04/China-Maritime-Study-1_China-Shipbuilding-Industry_Collins-Grubb_2008-August.pdf)



Source: Clarkson Shipping Intelligence Network

Image Source: <https://maritime-executive.com/article/bimco-chinese-shipyards-achieve-market-share-record-in-2022>

- The share of American and European shipyards has diminished. China's has taken the South Korean first spot since 2022.
- If you observe the graph above, the shipbuilding industry suffered more than a decade of overcapacity (2011-2021).
- Chinese Shipyards have positioned themselves as a leading builder of dry bulk and container ships. But The LNG carriers' orders have also increased.
- Currently, only the first-tier shipping yards are strengthening, while second tier yards are running out of orders.



# Value Propositions: Theory and Cases.

*Let's continue exploring the shipping business.*

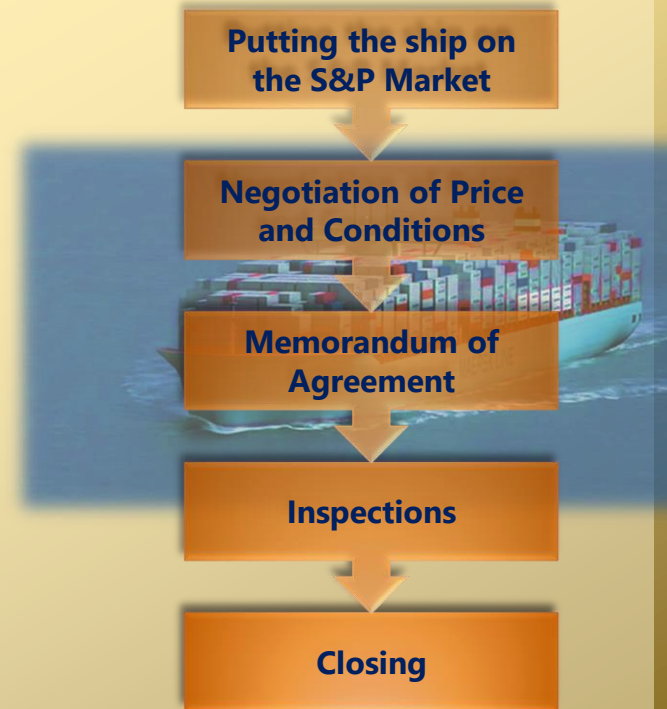
*Before moving to the shipping market economics, let's continue learning about the shipping markets. It is important to understand the foundations of these 4 markets, because the entrepreneur's solution involves the participation of each of these segments.*



## 2. Ship Ownership & Brokerage (S&P Market)

- *To understand the S&P Market, we must understand in which phase of the shipping cycle we are.*
- *The secondhand sale and purchase market thrive on price volatility. And speculators are always partying in these situations.*
- *At your right you can observe the 5 main steps of the procedure for selling/purchasing a ship.*
- *Let's explore who are the main players in the Sell and Purchase Market:*

### Procedure for selling/purchasing a ship



### Shipowner

- Comes to the market to sell a ship
- Sold with prompt delivery, for cash, free of any charter, mortgage or maritime liens



### Broker

- An intermediary appointed by the shipowner to act for him/her.
- It is common to offer the vessel through several brokers



### Purchaser

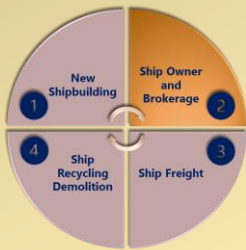
- A buyer with the need of a ship with specific requirements
- An investor that might wish to speculate
- A charterer with commitments to transport cargo



# Value Propositions: Theory and Cases.

*Let's continue exploring the shipping business.*

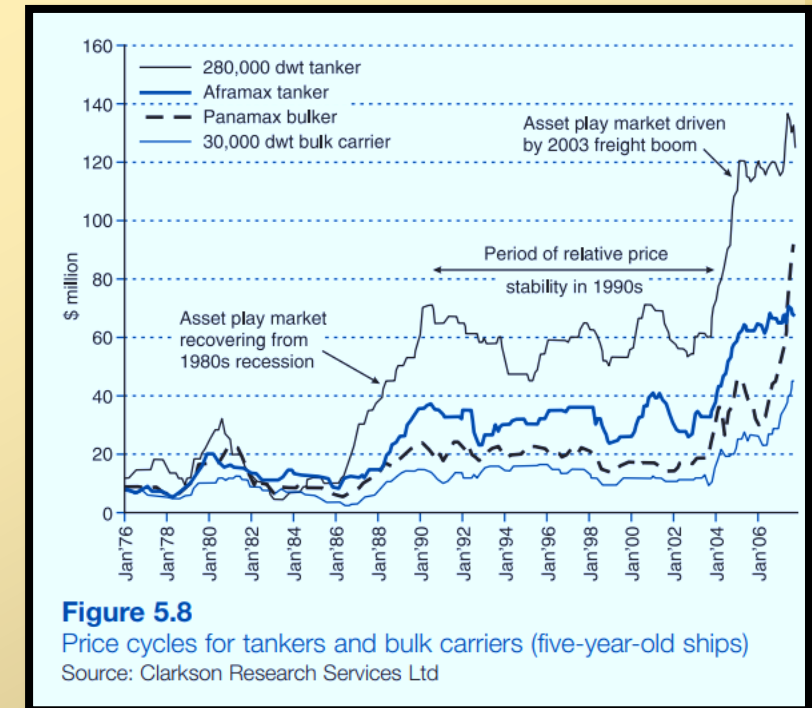
*Before moving to the shipping market economics, let's continue learning about the shipping markets. It is important to understand the foundations of these 4 markets, because the entrepreneur's solution involves the participation of each of these segments.*



## 2. Ship Ownership & Brokerage (S&P Market)

- An overview of how volatile are the second-hand prices of ships is observed to your right. We can observe at least three shipping cycles.
- To sell a ship when the price is at the bottom of a market cycle is disastrous for the shipowner, but a great bargain for the purchaser.
- No one wants to sell a ship at low price when there are plenty of buyers, and the ships hold very high prices.
- Secondhand prices can exceed newbuilding prices since the buyer doesn't have to wait until the ship is finally built, due to the immediate availability.
- Shipowners in financial distress are forced to sell by cashflow pressures as bunker bills, or a banker who has foreclosed and taken possession of the fleet. Bankers can auction if the shipowner isn't able to service the loan too.
- There are 4 factors that determine the value of a ship: (1) Freight rates, (2) Age, (3) Inflation, and (4) Shipowners confidence and expectations for the future.

### Example of Price Volatility 4 different vessels (1976-2006)

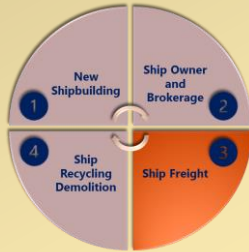




# Value Propositions: Theory and Cases.

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## 3. Ship Freight Market

**What is the ship freight market?**

*It is the only real source of wealth in shipping; the main source of cash for shipping companies is this market.*

*There are 4 main different formats in the freight market:*



### The Voyage Charter

The shipowner contracts to carry a specific cargo in a specific ship for a negotiated price per ton which cover all the costs.

A variant of this is the contract of affreightment (carry a series of cargo covering all costs)



### The Time Charter

The shipowner gives the charterer operational control of the ship to carry the cargo. The charterer pays the voyage costs. The shipowner keeps the ownership and management of the vessel (capital and operating costs).

The charter fixes the vessels for a certain period of time.



### The Bare Boat Charter

It is a variant of a time charter in which the charterer takes care of all the operating costs, voyage costs and cargo expenses. This is the case of shipowners who don't want to be involved in shipping operations at all.



### The Freight Derivatives FFA

Forward Freight Agreements (FFAs) are derivatives instruments used to hedge freight rates against future market development based on a specified single freight route(s) or a Freight Index (such as the BDI-Baltic Dry Index).

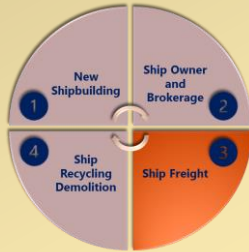
The FFAs are common in the dry bulk and tanker market



# Value Propositions: Theory and Cases.

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## 3. Ship Freight Market

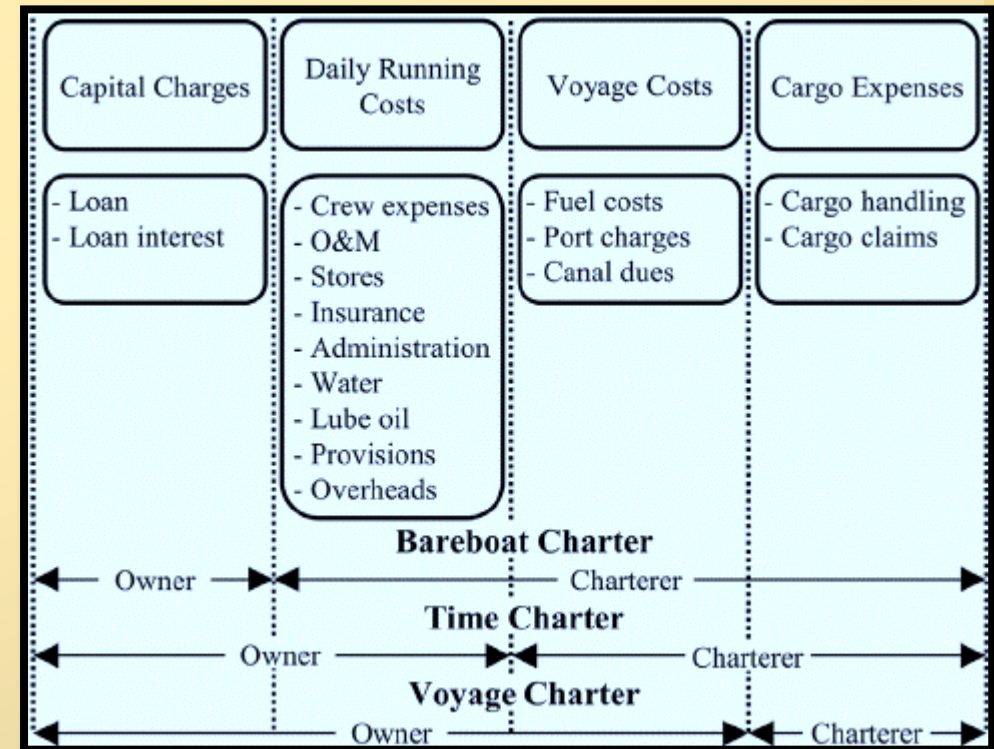
*The ship Freight market as it functions are the real sources of core revenues for the shipping players*

Regardless of the type of contract and related obligations of the ship freight market, also known as charter markets, their variations are simply explained by the levels of costs undertaken by the shipowner in contrast to the costs assumed by the charterer. Look at the image at your right. In addition, the differentiation between the voyage charter, time charter and bareboat charter depends on the quantity of cargo, hire rate of the vessel, and duration of the contract.

Another variables of importance to negotiate in the contract are the claims for days of demurrage to the charterer (port time) and/or the despatch to the owner.

Time chartering to industrial clients is one of the prime sources of revenues for shipowners.

The length of a charter may be the time taken to complete a single voyage (trip charters) or a period of months or years (period charters).



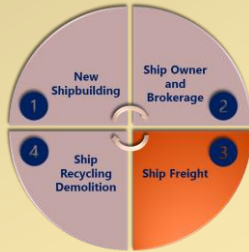
Costs associated to the Freight Market.  
[https://www.researchgate.net/publication/270293238\\_Investigation\\_of\\_optimum\\_jack-up\\_vessel\\_chartering\\_strategy\\_for\\_offshore\\_wind\\_farm\\_OM\\_activities](https://www.researchgate.net/publication/270293238_Investigation_of_optimum_jack-up_vessel_chartering_strategy_for_offshore_wind_farm_OM_activities)



# Value Propositions: Theory and Cases.

Let's continue exploring the shipping business.

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## 3. Ship Freight Market

- Each of the type of ships we have studied has demand for chartering: tankers, dry bulk tonnage, specialized vessels, container ships, ro-ros, etc.
- The freight market rate reports are published on a daily basis in Lloyd's List, by private brokers as Clarkson's reports, and by the Worldscale Index.
- The charter-party or cargo contract is the most important document in which all the legal clauses are defined and agreed for all parties involved

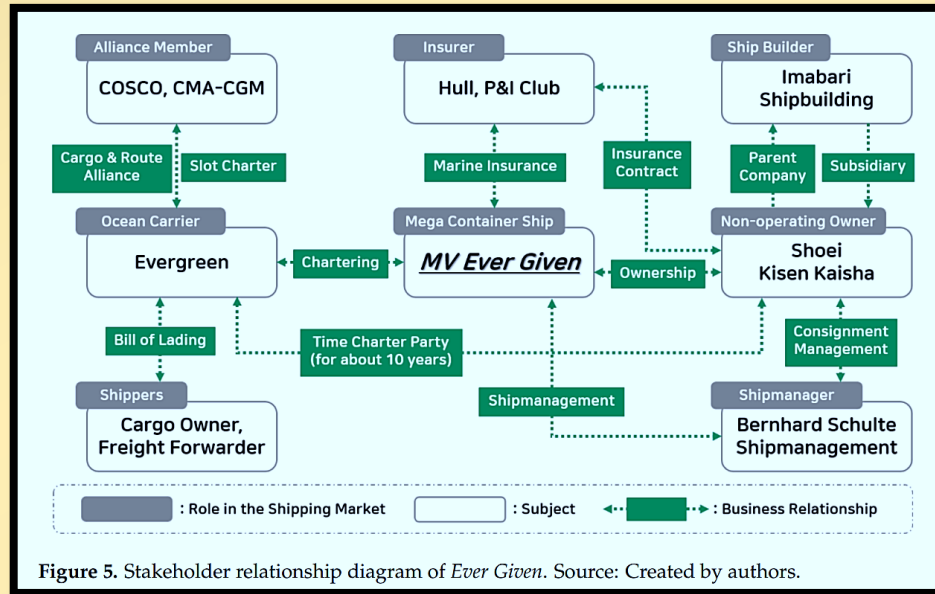


Figure 5. Stakeholder relationship diagram of Ever Given. Source: Created by authors.

Cha, J.; Lee, J.; Lee, Ch.; Kim, Y. Legal Disputes under Time Charter in Connection with the Stranding of the MV Ever Given. <https://www.mdpi.com/2071-1050/13/19/10559>



Figure 1. Outline of Ever Given's stranding accident in Suez Canal. Source: Created by authors.

On March 2021, the MV Ever Given was stuck in the Suez Canal for a week. <https://www.cnet.com/science/ever-given-leaves-egypt-suez-canal-everything-to-know/>

**An example of the complexity of a one-time charter stakeholders (and liability claims) is observed in the Ever-Given case, a super large container ship accident stranding in the Suez Canal:**

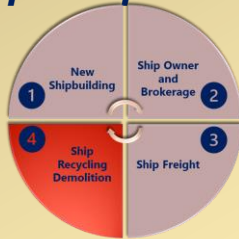
The Ever Given (a 21,124 TEUs), of 400 mt vessel which departed from the Port of Tanjung Pelepas in Malaysia on 13 March 2021, and was expected to arrive to the Port of Rotterdam in the Netherlands on 31 March 2021.



# Value Propositions: Theory and Cases.

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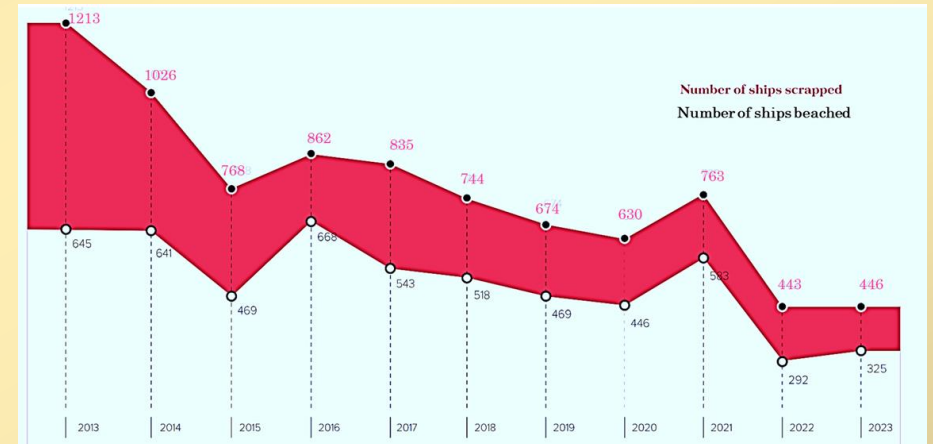
## 4. Ship Recycling and Demolition

**The last stage of a vessel economic life cycle is its demolition. It is also called the recycling industry.**

A shipowner may decide to sell its vessel in the demolition market. When the life cycle of a ship accomplishes certain age (20 years on average), shipowners can sell directly to a demolition or scrap yard or uses a cash buyer for the vessel's last journey. The sale is usually handled by a broker.

There are large broker companies with demolition desks, who negotiate directly with the demolition yards. The demand for scrap metal and the compliance on the environmental care (green scrapping measures) affects the price.

Most of the demolition scrap yards are in the Far east: India, Pakistan, Bangladesh and China.



*If you wish to learn more about the Demolition Ship Market click <https://www.offthebeach.org/>*

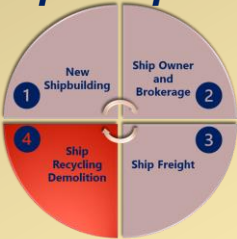




# Value Propositions: Theory and Cases.

Let's continue exploring the shipping business.

Before moving to the shipping market economics, let's continue learning about the shipping markets. It is important to understand the foundations of these 4 markets, because the entrepreneur's solution involves the participation of each of these segments.



## 4. Ship Recycling and Demolition

**The garbage of shipowners is the source of income for some in Bangladesh.** Bangladesh ship recycling industry represents around 40% of the global ship recycling activities, measured in Light Deadweight Tons (LDT).

Bangladesh SBRI scrap yards require huge state/international private investment to meet the global environmental regulations of this industry (The Hong Kong Convention, the EU standards, etc.). By meeting international standards of the Ship Breaking and Recycling Industries (SBRI), Bangladesh can become a pioneer in green ship recycling practices in the future and overcome the current weaknesses of its local players.

"Shipbreaking provides a substantial resource of steel to the country and, as a result, saves a considerable amount of foreign exchange by lessening the demand to import steel; but at the same time, it is done with extremely bad working conditions, resulting in fatal accidents, exploitation of teenage workers, and severe pollution of the marine environment as well as the dumping of hazardous wastes".

This 4<sup>th</sup> shipping market urgently claims more green environmental investments from the global top players, given its current weaknesses.

### The Case of Bangladesh

06/06/2024

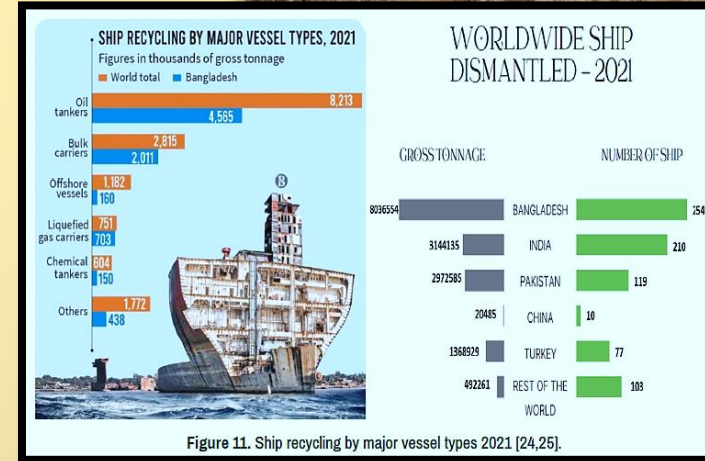


Figure 11. Ship recycling by major vessel types 2021 [24,25].

Image Source: <https://www.hilarispublisher.com/open-access/evaluation-of-present-ship-recycling-strategy-and-opportunity-for-bangladesh-97138.html>





# Value Propositions: Theory and Cases.

Let's continue exploring the shipping business.

There are four shipping markets. let's continue learning about them.

It is important to understand the foundations of these 4 markets, because the entrepreneurs' solution involves the participation of each of these segments.



Once we segment the different markets of global shipping, it is easier to proceed to do an industry analysis for each market.

In the mid 1980s, McKinsey & Co. in collaboration with the Center for International Economics and Shipping at the Norwegian School of Economics and Business Administration, developed a specific framework for the shipping global industries.

**This framework has driven the shipping industry since then. Why is this so important to understand?**

Because the pursuit premises of wealth creation in shipping are focusing its attention to:

1. Economies of Scale
2. Differentiation

The essence of Corporate Strategic decision making in shipping has been driven by these two variables for around 50 years!



**Wake up call for shipping strategists!**

Economies of Scale  
Significant (+)  
Insignificant (-)

**Contract Shipping**

- Concentrated in few players
- Greater economies of scale of fleet
- Fairly homogeneous service
- Liquid second-hand market (S&P market)
- Close customer relations

**Industry Shipping**

- Concentrated in few players
- High economies of scale
- Specialized services
- Difficult second-hand market (S&P market)
- Tailor made customer service

**Commodity Shipping**

- Fragmented
- No scale effect in fleet
- Homogeneous service
- Liquid second-hand (S&P) Market
- Little direct customer contact

**Specialty Shipping**

- Temporary local monopolies
- Limited scale-effects
- Specialized services
- Difficult second-hand (S&P) market
- Direct customer contact

Insignificant (-)

Significant (+)

**Differentiation**

Sources of Reference: Slides 41-43



# Value Propositions: Theory and Cases.

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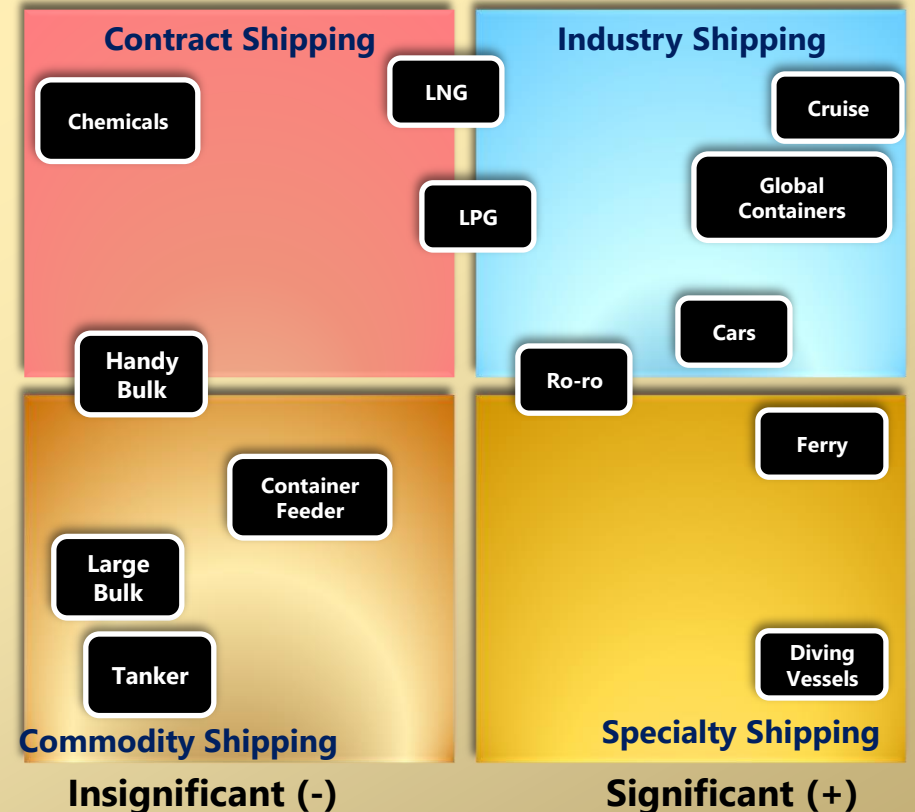
Four generic types of shipping are the result of this framework that utilizes two variables: Economies of Scale and Differentiation.

Why is important to understand the nuts and bolts of this framework? Because each type of shipping requires a specific industry analysis. Traditionally, before doing a CVP, the strategist should spend months understanding each of the type ships industry analysis in at least 9 levels. Eleonora Escalante Strategy adds a 10<sup>th</sup> level: Love for People

Basic elements of Industry analysis for each type vessel subsegment

1. Market Definition and respective Structure
2. The supply side
3. The demand side and its structure
4. Supply and Demand Equilibrium
5. Competitive Landscape
6. Industry Attractiveness (Porter forces analysis)
7. Industry Cycles and history
8. Critical Success Factors
9. Technological Transformations for the Industry
9. Love for Workforce (Raise to Middle-Class quality of life)

Economies of Scale Significant (+)  
Insignificant (-)



06/06/2024



# Shipping Cycles

06/06/2024



# Value Propositions: Theory and Cases.

*Let's continue exploring the shipping business.*

*Let's continue learning about the shipping cycles.*

**Each sub-segment of shipping is crucially affected by shipping cycles which are more complex than the risks associated to the freight rate.**

## What is a Shipping Cycle?

- A cycle is the interpretation of an interval of time during which a characteristic of one regularly repeated event, or a sequence of events is completed. There are two elements of a cycle: Its Amplitude (A), and its Frequency (F).
- In order to define a shipping cycle, we must consider 5 points:

**There is not one shipping cycle**

- There are long cycles (secular trend)
- There are short-term cycles (called business cycles) which are driving the 4 shipping markets. The short shipping cycle is the business cycle in the world economy.
- There are seasonal cycles, or regular fluctuations within the year.

**These are caused by supply/demand**

- The short shipping cycle's is explained by a supply/demand model.
- If there are fluctuations in supply or demand, there will always be short-term cycles.
- Freight rates depend on this supply/demand cycles, and their shapes are affected by exogenous or endogenous factors.

**Each cycle Has 4 stages**

- The short cycle typically has 4 stages:
  1. A market trough (stage 1)
  2. A Recovery (Stage 2)
  3. A market peak (Stage 3)
  4. A Collapse (Stage 4)

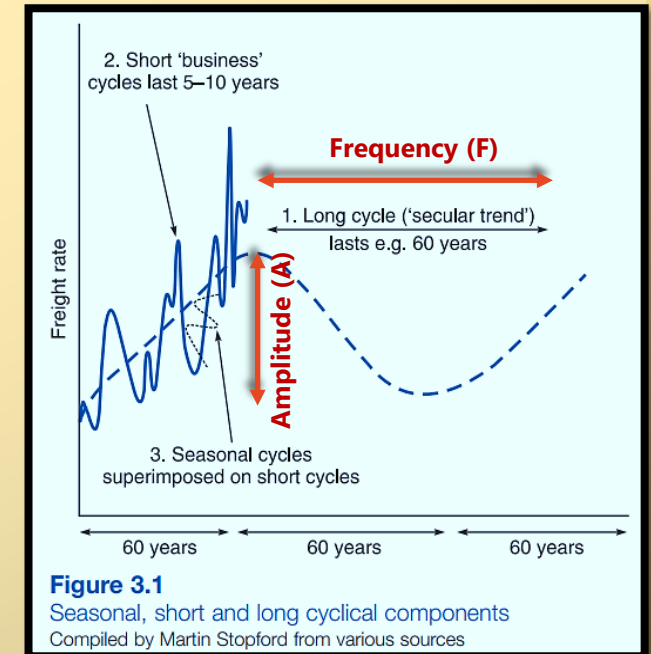
See next slide please

**Each cycle Is not regular**

- To identify turning points marking the start and end of each cycle, and the end of each peak or through phase is useless. Each shipping cycle is not regular, no firm rules are attached to it.
- These can fluctuate from 3 to 13 years.

**No prediction of next cycle shape**

- Trade is not predictable. And so do the shape of the next shipping short cycle.
- Any cyclical pattern can't tell us what will happen next.
- Market collapses or recoveries may be reversed before they reach the trough, because of countercyclical orderings.



**Figure 3.1**  
Seasonal, short and long cyclical components  
Compiled by Martin Stopford from various sources



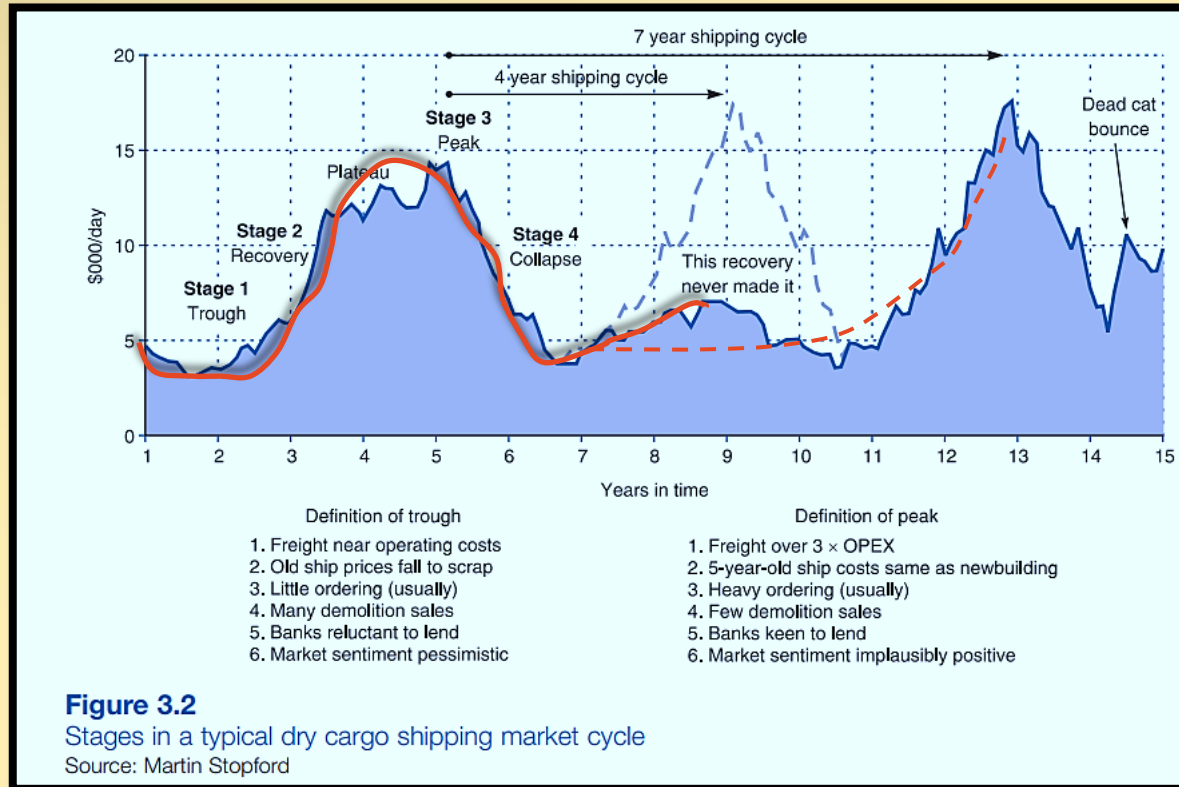
# Value Propositions: Theory and Cases.

Let's continue exploring the shipping business.

Let's continue learning about the shipping cycles.

Each sub-segment of shipping is crucially affected by shipping cycles which are more complex than the risks associated to the freight rate.

The four main stages of a typical short shipping cycle.



## Stage 1. Trough

- There are ships queuing at loading points and sea slow-steaming to save fuel
- Freight rates fall to the minimum to cover operating costs
- Low freight rates and tight credit produce negative cashflows
- Banks proceed to foreclose. Shipowners are forced to sell modern ships at distress prices
- Old ships prices fall below the scrap price: active demolition market.

## Stage 2: Recovery

- Freight rates begin to raise above operating costs
- Market sentiment remains uncertain, but confidence grows
- Liquidity improves, with positive cash-flows
- Second-hand prices increase (S&P market improves)
- The demolition market starts to slowdown.

## Stage 3. Peak/Plateau

- Freight rates rise (2X or 3X or more the operating costs).
- The longer the peak, the better.
- Liquidity abounds, high earnings trigger banks lending activities.
- Modern ships sell for more than the newbuilding price at the S&P market. Older ships are bought without inspection.
- New building orders increase.

## Stage 4. Collapse

- Freight rates fall precipitately without signs to raise.
- The world business cycle downturn is seen through economic shocks.
- Ships reduce operating speed, and least attractive vessels aren't able to get contracts.

Sources of Reference: Slides 41-43



# Value Propositions: Theory and Cases.

*Let's continue exploring the shipping business.*

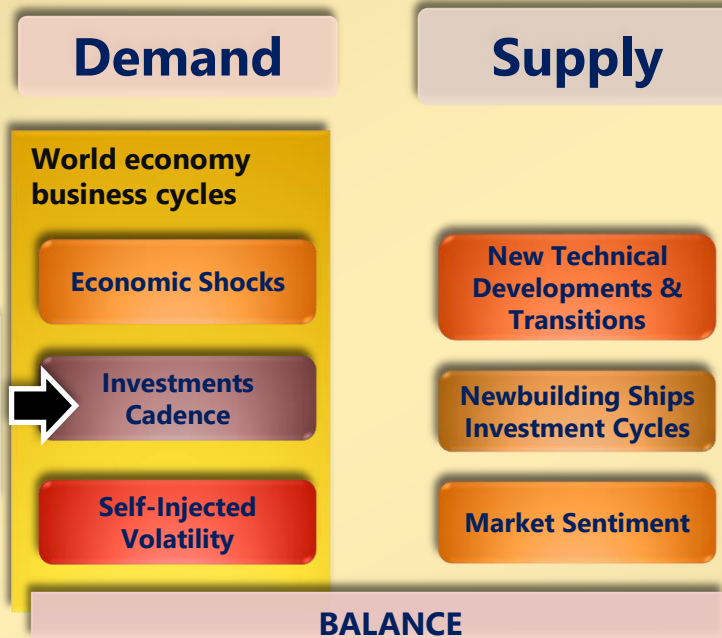
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**Understanding the supply/demand model of shipping cycles.**

**A change in the relative demand and supply of ships leads to a shortage or surplus of tonnage, which in turns triggers and increase or a reduction in freight rates.**

**Investment Multiplier and Income Accelerator of spending**



## Freight Rates Cycles

The world economy has business cycles  
 As the investment occurs, it leads the economy to pick up. This leads to raise income by larger amounts: Investment Multiplier  
 This leads to raise a demand for goods: Income Accelerator  
 The spending generates expansion of the economic system rapidly.  
 There is a positive correlation between the world GDP and shipping cycles in seaborne trade. The two graphs (of two different periods) at your right confirm it.

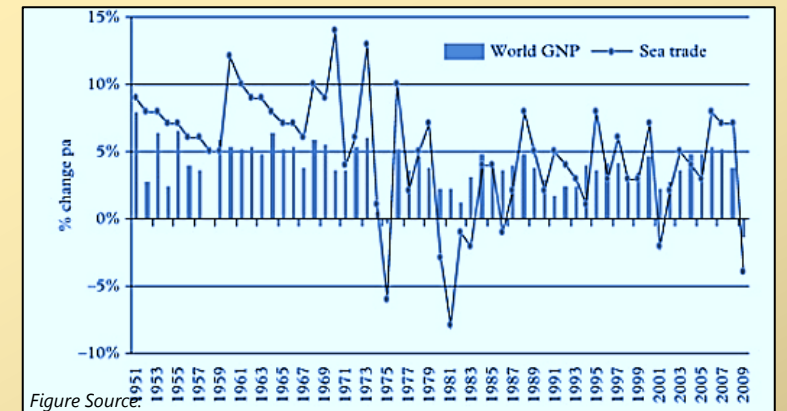
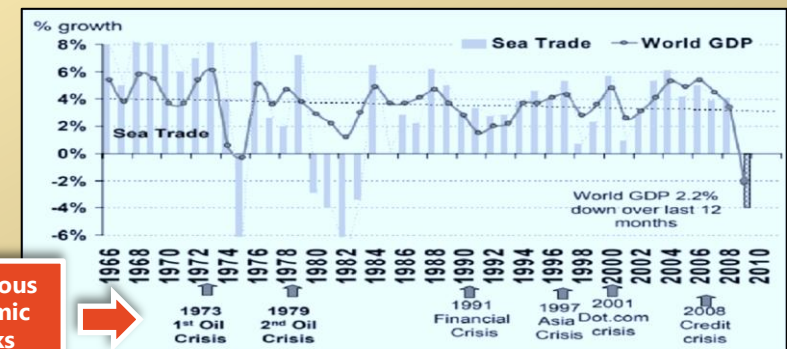


Figure Source: Comparison of cycles in world GDP and seaborne trade. Compiled by Martin Stopford.



**Exogenous Economic Shocks**



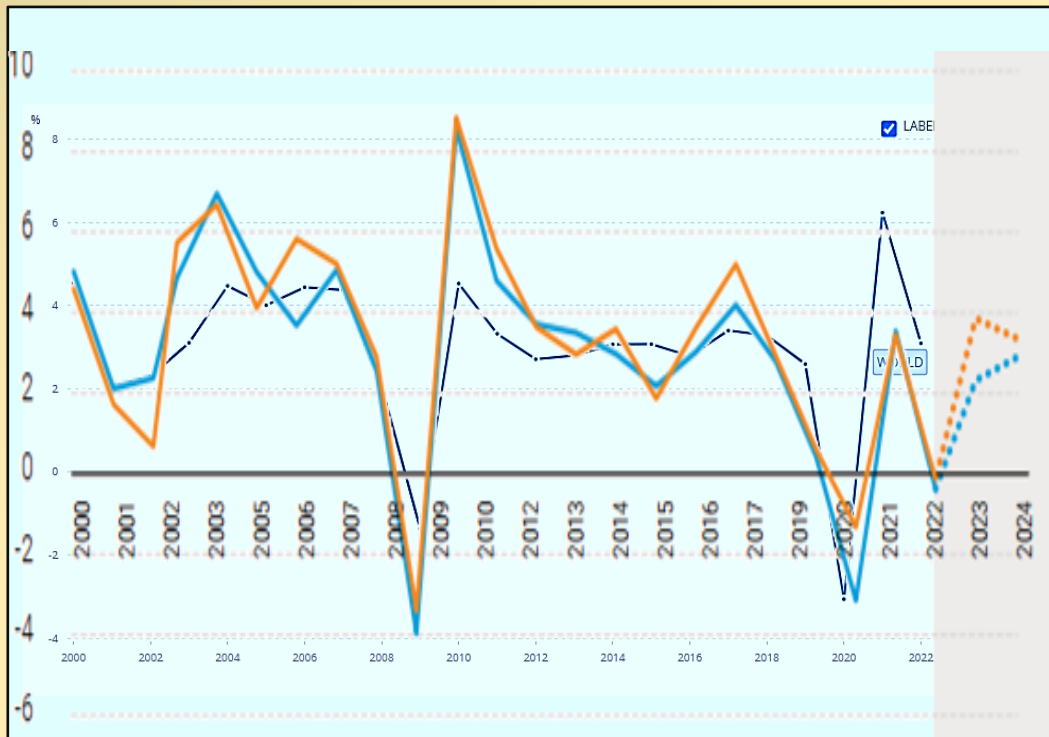
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*The graph at your left, shows three lines:*

*The Black line is the GDP growth (annual %) from 2000 to 2024 World Bank national accounts data, and OECD National Accounts data files*

*The Cyan and orange lines are the Seaborn trade growth in annual % change from 2000 to 2024. The Cyan is the % calculated from tons, and the orange is the % calculated from ton-miles. This data is from UNCTAD Review of Maritime Transport 2023 report.*

*We can observe that there exists still a positive correlation between the **world industrial production** and the **cycles in seaborn trade**. By comparing the percentage change in seaborn trade with the % change of World GDP, it is clearly transparent how the world economic cycles move together.*

*For example: During the pandemic (year 2020), the world GDP fell into recession, the steel mills used less raw materials (iron ore), the energy consumption dropped, the power stations imported less coal, and people didn't move from home. The oil trade reduced. In consequence the demand for sea transport was reduced.*

*After the Financial crisis of 2008, the world economy recovered, and the whole process reversed, and the demand for exports and imports escalated, including the seaborn trade.*

Graph Source: World Bank and UNCTAD Maritime Report 2023. Both graphs overlapped by EEStrategy.



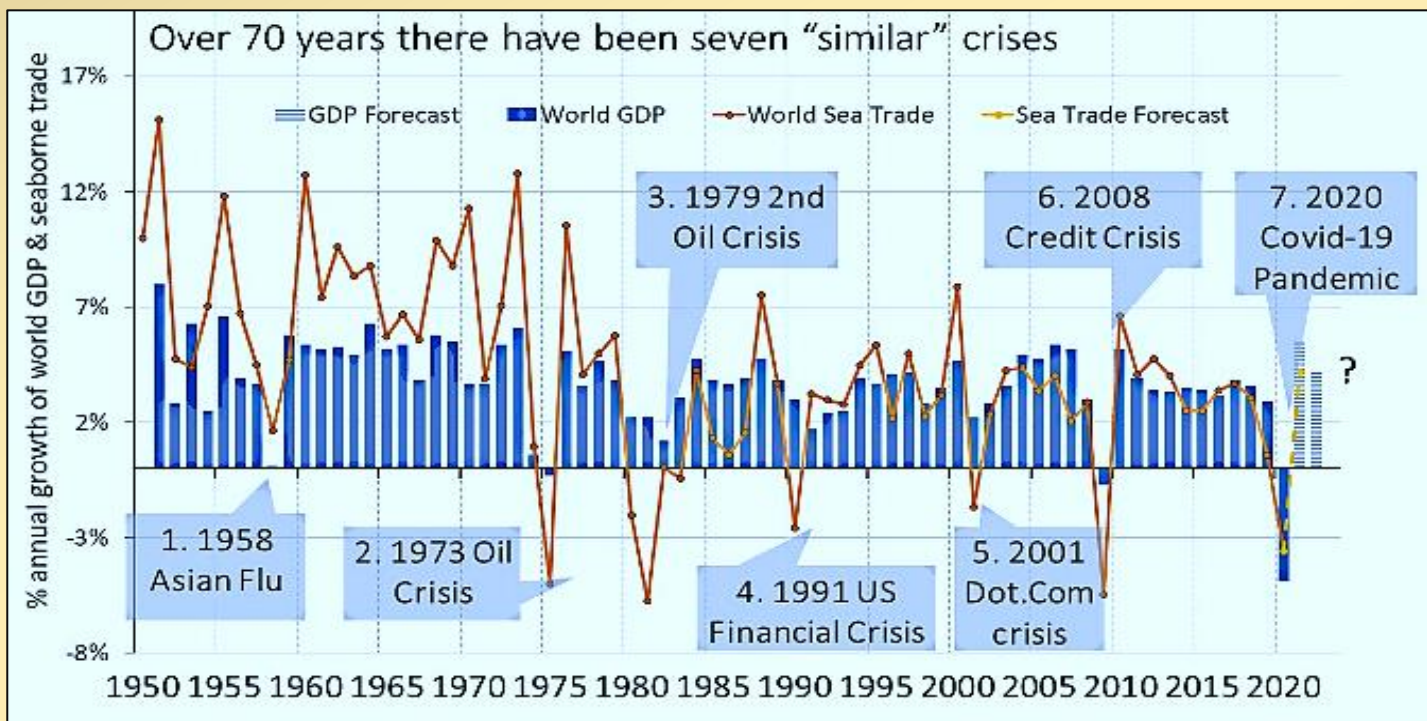
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**Understanding the supply/demand model of shipping cycles.**



Graph Source: <https://mlecs.com/English/Lectures.asp?Page=Home> From Lecture: The Seventh Cycle- A bumpy Ride between Pandemics.

*Eleonora Escalante Strategy believes there will be a transformation of the shipping industry hard-pressed by the new technological designs of the next 6<sup>th</sup> innovation wave. This new phase is under the strategic plan of the new vessels in its quest for transition to Zero CO2.*

*In addition, the new disruptive technologies (as they are deployed now) will shorten the shipping short business cycles (whole cycle, from peak to peak).*

*This move has its positive and negative notes. If the short cycle lengths are reduced, then the long freight cycles will also be reduced to less than 20 years.*

*Is the shipping industry ready for it? New Shipbuilding periods will be reduced if robots and AI are introduced in the process. Will this be profitable for the typical shippers (charterers) on the long run? I doubt it. IF the new ships will be expensive, a new wave of consolidation of the industry will create larger oligopolies, leaving the fragmented charterers without ways to compete for the long run. A schism is coming. Sooner or later.*



# Value Propositions: Theory and Cases.

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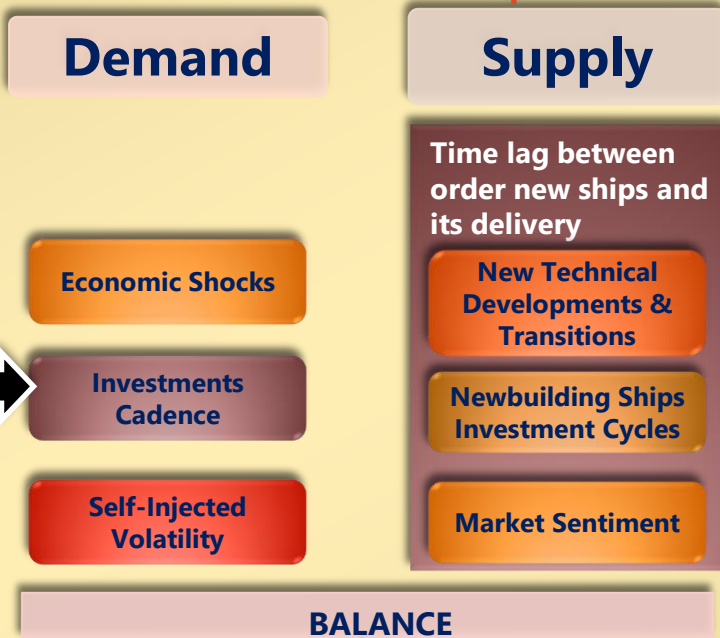
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**Investment Multiplier and Income Accelerator of spending**



## Freight Rates Cycles

The main cyclical force on the supply side of the shipping market is the time lag between ordering a new ship and the time it is delivered to the shipowner. It takes from 18 months up to 3 years to build a ship. This time lag mechanism is a crucial part of the shipping cycle since at least 140 years. Shipowners go for the safe strategy: order new ships during the peak, when freight rates are high, by the time the ships are ready, it is likely that the world economy will plunge into recession, dragging down freight rates. Even if investors use counter cyclical ordering strategy, is hard to beat the world economic cycles.

**The graph below only shows us who is bearing the risk when the supply and demand are not in balance:**

- The primary risk takers of the shipping cycles are the shipowners and the cargo owners (called shippers or charterers).

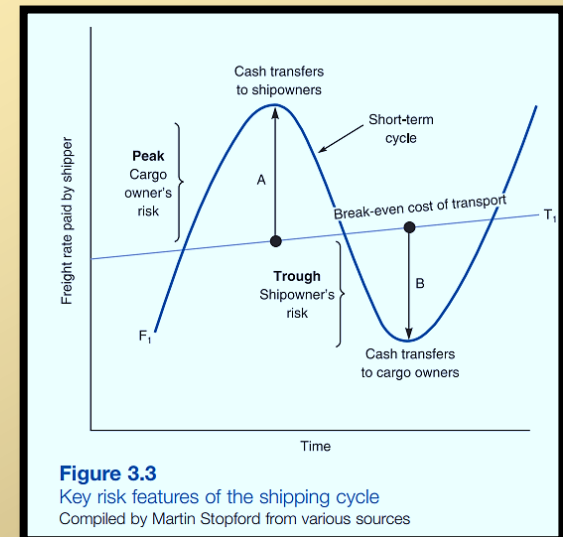


Figure Source: Stopford, M. Maritime Economics 3<sup>rd</sup>. Edition. Page 102.

Sources of Reference: Slides 41-43



# Value Propositions: Theory and Cases.

*Let's continue exploring the shipping business.*

*Let's continue learning about the shipping cycles.*

*Each sub-segment of shipping is crucially affected by shipping cycles which are more complex than the risks associated to the freight rate.*

**Understanding the supply/demand model of shipping cycles.**

**Finally, our curiosity acumen has taken to elevate ourselves to a new abstraction and try to find and infer the connection between**

1. The pace of innovation of human technological inventions towards history.
2. The different stages of economic systems
3. The Transportation systems in relation to wealth creation
4. The periods of shipping cycles as of 1700 to 2023
5. The length of Shipping cycles (1740-2007)

*Let's proceed to see the 5 following graphs, which Eleonora Escalante Strategy has segmented by its waves cycles of innovation.*

*All these 8 following graphs have been originally prepared by Professors Notteboom, Prof. Jean Paul Rodrigue, and Professor Martin Stopford. I have added some notes to each of them in red.*

***This publication is merely educational, without any commercial interest involved.***



Image Source: [https://www.linkedin.com/posts/ajith-watukara\\_evolution-of-container-transportation-ships-activity-6638688429951541248-tBgn/](https://www.linkedin.com/posts/ajith-watukara_evolution-of-container-transportation-ships-activity-6638688429951541248-tBgn/)



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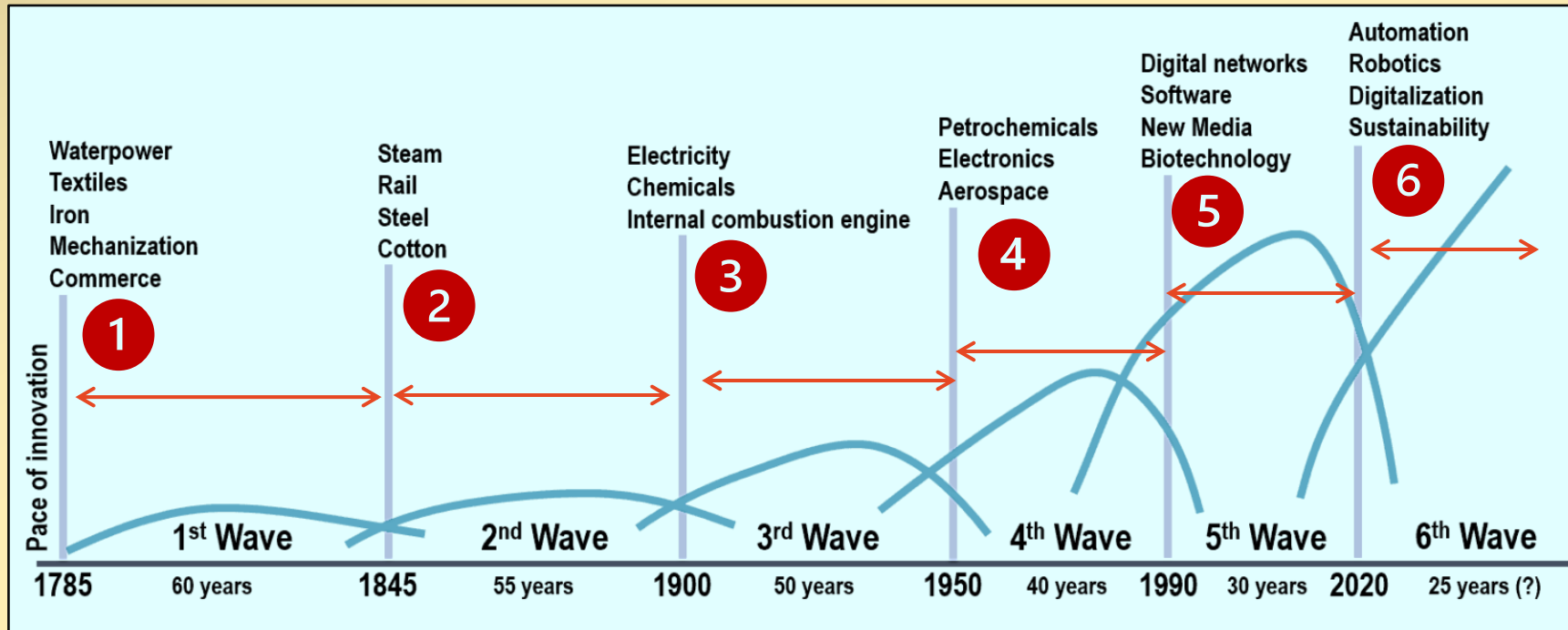
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## Graph 1



## Long Wave Cycles of Innovation

We will overlap these 6 periods of waves of innovation over the next 6 slides. You will understand why by slide 38.

<https://transportgeography.org/contents/chapter3/transportation-and-economic-development/innovation-long-wave-cycles/>

Source: Adapted from Hargroves, K. and M. Smith (2005) *Natural Advantage of Nations: Business Opportunities, Innovation and Governance for the 21st Century*. London: Routledge.



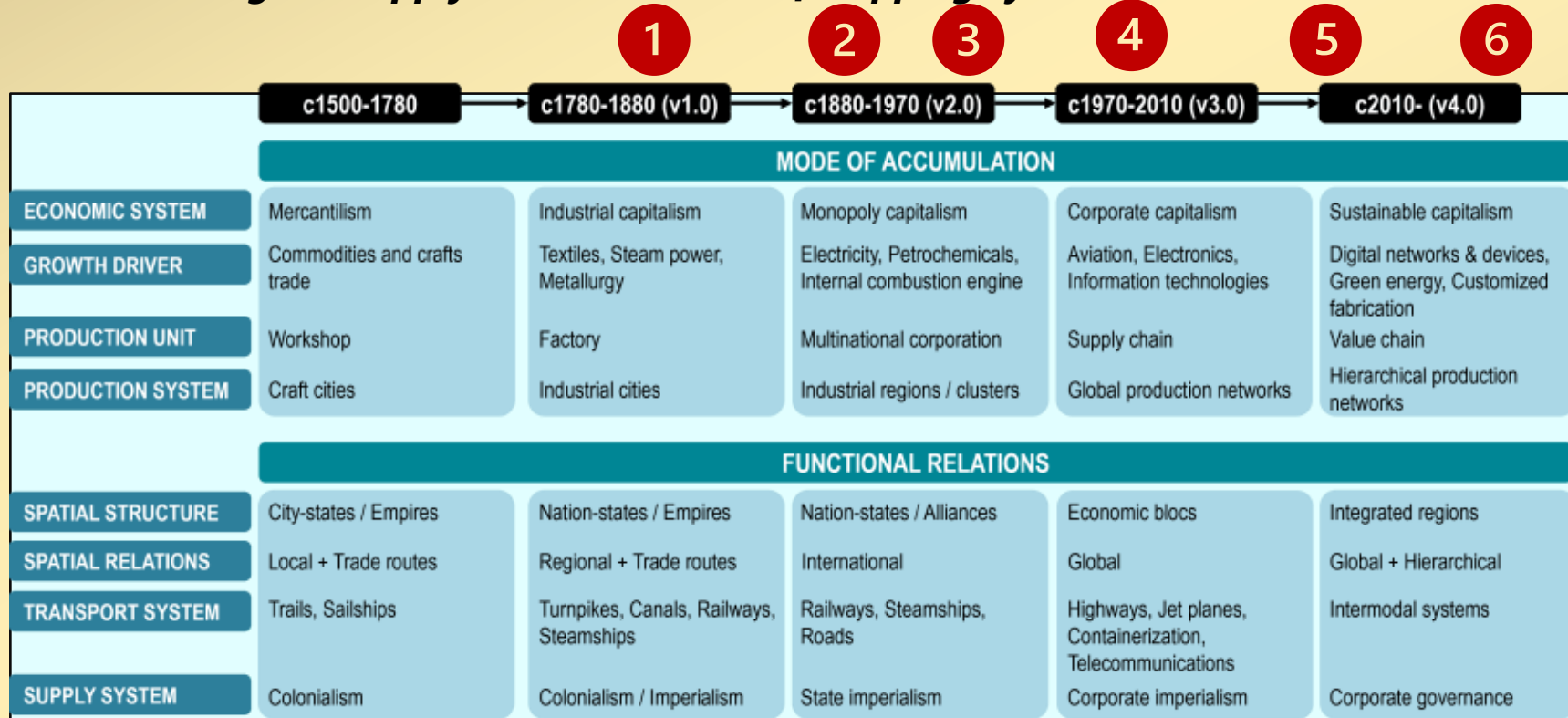
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*Understanding the supply/demand model of shipping cycles.*



## Graph 2

**Phases of Development of the Global Economy**

Source: <https://transportgeography.org/contents/chapter1/the-setting-of-global-transportation-systems/global-economy-development-phases/>

Rodrigue, J-P (2024), *The Geography of Transport Systems, Sixth Edition*, New York: Routledge.



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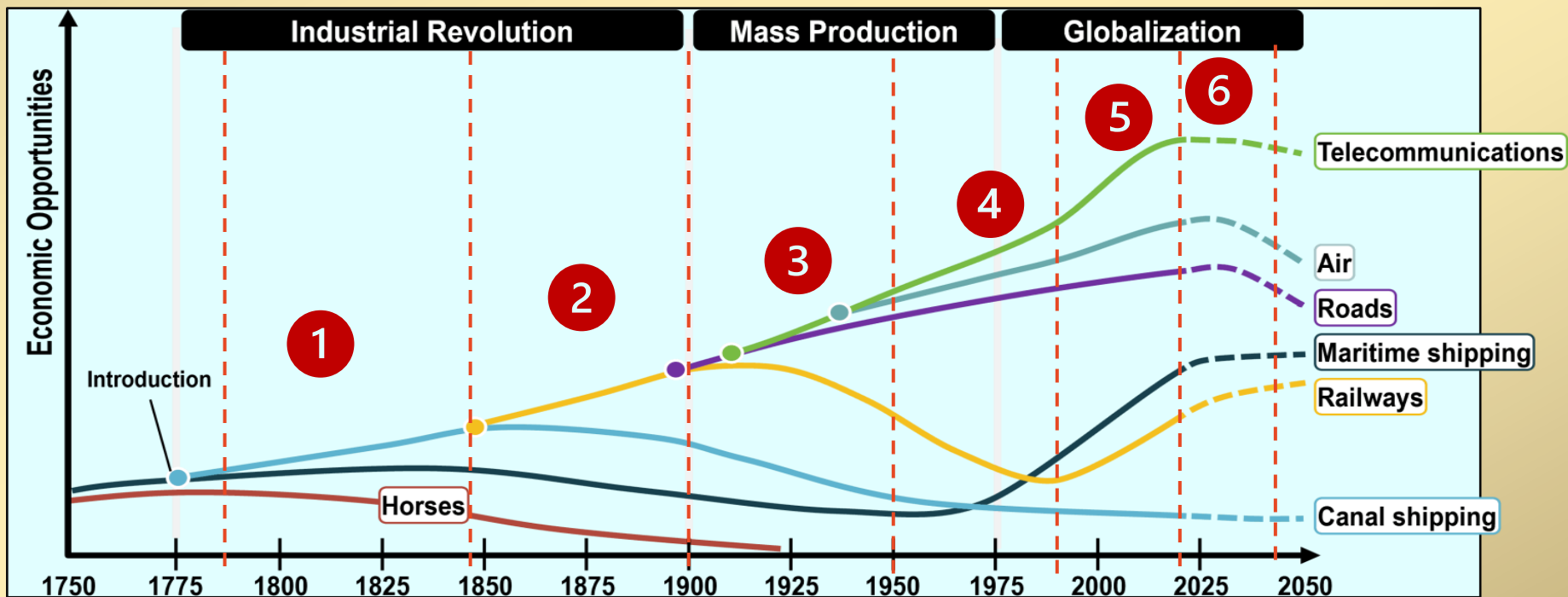
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## Graph 3



**Cumulative  
Modal  
Contribution to  
Economic  
Opportunities**

Source: <https://transportgeography.org/contents/chapter1/the-setting-of-global-transportation-systems/global-economy-development-phases/> Source: adapted from HOP Associates (2005) "Time, mobility and economic growth".

Rodrigue, J-P (2024), *The Geography of Transport Systems*, Sixth Edition, New York: Routledge.



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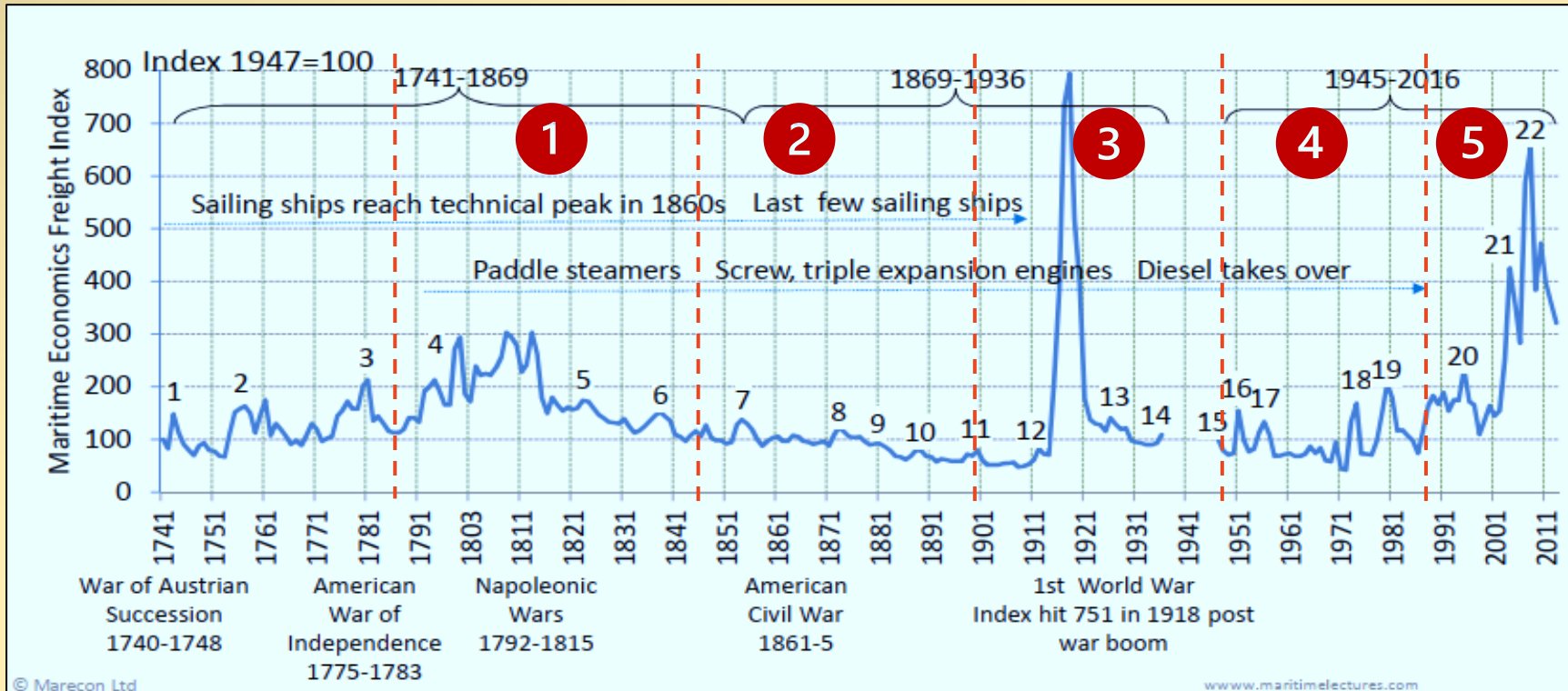
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**Understanding the supply/demand model of shipping cycles.**

## Graph 4



**6** Shipping cycles 1741-2016. Divided in 6 periods of waves of innovation

Source: Stopford, M. Maritime Economics 3<sup>rd</sup>. Edition. Graph from <https://mlecs.com/English/Lectures.asp?Lecture=3.3>  
<https://www.routledge.com/Maritime-Economics-3e/Stopford/p/book/9780415275583>



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*Let's continue exploring the shipping business.*

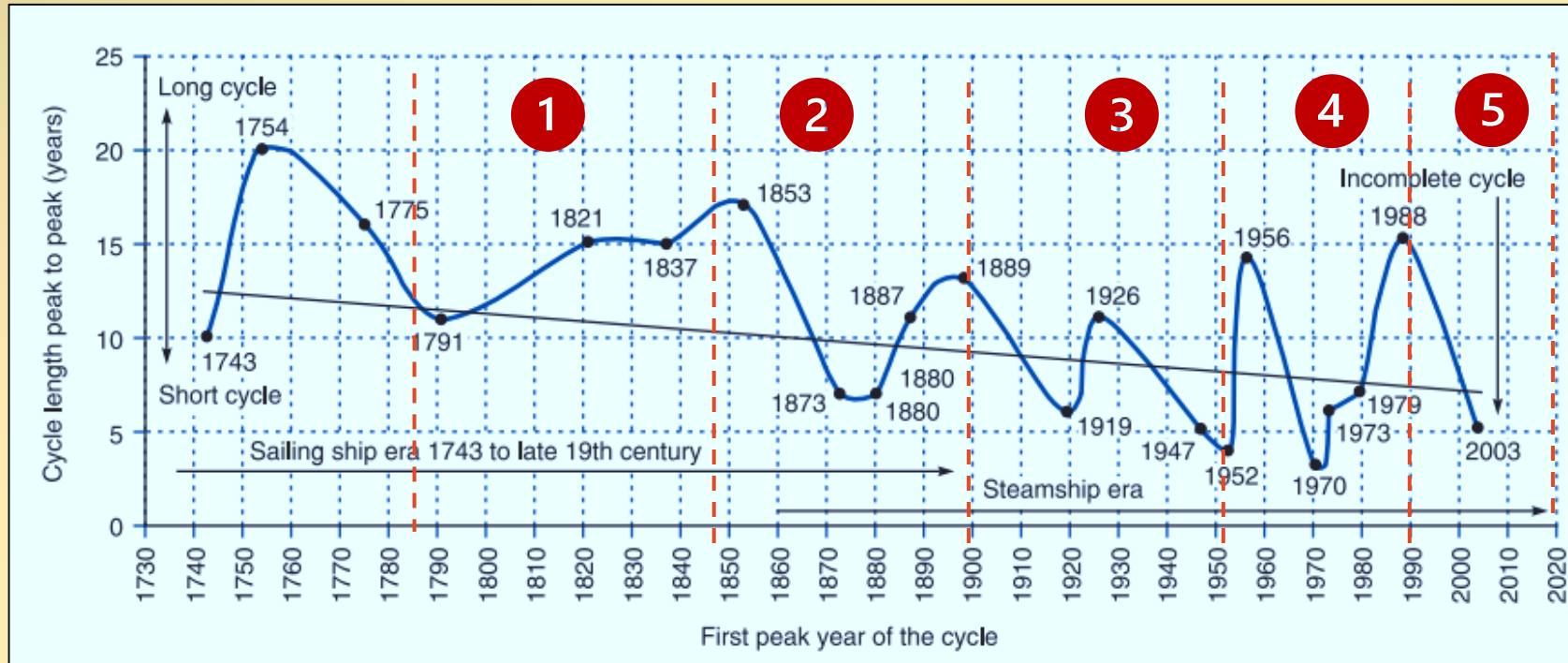
*Let's continue learning about the shipping cycles.*

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## Graph 5

### 6 Length of Shipping Cycles (1740-2008).



*The democratization of shipping will be over with the implementation of new digital tools, new technical designs, ecological fuels and regulatory challenges.*

*Only the bigger shipowners and charterers will be able to afford the financial burdens of the shorter amplitude of the business cycles.*

*The scale of the challenge is huge, including the risks if the global maritime sector doesn't act to go slowly.*

Source: Stopford, M. Maritime Economics 3<sup>rd</sup>. Edition. Graph from <https://mlecs.com/English/Lectures.asp?Lecture=3.3>  
<https://www.routledge.com/Maritime-Economics-3e/Stopford/p/book/9780415275583>



# Value Propositions: Theory and Cases.

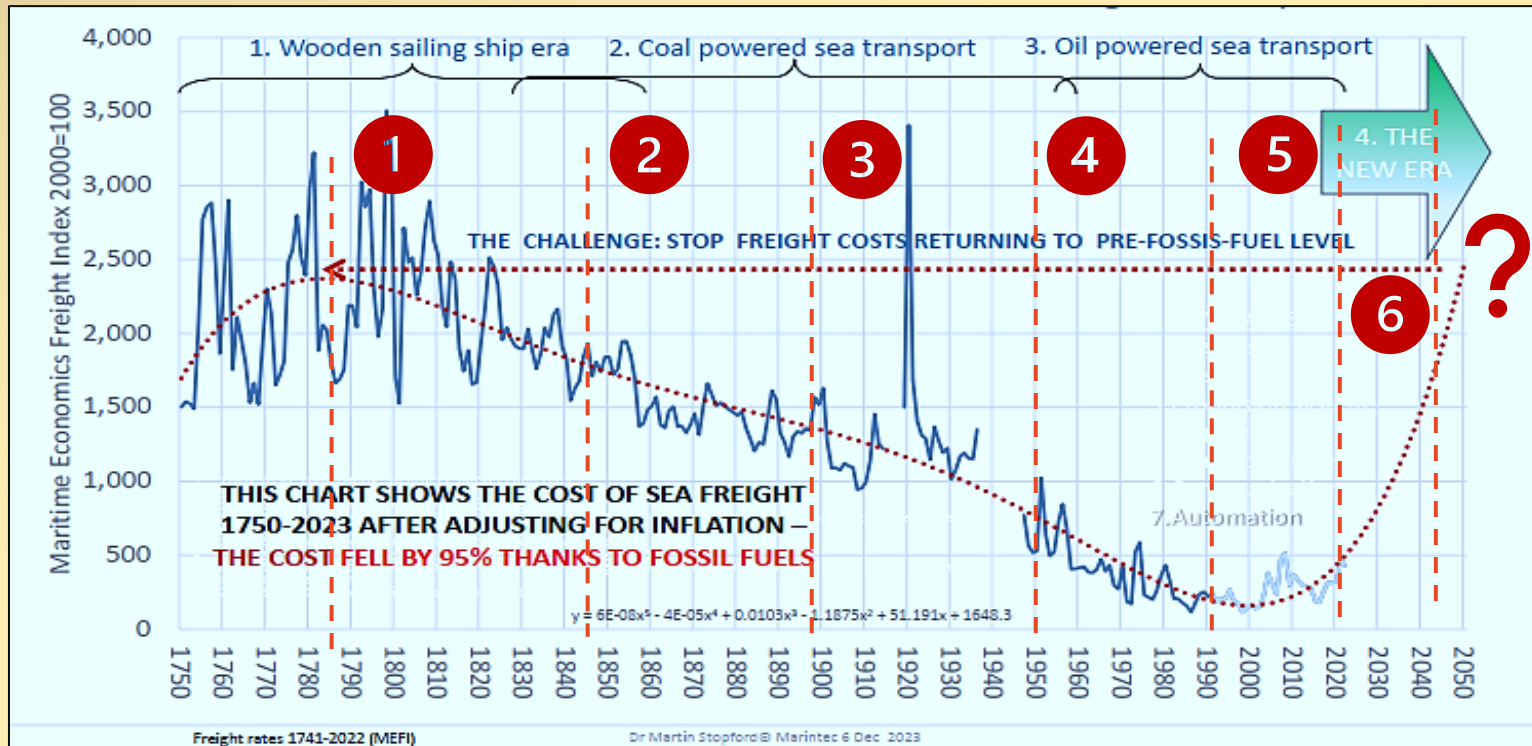
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## Graph 6



**The cost of sea freight (1750-2023) after adjusting for inflation**

*The cost of sea freight has move down for more than 250 years.*

*Any new technical development for new green ships will change this graph?*

*How? We don't know. It depends on the vessel design and the sources of energy that will be used:*

- Methanol?*
- Hydro fuel?*
- Ammonia?*
- Nuclear?*
- Other mix?*

Source: presentation from Martin Stopford in the Senior Maritime Forum, Shanghai, Dec. 2023.

[https://www.marintecchina.com/wp-content/uploads/2024/01/03\\_Martin-Stopford-SMF23-final.pdf](https://www.marintecchina.com/wp-content/uploads/2024/01/03_Martin-Stopford-SMF23-final.pdf)



# Value Propositions: Theory and Cases.

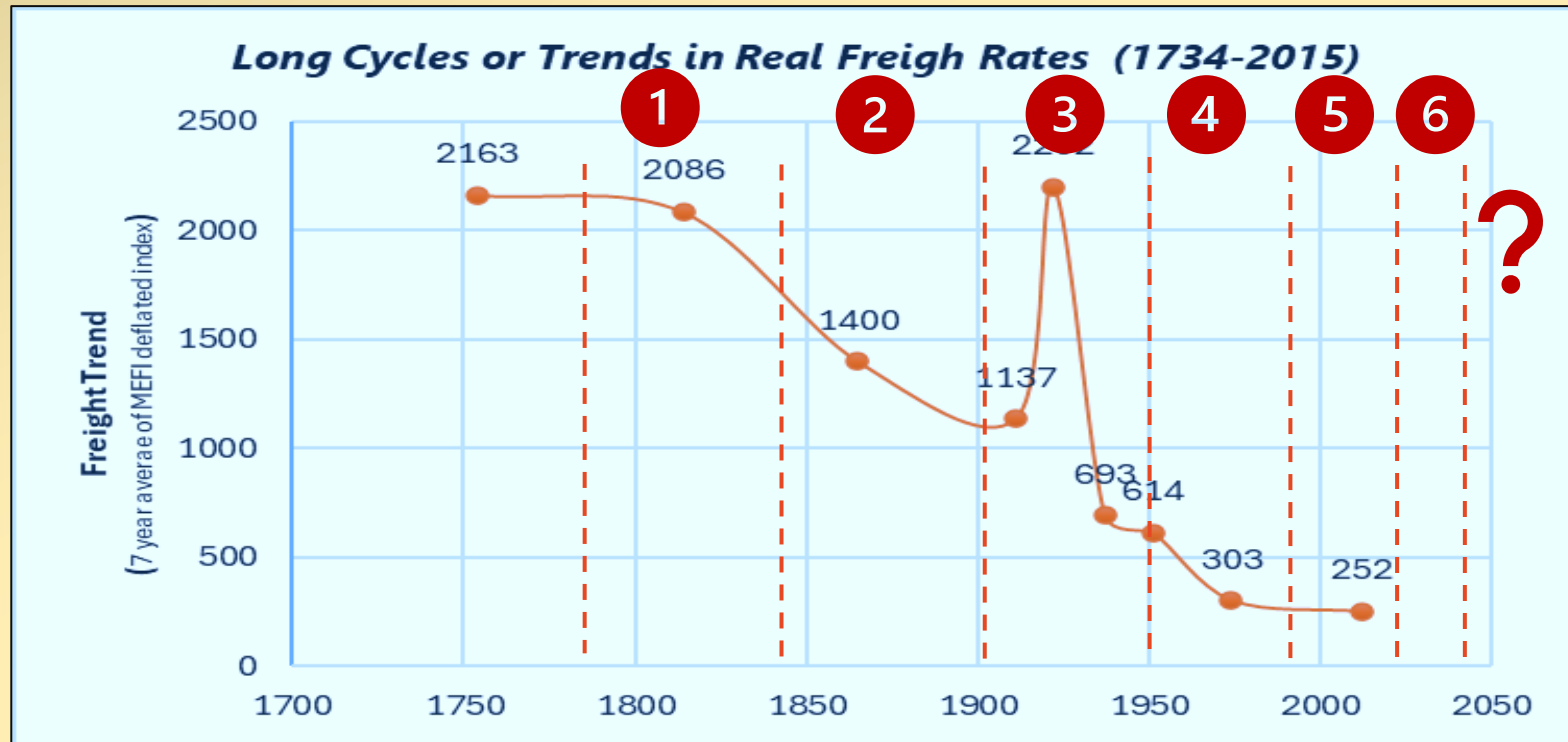
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## Graph 7



### Long Cycles in Real Freight Rates (1794-2015)

**Where are we going with our waves of innovation?**

The 6<sup>th</sup> wave of automation, robotics, digitalization and Zero Carbon fuel will shorten the long shipping cycle?

It depends on the next generation of green ships, its designs and fuel technologies.

Will it shorten new shipbuilding and how?

How will this affect the short shipping cycles?

Source: presentation from Martin Stopford <https://mlcs.com/English/Lectures.asp?Lecture=3>  
Data from Slides unit 3.2 The length of Shipping Cycles. Slide 8



# Value Propositions: Theory and Cases.

*Let's continue exploring the shipping business.*

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*Each sub-segment of shipping is crucially affected by shipping cycles which are more complex than the risks associated to the freight rate.*

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**What awaits us?**

**If we zoom the last two wave cycles of innovation, what is ahead in shipping?**

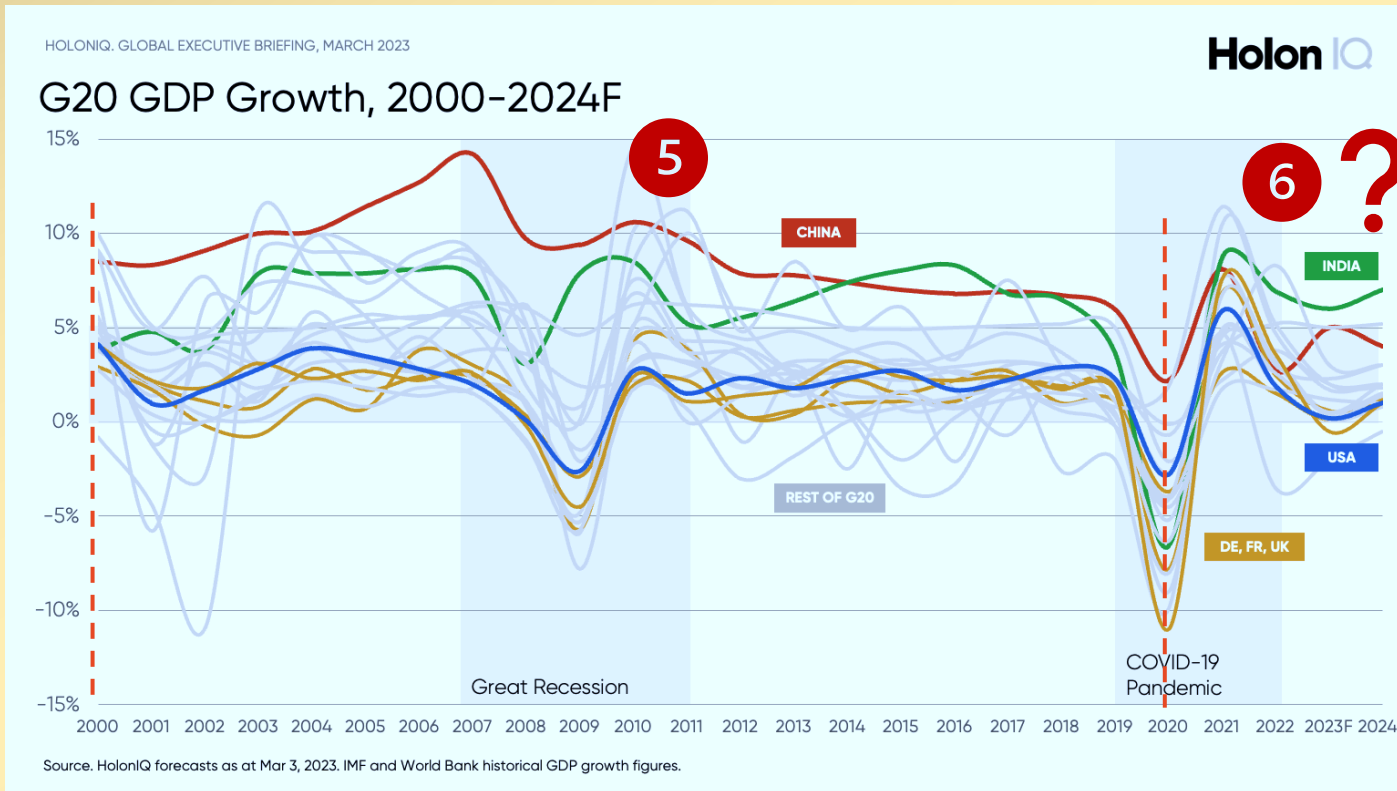


Image Source: <https://www.holoniq.com/notes/economic-outlook-march-2023-g20-executive-briefing>



06/06/2024

# Cost Structure

This section will be published next Friday.



# 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.*



• Merchant Shipping

## 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
5. Travel at cheapest costs than the current ones?
6. Transform the ports all over the world.

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



# Value Propositions: Theory and Cases.

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# Value Propositions: Theory and Cases.

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## Maritime industry needs \$3-4 trillion investment in next 30 years

Table 1: Rough Ship Investment requirement 2020-2050 based on Scenario 2 trade and ship speed assumptions.

1	2	3	4	5	6	7	8	9	10	11
Vessel Type	2019 Investment			World Fleet 2019		Rough investment required 2020-2050 \$ Billion				
	M GT	\$ billion	\$/GT	Fleet M GT	No	Replacement	Growth(1)	Expansion	Total	% Total
Tankers etc	14.0	\$12.3	878.6	325.0	11,095	\$286	-25%	-\$71	\$214	6%
Bulk Carriers	17.4	\$11.1	637.9	478.0	11,820	\$305	67%	\$204	\$509	15%
Gas tankers	7.4	\$14.2	1918.9	82.7	2,039	\$159	149%	\$236	\$395	12%
Containerships	7.1	\$6.7	943.7	243.0	5,326	\$229	126%	\$289	\$518	15%
Cruise	2.7	\$18.9	7000.0	23.2	448	\$162	120%	\$195	\$357	10%
Offshore	1.0	\$7.1	7100.0	59.9	8,977	\$425	-25%	-\$106	\$319	9%
Ferry	0.9	\$3.9	4333.3	20.6	7,878	\$89	120%	\$107	\$196	6%
Other	1.5	\$5.5	3666.7	147.5	49,888	\$541	70%	\$379	\$919	27%
<b>Total</b>	<b>52.1</b>	<b>\$79.7</b>	<b>1,529.8</b>	<b>1,379.9</b>	<b>97,471</b>	<b>\$2,196</b>	<b>34%</b>	<b>\$1,233</b>	<b>\$3,429</b>	<b>100%</b>

Col 4 = (Col3 x 1000)/Col 2      Col 7 = (Col 5 x Col 4)/1,000      Col 9 = (Col 5 x Col 8 x Col 4)/1000      Col 10 = (Col 7 + Col 9)

(1) Rough fleet growth estimate 2020 to 2050 based on Scenario 2 trade scenario

Source: The Shipping Carbon Model Version 2, data from Clarkson Research World Fleet Register

**The Maritime Industry will require between 3 to 4 trillion of investments. A new vessel ecological fuel technology is required.**

When looking ahead it is important to recognize the market segments. The eight listed in this table have very different roles in the shipping market and will require different technologies and levels of investment

Source: <https://www.offshore-energy.biz/stopford-industry-will-need-3-4-trillion-in-the-next-30-years-to-replace-existing-fleet/>



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.*

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