جامعة بجاية
Tasdawit n Bgayet
Université de Béjaïa

Faculty of Economic sciences, Business and Administration sciences.
Department of commercial sciences.

Master Thesis

Presented by

Bassem Bousbia

A thesis submitted in fulfillment of the requirements for a master degree.

Major: International Business and Logistics

Theme:

The impact of trade restrictions due COVID-19 on maritime shipping costs.

Supervisor : KHEBBACHE Nawal **President : BOUROUAHA Abdelhammid**

Examinator : OUARET Samira

2022/2023

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Abbreviations:

AfCFTA: African Continental Free Trade Area.

CCFI: China Containerized Freight Index.

CFR,CNF,C&F: Cost and Freight.

CIF: Cost, Insurance and Freight.

CII: Carbon Intensity Indicator.

CMA-CGM: Maritime Freighting Company - General Maritime Company

COVID-19: Corona Virus Pandemic.

CPB: Campbell Soup Company.

DT: Dwell Time.

DWT: Deadweight Tonnage.

E-Com: Electronic Commerce

EBIT: Earnings Before Interest and Taxes.

EEXI: Energy Efficiency Existing Ship Index.

EMSA: European Maritime Safety Agency.

EU: European Union.

FAO: Food and Agriculture Organization.

FEUs: 40-foot Equivalent Unit.

FMC: US Federal Maritime Commission.

FOB: Free on Board.

GDP: Gross Domestic Product.

GFC: Global Financial Crisis.

IACS: International Association of Classification Societies.

IAPH: International Association of Ports and Harbors.

IATA: International Air Transport Association.

ICC: International Chamber of Commerce.

ICS: International Chamber of Shipping.

IMO: International Maritime Organization.

IP: Intellectual Property.

ITA: International Trade Administration.

ITF: International Transport Workers Federation.

LNG: Liquefied Natural Gas.

MSC: Mediterranean Shipping Company

MTA: Maghrebian logistics operator Transports & Auxiliaries

OECD: Organization for Economic Co-operation and Development.

ONE: Ocean Network Express.

PPE: Personal Protective Equipment.

PSA: Panama International Terminal.

RCEP: Regional Comprehensive Economic Partnership.

SCFI: Shanghai Containerized Freight Index.

SMEs: Small and Medium-sized enterprises.

SoT: Suspension of Transit.

TEUs: 20-foot Equivalent Unit.

UNCTAD: Nations Conference on Trade and Development.

US: United States.

WHO: World Health Organization.

WTO: World Trade Organization.

“Introduction”

Introduction:

The outbreak of Covid-19 in early 2020 led to widespread disruption in the global economy, with many countries imposing commercial restrictions to curb the spread of the virus. The international maritime shipping industry, which plays a critical role in facilitating global trade and commerce, was not spared from the effects of the pandemic. The international maritime shipping industry is a complex and interconnected system involving multiple stakeholders, including shipping lines, ports, freight forwarders, and logistics providers. The industry is characterized by high capital costs, long lead times, and low-profit margins. Shipping lines operate on fixed routes and schedules, with capacity allocated based on the demand for specific trade lanes.

The imposition of commercial restrictions by many countries, including lockdowns, travel bans, and port closures, has led to a sharp decline in global trade volumes and a significant reduction in the demand for shipping capacity. This, in turn, has profoundly impacted international maritime shipping prices, affecting shipping lines, ports, freight forwarders, and logistics providers. However, as countries began to reopen their economies and trade volumes started to recover, the demand for shipping capacity also increased, leading to a surge in freight rates.

In this master thesis, we seek to investigate the impact of commercial restrictions during and after Covid-19 on the prices of international maritime shipping. The objective of this study is to examine how the imposition of commercial restrictions affected the supply and demand dynamics of the shipping industry and how this, in turn, influenced freight rates. We will also explore the measures taken by shipping lines and other stakeholders in the industry (MSC), to adapt to the changing circumstances brought about by the pandemic.

The methodology of this research will be based on two chapters, the first chapter study the generalities of maritime transport and the trade restrictions explaining the role of each of them, the second chapter explains the impact of the COVID-19 pandemic on international trade and maritime transport, including the trade restrictions due to COVID-19 and their specific impact on freight prices during and after the pandemic. Followed by a third chapter which is a case study of the experience of the Mediterranean Shipping Company, analyzing the collected data and studying the impact of the pandemic on MCS's shipping prices as well as the experience of a client with these changes.

The research questions that guides this study are:

1. What is the role of maritime transport in international trade and its barriers?

2. How did the imposition of commercial restrictions affect the supply and demand of the shipping industry and how did that affect the shipping costs?

3. What measures did the Mediterranean Shipping Company take to adapt to the changing circumstances brought about by the pandemic?

This study aims to understand the impact of commercial restrictions on the prices of international maritime shipping, and strategies developed by policymakers, MSC, and other shipping companies to mitigate the negative effects of the pandemic on global trade.

This study is based on other studies and reports on the pandemic effect on the maritime industry and international trade in general, published by official organizations and reporters. Other data is collected under the legal permission of the Mediterranean Shipping Company (MSC)'s policy.

“Chapter One”

Section 01: History of Maritime Transport :

Maritime transport has a long and rich history that dates back to the earliest civilizations[1]. For thousands of years, humans have relied on boats and ships to transport goods, people, and ideas across waterways, connecting communities and enabling the exchange of goods and knowledge.

A - Early History of Maritime Transport:

The history of maritime transport can be traced back to ancient civilizations such as the Egyptians, Greeks, and Phoenicians, who were among the earliest seafaring peoples. These civilizations developed sophisticated navigation and shipbuilding techniques, enabling them to travel long distances and trade with other cultures.

The Egyptians were one of the earliest maritime cultures, developing a fleet of boats and ships for trade and transportation on the Nile River. They also developed a system of lighthouses and navigation aids to help guide their ships along the coast[2].

The Greeks and Phoenicians were also renowned seafarers, developing advanced shipbuilding techniques and exploring the Mediterranean Sea. They established trade routes with other civilizations and made significant contributions to the development of navigation and cartography[3].

B - Age of Exploration:

The Age of Exploration, which began in the 15th century, marked a significant turning point in the history of maritime transport. European explorers such as Christopher Columbus, Vasco da Gama, and Ferdinand Magellan set out to discover new lands and trade routes, paving the way for the expansion of global trade and the colonization of new territories[4].

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[1]University of Exeter. (2019). A Brief History of Maritime Transport. Available at: www.exeter.ac.uk/research/feature/maritimehistory. Retrieved on the 10th of March 2023, at 14:28 pm.
[2]Ibid.
[3]National Geographic Society. (2021). Maritime History. Available at: www.nationalgeographic.org/encyclopedia/maritime-history. Retrieved on the 10th of March 2023, at 14:46 pm.
[4]Paine, L. The Sea and Civilization: A Maritime History of the World. Page 34.

During this period, shipbuilding and navigation techniques continued to evolve, with the development of new types of ships such as galleons, caravels, and schooners. These vessels were faster, more maneuverable, and better suited for long-distance travel, enabling explorers to sail further and discover new lands.

The Age of Exploration also saw the emergence of powerful maritime empires such as Spain, Portugal, and Britain, which used their naval power to dominate trade and expand their territories. These empires established colonies and trading posts around the world, creating a global network of commerce and exchange.

C - Industrial Revolution:

The Industrial Revolution, which began in the late 18th century, marked another significant turning point in the history of maritime transport. The development of steam-powered ships and advances in shipbuilding techniques enabled ships to travel faster and carry more cargo, revolutionizing the shipping industry.

During this period, major ports such as London, Liverpool, and New York emerged as key centers of maritime trade and commerce, facilitating the movement of goods and people between continents. The shipping industry became a major driver of economic growth, creating employment opportunities and supporting global trade.

In the 20th century, the development of containerization and the standardization of shipping practices further revolutionized the maritime transport industry. Containerization enabled cargo to be transported more efficiently and securely, reducing costs and increasing the speed of transportation. This development was critical to the growth of global trade and played a significant role in the globalization of the world economy[5].

Maritime transport has played a crucial role in the development of human civilization, enabling the exchange of goods, people, and ideas across waterways. From ancient civilizations to the modern era, seafaring has been an essential part of human history, driving economic growth and enabling the expansion of global trade and commerce.

Today, maritisme transport remains a vital component of the global economy, connecting producers and consumers across the world and facilitating the movement of goods and services

[5]World Maritime University. History of Maritime Transport. Retrieved from www.wmu.se/research/maritime-transportation-management/history-maritime-transport,On the 10th of March 2023, at 15:12 pm.

between countries. As the world continues to evolve and new technologies emerge, the maritime transport industry will continue to adapt and innovate, building on its rich history and contributing to the growth and prosperity of nations.[6]

Section 02 – Definition of maritime transport and shipping :

1. Definition of Maritime transport:

What is maritime transport?, Maritime transport refers to a means of transport where goods (or people) are transported via sea routes. In some cases, maritime transport can encompass pre- and post-shipping activities.

For centuries, mankind has used waterways to transport merchandise and people. As such, maritime transport owes its evolution to the development of international trade and the ever-growing exchange of goods between countries. By definition, maritime transport is international (except when sailing along the coasts of the same country). Nowadays, maritime transport is the main means of transport used to ship raw materials (oil, coal, cereals, etc.) over long distances.

The creation of maritime containers in the middle of the 1960s vastly encouraged the development of maritime transport. These standardized boxes pile one on top of the other and can transport all sorts of goods, with quite easy handling. Maritime containers have other advantages, in that they limit the risk of damage, breakage, and theft (the goods are not visible from the outside), and reduce transport costs[7].

1.1 Specificities of maritime transport :

Maritime transport is an appealing means of transport, thanks to:

- **Its transport capacity:** several hundred tons of goods can be transported on a single ship;
- **Its permanent activity:** out at sea, nothing or practically nothing can stop vessel traffic.

[6] Paine, L. The Sea and Civilization: A Maritime History of the World. Retrieved from https://www.academia.edu/9824234/Paine_The_Sea_and_Civilization_A_Maritime_History_of_the_World_introduction

[7] Stopford, Martin. Maritime Economics. Psychology Press. p. 10

However, maritime transport suffers from fairly slow movement (between 30 and 50 km/h for most vessels). It, therefore, entails much longer delivery lead times than road or air channels.

There are two main maritime transport offers available: demand-responsive transport (also known as tramping) and liner transportation.

- The first is when a request triggers the search for a ship to transport goods.
- The second is when the exporter selects a liner transportation offer with a setitinerary and frequent ports of call, and shares the vessel with other exporters.
-

1.2 Examples and practical applications:

In practice, maritime transport routes fit in with the geography of international trade. We, therefore, see long maritime routes between the Middle East and Africa, and America, Europe, and the Far East. It all depends on the journey between the exporting country and the importing country.

Maritime transport stakeholders generally have a fleet made up of:

1. **Cargo Ships :**

   Cargo ships come in many sizes and can transport all kinds of freight safely and efficiently. Some cargo ships even have specialized refrigerated areas to carry perishable items safely to their destination.

2. Bulk Carriers:

Unlike cargo ships, there's not many cargo containers on bulk carriers. Bulk carriers transport items such as coal, wood chips, grains, and metal ore. Instead of loading these items into a container, businesses usually pour them right into the hold itself.

3. Tankers :

A tanker is a ship designed to transport or store liquids or gases in bulk. Major types of tank ships include the oil tanker, the gas tanker, and chemical carrier. Tankers also carry commodities such as vegetable oils, molasses and wine.

Oil Tanker Gas Tanker Chemicals Carrier

Maritime transport involves a whole plethora of professionals, including:

a) **Ship-owners.**
b) **Shipping agents.**
c) **Transport commissioners.**
d) **Ship chandlers.**
e) **Maritime brokers.**

1.3 Other Definitions of maritime transport :

- **"Maritime transport is the carriage of goods or passengers by water, either along the coast, up and down rivers or across oceans."** - International Chamber of Shipping[8].

- **"Maritime transport refers to the movement of cargo and passengers by sea, whether on domestic or international routes."** - International Maritime Organization[9].

- The World Trade Organization (WTO) defines maritime transport as **"the carriage of goods and passengers by sea or other waterways, including inland waterways, whether conducted by ocean-going vessels or inland vessels"[10].**

- The International Association of Classification Societies (IACS) defines maritime transport as **"the conveyance of goods or people by sea, which includes all activities related to shipping, such as vessel design, construction, operation, and maintenance"[11].**

- According to the United Nations Conference on Trade and Development (UNCTAD), maritime transport refers to **"the carriage of goods and passengers by sea, including sea-crossings of international waters, coastal shipping, and voyages between islands or archipelagos within a State's territorial waters"[12].**

- The European Maritime Safety Agency (EMSA) defines maritime transport as **"the transportation of people or goods by sea or inland waterways, using ships, boats, or other waterborne crafts".[13]**

- The International Association of Ports and Harbors (IAPH) defines maritime transport as

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[8]International Chamber of Shipping. What is Shipping?, Retrieved from www.ics-shipping.org/about-shipping/what-is-shipping, On the 11th of March at 09:38am.
[9]International Maritime Organization. About Maritime Transport. Retrieved from www.imo.org/en/About/WhatWeDo/Pages/Default.aspx, Ibid, 09:54am.
[10]World Trade Organization. The WTO Agreements: Understanding the WTO - Maritime Transport Services. World Trade Organization. Page 8.
[11]What is Maritime Transport? Article, International Association of Classification Societies. Retrieved from iacs.org.uk/what-is-maritime-transport/, 11th March 2023, at 10:18am.
[12]UNCTAD(2018). Review of Maritime Transport 2018.Report,Retrieved from www.unctad.org/system/files/official-document/rmt2018_en.pdf, 11th March 2023, 10:23 am.
[13]EMSA. (2021). What is Maritime Transport?. Retrieved from emsa.europa.eu/faq/8-operations/what-is-maritime-transport, 11th March 2023, 10:30am.

"the transport of cargo and passengers by sea, along with the related activities of loading and unloading, handling, and storage of goods in ports".[14]

- **"Maritime transport is a complex system that involves various actors, including ship owners, operators, crew, port authorities, regulators, and other stakeholders, working together to ensure the safe, secure, and efficient movement of goods and people by sea."** - Transport Canada[15]

1. Based on the previous definitions provided, I would define maritime transport as**"the movement of people or goods by sea, inland waterways, or other water-based modes of transportation. It includes the use of ships and vessels, and all related activities such as design, construction, operation, and maintenance. Maritime transport is a crucial part of global trade, providing a cost-effective and efficient means of transporting large quantities of goods and people across the world."**

2. Shipping (Freight Transport) :

Freight transport, also referred as freight forwarding, is the physical process of transporting commodities and merchandise goods and cargo[16]. The term shipping originally referred to transport by sea but in American English, it has been extended to refer to transport by land or air as well.

2.1 Modes of shipping :

Transportation is a critical element of global trade and commerce, allowing goods to move between countries and continents. The modes of shipping play a vital role in this process, enabling businesses to transport goods across vast distances quickly, efficiently, and safely. The modes of shipping are generally categorized as:

[14]IAPH. (2021). What is Maritime Transport?. Retrieved from www.iaphworldports.org/what-is-maritime-transport, 11th march 2023, 10:39am.
[15]Transport Canada (2017),
[16]McLeod, Sam; Curtis, Carey (2020-03-14). "Understanding and Planning for Freight Movement in Cities: Practices and Challenges". Planning Practice & Research. Page 35

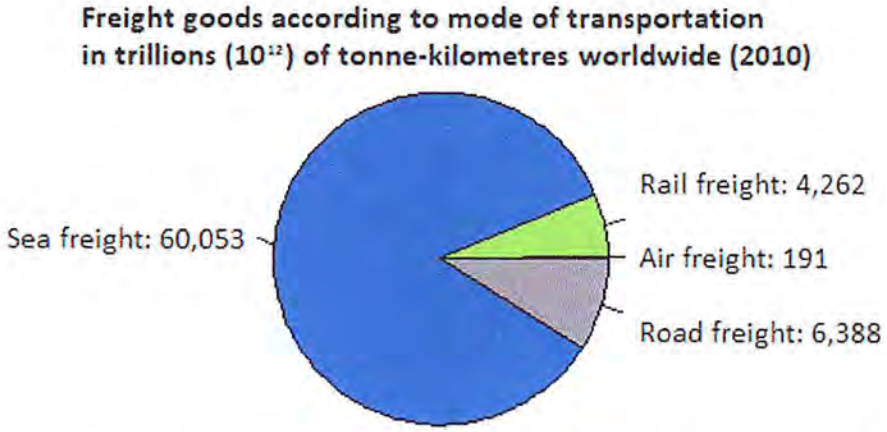

Figure 1. Global freight volumes according to mode of transport in trillions of tonne-kilometres in 2010.[17]

a) Grounds(Rail / Road) :

Land or "ground" shipping can be made by train or by truck, Ground transport is typically more affordable than air, but more expensive than sea, especially in developing countries, where inland infrastructure may not be efficient. In air and sea shipments, ground transport is required to take the cargo from its place of origin to the airport or seaport and then to its destination because it is not always possible to establish a production facility near ports due to the limited coastlines of countries.

b) Sea Freight :

Much freight transport is done by cargo ships. An individual nation's fleet and the people that crew it are referred to as its merchant navy or merchant marine. According to a 2018 report from the United Nations Conference on Trade and Development (UNCTAD), merchant shipping (or seaborne trade) carries 80-90% of international trade and 60-70% by value [18] .On rivers and canals, barges are often used to carry bulk cargo.

c) Air Freight :

Cargo is transported by air in specialized cargo aircraft and in the luggage compartments of passenger aircraft. Air freight is typically the fastest mode for long-distance freight transport but it is also the most expensive.

d) Multimodal :

Cargo is exchanged between different modes of transportation via transport hubs, also known as transport interchanges or nodes (e.g. train stations, airports, etc.). Cargo is shipped under a single contract but performed using at least two different modes of transport (e.g. ground and air). Cargo may not be containerized.

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[17] "Global Freight Demand to Triple by 2050". The Maritime Executive. 27th May 2019.

[18] UNCTAD. "50 Years of Review of Maritime Transport, 1968-2018: Reflecting on the past, exploring the future" (PDF). Page 67.

e) Intermodal :

Multimodal transport featuring containerized cargo (or intermodal container) that is easily transferred between ship, rail, plane and truck. For example, a shipper works together with both ground and air transportation to ship an item overseas. Intermodal freight transport is used to plan the route and carry out the shipping service from the manufacturer to the door of the recipient. [19]

2.2 Terms of shipment:

The Incoterms (or International Commercial Terms) published by the International Chamber of Commerce (ICC) are accepted by governments, legal authorities, and practitioners worldwide for the interpretation of the most commonly used terms in international trade. Common terms include:

a) Free on Board (FOB)
b) Cost and Freight (CFR, C&F, CNF)
c) Cost, Insurance and Freight (CIF)

The term "best way" generally implies that the shipper will choose the carrier who offers the lowest rate (to the shipper) for the shipment. In some cases, however, other factors, such as better insurance or faster transit time will cause the shipper to choose an option other than the lowest bidder

2.3 More definition of shipping :

- The Cambridge Dictionary defines shipping as **"the act of sending goods from one place to another, especially using ships or aircraft"**[20].
- The Business Dictionary defines shipping as **"the physical process of transporting commodities and merchandise goods and cargo by sea, land, or air"**[21].
- The International Chamber of Shipping (ICS) defines shipping as **"the industry that transports 90% of world trade, including both cargo and people, through the operation of ships"**[22].
- The International Air Transport Association (IATA) defines shipping as **"the transportation of goods by air, which can be done on either passenger or cargo aircraft"**[23].

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[19] Core Management Logistics. "Freight Forwarding - CML". Retrieved from www.cmlplc.com, 12th March 2023; 11:54 am.
[20] Cambridge Dictionary. Retrieved from dictionary.cambridge.org/dictionary/english/shipping, 11th March 2023, 12:21pm.
[21] Business Dictionary. Retrieved from www.businessdictionary.com/definition/shipping.html, 11th March 2023, 12:29pm.
[22] International Chamber of Shipping. (2023). Who We Are. International. Retrieved from www.ics-shipping.org/about/who-we-are, 11th March 2023, 12:34pm.
[23] International Air Transport Association. Retrieved from www.iata.org/en/services/cargo/shipping, 11th March 2023, 12:50pm.

- The International Trade Administration (ITA) defines shipping as **"the movement of goods from one place to another using various modes of transportation such as sea, air, rail or road"**[24].
- The US Federal Maritime Commission (FMC) defines shipping as **"the transportation of goods or people by water or any activity related to that transportation, including the design, construction, operation, maintenance, and management of ships, terminals, and related infrastructure"**[25].

❖ Based on the previous definitions provided, I would define shipping as **"the process of physically transporting commodities and goods by sea, land, or air, using various modes of transportation, including ships, aircraft, trucks, trains, and other vehicles. Shipping involves the movement of goods from one place to another, often across international borders, and includes all related activities such as" packaging, loading, unloading, and** customs clearance. Shipping is a vital component of global trade, connecting businesses and consumers with the products and resources they need.

Section 03: The Role of maritime transport and enduring challenges :

Maritime transport is an essential component of international trade and the global economy. It is the most cost-effective and efficient means of transporting goods across vast distances, and over 90% of global trade is transported by sea[26].

The shipping industry has been instrumental in promoting globalization and interconnectedness between nations, facilitating the exchange of ideas, technologies, and cultures. The industry is also a significant employer, providing jobs for millions of people worldwide, and a significant contributor to the economies of many countries, particularly those with large ports and shipping industries[27].

In this section, we will explore the role of maritime transport in international trade in more detail, examining its benefits, challenges, and impact on the global economy.

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[24] International Trade Administration 2023. Retrieved from www.trade.gov/shipping-your-goods, 11th March 2023, 13:10pm.
[25] US Federal Maritime Commission.Retrieved from www.fmc.gov/about/overview/shipping-industry-overview, 11th March 2023,13:21pm.
[26] UNCTAD. Review of Maritime Transport 2019, Report. Retrieved from www.unctad.org/system/files/official-document/rmt2019_en.pdf, 11th March 14:20pm.
[27] Ibid.

1. Benefits of Maritime Transport:

- **Cost-Effective Transport:**

Maritime transport is the most cost-effective means of transporting goods over long distances. It is cheaper than other modes of transport, such as air or road transport, which makes it the preferred mode of transport for bulk commodities such as coal, iron ore, crude oil, and grains[28]. For example, a typical Panamax-sized bulk carrier can transport up to 70,000 tonnes of cargo, which is equivalent to around 2,800 truckloads[29]. The cost of shipping goods by sea is also lower than air or road transport, as ships can carry a much larger quantity of goods than other modes of transport. This cost advantage is particularly important for developing countries that rely heavily on exports of raw materials.

- **Promotes Globalization:**

Maritime transport is an essential enabler of globalization, allowing goods to be transported across the world, connecting markets and fostering trade relations. The shipping industry has played a significant role in promoting international trade and economic growth, particularly in developing countries. Containerization has also standardized the way goods are transported, making it easier for businesses to trade with each other, regardless of their location. Containerization has made maritime transport even more efficient, secure, and reliable, allowing for the transportation of goods in a standardized and cost-effective manner. The ease and affordability of shipping goods by sea have facilitated the growth of global trade, creating jobs and increasing economic growth in many countries.

- **Creates Jobs:**

Maritime transport is a significant employer, providing jobs for millions of people worldwide. The shipping industry employs a diverse range of people, including seafarers, port workers, shipbuilders, and maritime service providers. In 2020, the global shipping industry employed around 1.6 million seafarers, according to the International Chamber of Shipping.[30] This number does not include the significant number of people employed in the ports, shipbuilding, and maritime service industries. Shipping is a labor-intensive industry, and the employment

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[28] ICS. The Benefits of Shipping to Global Trade. Retrieved from www.ics-shipping.org/docs/default-source/resources/the-benefits-of-shipping-to-global-trade.pdf, 11th March 2023, 14:28pm.

[29] Ibid.

[30] ICS, The Benefits of Shipping to Global Trade, Report. Retrieved from www.ics-shipping.org/docs/default-source/resources/the-benefits-of-shipping-to-global-trade.pdf, 11th March 2023, 14:35pm.

opportunities it creates are essential for many countries, particularly those with high levels of unemployment.

- **Boosts Economic Growth:**

Maritime transport is a significant contributor to the economies of many countries, particularly those with large ports and shipping industries. The shipping industry generates revenue for countries through port fees, customs duties, and taxes. For example, the Port of Rotterdam in the Netherlands is the largest port in Europe and one of the busiest in the world. It is responsible for over 180,000 jobs and contributes around 6.2% of the Netherlands' gross domestic product (GDP). Similarly[31], the Port of Singapore is one of the busiest ports in the world and is responsible for around 7% of Singapore's GDP. The economic benefits of the shipping industry are significant, and the industry's growth is closely tied to the growth of the global economy.[32]

2. Challenges of Maritime Transport:

- **Environmental Impact:**

Maritime transport has a significant impact on the environment, with ships responsible for around 3% of global greenhouse gas emissions. The emissions from the shipping industry are expected to increase significantly in the coming years, as global trade volumes continue to grow. The International Maritime Organization (IMO) has implemented several measures to reduce the industry's environmental impact, including the adoption of stricter emissions standards, the implementation of energy efficiency measures, and the promotion of cleaner fuels such as liquefied natural gas (LNG). However, these measures have faced criticism from environmental groups, who argue that they are not ambitious enough to tackle the scale of the problem.[33]

- **Piracy and Security Risks:**

The shipping industry is vulnerable to piracy and other security risks, particularly in certain regions of the world. Piracy remains a significant threat in areas such as the Gulf of Aden and the waters off the coast of West Africa. The risk of piracy and other security threats can lead to increased costs for the shipping industry, as ships may need to take longer routes or hire private

[31]UNCTAD. Port Management Program, Report. Retrieved from www.unctad.org/topic/transport-and-trade-facilitation/port-management-programme, 11th March 2023,14:41pm.
[32] Ibid.
[33]International Maritime Organization."Shipping and Climate Change" Report. Retrieved from www.imo.org/en/MediaCentre/HotTopics/Pages/Shipping-and-Climate-Change.aspx, 11th March 2023,14:32pm.

security to protect themselves. In some cases, piracy can also lead to the loss of life and the destruction of valuable cargo[34].

- **Overcapacity and Shipping Rates:**

The shipping industry is prone to overcapacity, particularly during periods of economic downturn. When demand for shipping services falls, there can be an oversupply of vessels, leading to a drop in shipping rates. This can have a significant impact on the profitability of shipping companies, particularly smaller ones. The oversupply of vessels can also lead to environmental issues, as vessels may be idled or scrapped, leading to the disposal of hazardous waste.

3. Impact of Maritime Transport on the Global Economy:

The impact of maritime transport on the global economy is significant, and the industry's growth is closely tied to the growth of the global economy. The shipping industry is responsible for facilitating the movement of goods between countries, connecting markets and fostering trade relations. The ease and affordability of shipping goods by sea have facilitated the growth of global trade, creating jobs and increasing economic growth in many countries.

The shipping industry is also a significant employer, providing jobs for millions of people worldwide. The industry employs a diverse range of people, including seafarers, port workers, shipbuilders, and maritime service providers. The employment opportunities created by the shipping industry are essential for many countries, particularly those with high levels of unemployment.[35]

The shipping industry also generates revenue for countries through port fees, customs duties, and taxes. Ports are an essential component of the shipping industry, serving as gateways for goods to enter and leave countries. The revenue generated by ports is significant, particularly for countries with large ports and shipping industries. The economic benefits of the shipping industry are vast, and the industry's growth is closely tied to the growth of the global economy.

In conclusion, maritime transport plays a vital role in international trade and the global economy. The shipping industry is responsible for facilitating the movement of goods between countries, connecting markets, and fostering trade relations. The ease and affordability of shipping goods by sea have facilitated the growth of global trade, creating jobs and increasing economic

[34] Maritime Executive. Piracy and Armed Robbery Against Ships. Report, Retrieved from www.maritime-executive.com/article/piracy-and-armed-robbery-against-ships, 11th March 2023, 14:41pm.
[35] ILO, Maritime Labour Convention, Report. Retrieved from www.ilo.org, 11th March 15:05pm.

growth in many countries. The shipping industry is also a significant employer, providing jobs for millions of people worldwide. Despite the challenges facing the shipping industry, such as environmental concerns, piracy and security risks, and overcapacity, the industry's impact on the global economy is significant, and its growth is closely tied to the growth of the global economy.

Section 04: Overview on commercial restrictions :

1. What is International trade restrictions?

International trade restrictions are policies or actions taken by governments to limit the flow of goods and services across borders. These restrictions can take many forms, including tariffs, quotas, embargoes, and subsidies. They can be used for a variety of reasons, such as protecting domestic industries, promoting national security, or responding to unfair trade practices.

2. Types of international trade restrictions :

Here are some common types of international trade restrictions :

a) **Tariffs** - A tariff is a tax imposed on imported goods at the border. The purpose of a tariff is to make imported goods more expensive than domestically produced goods, thereby protecting domestic industries from foreign competition. There are two types of tariffs: ad valorem tariffs, which are based on the value of the imported goods, and specific tariffs, which are based on the quantity of the imported goods. **For example**, the United States has imposed a 25% tariff on imported steel and a 10% tariff on imported aluminum to protect its domestic steel and aluminum industries.[36]

b) **Quotas** - A quota is a limit on the amount of a particular good that can be imported into a country. Quotas can be imposed for a variety of reasons, such as protecting domestic industries or limiting the import of goods that are deemed harmful or dangerous. **For example**, the European Union has a quota on the amount of sugar that can be imported from outside the bloc to protect its domestic sugar producers[37].

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[36] World Trade Organization. "Tariffs and trade", Report.www.wto.org/topics/tariffs-and-trade, 12th March 2023, 05:24am.

[37] Peterson Institute for International Economics. "Quotas in international trade". Report, Retrieved from www.piie.com/research/piie-charts/quotas-international-trade, 12th March, 05:31am.

c) **Embargoes** - An embargo is a complete ban on trade with a particular country or region. Embargoes can be imposed for a variety of reasons, such as promoting national security or responding to human rights abuses. **For example**, the United States has imposed an embargo on trade with Cuba since 1960 in response to the Cuban Revolution[38].

d) **Subsidies** - A subsidy is a financial incentive given by a government to domestic producers to help them compete with foreign producers. Subsidies can take many forms, such as direct payments, tax breaks, or low-interest loans. The purpose of a subsidy is to make domestic producers more competitive in the global market by reducing their production costs. **For example**, the Chinese government provides subsidies to its steel industry to help it compete with foreign producers.[39]

e) **Regulations** - Regulations are rules and standards imposed by governments on imported goods to ensure they meet certain safety, health, or environmental standards. Regulations can be imposed for a variety of reasons, such as protecting public health or the environment. **For example**, the European Union has strict regulations on the use of pesticides in agriculture, which can make it difficult for non-EU farmers to export their products to the bloc.[40]

2.2 Additional types of trade restrictions:

a) **Intellectual Property Rights** - Intellectual property (IP) rights refer to the legal rights that protect the creations of inventors, artists, and other creators. These can include patents, copyrights, trademarks, and trade secrets. Some countries may use IP laws to restrict the import of goods that infringe on these rights. **For example**, the United States has placed

[38]U.S. Department of the Treasury ."Embargoed countries and regions". Report, retrieved from home.treasury.gov/policy-issues/financial-sanctions/sanctions-programs-and-country-information/embargoed-countries-and-regions, 12th March, 05:48am.

[39]Organization for Economic Co-operation and Development, Subsidies. Retrieved from www.oecd.org/trade/topics/subsidies, 12th March,05:57am.

[40] European Commission. "Regulations on imports". Report, retrieved from www.europa.eu/taxation_customs/business/importing-goods/importing-into-eu_en.regulations-on-imports, 12th March 06:10am.

restrictions on the import of counterfeit goods that violate trademarks or copyrights.[41]

b) **Currency Manipulation** - Currency manipulation occurs when a government intentionally manipulates the value of its currency to gain an advantage in international trade**. For example**, a country might artificially devalue its currency to make its exports cheaper and more competitive in foreign markets. The United States has accused China of manipulating its currency in the past, which led to tensions in trade relations between the two countries.[42]

c) **Discriminatory Government Procurement** Practices - Government procurement refers to the process by which governments purchase goods and services for their own use. Discriminatory government procurement practices occur when a government gives preferential treatment to domestic suppliers over foreign ones. This can include requirements that government contracts be awarded only to domestic firms or that a certain percentage of goods or services be produced domestically. **For example**, the Indian government has a preference policy that requires all government procurement contracts below a certain threshold to be awarded only to domestic suppliers.[43]

It's worth noting that international trade restrictions can have both positive and negative effects. On the one hand, they can protect domestic industries and jobs, promote national security, and ensure that imported goods meet certain safety and environmental standards. On the other hand, they can also limit competition, raise prices for consumers, and reduce the overall efficiency of global market.

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[41]World Intellectual Property Organization. "What are intellectual property rights?", article, retrieved from www.wipo.int, 12th March 2023,06:24am.

[42]Peterson Institute for International Economics. "Currency manipulation and the global economy", Report. Retrieved from www.piie.com/publications/piie-briefings/currency-manipulation-and-global-economy, 12th March 2023,06:38am.

[43] World Trade Organization. "Government procurement", Report , Retrieved from www.wto.org, 12th March 2023,06:49am.

“Chapter Two”

Section 1: Impact of Covid-19 on international trade:

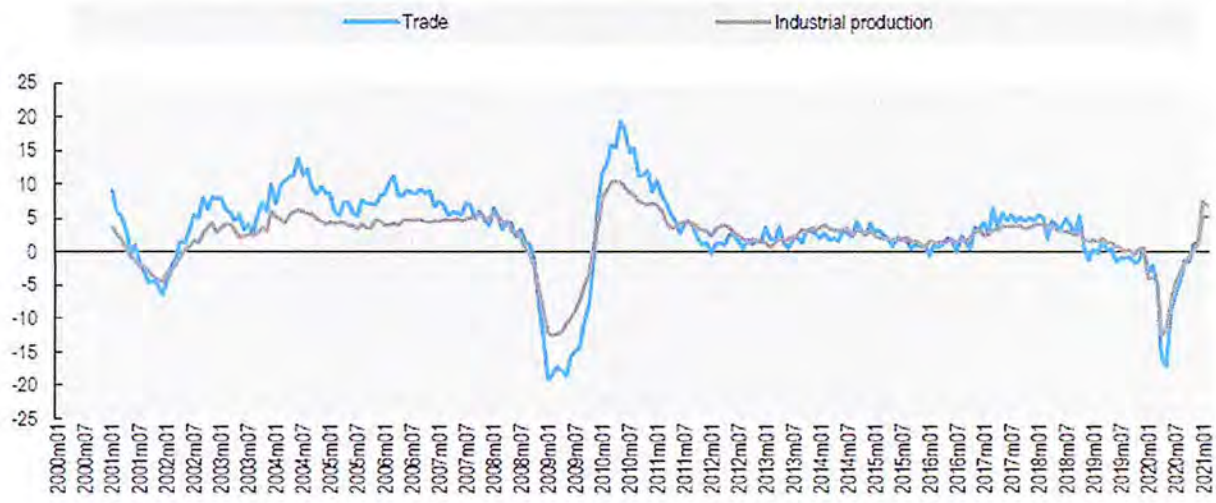
In this section we'll discuss the impact of covid-19 pandemic following the timeline, discussing eventually other key impacts on the economy, international business, e-commerce and entrepreneurial sector.

1.1 What happened to international trade in 2020 and 2021?

The year 2020 was marked by some of the largest reductions in trade and output volumes since World War II. The declines in both world industrial production and goods trade in the first half of 2020 were of similar depth to those at the trough of the Global Financial Crisis (GFC). Nevertheless, they materialized and disappeared more quickly, facilitating a V-shaped recovery in 2020. Trade continued to grow strongly in 2021 and has compensated some, but not all, of the accumulated losses from the steep declines seen earlier.[44]

Initial pandemic-era expectations for a double-digit decline in world merchandise trade in 2020 did not materialize. The volume of global trade has recovered to the pre-pandemic level at an extraordinarily fast pace from around mid-2020 (**Figure 2).**

Figure 2. Volume of world trade and industrial production(Year on year growth %):



Source: OECD calculations based on CPB data.

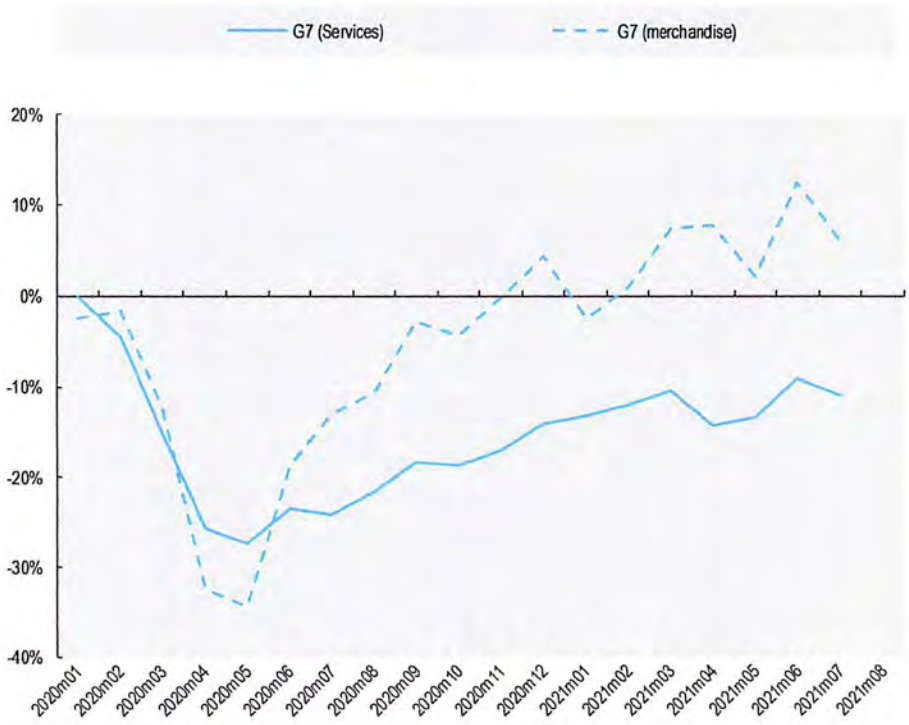
However, the relatively positive performance of aggregate trade hides considerable differences across products, economic sectors and trading relationships. The trade collapse of early 2020 did not hit all products to the same extent and the rising tide did not lift all parts of the

[44]Arriola, Kowalski and Van Tongeren, "the impact of covid on directions and structure of international trade", OCED Trade Policy Paper, No.252, Page 06. Retrieved from https://dx.doi.org/10.1787/0b8eaafe-en, 25th March 2023, 09:27am.

global trade system equally either. Trade impacts across specific goods, services and trade partners show a highly diverse picture and created pressures on specific sectors and supply chains that were much more pronounced than during the GFC.[45]

In 2020, trade in services declined more and has been recovering at a slower pace than goods trade. Not surprisingly, trade in travel and tourism services slumped dramatically but trade in digitally delivered services, such as telecommunication and information technology services, boomed. Overall, the value of exports of services in OECD countries declined in 2020 by -16.7%, twice as much as the value of goods exports, which dropped by -8.2%. This was also one factor underpinning the comparatively large adjustments in output relative to those in trade, as services account for a larger share of the economy than their weight in international trade **(Figure 3).**[46]

Figure 3. Exports of services and merchandise relative to same month in 2019. G7 economies.



Source: OECD calculations using WTO data in current USD.

[45] OECD (2022), "International trade during the covid-19 pandemic: Big shifts and uncertainty", Report, Page 03.
[46] Ibid.

1.2 Trade growth in 2021: New impulse or clearing the backlogs from 2020?

In 2021, both the volume and (year-on-year) growth rates of world trade reached historical highs in May and June. This is partially a reflection of severely disrupted trade in the first half of 2020 (leading to a low base), combined with the effect of releasing pent-up demand from 2020, as well as shifts of demand from services to goods, and an unwinding of the backlogs in international supply chains. Demand has resumed particularly for non-perishable goods, where production and delivery can be delayed in time such as semiconductors, plastics, furniture and bicycles.

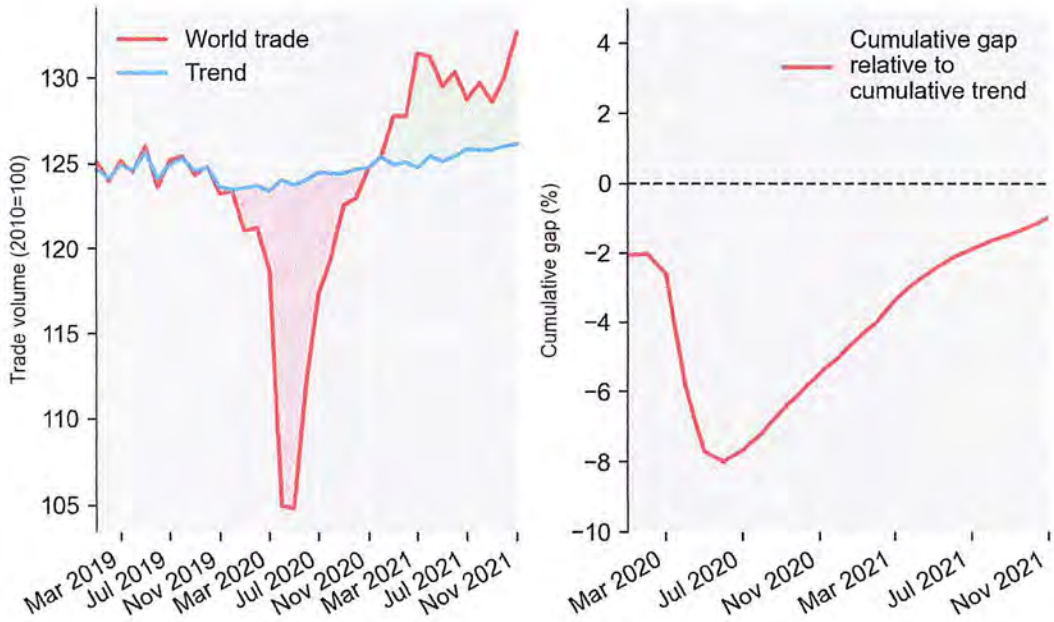
In many countries, after a period of temporary de-confinement at the end of 2020, the beginning of 2021 was again marked by a wave of lockdowns and restrictions, which weighed on demand, supply and international trade. The recovery during the first half of 2021 continued to be uneven across countries and its pace continued to evolve over time. The growth in China's trade, exports in particular, was notably faster than that of other large economies in the second half of 2020 and early 2021.

One way to assess the impact of the pandemic and subsequent recovery is to compare traded volumes with the levels that would typically be expected during a similar period in 'normal' times, accounting for both the trade collapse in the early stages of the pandemic and the recovery since late 2020. The left panel of **(Figure 4)** shows how world trade has evolved relative to historical trend[i]. Until June 2020, there was a shortfall of trade flows relative to what could be expected based on the trend. After June, trade flows recovered and by November 2020 they were above trend levels.

Another approach is to compare accumulated trade volume flows during the pandemic with what it would have been absent the pandemic, as shown in the right panel of **(Figure 4)**. The sum of negative and positive deviations from trend indicates whether the total accumulated volume of flows that is a stock is larger than usual or not.

The 8% "gap" in global merchandise trade volumes that unfolded in May 2020 was significantly reduced in late 2020 and throughout 2021. By November 2021, the accumulated volume of trade realized since the beginning of the pandemic was still 1% lower than that which would normally be expected. World trade volumes would need to expand by about 2.8 percentage points from the November level to close the gap by March 2022.

Figure 4. Trade gap relative to trend.



Source: OECD calculations based on CPB World Trade Monitors.

1.3 Substantial imbalances remained in the second half of 2021

China's production was hit deep in January 2020 but it rebounded much quicker than production in other regions. This supported meeting demands by other countries for "home nesting" products and certain medical products and led to a steep rebound of exports. The US and Euro Area production recovered later, and the gap with historical trend volumes is not closed yet.

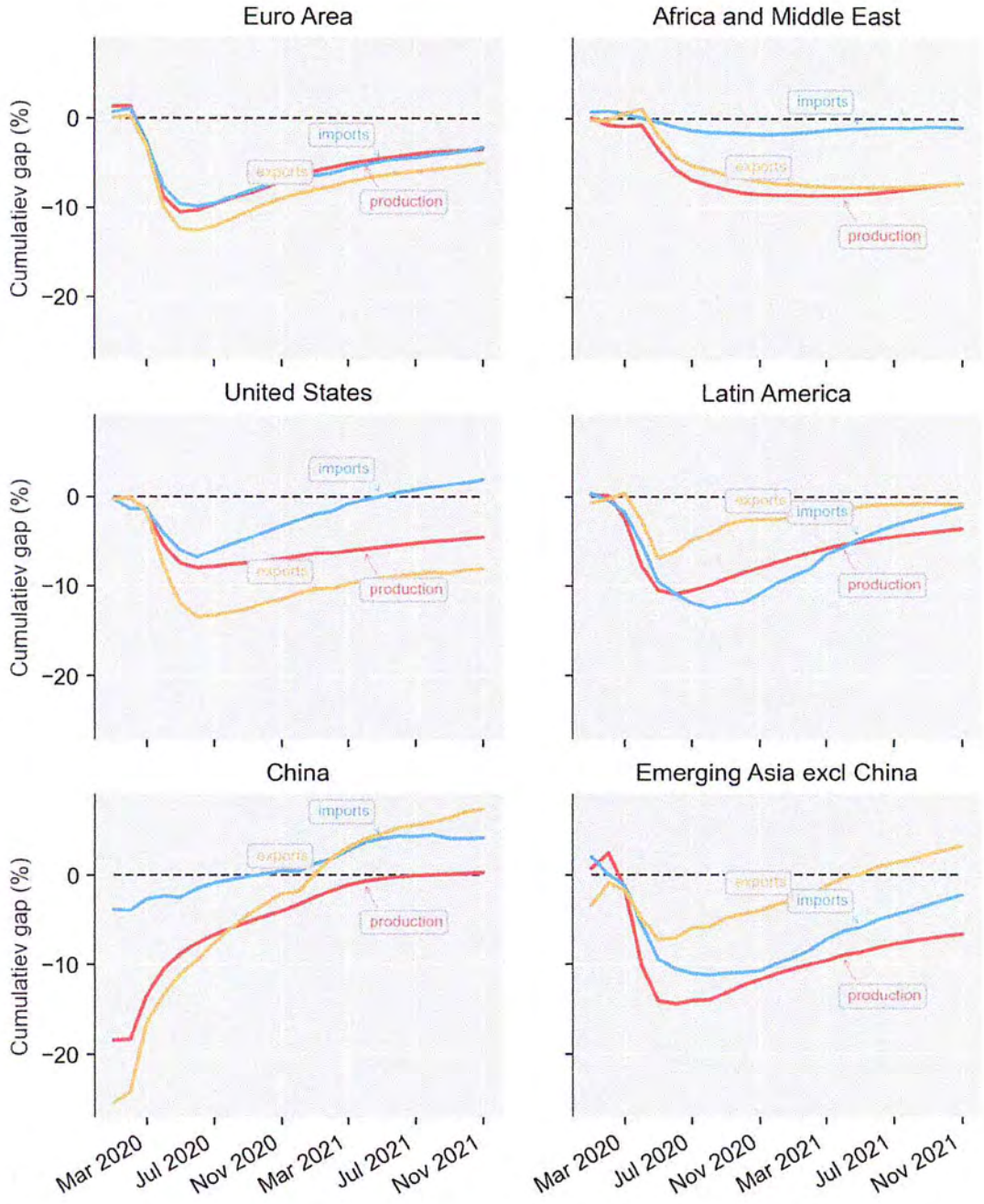
While Euro Area imports aligned closely with production, the United States has seen imports surging more than industrial production, signaling important macroeconomic channels contributing to these imbalances. The cumulative export gap of the United States was still negative at around 8% by November 2021, while the import gap was closed in May 2021 and settled at positive 1.8% in November as imports were substantially above pre-pandemic trend. **(Figure 5).**

Exports of emerging economies in Asia recovered in the wake of China's rebound, though not as spectacularly. Latin America sustained its exports to some extent, mainly driven by raw materials. But recovery of Africa and the Middle East lags behind, with production and exports far behind trend and imports continuing at past levels.

As a result, China's share in world exports climbed from 12% in December 2019 to 15% in January 2021, but has since come down to 13% in November 2021. With the Chinese economy

recovering relatively early in 2020, China's import market share increased somewhat in 2020, but has since leveled.

Figure 5. Trade and production gaps, major traders.[ii]



Source: OECD calculations based on CPB World Trade Monitor.

1.4 Other key impacts of the pandemic:

The COVID-19 pandemic has had a profound impact on the global economy, disrupting trade and investment flows, and causing significant challenges for businesses, governments, and individuals around the world. International trade, in particular, has been severely impacted by the pandemic, with supply chain disruptions, border closures, and reduced demand and investment affecting trade volumes and patterns. The pandemic has also accelerated the adoption of digital technologies and highlighted the need for more resilient and sustainable supply chains. In this context, here's more key impacts on several sectors :

1.4.1 Disruptions to global supply chains: The pandemic has caused significant disruptions to global supply chains, with many businesses experiencing shortages of raw materials, components, and finished products. This has been due to a combination of factors, including factory closures, transportation disruptions, and border closures. For example, in the early stages of the pandemic, China's lockdowns disrupted global supply chains, causing shortages of essential goods such as personal protective equipment (PPE) and medical supplies. As a result, many countries have sought to reduce their dependence on single-source suppliers and diversify their supply chains to reduce the risk of future disruptions[47].

1.4.2 Reduced trade volumes: The pandemic has also led to a significant reduction in international trade volumes, as businesses have scaled back their operations and consumers have reduced their spending. According to the World Trade Organization, global trade volumes fell by 5.3% in 2020[48], with declines across all regions and sectors. This has had a significant impact on businesses that rely on international trade, particularly those in the travel, tourism, and hospitality sectors.

1.4.3 Changes in trade policy: The pandemic has also led to changes in trade policy, as governments have sought to protect their domestic industries and secure supplies of essential goods[49]. For example, many countries have imposed export restrictions on medical supplies and PPE to ensure they have adequate supplies for their own populations. This has led to tensions between countries and raised questions about the fairness of the global trade system.

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[47] World Economic Forum. The Future of Jobs, Report 2020. Retrieved from https://www.weforum.org/reports/the-future-of-jobs-report-2020, 23rd march 2023,10:17am.

[48] WTO. "Trade set to plunge as COVID-19 pandemic upends global economy", Report . Retrieved from https://www.wto.org, 23rd March,10:42am.

[49] Ibid.

1.4.4 **Increased adoption of digital technologies:** The pandemic has accelerated the adoption of digital technologies in international trade, as businesses have had to adapt to remote working and online transactions. This has created new opportunities for businesses to reach new markets and customers, but it has also created challenges for businesses that lack the necessary digital infrastructure and skills.[50]

1.4.5 **Shift to regional trade:** The pandemic has also led to a shift towards regional trade, as countries have sought to reduce their dependence on global supply chains and secure essential goods and services locally. This has led to the formation of new trade agreements and partnerships, such as the Regional Comprehensive Economic Partnership (RCEP) and the African Continental Free Trade Area (AfCFTA). For example, the RCEP is a trade agreement between 15 Asia-Pacific countries that aims to reduce barriers to trade and investment within the region.[51]

1.4.6 **Increased focus on resilience and sustainability:** The pandemic has highlighted the importance of building more resilient and sustainable supply chains, which can withstand disruptions and ensure the availability of essential goods and services. This has led to increased focus on issues such as climate change, social responsibility, and digitalization in international trade. For example, businesses are increasingly adopting sustainable and ethical sourcing practices to reduce their environmental impact and ensure fair labor practices.

1.4.7 **Opportunities for innovation and growth:** While the pandemic has caused significant disruptions to international trade, it has also created opportunities for innovation and growth. For example, the increased adoption of digital technologies has enabled businesses to reach new markets and customers, while the shift towards regional trade has created new opportunities for trade and investment. For example, the pandemic has led to the growth of e-commerce platforms such as Amazon and Alibaba, which have seen increased demand for their services as consumers shift towards online shopping.[52]

1.4.8 **Impact on small businesses:** The pandemic has hit small businesses particularly hard, as they often lack the resources and infrastructure to cope with the disruptions caused

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[50] UNCATD. "COVID-19 and E-commerce". Report, Retrieved from www.unctad.org, 23rd March 2023,09:24am.
[51] WEF. "The Future of Jobs", Report. Retrieved from www.weforum.org, 23rd March,09:31am.
[52] United Nations Conference on Trade and Development. COVID-19 and E-commerce. Report, Retrieved from https://unctad.org, 23rd March 2023,09:40am.

by the pandemic[53]. Many small businesses have been forced to close down or reduce their operations due to reduced demand and supply chain disruptions. This has had a significant impact on local economies, particularly in developing countries where small businesses are a key source of employment and income. For example, in India, the pandemic has led to the closure of many small businesses, particularly in the informal sector, which has resulted in significant job losses and economic hardship.

1.4.9 **Challenges for developing countries:** Developing countries have been particularly hard hit by the pandemic, as they often lack the resources and infrastructure to cope with the health and economic impacts of the pandemic. Many developing countries rely on exports for their economic growth and development, and the reduction in international trade volumes has had a significant impact on their economies. For example, in sub-Saharan Africa, the pandemic has led to a significant reduction in exports and investment, which has had a negative impact on economic growth and development.[54]

1.4.10 **Impact on trade finance:** The pandemic has also had an impact on trade finance, as banks and financial institutions have become more cautious about lending due to the increased risk of default. This has made it more difficult for businesses, particularly small and medium-sized enterprises (SMEs), to access trade finance and manage cash flow. For example, the International Chamber of Commerce has reported that SMEs have faced significant challenges in accessing trade finance during the pandemic, which has affected their ability to trade internationally.[55]

1.4.11 **Potential long-term impacts:** While the full impact of the pandemic on international trade is still unknown, it is likely to have long-term impacts on the global economy and international trade system[56]. For example, the pandemic has highlighted the importance of building more resilient and sustainable supply chains, which could lead to significant changes in trade patterns and policy. It has also raised questions about the role of the World Trade Organization and the need for reform to ensure that the global trade system is fair, inclusive, and sustainable.

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[53] World Bank. "The World Bank Group and COVID-19". Report, Retrieved from www.worldbank.org/en/news/coronavirus-covid19, 23rd March 2023, 08:29am .

[54] United Nations Conference on Trade and Development. "COVID-19 and Developing Countries", Report. Retrieved from unctad.org, 23rd March 2023,10:19am.

[55] ICC, "COVID-19: Trade Impact Tracker", Report. Retrieved from www.iccwbo.org/publication/covid-19-trade-impact-tracker, 23rd March, 10:28am.

[56] World Economic Forum. "The Future of Jobs", Report. Retrieved from www.weforum.org, 23rd March, 10:34am.

In summary, the COVID-19 pandemic has had a significant impact on international trade, causing disruptions to global supply chains, reducing trade volumes, changing trade patterns and policy, accelerating the adoption of digital technologies, and creating challenges and opportunities for businesses and economies around the world. While the full impact of the pandemic is still unknown, it is clear that it will have long-term implications for the global economy and international trade system.

Section 02: Trade Restrictions Due to Covid-19 and their impact on freight prices:

2.1 Trade restrictions due to Covid-19:

The outbreak of COVID-19 has significantly impacted global trade, leading to widespread disruptions in supply chains and reduced economic activity. In response to the pandemic, many countries have imposed trade restrictions to slow the spread of the virus, protect domestic industries, and ensure the availability of critical goods and services. While these measures may have been necessary in the short term[57], they have also raised concerns about the potential long-term impact on global trade and economic growth[58]. In this section, we will discuss the trade restrictions imposed due to COVID-19 and their implications.

- **Types of trade restrictions due to COVID-19:**

Governments have implemented various types of trade restrictions to address the challenges posed by COVID-19. These include export restrictions, import tariffs, quotas, and licensing requirements. Some countries have also introduced non-tariff barriers, such as increased customs checks and health inspections, to limit the spread of the virus.

2.1.1 Export restrictions on medical supplies and equipment:

Many countries imposed export restrictions on medical supplies and equipment, such as personal protective equipment (PPE), masks, gloves, and ventilators. This was done to ensure that they have enough supplies to meet domestic demand. **For example**, India, which is one of the

[57] WTO, "COVID-19: Trade and trade-related measures," Report, 23 March 2021.
[58] International Trade Centre (ITC),"COVID-19 and international trade: Issues and actions", 15 May 2020.

world's largest producers of generic drugs and medical supplies, imposed restrictions on the export of certain drugs and medical equipment in March 2020[59].

Export restrictions have also been imposed on food and agricultural products. For instance, Russia temporarily banned the export of grains, while Vietnam restricted rice exports to ensure domestic food security during the pandemic.

However, this led to shortages in other countries, particularly those with weaker healthcare systems. The World Health Organization (WHO) called for an end to export restrictions on medical supplies and equipment to ensure that everyone had access to the resources they needed to fight the pandemic[60].

2.1.2 Import tariffs:

Some countries imposed tariffs on imported goods to protect their domestic industries from competition. **For example**, the United States imposed tariffs on steel and aluminum imports from several countries, including China, in 2018. These tariffs have led to retaliatory measures by other countries, including China, which has imposed tariffs on a wide range of US goods[61].

The pandemic exacerbated the existing trade tensions and led to an increase in tariffs and trade restrictions in some cases.

2.1.3 Border closures:

Many countries closed their borders or restricted travel in an effort to slow the spread of the virus. This had a significant impact on global trade, particularly for the travel and tourism sector. Cross-border supply chains were also affected, with delays and disruptions in the movement of goods[62]. **For example**, border closures between the US and Canada disrupted trade in essential goods, such as food and medical supplies. Also, The European Union (EU) closed its external

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[59] WHO, "Joint statement on prioritization of COVID-19 vaccination for seafarers and aircrew", retrieved from www.who.int/news/item/05-05-2021-joint-statement-on-prioritization-of-covid-19-vaccination-for-seafarers-and-aircrew, 21st March 2023,08:42am.

[60] WTO, "COVID-19 and trade policy: Why turning inward won't work", Retrieved from www.wto.org, 21st March 2023, 08:56am.

[61] Peterson Institute for International Economics, "COVID-19 Trade Restrictions: Extensions and Exemptions", Article, retrieved from www.piie.com/research/piie-charts/covid-19-trade-restrictions-extensions-and-exemptions, 21st March 2023,09:10.

[62] IMF, "The Great Lockdown: Worst Economic Downturn Since the Great Depression", Publication retrieved from www.imf.org/en/Publications/WEO/Issues/2020/06/24/WEOUpdateJune2020, 21st March 2023,09:21am.

borders to non-essential travel in March 2020. This closure was lifted for some countries in July 2020, but was later re-imposed for certain countries with high COVID-19 case rates[63].

2.1.4 Customs checks and health inspections:

Some countries increased customs checks and health inspections on imported goods to ensure that they did not contain the virus. While these measures were necessary to protect public health, they also slowed the movement of goods across borders and increased costs for importers.[64] Some countries introduced new requirements, such as certificates of origin or health certificates, which added to the paperwork and bureaucracy involved in international trade.

2.1.5 Subsidies and other forms of government support:

Some countries provided subsidies or other forms of government support to domestic industries that were affected by the pandemic. **For example**, the European Union provided subsidies to its aviation industry in 2020 to help airlines stay afloat during the pandemic. While these measures were intended to support domestic industries and protect jobs, they also created distortions in international trade by giving domestic industries an unfair advantage[65].

2.1.6 Export bans on food products:

Some countries imposed export bans on food products, such as wheat, flour, and other grains, to ensure that they had enough supplies to meet domestic demand. This led to shortages and price spikes in other countries, particularly those that rely on food imports. The United Nations Food and Agriculture Organization (FAO) called for an end to export restrictions on food products to ensure that everyone had access to the food they needed during the pandemic[66].

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[63] World Bank, "COVID-19 Crisis Through a Migration Lens", Article retrieved from www.worldbank.org/en/topic/migrationremittancesdiasporaissues/brief/migration-and-covid-19, 21st March 2023,09:30am.

[64] European Commission, "COVID-19: Customs and tax measures", Report retrieved from ec.europa.eu/taxation_customs/business/customs-procedures/general-overview/coronavirus-customs-measures_en, 21st March 2023,09:39am.

[65] Council on Foreign Relations (2020) "Coronavirus and Protectionism: The EU's Response", Report retrieved from www.cfr.org/blog/coronavirus-and-protectionism-eus-response, 21st March 2023,09:46am.

[66] FAO "COVID-19: Time to implement measures to safeguard global food security", retrieved from www.fao.org/news/story/en/item/1271955/icode/, 21st March 2023,09:52am.

2.1.7 Restrictions on international flights:

Many countries restricted or suspended international flights to limit the spread of the virus. This had a significant impact on the travel and tourism industry, as well as on international trade[67]. Air cargo, which accounts for a significant share of global trade, was also affected, with reduced capacity and higher prices.

2.1.8 Quarantine requirements:

Some countries imposed quarantine requirements on travelers, which made it difficult for business travelers and tourists to enter the country. This had a significant impact on trade and investment, as it limited the ability of companies to conduct business across borders[68]. In some cases, companies had to adjust their supply chains or relocate production to avoid quarantine requirements.

2.1.9 Reduced capacity at ports and airports:

COVID-19 restrictions led to reduced capacity at ports and airports, which created bottlenecks and delays in the movement of goods[69]. This increased costs for importers and exporters, as they had to pay for additional storage and transportation to deal with the delays. In some cases, goods were stuck at ports and airports for weeks, leading to spoilage and other supply chain disruptions. This had a significant impact on the global economy, as supply chains were disrupted and companies struggled to meet demand for their products.

2.1.10 Non-tariff barriers:

Non-tariff barriers, such as technical regulations, standards, and certification requirements, also increased during the pandemic. Some countries introduced new requirements, such as mandatory testing or quarantine for imported goods[70], which made it more difficult and expensive

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[67] IATA "Impact of COVID-19 on Passenger Demand", Report retrieved from www.iata.org/en/pressroom/pr/2020-03-05-01/, 21st March 10:03am.

[68] Harvard Business Review, "The COVID-19 Crisis Shows Why We Need Flexible Supply Chains", Report retrieved from www.hbr.org/2020/04/the-covid-19-crisis-shows-why-we-need-flexible-supply-chains, 21st March 2023,10:18am.

[69] International Air Transport Association, "COVID-19 and Air Cargo", Retrieved from www.iata.org/en/programs/cargo/industry-distribution/air-cargo-supporting-essential-services, 21st march 2023,10:31am.

[70] European Commission, "COVID-19: Temporary export ban on medical equipment", Retrieved from ec.europa.eu/taxation_customs/business/customs-procedures/health/coronavirus-support_en, 21st March 2023,10:48am.

for companies to export their products. This increased the complexity and cost of doing business across borders and created new barriers to trade.

2.2 COVID-19 impact on maritime trade:

The COVID-19 pandemic also had a significant impact on maritime trade and led to a range of trade restrictions in this sector. Here are some of the key measures that were introduced:

2.2.1 Port closures: In response to the COVID-19 pandemic, some countries closed their ports to international shipping, which had a significant impact on global trade. **For example**, China closed several of its ports in early 2020 to prevent the spread of the virus, which disrupted the movement of goods and caused delays in the global supply chain[71]. Similarly, India closed its ports in March 2020, which led to a backlog of goods and disrupted trade with other countries.

2.2.2 Crew changes: The COVID-19 pandemic made it difficult for ship crews to change over, as many countries imposed restrictions on crew changes to prevent the spread of the virus. This led to crew shortages and fatigue, as crews had to work longer than usual hours due to the difficulties in changing over[72]. In addition, some countries imposed quarantine requirements for crew members, which made it more difficult and expensive for ships to operate[73].

2.2.3 Reduced capacity: COVID-19 restrictions led to reduced capacity at ports and terminals, which created bottlenecks and delays in the movement of goods. **For example**, some ports implemented social distancing measures, which reduced the number of workers who could work at the same time[74]. This led to longer wait

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[71] Reuters, "China's ports, shipping offer help to firms hit by virus", Article retrieved from www.reuters.com/article/us-health-coronavirus-china-shipping/chinas-ports-shipping-offer-help-to-firms-hit-by-virus-idUSKBN20C17I, 24th March 2023,09:28am.

[72] International Maritime Organization, "Maritime Labour Issues and COVID-19"Article, Retrieved from www.imo.org/en/MediaCentre/HotTopics/Documents/Maritime%20Labour%20Issues%20and%20COVID-19.pdf, 24th March 2023,09:43am.

[73] Safety4Sea, "Crew Change Crisis Could Lead to Maritime Accidents" Article, Retrieved from www.safety4sea.com/crew-change-crisis-could-lead-to-maritime-accidents, 24th March 2023,09:51am.

[74] Wall Street Journal, "Maritime Ports Brace for Coronavirus Disruption" Article, retrieved from www.wsj.com/articles/maritime-ports-brace-for-coronavirus-disruption-11583435801, 24th March 2023,10:07am.

times for ships at ports and increased costs for shippers and importers, as they had to pay for additional storage and transportation to deal with the delays[75].

2.2.4 **Supply chain disruptions:** The pandemic led to disruptions in global supply chains, which affected maritime trade. **For example**, reduced demand for goods in some countries led to reduced exports, while factory shutdowns and other restrictions led to reduced production and supply[76]. In addition, some countries restricted the movement of goods across their borders, which led to delays and increased costs for shippers and importers.

2.2.5 **Increased costs:** The COVID-19 pandemic led to increased costs for maritime trade, as shipping companies had to pay for additional measures to prevent the spread of the virus. **For example**, some companies implemented crew testing and disinfection of vessels, which increased their operating costs[77]. These costs were passed on to shippers and importers, which were then passed on to consumers in the form of higher prices[78].

2.2.6 **Reduced demand:** The pandemic led to reduced demand for goods in some countries, particularly those that were most affected by the virus. **For example**, many countries implemented lockdowns and other measures to prevent the spread of the virus, which led to reduced economic activity and reduced demand for goods[79]. This led to reduced shipping volumes and reduced profitability for shipping companies.

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[75] Supply Chain Dive, "Ports Warn of Congestion, Delays, Equipment Shortages as Pandemic Lingers", Article, retrieved from www.supplychaindive.com/news/ports-congestion-delays-equipment-shortages-pandemic/582506, 24th March 2023,10:19am.

[76] KPMG, "The Impact of COVID-19 on the Shipping Industry", Article retrieved from home.kpmg/xx/en/home/insights/2020/04/the-impact-of-covid-19-on-the-shipping-industry.html, 24th March 2023,10:24am.

[77] Financial Times, "Pandemic Puts Shipping Industry Under Huge Strain", Retrieved from www.ft.com/content/c9d2e10e-6b32-11ea-89df-41bea055720b, 24th March 2023, 10:40am.

[78] Hellenic Shipping News, "COVID-19: The Cost to Shipping", Article retrieved from www.hellenicshippingnews.com/covid-19-the-cost-to-shipping, 24th March 2023,10:49am.

[79] The Guardian, "Coronavirus Sends Shockwaves Through Shipping Industry", Article from www.theguardian.com/business/2020/mar/22/coronavirus-sends-shockwaves-through-shipping-industry, 24th March,11:10am.

2.2.7 Vessel delays and detentions: COVID-19 restrictions led to delays and detentions of vessels, particularly those with crew members who had tested positive for the virus. This led to additional costs for shipping companies and importers, as they had to pay for additional storage and transportation to deal with the delays[80]. In addition, some countries imposed fines and other penalties on ships that did not comply with their COVID-19 restrictions, which added to the costs of operating in those countries.

Overall, the COVID-19 pandemic led to disruptions in supply chains, increased costs, and reduced trade volumes. While some measures were necessary to protect public health, such as crew testing and disinfection of vessels, others created unnecessary barriers to trade and undermined the global response to the pandemic. As countries continue to navigate the pandemic and work to rebuild their economies, it will be important to strike a balance between protecting public health and ensuring that maritime trade can continue to flow freely.

Section 03 : Maritime shipping costs during Covid-19 (2020-2021) :

3.1 Record-breaking in Container freight rates :

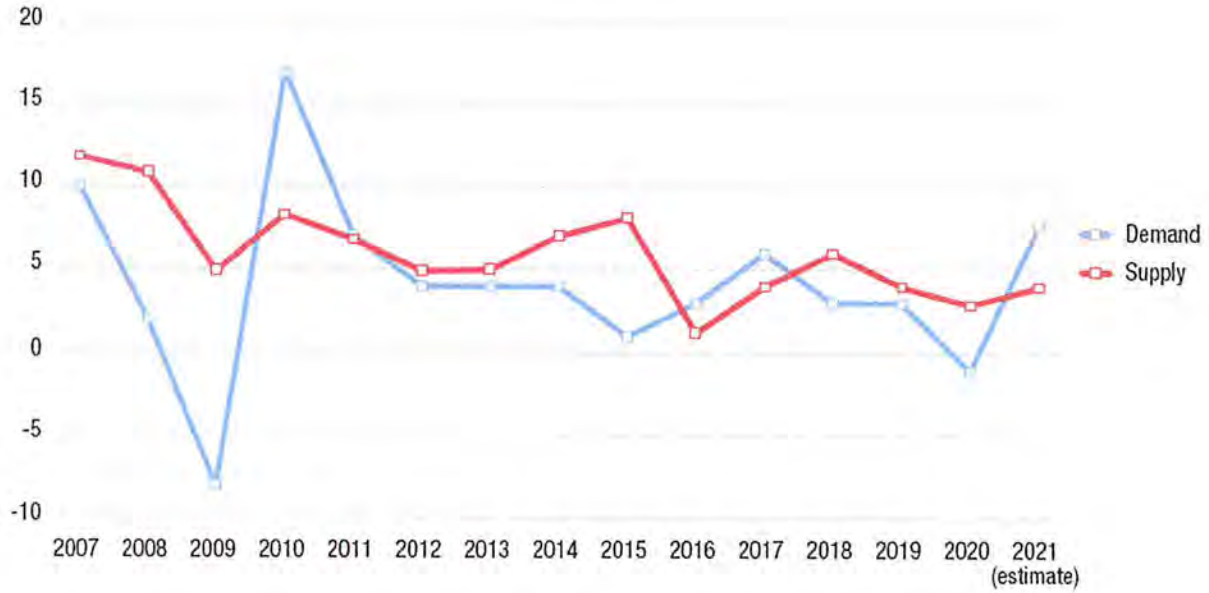
In 2020, lockdown measures and other impacts of COVID-19 suddenly cut the demand for containerized goods. April and May 2020 were the worst months: by the end of May 2020, a record 12% of global container capacity was idle or inactive – 2.7 million TEU, Liner shipping companies responded with measures to mitigate costs, manage capacity and sustain freight rates. By the second half of 2020, the situation had reversed, but this sudden boost in demand stumbled into limited capacity and congested ports

3.1.1 In mid-2020 : high demand and limited capacity led to rocketing

Spot freight rates In the second half of 2020, demand for container shipping started to pick up and absorb spare capacity. Vessel supply capacity remained limited but idle container shipping capacity levels started to decline in line with growing demand as trade continued to recover. By the end of June 2020, idling was 9 per cent, but by July this proportion had fallen to 6%, and by August to 4 per cent. By the end of September 2020, it was down to 3.5% (going below the 4.1% average level of idling for full year 2019). In 2020, global container fleet capacity expanded by almost 3%, to 281,784,000 DWT, while container trade contracted by 1.1% to 149 million TEU **(figure 6)**.

[80] "COVID-19: Consequences for Shipping and Challenges Ahead", Report, by The Maritime Executive. Retrieved from www.maritime-executive.com/editorials/covid-19-consequences-for-shipping-and-challenges-ahead, 24th March 2023,12:11pm.

Figure 6. Growth of demand and supply in container shipping, 2007–2021, Percentage[iii]

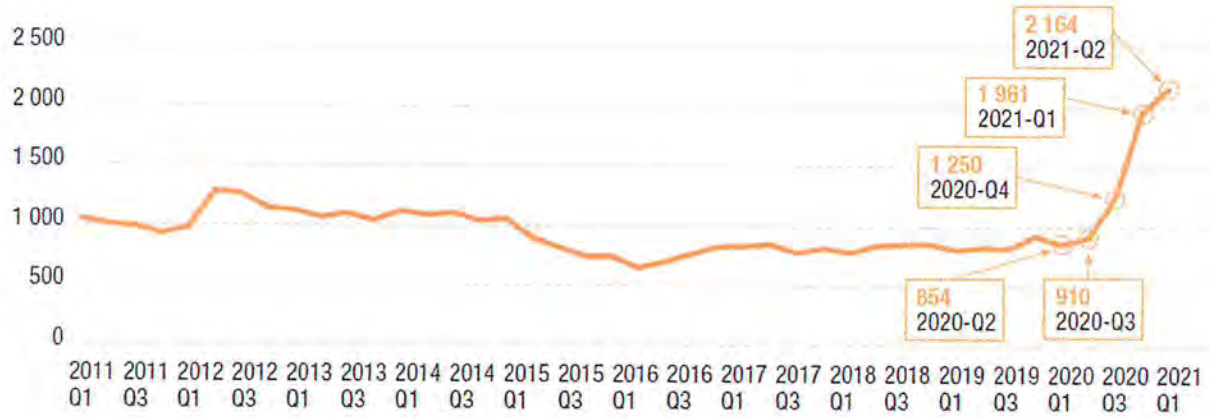


Source: UNCTAD secretariat calculations. Demand and supply are based on data from Clarksons Research, Container Intelligence Monthly, various issues.

In an effort to maintain freight rates during the period of lower demand, carriers restricted capacity. Then as demand picked up, they released more capacity but by that time the supply was being constrained by other factors, notably port congestion and equipment shortages which kept vessels waiting, especially in West Coast North America. The result was exacerbated disruption and inefficiency at port.

By the end of 2020, freight rates had surged to unexpected levels. This was reflected in the China Containerized Freight Index (CCFI) for both short- and long-term contracts **(figure 7)**. In the second quarter of 2020, the CCFI stood at 854 points, but by the fourth quarter was 1,250 points, and for the first and the second quarters of 2021 had reached new records, beyond 2,000 points.

Figure 7. CCFI composite index, 2011-2021 (quarterly).[iv]

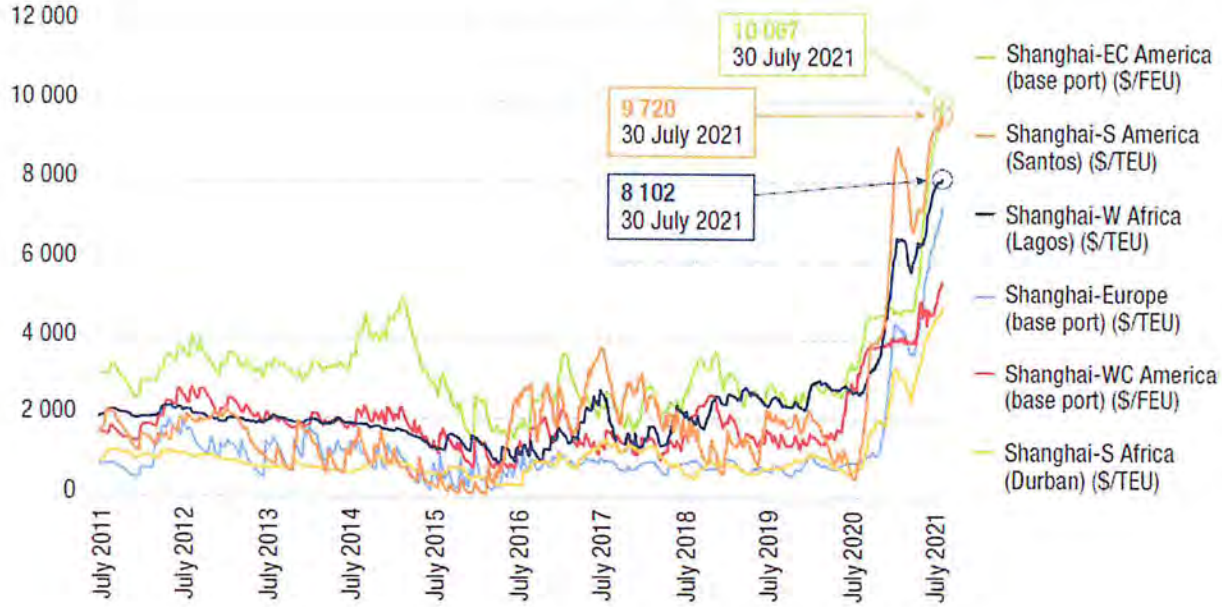


Source: Clarkson Shipping Intelligence Network Timeseries, Shanghai Shipping Exchange.

3.1.2 Late 2020-Mid 2021: Container shortages, port congestion, and delays result in higher freight rates, fees, and surcharges:

Towards the end of 2020 and into 2021, container shortages and congestion at ports, along with other disruptions, led to record container freight rates, notably on the routes from China to Europe and the United States. These are reflected in the Shanghai Containerized Freight Index (SCFI) which covers cargo departing from Shanghai, China **(figure 8)**.In June 2020, the SCFI spot rate on the Shanghai-Europe route was less than $1,000/TEU but by the end of 2020 had reached around $4,000/TEU and remained firm throughout the first quarter of 2021.

Figure 8. Shanghai Containerized Freight Index weekly spot rates, 1 July 2011 to 30 July 2021, selected routes.



Source: UNCTAD secretariat, based on data from Clarkson Shipping Intelligence Network.

By the end of April, despite a 3% increase in supply capacity, the SCFI spot freight rate on the Shanghai-Europe route surged to $4,630/TEU, and by the end of July has reached $7,395/TEU.

Freight rates also escalated on the China-United States trade lane, and, faced with backlogs and longer waiting times, shipping lines have also been adding extra fees and surcharges. In the last quarter of 2020, on the Shanghai-West Coast North America route capacity expanded by 5% and in the first quarter of 2021 by a further 7%. Nevertheless, the SCFI spot rate reached around $4,500/ forty-foot equivalent unit (FEU) in April 2021, compared to $1,600/FEU in April 2020, and climbed further to $5,200/FEU in July 2021. The trend was similar on routes from Asia to the East Coast. In the first six months of 2021, SCFI spot rates on the Shanghai-East Coast North America route more than doubled, and by the end of July 2021 had reached $10,067/FEU **(figure 3)**. Moreover, this does not take into account the premiums cargo owners were often charged to get any certainty that their boxes would be moved promptly. The surge in spot freight rates also extended across developing regions, including South America and Africa. On the China to South America (Santos) route the rate had been $959/TEU in July 2020 but by the end of July 2021 had reached $9,720/TEU. Over the same period, rates on the Shanghai to West Africa (Lagos) route increased from $2,672/TEU to $8,102/TEU.

Section 04: Maritime transport freight rates after Covid-19 :

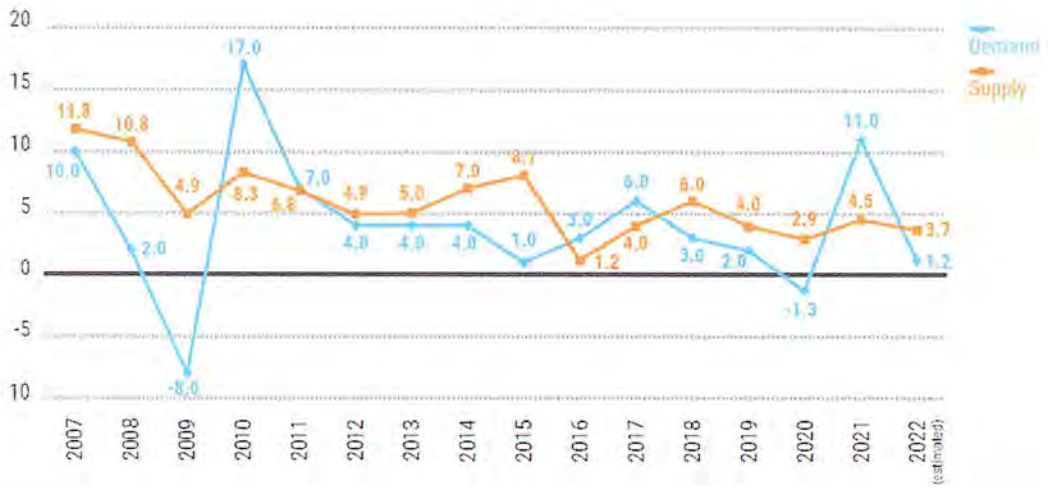
4.1 Late 2021-mid 2022: Container freight rates fly sky-high in 2021, but gradually fall during 2022:

In 2021, there was an enormous surge in global container shipping freight rates which peaked in January 2022. Rates subsequently fell yet remained above pre-2019 levels.

- **2021 saw strong demand but got held back by logistics constraints:**

Throughout 2021, demand and supply conditions in the container shipping freight market were unusual. On the one hand, there was an 11% increase in global containerized trade volumes, a rebound that put additional pressure on carriers and ports. At the same time, there was an increase in freight prices – a consequence of low growth in fleet supply and disruptions in supply chains, caused mainly by COVID-19, with greater port congestion and landside problems that reduced global container and logistics capacities. Global container fleet capacity expanded by only 4.5%, much less than the growth in demand **(figure 9)**. Nevertheless, due to the various disruptions, the effective capacity decreased significantly by more than 15% at some times.

Figure 9. Growth of demand and supply in container shipping, 2007–2022, percentage change.[v]



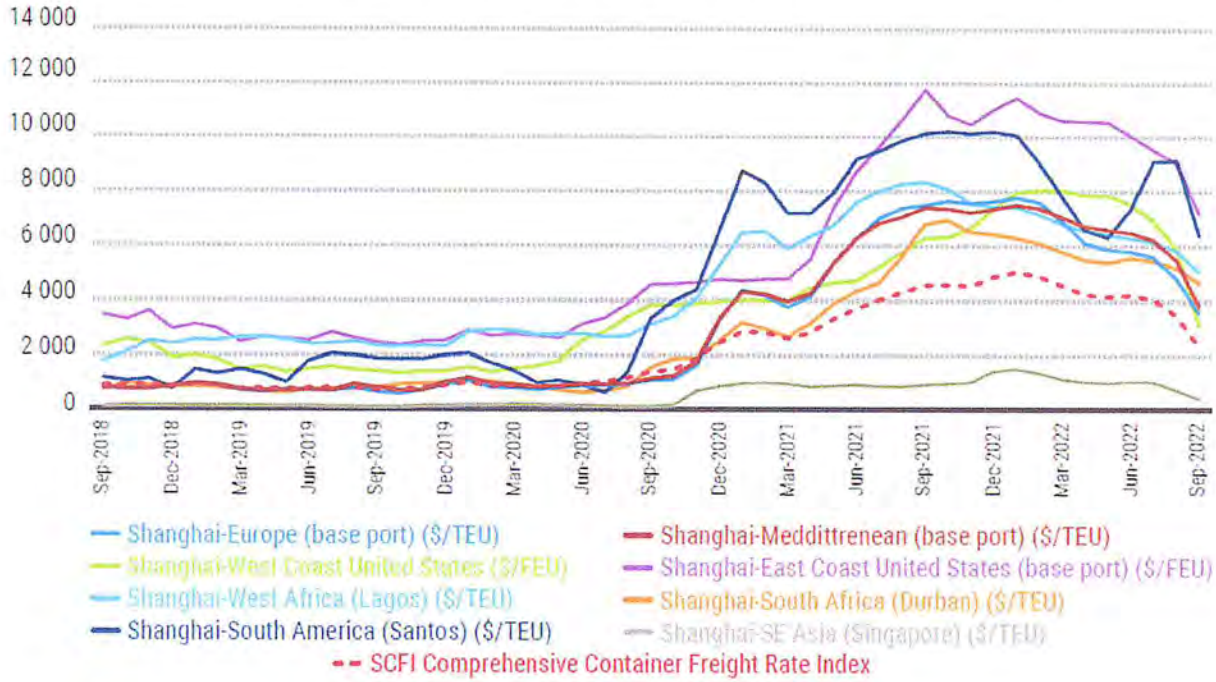
Source: UNCTAD secretariat calculations. Demand and supply are based on data from Clarksons Research, Container Intelligence Monthly, and various issues.

From late 2020, spot container freight rates started to rise spectacularly, reaching new highs at the end of 2021. This was reflected in the Shanghai containerized freight index (SCFI), which tracks rates on the major trade routes from Shanghai. In December 2019, the SCFI stood at 898 points, but by December 2020 was 2,455 and by December 2021 was nearly 5,000 **(figure 10)**.

In September 2019, on the Shanghai to New York (Asia – North America East Coast) route, the cost of shipping a large container per 40-foot-equivalent unit was $2,325 and by September 2021 it surpassed $10,000/FEU, reaching $11,778.

Spot freight rates also surged across routes in developing regions. On China to South America (Santos) route in December 2019, the average rate per TEU was less than $2,000, but by December 2020 it had risen to $6,543 and by December 2021 had reached $10,196. Similarly, between December 2020 and December 2021, on the Shanghai to South Africa (Durban) route the rate per TEU increased from $2,521 to $6,450, and on the Shanghai to West Africa (Lagos) route from $5,291 to $7,452.

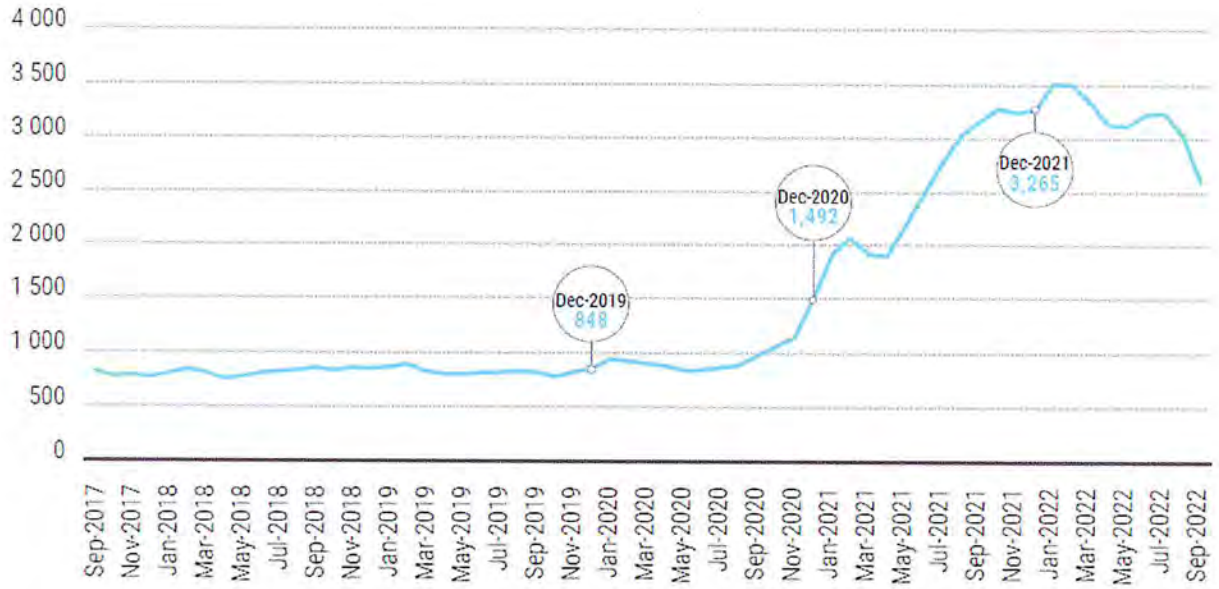
Figure 10. Shanghai Containerized Freight Index (SCFI) monthly spot rates, September 2018 to September 2022, selected routes.



Source: UNCTAD secretariat, based on data from Clarkson Shipping Intelligence Network.

Overall freight levels for China's export container transport market, including spot and contractual rates, are reflected in the broader China containerized freight index (CCFI). In December 2019, this stood at 848 points, but by December 2020 had reached 1,492 points, and by December 2021 was 3,265 points **(figure 11)**.

Figure 11. China Containerized Freight Index, Composite Index, September 2017–September 2022 (monthly).[vi]



Source: Clarksons Shipping Intelligence Network Timeseries, Shanghai Shipping Exchange.

❖ How did all of this happen?:

Maritime transport is embedded in a complex global supply chain system in which disruption in one part can rapidly cascade to many others. Since the start of the pandemic, the shipping industry has had to struggle with port closures, labor shortages, and congestion, as well as shortages of containers, storage and warehouse space, and constraints in hinterland transport. The situation worsened considerably in 2021 as demand for seaborne trade picked up on the main East-West trade lanes, just as supply-side disruptions increased congestion and reduced effective shipping capacity, causing delays and increasing vessel waiting times. Between 2020 and 2021, the median vessel turnaround time inports increased by 14%.

The resulting congestion reduced global container shipping capacity, which between December 2021 and September 2020 fell by 16 percent[81]. Delays were longer and more persistent in some parts of the world than others[82]. Chinese export hubs such as Shanghai, Qingdao, and

[81] McKinsey & company. "Navigating the current disruption in containerized logistics". Article. David Dierker, Ezra Greenberg and al, Article retrieved from www.mckinsey.com/industries/travel-logistics-and-infrastructure/our-insights/navigating-thecurrent-disruption-in-containerized-logistics, 27th March 2023,03:01pm.

[82] IMF ." Supply Chains and Port Congestion Around the World". Andras Komaromi. Working Paper, Page 41

Tianjin, were exceptionally congested, mainly due to China's zero-COVID policy. Congestion was also high at the United States import hubs, at Los Angeles and Long Beach, which are major gateways on the west coast trade lane, and cannot be circumvented – unlike in Asia or Europe, where carriers can skip congested ports.

With container carriers unable to load and unload effectively, services and schedules became less reliable. Between the first quarter of 2020 and the last quarter of 2021 average global container schedule delays doubled[83]. The delays meant that more ships were needed to maintain schedules and to respond to shippers who wanted to ensure their cargo was loaded on ships on time, for which they had to pay surcharges. In July 2021, capacity on the two main East-West trade lanes represented 41.4%compared to 34.6% in the previous year. Between July 2020 and July 2021, the capacity for the Far East to North America trade grew by 31%, and the Far East to Europe trade by 20%.[84]

Adding more ships further increased congestion since ports and storage, along with the hinterland connections, trucks, and trains, could not readily adapt to increases in traffic. Between the first quarter of 2020 and the last quarter of 2021 container schedule delays on the Far East and North America trade route increased from two days to[85].

To address problems in the more profitable lanes, carriers withdrew capacity and empty containers from the smaller trade routes – with corresponding knock-on effects. In Africa, for example, between July 2020 and July 2021, average capacity fell by 6.5%. This contributed to the increase in container freight rates, with one-way China-to-Africa rates increasing from $2,000–2,500 to $4,000–5,000 per TEU[86]. For Asia to Cameroon, the rate for 20-foot containers increased by 340% and for 40-foot containers by 244%[87]. These market dynamics in 2021 propelled freight rates to historic highs, with a severe impact on exports including those of many developing countries.[88]

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[83] McKinsey & company. "Navigating the current disruption in containerized logistics". Article. David Dierker, Ezra Greenberg and al, Article retrieved from www.mckinsey.com/industries/travel-logistics-and-infrastructure/our-insights/navigating-thecurrent-disruption-in-containerized-logistics, 27th March 2023,03:31pm.

[84] Hellenic Shipping News. "Container shipping – onshore disruption leading to record delays and Profits". International Shipping News. Article Retrieved from www.hellenicshippingnews.com/container-shipping-onshore-disruption-leading-to-record-delays-and-profits, 27th March 2023,03:40pm.

[85] The Maritime Executive." Africa Navigates the COVID Era's Shipping Challenges". Article Retrieved from maritime-executive.com/article/africa-navigates-covid-era-shipping-and-portschallenges, 27th March 2023,04:02pm.

[86]UNCTAD."Impact of the Shortage of Empty Containers in World Maritime Trade", Report retrieved fromunctad.org/system/files/non-official-document/Cimem9_2022_p25_Yamen.pdf, 27th March 2023,04:11pm.

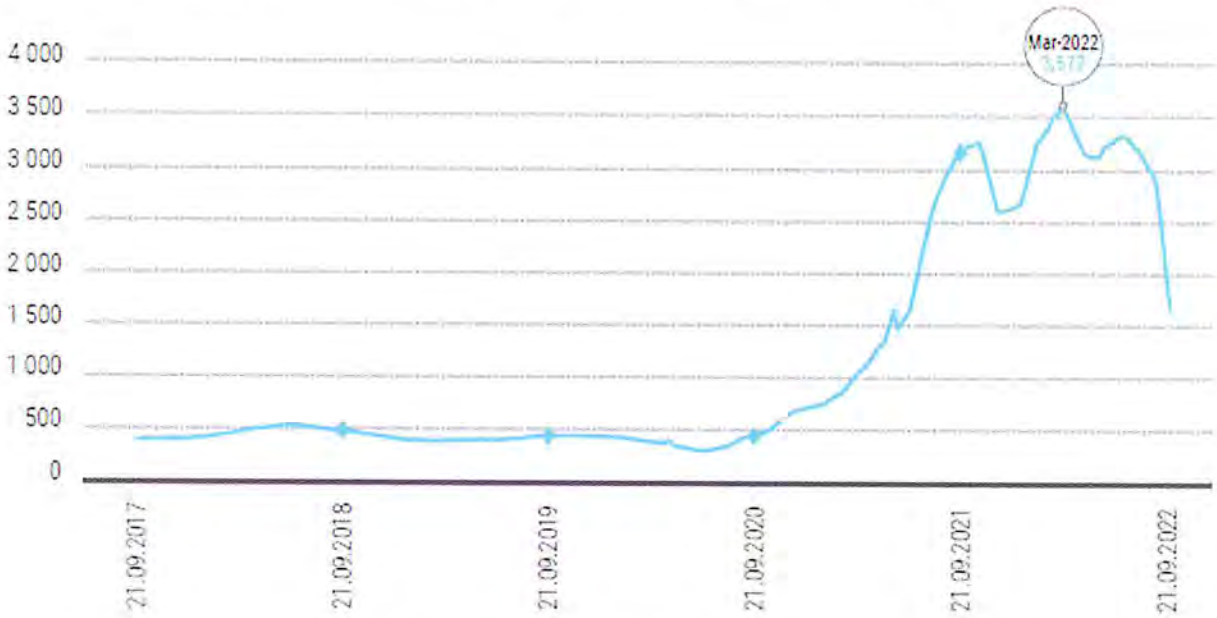
[87] DNV. Maritime Impact Podcast "What were the key decisions made at MEPC 78?". 5 July 2022.

[88]Clarksons Research. Container Intelligence Quarterly. First Quarter.

➢ **Record highs for container ship charter rates :**

A surge in demand and limited vessel capacity also pushed container ship charter rates to record highs. In 2020, the New ConTex index for container ship chartering averaged 432 points, but in 2021 rose to an average of 1,974 and peaked in early 2022, at an all-time high **(figure 12)**.

Figure 12. New ConTex Index, September 2017–September 2022.[vii]



Source: UNCTAD secretariat, based on data from the New ConTex index for container ship chartering produced by the Hamburg Shipbrokers Association. See http://www.vhss.de (Accessed on 24 February 2023).

Higher demand and a shortage of vessels pushed up time charter rates. At the end of 2020, the guideline of a 6–12 month time charter for a 4,400 TEU 'Old Panamax' stood at $25,000 per day, but by the end of 2021, it had reached $100,000 per day[89]. In addition, contract fixture periods also lengthened, and in 2021 averaged 24 months, further reducing the availability of vessels.

Faced with a severe shortage of charter ships throughout the year, most container liner operators were unable to meet their tonnage requirements or start new services. To address this situation several shipping lines purchased their vessels. **MSC, for example, bought over 140 ships**, and CMA CGM bought around 50[90]. This extraordinary situation also prompted logistics

[89]BRS Group. "Shipping and Shipbuilding Markets". Annual Review retrieved from www.brsbrokers.com/annualreview2022.html, 27th March 2023,04:27pm.

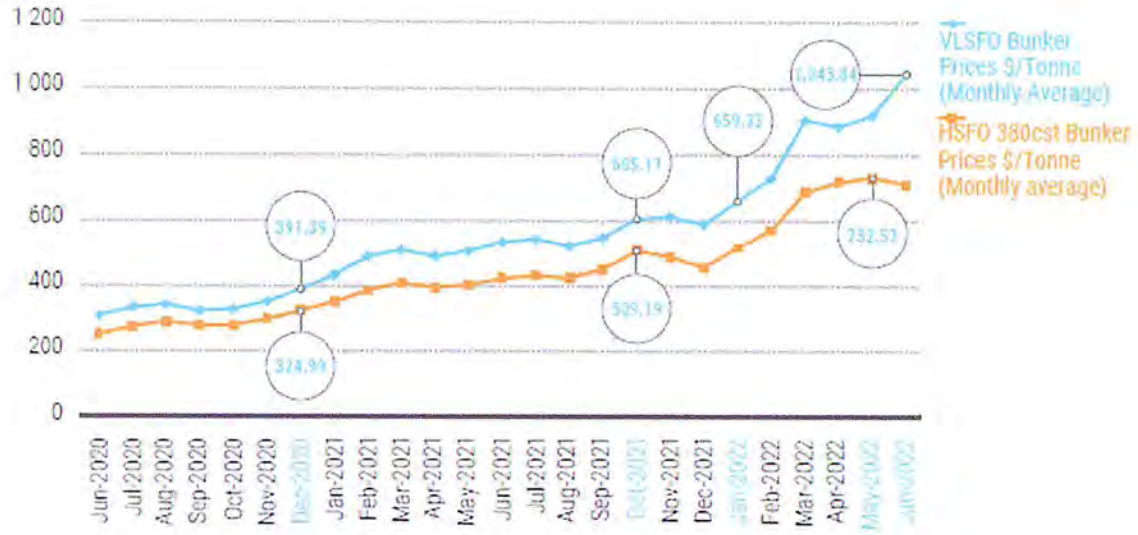
[90] Insider. "Home Depot executive says chartering ships to sidestep the supply-chain crisis 'started as a joke.' Now it's a critical lifeline for decorations, plumbing supplies, heaters, and more". Grace Kay.Article retrieved from www.businessinsider.com/home-depot-chartering-cargo-ships-startedas-a-joke-2021-10?r=US&IR=T, 27th March 2023,04:35pm.

companies and shippers to charter ships directly –as with Home Depot, Walmart, Costco, Target, and Ikea. This was generally on a short-term basis and for vessels less than 5,000 TEU.[91]

❖ **Container carriers made astronomical profits in 2021 despite all the challenges and higher costs :**

Since the beginning of the pandemic, container carriers have had to deal with logistical constraints and higher fuel prices **(figure 13)**, but have benefited from massive hikes in freight rates which have boosted their profits.

Figure 13. Bunker prices, heavy fuel oil, and very low Sulphur fuel oil, monthly averages,from June 2020 to June 2022.



Source: UNCTAD, based on data provided by Clarksons Research Shipping Intelligence Network.

Overall in 2021, carriers moved similar volumes to the previous year, nevertheless, the industry's full-year operating profits (earnings before interest and taxes, EBIT) soared to around $240 billion[92]**(Chart 1)**. Between 2020 and 2021, the Danish-based shipping company, A P

[91] Shipping and Freight Resource. "White House announces measures to monitor ocean carrier freight Pricing". Article retrieved from www.shippingandfreightresource.com/white-house-announcesmeasures-to-monitor-ocean-carrier-freight-pricing, 27th March 2023,04:02pm.

[92]Container xChange (2022). Annual Benchmark Report on Demurrage & Detention. 3rd Edition, Retrieved on the 27th March 2023,04:22pm

Moller-Maersk, for example, increased its volume by only 3.6 percent but its revenues by 56 percent from $39.7 billion to $61.8 billion, and its EBIT by 370 percent from $4.2 billion to $19.7 billion[93].

Similarly, the French ocean carrier, CMA CGM, increased its volume by five percent but its revenue by 78 per cent, to $56 billion, and its EBIT by more than 400 percent to $19.6 billion[94]. And the Singapore-based container carrier, Ocean Network Express (ONE), increased its volume by only 0.4 percent but doubled its revenue to $30 billion and boosted its profits from $3.8 billion to $17.2 billion[95].

Chart 1.Carrier's revenue (2020-2021).[viii]

Carrier	Revenue 2021	Revenue 2020	Change	EBITDA 2021	EBITDA 2020	Change	EBIT 2021	EBIT 2020	Change	Volume 2021	Volume 2020	Change
	Billion ($)		(%)	Billion ($)		(%)	Billion ($)		(%)	Million (TEU)		(%)
A P Moller – Maersk	61.8	39.7	*55.7*	24	8.2	*193*	19.7	4.2	*369.0*	26.2	25.2	*3.6*
CMA CGM	56	31.5	*77.8*	23.1	6.1	*279*	19.6	3.6	*444.4*	22.0	21.0	*5.0*
Hapag-Lloyd*	26.4	14.6	*80.1*	12.8	3.1	*313*	11.1	1.5	*640.0*	11.9	11.8	*0.3*
Hyundai Merchant Marine (HMM)**	12.1	5.4	*124.1*	N.A.	N.A.		6.4	831	*670.2*	3.8	3.9	*-2.1*
Ocean Network Express (ONE)	30.1	14.4	*109.0*	18.3	4.9	*274*	17.2	3.8	*352.6*	12	11.9	*0.4*
COSCO Shipping***	49.1	24.6	*99.6*	9.2	1.9	*384*	19.8	2.1	*842.9*	26.9	26.3	*2.3*
Evergreen Marine Corp**	17.7	7.5	*136.0*	N.A	N.A		10.3	1.3	*692.3*	N.A	N.A	

Source: UNCTAD, based on various companies' financial reports, and various statistics, sector specialized, and news websites.

[93] Maersk. A.P. Møller – Mærsk 2021 Annual Report retrieved from investor.maersk.com/staticfiles/b4df47ef-3977-412b-8e3c-bc2f02bb4a5f, 27th March 2023,04:35pm.

[94] CMA CGM. "2021 annual financial results: acceleration of the Group's strategic investments in a context of excellent financial performance". News retrieved from www.cmacgm-group.com/en/news-media/2021-annual-financial-results, 27th march 2023,05:47pm.

[95] Hellenic Shipping News,"Insurers offer $50m to cover Black Sea shipping under Russia-Ukraine grain deal". Article on Marine Insurance P&I Club News, 1st August. Retrieved from www.hellenicshippingnews.com/insurers-offer-50m-to-cover-black-sea-shipping-under-russia-ukraine-grain-deal, 27th March 2023,05:59pm.

❖ **Amid continuing uncertainties, container freight rates remain volatile :**

In the first two months of 2022, container freight rates continued to increase, but from March 2022, they started to fall, primarily due to slower demand and the impacts of COVID-19 lockdowns in China, compounded by the effects of the war in Ukraine. In January 2022, the SCFI index set a new high record at 5,067 points before falling back but was still higher than the pre-COVID average **(figure 8)**. The lower spot rates also helped to bring down longer-term contract rates. Container ship charter rates followed the same pattern. In March 2022, the ConTex index for container ship chartering had reached a high of 3,525 points before experiencing a downtrend as of April 2022 **(figure 10)**.

4.2 Late 2022 - Ongoing: What to expect:

Future prospects are uncertain, depending on changes in demand, congestion at ports, and other supply-chain disruptions, as well as the fallout from the war in Ukraine with economic and other restrictive measures on Russia-related cargoes, and the need to reposition ships and containers. All these uncertainties either singly or in combination, would evidently influence freight rates development in one way or another.

In 2021, the container ship order book grew by 121%. More vessels entering the market may push down freight rates, but effective supply can be reduced by operational and logistical problems. In addition, the IMO's Energy Efficiency Existing Ship Index (EEXI) regulation and Carbon Intensity Indicator (CII) measures will come into force in 2023[96]. This will require retrofitting and recycling of vessels and lower average sailing speeds which will reduce capacity.

[96] Danish Ship Finance."Shipping Market Review", May 2022. Retrieved from www.shipfinance.dk/media/2209/shipping-market-review-may-2022.pdf, 27th March 2023,06:18am.

“Chapter Three”

Section 01: Overview of the Mediterranean Shipping Company:

1. Brief Overview:

Mediterranean Shipping Company S.A. (MSC) is an international shipping line founded by **Gianluigi Aponte** in Italy in **1970**, with headquarters in Switzerland since 1978. The privately held company is owned by the Aponte family[97]. The company operates in all major ports of the world.

As of 2023, MSC operates 721 container vessels with an intake capacity of **4,631,403 TEUs.** [98]

2. History of MSC:

A. Creation of the Mediterranean Shipping Company S.A. – MSC:

The Mediterranean Shipping Company was established by the Captain **Gianluigi Aponte** from a single vessel operation in 1970, who has a long-term maritime experience. Mr. Aponte started the operation as a tramp operator with only one second hand ship that used to carry break bulk named **Patricia.(Figure.1).**

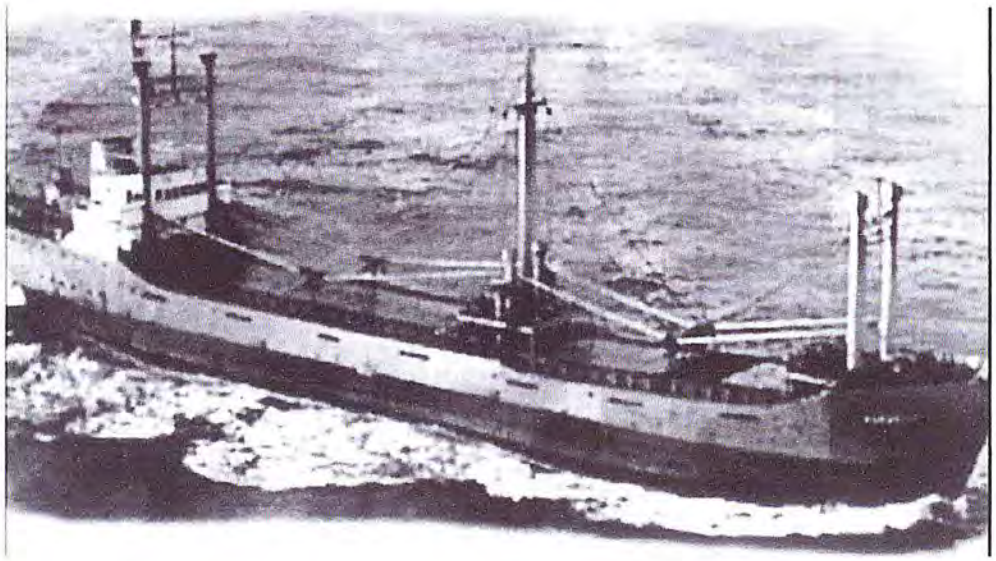


Figure 14. The Patricia.

The following year, **The Rafaela** was introduced, the 2nd vessel that operated through Italy-East Africa region. The 3rd vessel was added in 1973 which helps them to offer almost regular monthly liner shipping service from West Mediterranean to East Africa and Red Sea. Year

[97]Mediterranean Shipping Company, Internal Document.
[98]Ibid.

by year, this liner shipping company's business has increased and becomes the world's 1st largest container shipping company[99].

In addition, this company has also cruise line business named **MSC Cruise**; which was established in **1989** and now this cruise line becomes the 4th largest cruise company in the world.

B. MSC Today :

MSC operates 524 offices in 155 countries with its headquarters in Geneva, Switzerland and has over 100,000 employees [100]. MSC's shipping line sails on more than 215 trade routes, calling at over 500 ports. MSC operates vessels with a capacity of up to 23,756 TEU, including (as of 2019) the world's two largest container ships, ***MSC Gülsün*** and ***MSC Samar*** [101].

The company is independent and wholly owned by the Aponte family under the leadership of **Diego Aponte**. Diego was appointed President and **CEO** by his father and company founder Gianluigi in October 2014.In December 2020, **Søren Toft** the former **COO** of **Maersk Line**became **MSC Chief Executive Officer** [102]. Søren Toft is the first person outside the Aponte family to become CEO.

On 6 January 2022, MSC became the largest container shipping company in the world, surpassing **Maersk**, in terms of TEU capacity, according to the latest **Alphaliner's figures** [103].

On March 2023, MSC break the record of biggest container ship in the world two times in a row by receiving the 24,116 TEU ***MSC Tessa*** mega container ship on March 10 and the 24,345 TEU ***MSC Irina*** mega container ship on March 13 [104].

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[99] Introduction to the MSC Group, Retrieved from www.msc.com , 14th of April 2023, 11:08 pm.
[100] Alpha liner TOP 100 "14th April2023" Webpage, Retrieved from www.alphaliner.axsmarine.com/PublicTop100.com. Retrieved 14 April 2023, 11:21 pm.
[101] Tom Kington, "Giant ship makes waves on first visit". Article, The Times London (20 August 2019) Page 41.
[102]"Søren Toft Arrives at MSC as Chief Executive Officer". Article, Retrieved from www.msc.com/en/news/2020-december/soren-toft-arrives-at-msc-as-ceo, 14th of April 2023, 11:41 pm.
[103]Antonis Karamalegkos, "MSC officially dethrones Maersk from the top of the container rankings". Article, Retrieved from www.container-news.com/msc-officially-dethrones-maersk-from-the-top-of-the-container-rankings. Published on 6January 2022. Retrieved on the 14thof April 2023, 11:52 pm.
[104]Unknown, "MSC shatters records with delivery of 24,346 TEU MSC Irina" Article,16th March 2023,Retrieved from www.tknmetal.com/msc-shatters-records-with-delivery-of-24346-teu-msc-irina. on the 15th of April 2023, 00:06 am.

3. MSC Mission, Vision and Values:

The mission of Aponte family regarding their MSC group is to provide consistent and sustainable transportation solution by their integrated network of sea, rail and road to their customers in all industries. And also maintain the core root of this company which is long term relationship with customers that is based on their knowledge, professionalism and care.

The vision of Mediterranean Shipping Company is to be the most effective, technologically advanced and customer-oriented shipping line in the industry. MSC wants to reach at people's daily lives by enabling global trade with honesty, accountability and respect towards the environment[105].

As MSC group continues to grow in their business; they set some values for the company so that MSC people around the globe can work with utmost passion and enthusiasm along with these values. The values are:

- It is a family company. Each of their employee consider themselves as a member of this family
- Have passion for sea, for this industry
- Continuous evolution in business is one of their core values which helps them to be consistent
- Care for people means care for employee, care for customers which represent them as a customer-oriented company.
- MSC believes in equal opportunity.

Many captains, manager, crew members are still with MSC group which represent their values. In Brazil, one vessel crew gradually becomes a director of Brazil operation which show that MSC truly believe in equal opportunity[106].

These values are present in all the MSC people including Cargo division, Passenger division and everybody who are working under MSC.

[105]MSC. (2018). SUSTAINABILITY REPORT. Page 24.
[106]Ibid, Page 25.

❖ **MSC's Empire at a glance:**

In early stage, MSC was the liner shipping company but gradually they become a group of companies. Over the years they strategically invest in many sectors and gradually created a group of companies.

- **Cargo Division:** Under cargo division MSC operates:

i. **MSC** – a global leader in shipping and logistics. 520 vessels, 200 routes, 500 ports, 21 million TEUs carrying annually, 493 offices, and operated in 153 countries.
ii. **TiL – Terminal Investment Limited**; one of the largest terminal investors and operators. Invested in 62 terminals around the globe, 2 Greenfield terminals, and 34 million container moves per year.
iii. **MEDLOG – transport and logistics service**; operating in 70 countries, have 150 operating yards and 3.5 million TEUs transported by road, barge, and rail.

- **Passenger Division:** Under the passenger division they have:

i. **MSC Cruise** – the world's largest privately-owned cruise company; it has 17 modern and technologically advanced cruise ships, operating in 81 countries with 3845 port calls.
ii. **GNV** – a shipping company operating as coastal navigation, cargo, and passenger transport in the Mediterranean Sea.
iii. **SNAV** – a ferry service that has 25 ferries, operating in 17 routes with 17 port calls.[107]

[107] Introduction to the MSC Group, Retrieved from www.msc.com, 15th of April 2023, 00:13 am.

❖ **Organizational chart of MSC :**

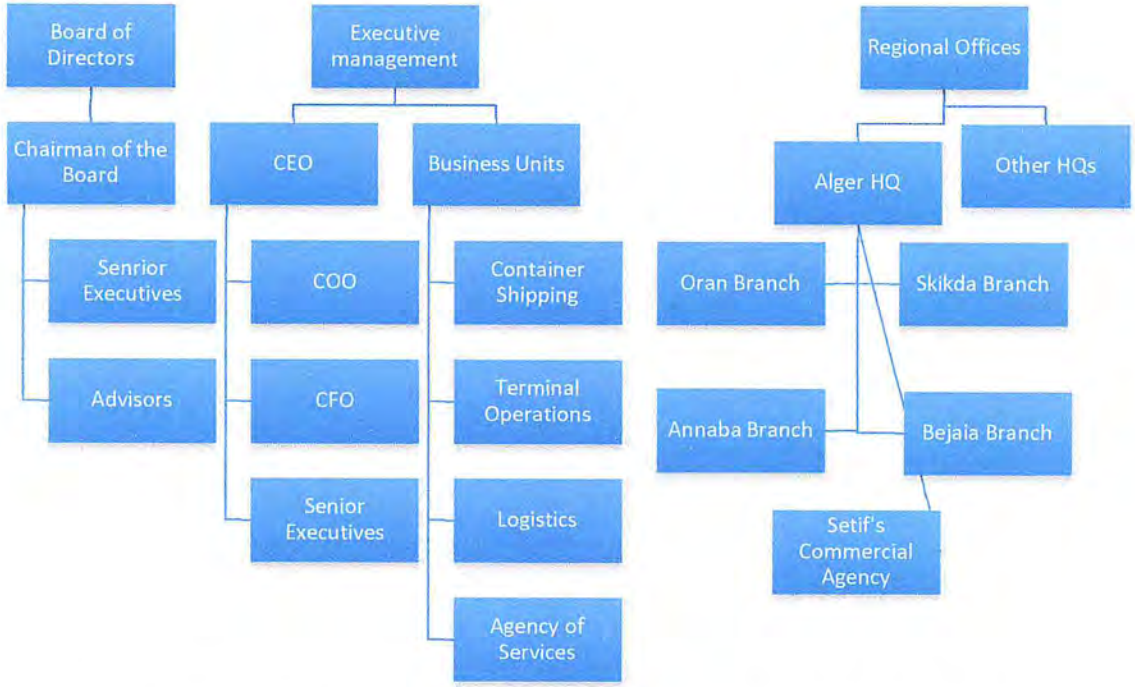


Chart 2. Organizational Chart of MSC (including Alger Headquarter).

4. MSC in Algeria:

Under Algerian law, created in June 2000, **MSC.Algeria** is the result of a partnership with the Swiss ship-owner MSC, and is involved in the consignment of ships.[108]

The **MSC.Algeria** Headquarter is located in Algiers and has a network made up of six agencies located in the main Algerian ports of Algiers, Oran, Bejaia, Jijel, Skikda and Annaba. A commercial agency is also operational in Sétif to cover the eastern region and the highlands.

The MSC group in Algeria also includes the Maghrebian logistics operator Transports & Auxiliaries (MTA) has more than 2,000 employees, including over 2400 within MSC.A.

The market has continued to grow since the creation of the company thanks to the quality and diversity of the service.

[108] Internal Document-The Mediterranean Shipping Company www.msc.com

In order to develop and control the quality of the services offered, MSC.A has invested considerably in infrastructure and human resources by training experienced and available staff to respond to the full range of services.

As a shipping agent, the profession requires continuous adaptation to the requirements induced by the changing needs in the container shipping market and those of its rapid change in Algeria.

With this in mind, we have developed an attractive range of services downstream of the maritime circuit, materialized by the creation of dry ports in Algiers and Oran.

The two dry ports in Algiers (EL HAMIZ & OUED BRICK) and that of Oran (EL SENIA) are managed by the Maghrebian logistics operator Transports and Auxiliaries (MTA) which provides a full range of services dedicated to goods ranging from management of containers under hoist, until their pos-routing in the warehouses of the customers.

The MSC-Algiers Headquarter, is located in Cooperative El-Nahar No. 11 Cité Les Sources - Bir Mourad Rais, ALGER – DZ - 16050 ALGERIA

The MSC- Bejaïa Agency, is located - City of the MOUHOUBI brothers Promotion ABBOU- Quartier Seghir, BEJAIA – DZ - 06000 ALGERIA

The Bejaïa agency was incorporated in 2002 as the group's local maritime agency. It is composed of 32 workers and 7 departments, whose general management of Algeria is located in Algiers.[109]

[109] Internal Document- MSC www.msc.com

❖ **Organizational structure of Bejaia'sBranch :**

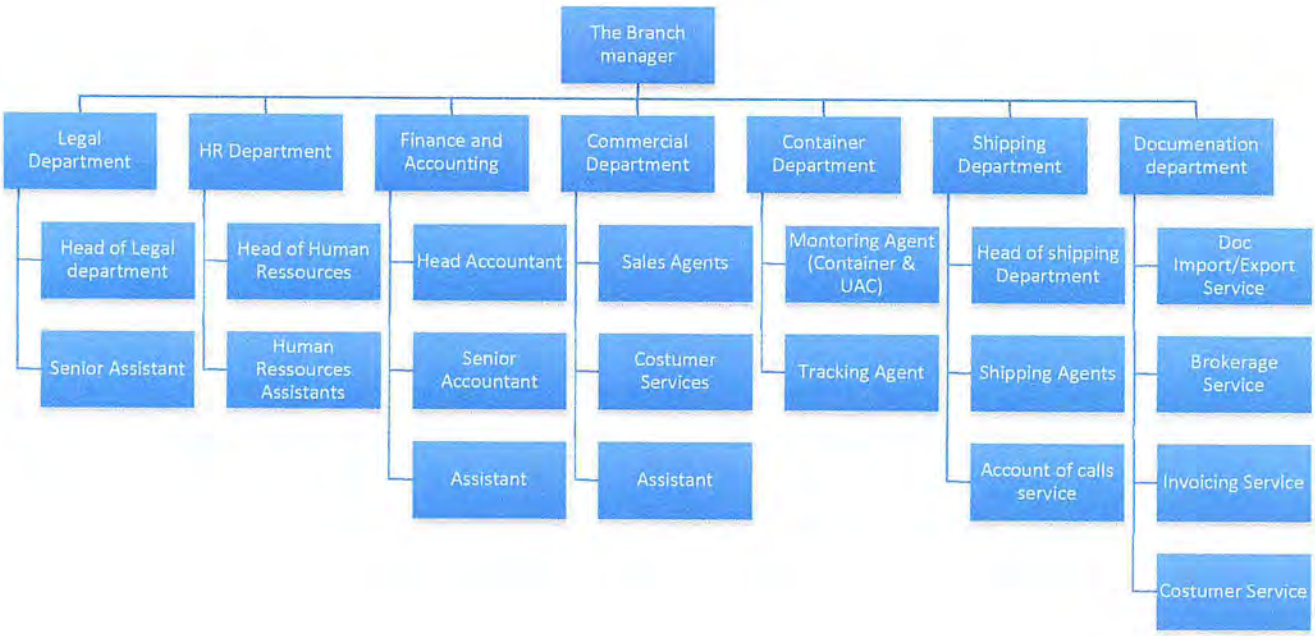


Chart 3. Organizational structure of Bejaia's Branch.

Section 02: MSC's Experience, Worldwide & local strategies, and Measures:

The framework of the study: "Interview":

In this study, I collected the necessary information and data through a physical interview with both the head of the commercial department and the head of the shipping department at MSC.A Bejaia's branch.

After questioning (Questions in Appendix 1) the two employees about the pandemic impact on MSC's services and shipping, Including its strategy to mitigate this impact. I've come to the following conclusions:

The Experience of the Mediterranean Shipping Company:

The spread of COVID-19 is an unprecedented global health issue, which has triggered unexpected shocks for societies and economies. The Mediterranean Shipping Company has continued to implement health protection measures to mitigate the risk to its crew and its employees worldwide and to help curb the spread of the virus.

The Company has enacted established business continuity plans and switched to telecommuting for office-based employees in most countries, all of which has helped to limit disruptions to global supply chains.

1. MSC's strategy Worldwide :

In this part, We will take a look at the Mediterranean Shipping Company's strategy and followed measures in a worldwide aspect.

- **Speed of reaction:**

One of the biggest lessons from the first half of 2020 was the importance of acting quickly and with conviction. As soon as reports of the outbreak were received in January 2020, the Mediterranean Shipping Company immediately implemented robust health protection measures across its ships, infrastructure, and offices, in line with guidance from the World Health Organization and in compliance with the recommendations of national authorities.

The Company was also swift to implement a global ban on business travel and to cancel visits to headquarters from colleagues, customers, and suppliers from end-January 2020.

- **Telecommuting (Remote work) :**

According to a new instruction from headquarters, international meetings would be held via videoconferencing and this instruction has remained in place since then. Since the start of the pandemic, the Mediterranean Shipping Company has seen a record number of staff working in an agile way using technology and, in many instances, working from home.

This began in January in offices in China, then extended to headquarters in Geneva and many locations worldwide including Algerian headquarter and branches. Shifting to telecommuting is part of the established business continuity plans, and this experience demonstrated, to some extent, that these processes worked.

However, this form of staff deployment resulted in new experiences in implementing company plans. There has been some new understanding of the value of videoconferencing. For many, the crisis triggered advancement in skills and knowledge with regard to videoconferencing and the efficient use of online workspaces. Guidance on taking care of one's health, while keeping up productivity levels, was regularly shared across all company agencies.

In addition, the global intranet was used to disseminate information and news about the pandemic. The Mediterranean Shipping Company aims to emerge from the pandemic with a

heightened internal awareness of the benefits of the use of digital tools and, as a result, greater resilience given any business continuity shocks in future.

- **Operational flexibility:**

Implementing existing business continuity plans ensured that operations and customer service could continue, while company staff avoided travel and practiced confinement or physical distancing. In China, for example, the Mediterranean Shipping Company maintained operations by shifting certain functions to other offices and relying on the support of shared services centers in other regions, as part of a plan determined before the pandemic. Preserving close contacts and relationships with customers was essential.

The challenge of maintaining contact with customers without face-to-face meetings was easily overcome, as most customers were in the same situation in terms of telecommuting.

In addition, the Company worked continuously to adapt contingency plans and regularly advise customers of the online booking platform **myMSC** on how to manage changes, relying on its internal information sharing system to collect data from 155 countries.

Digitalization has been slow to be adopted in container shipping. Only recently have significant changes begun to take place in documentation and booking processes, the incorporation of electronic business tools and the online connectivity of equipment.

The case for investing in digital platforms and processes has become clearer and more compelling, even if the availability of funds for such investments may be affected in the short term by the impact of the pandemic on trade.

- **Essential workers:**

In addition to maintaining services to support cargo flows, supporting employees that could not easily telecommute was a challenge. Seafarers were among the groups of workers most significantly affected by the pandemic, due to border closures and other restrictions on movement, which led to long shifts at sea.

Among the necessary measures introduced at the height of the crisis in certain countries, ships in the Mediterranean Shipping Company fleet of 550 vessels were equipped with personal protective equipment (PPE). In addition, new company policies restricted crew from going ashore at ports.

The most significant impact on seafarers were the restrictions by Governments that limited crew changes on ships in many ports worldwide. In this regard, the Company extended contracts for container shipping crew and provided social and financial support in relevant cases to help mitigate the challenges for crew at sea and to facilitate crew changes in support of seafarers and

their families. Governments that took steps to designate seafarers as key workers, in line with a request from IMO, made a positive difference in the situation.

As a company founded by a ship captain, the Company places a high value on the contribution of seafarers to its business and aims to ensure that the key role of seafarers in the economy and their contribution to well-functioning societies may be better understood. A similar label of importance and expression of gratitude should be directed, by policymakers and the general public, to employees at port terminal depots and warehouses, as well as the drivers of trucks, trains, and barges carrying containers, who have continued to work during the pandemic as and when permitted under national rules.

- **Adapting services:**

To help ensure the minimum level of disruption to customers, the Mediterranean Shipping Company adapted its shipping services networks to help companies ship goods more easily. The sudden slowdown in trade resulted in necessary reductions in the capacities of container shipping networks in order to match the lower level of demand for cargo shipments. However, subsequent rebounds in trade flows following the easing of lockdown measures underscored the importance of flexible network management.

In the first half of 2020, the Company helped shippers use its short-sea shipping networks, in Europe in particular, as a reliable alternative to road transport. This helped mitigate later delays at border crossing points on land that were due to restrictions on movement.

The Company also introduced a **suspension of transit(SoT)** [110]program for container shipping at dedicated trans□shipment hubs, as follows: Bremerhaven, Germany - PSA Panama International Terminal - Port of Busan, Republic of Korea - King Abdullah Port, Saudi Arabia - Port of Lomé, Togo - Asyaport, Tekirdağ, Turkey. This program provided for flexibility and substantial cost savings as it enabled shippers to better control storage costs at the point of booking, while allowing them to adapt the delivery date to their needs. It also helped minimize congestion at ports of discharge and improve efficiency, as products were placed closer to distribution networks. (See Box 1).

One of the lessons learned from the crisis is to innovate not only through the provision of new services and storage solutions, but also by employing solutions from past incidents, such as reintroducing a discontinued service to help enable the partial recovery of cargo volumes on a particular route.

[110]Suspension of Transit program, retrieved from www.msc.com/sot 21th April 2023, 04:08 pm

- **Keeping the world Moving:**

Despite the difficult operating conditions during the pandemic, the Mediterranean Shipping Company, as a major shipping and logistics services provider, has contributed to ensuring the high priority transport of essential goods such as food, agricultural products, raw materials and medical equipment. Container shipping lines and their customers have a crucial role in the global economy and in enabling well-functioning societies.

In future, the Company aims to strengthen business continuity planning and the technology and processes related to telecommuting and digitalization, as well as to raise awareness of the essential role of all personnel in container supply

- **Vessel Rerouting:**

Since shipping lines started deploying greater tonnage to the profitable East–West, trans-Pacific, and transatlantic trade lanes. MSC shifted some **13,000-TEU**-capacity vessels from African trading routes in favor of the Pacific. [111]

The primary reason behind the shift was the high revenue earned along the East–West trade routes. This increase has been higher than rate indexes estimate, as spot rates do not include the premiums that shippers are willing to pay to secure a booking guarantee. With historic port bottlenecks compounded by a surge in freight rates and less service shipping operations, African shippers faced more challenges in liner services.

In addition, routes between Asia and North America attracted extra tonnage with impressive capacity growth that did not match actual cargo growth. Carriers needed much more tonnage as ships were delayed in congested ports in both the United States and Asia.

2. MSC.A Strategy in Algeria :

Like in any other regional office, MSC.A followed the headquarters instructions regarding mitigations measures, following the measures imposed by the Algerian Government.

MSC.A applied similar measures as other international offices and sent instructions to national branches through direct emails to the directors and employees as well, here we find several measures followed by MSC.A :

[111] COVID-19 and Maritime Transport, Report : Navigating the Crisis and Lessons Learned, Page 36.

- **Telecommuting (Remote Work) :**

Due to the headquarters instructions, **MSC.A** ordered employees to stay home and work from home, this helped with avoiding contamination cases and decreasing the staff in offices.

Unfortunately, this wasn't an option for everyone, staff from departments as the Shipping department has in field work that cannot be done remotely, **The head of Shipping Department** explained how he still had to the ports and do his daily in-field tasks regarding the supervision of port operations and procedures during ships arrival and cargo loading and unloading, but for the statistic and administrative tasks, he could do them from home without having to stay in the office,

However, Other essential employees were needed to do in-office tasks following a weekly rotation shifts program, Both in-office and in-field employees were obligated to follow the sanitary measures related to the use of personal protection equipment, physical distancing and respecting the protocol of interactions between personnel , As well as the disinfection of offices and all facilities in daily basis. [112]

- **Operational measures :**

MSC.A operations in Algerian Ports were all processed by following the World Health Organization measures, International Maritime Organization instructions and Algerian Government's policies.

Before ship arrival in the port, And while the ship is still queuing for it turn outside of the port, A small team from the Port's medical center approach the ship in queue and test the crew for any possible contamination, if there's any cases, the whole crew get quarantined for 15 days-able to be prolonged following the WHO and Algerian Gov instructions.

However, whether the crew is contaminated or not, the cargo will be discharged in both cases in order to mitigate the supply chain disruptions and shipments delays.[113]

Algerian Port Authorities applied the rules and recommendations established by the Ministry of Health when defining the protocols for both internal and external operations. Also recommendation related to the use of personal protective equipment, the maintenance of physical distancing and the disinfection of all installations, as well as the establishment of protocols for interactions between personnel.

[112] Head of shipping department's Testimony, personal interview 20th April 2023 9:21 am.
[113] Ibid.

3. Key barriers due to the pandemic:

As was discussed in the previous chapter, COVID-19 had a huge impact on the maritime industry in general causing serious problems and delays in shipments,

In this part we will recall the key barriers related to shipping with the testimony of the **head of Commercial Department** at **MSC.A Bejaia's branch**:

- Port Closure: China closed several of its ports in early 2020 to prevent the spread of the virus, which disrupted the movement of goods and caused delays in the global supply chain

- Disruption in global supply chains: reduced demand for goods in some countries led to reduced exports, while factory shutdowns and other restrictions led to reduced production and supply. In addition, some countries restricted the movement of goods across their borders, which led to delays and increased costs for shippers and importers.

- Crew change: Many countries imposed restrictions on crew changes to prevent the spread of the virus. This led to crew shortages and fatigue, as crews had to work longer than usual hours due to the difficulties in changing over.

- Wide range quarantine measures: leading to shutdowns of many factories, and suppliers and reducing workers in ports causing more delays and disruptions in the supply chain.

- Reduced capacity: Ports implemented social distancing measures, which reduced the number of workers who could work at the same time **"The number of workers decreased from 2000 to 200 which caused so much delay in port operations such as logistician and administrative operations. "**[114]This led to longer dwell for ships at ports **"The waiting time expanded from 48 hours to days and over weeks in some cases."**[115]and increased costs for shippers and importers, as they had to pay for additional storage and transportation to deal with the delays.
- Increased costs: The pandemic led to increased costs for maritime trade, as shipping companies had to pay for additional measures to prevent the spread of the virus, but these costs were passed to clients and final consumers after all.

[114] Head of Commercial department's testimony, personal interview 20th April 2023, 9:24 am.
[115] Ibid.

- Reduced demand : many countries implemented lockdowns and other measures to prevent the spread of the virus, which led to reduced economic activity and reduced demand for goods.**"This resulted in a decline in exports and imports. And had further impacted MSC's shipping volumes and revenue. "**[116]

- Vessel delays and detentions:COVID-19 restrictions led to delays and detentions of vessels, particularly those with crew members who had tested positive for the virus. This led to additional costs for shipping companies and importers.

According to the **head of the Commercial Department**, there was also a really serious shortage of equipment such as containers due to the lockdown in China due to covid-19, As we know China is the world's factory and the biggest trade partner in the world, due to the covid-19 lockdowns that were applied in China before the rest of the world, there were so many trapped containers stuck in Chinese ports,

Plus the delay of ship rotations has been prolonged from 20 days to over 60 days sometimes due to port closures and crew quarantine measurement **(longer transit time)** even the containers that were available for utility have been occupied for weeks. Causing a worldwide disruption in shipping and following up with the high demand for sanitary, medical, pharmaceutical, and Phytosanitary products, Including other strategic products such as agricultural and food products. This high demand and low offer of products and shipping availability caused even more serious problems such as piracy.

All of this caused even more demand from MSC and other shipping companies for container production, which led to higher container prices causing even higher shipping costs.

The containers shortage was felt more after the lockdown by mid-2021 when the restrictions were eased and governments were no longer applying quarantine measurements, countries begin to reopen their economies and consumer demand increased., MSC has reported an increase in demand for its services, particularly in the container shipping sector, this high demand where stumbled by container availability and high container prices, which lead to sky rocking freight rates.

[116] Head of Commercial department's testimony, personal interview 20th April 2023, 9:34 am.

4. Freight Rates change due to COVID (in Algeria):

After studying a case of a client of MSC.A, who has been casually importing raw materials from China for his local business, I've managed to collect enough data on the freight rate change from 2019 until the current period of 2023.

4.1 Presentation of the company :

Company **X** is a local company located in **Setif**, The company manufactures custom packaging for several products of other companies.

The company usually imports a special type of cardboard for certain packages, This cardboard is under the name**"A3 cenere cardboard"**, the company usually order these raw materials at least twice a year, depending on the demand.

In this case, we will observe and study different orders of this product based on the data provided from the past 5 years, and analyze how the shipping rates changed due the pandemic of COVID-19.

4.2 Company's orders:

2019: In the 10th of April 2019, The company X ordered a quantity of **76 700 KG**, Shipped in 4 containers of 40"ft, From the port of **Qingado** in China to the port of **Bejaia-Algeria**. the freight cost for this operation was exactly **110 521,36 DZD**. (see Appendix 2).

2020 : In the 4th of April 2020, The company X ordered a quantity of **97 600 KG**, Shipped in 4 containers of 40"ft, From the same port in China to the port of **Bejaia-Algeria**. The freight cost for this operation was exactly **891 771,56 DZD.**(see Appendix 3).

2021 : In the 12th of February 2021, The company X ordered the quantity of **90 600 KG**, Shipped in 4 40"ft containers. From the port of **Qingado** in China to the port of **Bejaia-Algeria**. The freight cost of this operation was exactly **1 140 121,36 DZD**. (see Appendix 4).

2022 : In the 14th of February 2022, The company X ordered the quantity of **91 700 KG**, Shipped in 4 containers of 40"ft, From the usual port in China to the port of **Bejaia**, The freight cost was **423 649,36 DZD**.(see Appendix 5).

2023 : In the 12th of April 2023, The company ordered the same quantity of **96 764 KG**, Shipped in 4 40"ft containers as usual, from the same port **(Qingado)** to the same destination **(Bejaia)**. The freight cost of this operation was exactly **207 545,36 DZD**.(see Appendix 6).

The following table provides details including the unitary price for each operation :

Chart 4. Company's orders by year and freight rates by unit (1KG) :

	2019	2020	2021	2022	2023
Quantity (KG)	**76 700**	**97 600**	**90 600**	**91 700**	**96 794**
Freight Rate (DZD)	**110 521,36**	**891 771,56**	**1 140 121,36**	**423 649,36**	**207 545,36**
Unitary freight rate DZD/1KG	**1,44**	**9,13**	**12,58**	**4,61**	**2,14**

❖ **Comment:**

As we can see, the table show noticeable changes in shipping costs for the company X's orders through the past five years. In 2019, the unitary freight rate was 1.44 DZD per kilogram, Resulting a total shipping cost of 110.521,36 DZD for 76 700KG.

The subsequent years demonstrate varying trends in shipping costs. In 2020 the overall shipping cost for the company in 2020 was 891.771,56 DZD for 97 600KG, Resulting the unitary freight rate to significantly increase to 9.13 DZD per kilogram.

In 2021, The shipping cost continued to rise even while the quantity of orders decreased slightly compared to the previous year 90 600KG was shipped for exactly 1.140.121,36 DZD, Causing the unitary freight rate to reach the peak of 12.58 DZD per kilogram.

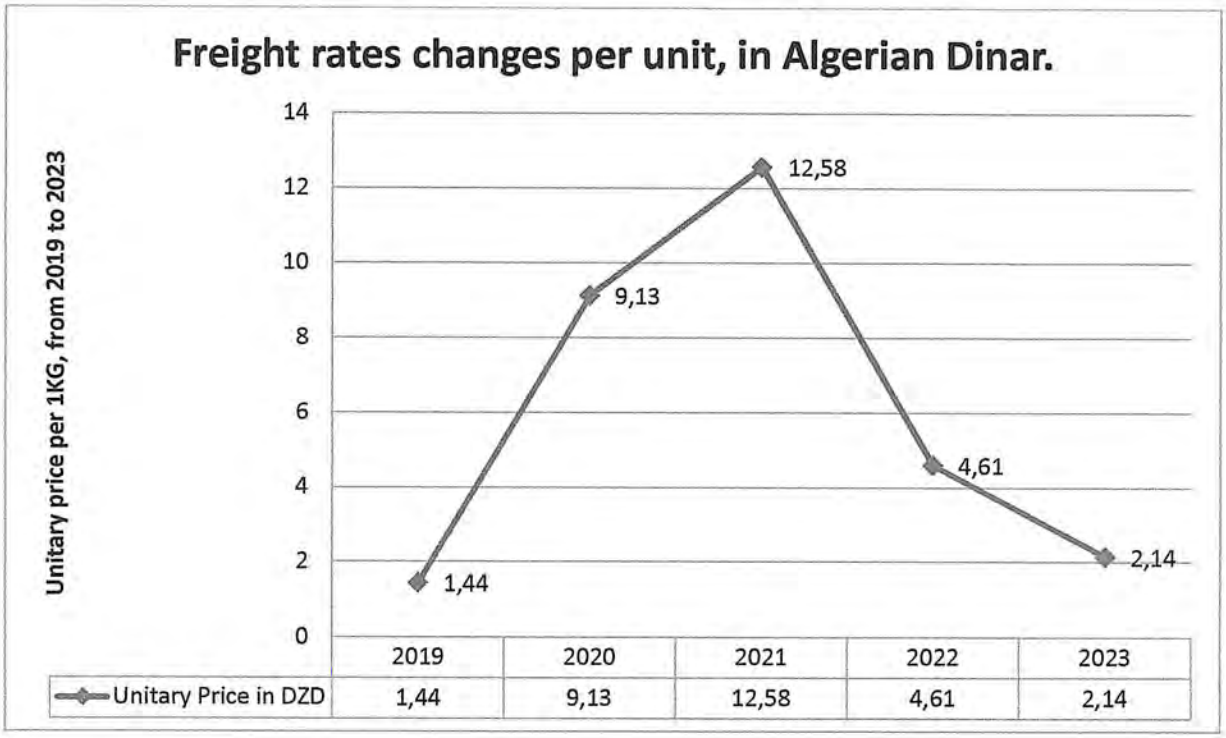
However, in 2022, although the quantity of orders increased compared to 2021, The total shipping cost decreased to 423.649,36 DZD for the quantity of 91 700KG, Resulting in a decrease in the unitary price to become 4.61 DZD per kilogram.

Finally, in 2023, the total cost decreased more despite the increase of quantity ordered by the company, 207.545,36 DZD for 96 794K, so the unitary freight rate further decreased to 2.14 DZD per kilogram.

4.3 Freight rates from China to Algeria:

Based on the calculated unite price from **Chart4**, the following graph shows the changes in unitary prices each year.

Graph 1. Freight rates changes per unit in Algerian Dinar.



❖ **Analysis:**

Back in 2019, The global economy experienced moderate growth, characterized by steady trade flows and efficient supply chains. Shipping companies were likely operating within optimal capacity, and the market competition may have contributed to the lower costs, the relatively low shipping cost of **110.521,36 DZD** indicates a period of stability in container ship transportation.**(See Chart 4).**

In 2020 we notice a substantial increase in shipping costs up to **891.771,56 DZD**,with a percentage change of approximately **534.72%**compared to the previous year. This surge was the impact of the imposition of trade restrictions and disruptions caused by the COVID-19 pandemic. Many countries implemented lockdown measures, border closures, and travel restrictions to contain the spread of the virus. These measures had a profound impact on global trade, leading to reduced shipping capacity, congested ports, and logistical challenges. The limited availability of shipping

options, shortage of shipping capacity and increased demand for essential goods (agricultural and food products) and medical supplies resulted in higher shipping costs for companies importing raw materials or any kind of goods and materials.

As the pandemic continued into 2021, Shipping costs further escalated to **1.140.121,36 DZD.** although there was a further increase in shipping costs, the rate of increase slowed down compared to the previous year. This can be partially attributed to adjustments and adaptations made by the logistics industry to mitigate the impact of trade restrictions (As mentioned earlier in this chapter). Efforts were made to streamline supply chains, implement health and safety protocols, and enhance coordination among various stakeholders. However, trade restrictions, including import/export regulations, testing requirements, and quarantine measures, continued to affect shipping costs to some extent.

By 2022, as global trade began to recover and countries started easing trade restrictions, shipping costs started to decrease significantly. shipping costs for the company's raw materials decreased to **423.649,36 DZD** reflecting the positive effects of the relaxation of trade barriers and the restoration of more stable supply chains. As economies gradually managed the pandemic's effects and implemented measures to restore supply chains, shipping operations became more efficient with improved coordination and adjustments made by shipping companies, ports, and governments, the shipping capacity increased, and the costs for imports decreased.

In 2023, the trend of declining shipping costs continued, marking a further decrease in shipping costs to **207.545,36 DZD** indicating a continued recovery and stabilization in container ship transportation. As vaccination efforts progressed and countries further eased trade restrictions, the impact of COVID-19 on global trade diminished. The restoration of relatively normal trade conditions, along with improved logistics efficiency, contributed to the reduced shipping costs for importing raw materials. Additionally, increased competition among shipping companies might have contributed to the decline in costs. But still after this recovery, shipping costs during 2023 remain **48.61%** higher than in 2019, which proves that international trade is still affected by the pandemic despite the recovery, not forgetting to mention the current war between Russia and Ukraine which can also be causing effects on the maritime industry.

In summary, the imposition of trade restrictions due to the COVID-19 pandemic had a profound impact on shipping costs. The initial disruptions and limitations in global trade resulted in significant increases in shipping expenses. However, as trade restrictions eased as the pandemic faded away gradually and the logistics industry adapted to the new circumstances, shipping costs gradually decreased, reflecting the recovery and stabilization of global trade.

- The years 2019 and 2020 experienced significant increases in shipping costs, primarily driven by the global disruptions caused by the COVID-19 pandemic.

- The year 2021 demonstrated a continued but relatively slower increase in shipping costs as the logistics industry and global trade began to recover.
- The years 2022 and 2023 witnessed significant reductions in shipping costs, reflecting the recovery and stabilization of global trade, improved logistics efficiency, and greater shipping capacity.

Note: It is important to note that additional factors such as exchange rates, regional conflicts, fuel prices, and regulatory changes could also influence shipping costs.

Section 03: Recommendations to consider in the future:

2.1 Recommendations for MSC:

General recommendations for the Mediterranean Shipping Company to consider in the future:

- **Diversify Trade Routes and Markets:**

  Explore opportunities in emerging markets and diversify trade routes to reduce reliance on specific regions. This can help mitigate the impact of regional economic or geopolitical disruptions and provide new avenues for growth.

- **Strengthen Collaboration and Partnerships:**

  Strengthen collaboration and information-sharing with suppliers, customers, and logistics partners to improve visibility across the supply chain. This can help identify potential bottlenecks, predict trade restrictions, and develop plans to minimize disruptions.

- **Strengthen Relationships with Customs Authorities:**

  Build strong relationships with customs authorities in different countries to facilitate smoother clearance processes and minimize delays caused by increased scrutiny. Engage in open communication, provide necessary documentation promptly, and leverage technology to streamline customs procedures.

- **Invest in Digital Trade Solutions:**

  Embrace digital trade solutions to streamline documentation processes and reduce reliance on physical paperwork. Implement electronic documentation systems, digitize trade-related documents, and explore platforms that facilitate electronic customs clearance and trade facilitation.

- **Monitor and Adapt to Regulatory Changes:**

  Stay updated on international trade regulations and restrictions imposed by various countries. Establish a dedicated team to closely monitor changes in customs regulations, tariffs, and non-tariff barriers to ensure compliance and adapt supply chain strategies accordingly.

- **Risk Management and Contingency Planning:**

  Develop robust risk management strategies and contingency plans to address potential disruptions and crises. Regularly assess weaknesses and implement measures to mitigate risks related to geopolitical, regulatory, and health-related factors. And establish alternative routes, suppliers, or transportation modes to minimize disruption to the supply chain.

- **Engage in Industry Advocacy:**

  Participate in industry associations and engage in advocacy efforts to promote the easing of trade restrictions and facilitate smoother international trade. Collaborate with other stakeholders to highlight the importance of open trade and advocate for policies that support global supply chain resilience.

❖ **Finally, it's up to MSC's experts, strategy builders and risk managements teams to develop better recommendations for the company's strategy to meet with the company's tailored goals and priorities.**

2.2 Recommendations for the Client:

Based on the analysis of the shipping costs and their relation to global events and trade restrictions, here are some recommendations for the company to consider in the future:

- **Diversify Suppliers, Market base and Transportation Modes:**

  To mitigate the impact of potential disruptions and swings in shipping costs, the company should consider reducing dependence on a single source or market by diversifying suppliers and exploring new markets. Identifying alternative suppliers that use alternative routes of shipping such as air freight, or regions that are less prone to trade restrictions will help mitigate the risk of disruptions caused by localized lockdowns or export/import restrictions.

- **Establish Long-Term Contracts and Relationships:**

  The company should establish and maintain strong communication channels with suppliers, freight forwarders, and logistics partners. Regularly exchange information on changing regulations, logistics challenges, and potential trade disruptions. Collaborate closely to develop contingency plans and alternative shipping routes to adapt to changing circumstances. Building strong relationships with key partners in the logistics industry can provide benefits such as priority access to capacity and potential cost-saving arrangements.

- **Explore Local or Regional Sourcing Options:**

  Evaluate the feasibility of sourcing raw materials locally or regionally to minimize reliance on long-distance shipping. By sourcing materials closer to the company's location, the company can potentially minimize the impact of international trade restrictions on shipping costs and lead times

- **Leverage Free Trade Agreements (FTAs):**

  Explore the utilization of existing or new Free Trade Agreements to reduce trade barriers and facilitate smoother cross-border transactions. FTAs can provide preferential treatment, tariff reductions, or streamlined customs procedures, which can help mitigate the impact of trade restrictions and lower shipping costs.

- **Implement Robust Risk Management Strategies:**

Develop comprehensive risk management strategies to address the uncertainties associated with international trade restrictions. This can include conducting thorough risk assessments, identifying alternative sourcing options, maintaining buffer stock, and establishing backup suppliers or logistics routes to ensure continuity in the supply chain.

- **Stay Agile and Flexible:**

Maintain agility and flexibility in the supply chain to adapt quickly to changing trade restrictions. Continuously assess and optimize supply chain processes, shipping routes, and inventory management practices to minimize the impact of disruptions and ensure efficient operations.

- **Monitor Trade Restrictions and Regulations:**

The company should stay updated on the evolving trade restrictions and regulations imposed by various countries or regions. Monitor changes in import/export policies, customs procedures, and quarantine measures. This will help the company anticipate potential disruptions and adjust its shipping and supply chain strategies accordingly.

❖ **Finally, it's important to note that these recommendations shouldn't be necessary applicable or suitable for the company's strategy, and it needs to be tailored to the specific circumstances and needs of the company.**

“Conclusion”

Conclusion:

In conclusion, in this thesis we went through the generalities of maritime transport exploring its crucial role through history, Types of trade restrictions and the impact of Covid-19 related trade restrictions on the maritime industry and the main challenges it imposed for international trade and major shipping companies, finally involving the experience of MSC Algeria and how the company responded to the challenges and barriers imposed by trade restrictions due to COVID-19, Including a real case study to observe the experience one of its clients and how did those trade restrictions effect on the shipping expenses.

The historical overview of maritime transport has highlighted its crucial role in shaping global trade and economic development over the centuries. It has been established that maritime transport has been a key driver of globalization, enabling the movement of goods, fostering international trade, and connecting nations across vast distances. Understanding the historical context provides a foundation for comprehending the industry's evolution and its enduring significance.

Furthermore, the Covid-19 pandemic has unleashed unprecedented challenges on the maritime industry and international trade. The imposed trade restrictions, lockdowns, and disruptions in supply chains have severely impacted global logistics networks and maritime transport operations. Freight prices have experienced volatility, while port congestion and vessel delays have become prevalent issues. The pandemic has necessitated the adoption of innovative strategies to mitigate risks, ensure business continuity, and safeguard the well-being of seafarers.

The specific case study of MSC Algeria has offered valuable insights into the experience of a prominent shipping company during the pandemic. MSC's implementation of worldwide and local strategies, including enhanced safety protocols, remote working arrangements, and digitalization efforts, has showcased the importance of adaptability and proactive measures. By swiftly responding to evolving market demands and ensuring uninterrupted services, MSC Algeria has demonstrated resilience in the face of adversity.

Building upon the findings of this study, several recommendations can be made for stakeholders in the maritime industry. Firstly, there is a need for increased collaboration and information sharing among governments, shipping companies, port authorities, and international organizations to address common challenges and facilitate smoother operations during crises. Developing standardized protocols, contingency plans, and risk management frameworks can enhance preparedness and response capabilities. Secondly, investing in digitalization and automation technologies can enhance efficiency, optimize logistics processes, and enable remote operations. Embracing technologies such as data analytics can streamline documentation, improve supply chain visibility, and enhance decision-making capabilities. Lastly, fostering a resilient workforce is of paramount importance. Prioritizing the welfare and well-being of seafarers, and ensuring access to medical support, mental health services, and fair labor practices are essential. Efforts

should be made to address crew rotation challenges, improve training programs, and promote career development opportunities to attract and retain skilled professionals in the industry.

In conclusion, this thesis has contributed to a deeper understanding of maritime transport, the impact of Covid-19 on the industry, and the experience of MSC Algeria by examining the historical context, pandemic-induced challenges, and strategic responses. This study provides valuable insights for academics and industry practitioners. It is hoped that the findings and recommendations presented here will guide future research, policy formulation, and decision-making processes aimed at strengthening the resilience, efficiency, and sustainability of the maritime industry in the face of evolving global challenges.

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Notes:

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[1]The trend estimation and extrapolation uses a Theta model. This method fits a simple exponential smoothing (SES) model to monthly data between January 2010 to December 2019 (the log-likelihood estimate of SES smoothing parameter is 0.74) and then extrapolates the trend for all months from January 2020 onward using a weighted average (the weighting parameter theta is set to 2) of the SES and a linear time trend (the OLS estimate of the time coefficient is 0.23).

[1]Data include intra-regional trade

[1]Supply data refer to total capacity of the container-carrying fleet, including multipurpose and other vessels with some container-carrying capacity. Demand growth is based on million TEU lifts.

[1]The CCFI tracks spot and contractual freight rates from Chinese container ports for 12 shipping routes across the globe, based on data from 22 international carriers.

[1]Supply data refer to total capacity of the container-carrying fleet, including multipurpose and other vessels with some container-carrying capacity.

[1]The CCFI tracks spot and contractual freight rates from Chinese container ports for 12 shipping routes across the globe, based on data from 22 international carriers.

[1]The New ConTex is based on assessments of the current day charter rates of six selected container ship types, which are representative of their size categories: Type 1,100 TEUs and Type 1,700 TEUs with a charter period of one year, and Types 2,500, 2,700, 3,500 and 4,250 TEUs with a charter period of two years. Index base: October 2007 – 1,000 points.

[1] Original Value in EUR – Conversion rate 31 December 2021. Assumption: EBIT = Operating Income (for HMM & Evergreen Marine Corp). Original Value in Chinese Yuan – Conversion rate 31 December 2021.

Abbreviations: EBITDA: earnings before interest, taxes, depreciation and amortization and EBIT: Earnings before interest and taxes.

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Box 1. Suspension of Transit (SoT) :

MSC Mediterranean Shipping Company's new **"Suspension of Transit" (SOT)** program is a flexible cargo service that helped to fulfill the imminent resumption of demand from Asia and ensure service continuity. It includes container yard storage in six transshipment hubs across Asia, the Middle East, Europe, Africa and the Americas, ensuring that goods can be shipped close to their destinations as soon as possible and providing easier cargo flow for customers. MSC notes that:

- China has shown signs of recovery with factories restarting production
- The new SOT program will help avoid high storage costs at ports of discharge

As part of its ongoing response to the impact of COVID-19, MSC Mediterranean Shipping Company, a global leader in container shipping and logistics, has developed a Suspension of Transit (SOT) container shipping program to prepare for a recovery in demand for freight services once the impact of the pandemic eases. The program builds on MSC's ongoing efforts to ensure business continuity and the maintenance of vital container carriage services, such as the movement of food, fresh produce, medical equipment and other essential goods. The new SOT initiative is focused in particular on a resumption of demand of a wide variety of goods from Asia.

Signs of recovery

While positive signs of recovery have begun to emerge in Asia and factories have restarted production, major ports of destination were still not ready to discharge containers. MSC's new SOT program aims to fulfill the resuming demand for raw materials and finished products from Asia by providing yard storage at major strategic points around the world: Bremerhaven in Germany, Busan in South Korea, King Abdullah Port in Saudi Arabia, Lome in Togo, Rodman PSA Panama International Terminal in Panama, and Tekirdag Asyaport in Türkiye. The program is aimed at all shippers for containers from Asia and all types of cargo, except reefer (refrigerated cargo), dangerous goods and project cargo (such as large, out-of-gauge pieces of heavy equipment that do not normally fit into containers).

Cost savings

The MSC SOT program provided potential cost savings for customers faced with high warehousing storage costs at destination, demurrage, per-diem and other charges. It also freed up space at origin factories and warehouses and avoided excess inventory at site, bringing cargo closer to destination markets and alleviating the risk of congestion or closure at ports of discharge.

The lead time will be reduced once operations resume at destination ports, and the program also added storage for beneficial cargo owners (BCOs) and non-vessel owning common carriers (NVOCCs), who would otherwise reach their full capacity.

Appendix 1: List of questions from the Interview with MSC's employee:

1. **How have commercial restrictions affected the demand for shipping services, and how has this impacted shipping costs?**
2. **Have there been any changes in the availability of shipping capacity during the pandemic, and how has this impacted shipping costs?**
3. **Have there been any changes in the types of products being shipped during the pandemic, and how has this impacted shipping costs?**
4. **How have delays caused by commercial restrictions (e.g. port closures, customs delays) impacted shipping costs, and how have these costs been passed on to customers?**
5. **Have there been any changes in the insurance costs for shipping during the pandemic, and how have these costs been managed?**
6. **Have there been any changes in the cost of leasing or purchasing shipping containers during the pandemic, and how has this impacted shipping costs?**
7. **How have changes in container shipping routes and volumes impacted shipping costs during the pandemic, and how has MSC adjusted its pricing strategy accordingly?**
8. **Have there been any changes in the frequency or reliability of container shipping services during the pandemic, and how has this impacted shipping costs?**
9. **How have changes in fuel prices or regulations impacted container shipping costs during the pandemic, and how has MSC managed these costs?**
10. **How have disruptions in the global supply chain (e.g. shortage of shipping containers) impacted container shipping costs, and how has MSC managed these costs?**

Appendix 2 : Shipping Bill (2019):

SERVICE FACTURATION

Mediterranean Shipping Company Algeria Sarl- Agence Bejaia
Agent de Consignation et Courtier Maritime
Quartier Seglm, Lot N° 91, Bejaia 06000, Bejaia
NIF:000016001303265 RC: 0013032-B-00 Art: 06 016 002773 NIS: 000016010297357
Tel :+213 34 12 52 22/24 Fax :+213 34 12 57 19
Banque :AGB 032 00197 50743001205 08 Capital: 3 000 000.00 DA

Facture N°: BJAI [redacted] /import

Date: 10/04/2019

[redacted]
Du 10/04/2019

Doit :
NIS: [redacted]

Lieu Finition: DZ BEJAIA
Ner Cont:20 0, 40 4
Poids Brut: 78 700.00 KG
Article(s): 78 STRISCE CENERE AS-CARTON (GRIS)

Désignation	P.U.(DA)	Qté	Montant (DA)	Tx TVA	Notes
Prestation Agence Import 40	22 800,00	4	91 200,00	19%	Par Conteneur
Péages	24.06	117	2 817,36	0%	Au Tonnage
Timbre sur B/L	1 000,00	1	1 000,00	0%	Par B/L
Total Frot et Taxes			3 817,36		
Total Produits			91 200,00		
T.V.A			15 504,00		
Timbre espèces			0.00		
Total TTC			110 521,36		

Listing Cntr(s) BEAU5932798(40')|CAAU5159494(40')|MSDU8398765(40')|TEMU8598324(40')|
Listing Cntr(s) BEAU5932798(40')|CAAU5159494(40')|MSDU8398765(40')|TEMU8598324(40')|

[redacted]

Apurement par Chèque N° [redacted] Du 10/04/2019, BANQUE EXTERIEURE D'ALGERIE

Transitaire: IDRES. Rampe du port Bejaia 03416 75 56

La contestation des factures emises doit intervenir dans un delai maximum de huit (08) jours calendaires (weekend et fetes legales inclus) a compter de la date de leur reception

SERVICE COURTAGE

[redacted]

Appendix 3: Shipping Bill (2020):

SERVICE FACTURATION

Mediterranean Shipping Company Algeria Sarl- Agence Bejaia

Agent de Consignation et Courtier Maritime

Quartier Seghir, Lot N° 91, Bejaia 06000, Bejaia

NIF:[redacted] RC: [redacted] Art: [redacted] NIS: [redacted]

Tel :+213 34 12 52 22/21 Fax :+213 34 12 57 19

Banque :AGB 002 00107 0074381286 08 Capital: 3 000 000,00 DA

Facture N° [redacted] Import

Date: 04/04/2020

Navire: MSC [redacted]

E[redacted] 04/04/2020

B[redacted]

Qua[redacted]

Lieu livraison: DZ BEJAIA

Nbr Cont(s):20',0; 40',4

Poids Brut: 87 600,00 KG

Article(s): 1 STRIGOE (EMERE AS-CARTON GRIS)

Doit : [redacted]

Désignation	P.U.(DA)	Qté	Montant (DA)	Tx TVA	Notes
Prestation Agence Import 40'	186 545,00	4	746 180,00	19%	Par Conteneur
Peages	24,06	117	2 817,36	0%	Au Tonnage
Timbre sur B/L	1 000,00	1	1 000,00	0%	Par B/L
Total Frot et Taxes			3 817,36		
Total Produits			746 180,00		
T.V.A			141 774,20		
Timbre espèces			0,00		
Total TTC			891 771,56		

[redacted]

[redacted]

Apurement par Cheque N: [redacted] BANQUE EXTERIEURE D'ALGERIE

Transitaire: IDRES, Rampe du port Bejaia [redacted]

La contestation des factures émises doit intervenir dans un délai maximum de huit (08) jours calendaires (weekend et fêtes légales inclus) à compter de la date de leur réception.

SERVICE COURTAGE

[redacted]

Appendix 4: Shipping Bill (2021):

SERVICE FACTURATION

Mediterranean Shipping Company Algeria Sarl- Agence Bejaia

Agent de Consignation et Courtier Maritime

Quartier Seghir, Lot N° 04, Bejaia 06000, Bejaia

NIF:000816001303265 RC: 0013032-B-00 Art: 06 016 002773 NIS: 000816010297357

Tel :+213 34 12 52 22/21 Fax :+213 34 12 57 19

Banque :AGB 032 00167 5074301286 08 Capital: 3 500 000.00 DA

[redacted]port

Date: 12/02/2021

[redacted]

12/02/2021

Qual: 22 Poste: Gros: 486

Lieu Evalsun: DZ BEJAIA

Ntr Cntr(s):20' 0, 40' 4

Poids Brut: 99 600.00 KG

Année(s): STRISCE CENEAR AS-CARTON GRIS)

Doit :

NIS:

[redacted]

RS:

[redacted]

Désignation	P.U.(DA)	Qté	Montant (DA)	Tx TVA	Notes
Prestation Agence Import 40'	242 800,00	4	971 200,00	19%	Par Conteneur
Peages	24,06	117	2 817,36	0%	Au Tonnage
Timbre sur B/L	1 000,00	1	1 000,00	0%	Par B/L
Total Fret et Taxes			3 817,36		
Total Produits			971 200,00		
T.V.A			185 104,00		
Timbre espèces			0,00		
Total TTC			1148 121,36		

Listing Cntr(s): BEAU5932[illegible]

Listing Cntr(s): BEAU5932[illegible]

[redacted]

Apurement par Cheque N° [redacted] Du 12/02/2021, BANQUE EXTERIEURE D'ALGERIE

Transitaire: IDRES. Rampe du port Bejaia 03416 75 56

La contestation des factures émises doit intervenir dans un délai maximum de huit (08) jours calendaires (weekend et fêtes légales inclus) à compter de la date de leur réception

SERVICE COURTAGE

[redacted]

Appendix 5: Shipping Bill (2022):

SERVICE FACTURATION

Mediterranean Shipping Company Algeria Sarl- Agence Bejaia

Agent de Consignation et Courtier Maritime

Quartier Seghir, Lot N° 04, Bejaia 06000, Bejaia

NIF:000016001303265 RC: 0013032-B-00 Art: 06 016 002773 NIS: 000016010297357

Tel :+213 34 12 52 22/23 Fax :+213 34 12 57 19

Banque :AGB 002 00107 0074301286 08 Capital: 3 800 000.00 DA

Facture [redacted]

Date: 14/02/2022

[redacted]

Doit :

[redacted]

Lieu livraison: DZ BEJAIA

Nbr Cntr(s):2 0, 40 4

Poids Brut: 81 700.00 KG

Article(s): STRIBUE CEMERE 45-CARTON GRIS

Désignation	P.U.(DA)	Qté	Montant (DA)	Tx TVA	Notes
Prestation Agence Import 40'	86 200,00	4	352 800,00	19%	Par Conteneur
Péages	24,06	117	2 817,36	0%	Au Tonnage
Timbre sur B/L	1 000,00	1	1 000,00	0%	Par B/L
Total Fret et Taxes			3 817,36		
Total Produits			352 800,00		
T.V.A			67 032,00		
Timbre espèces			0,00		
Total TTC			423 649,36		

Listing Cntr(s): BEAU5932[illegible]

Listing Cntr(s): BEAU5932[illegible]

Apurement par Chèque N° 11 , BANQUE EXTERIEURE D'ALGERIE

Transitaire: IDRES. Rampe du port Bejaia [illegible]

La contestation des factures émises doit intervenir dans un délai maximum de huit (08) jours calendaires (weekend et fêtes légales inclus) à compter de la date de leur réception

SERVICE COURTAGE

[redacted]

Appendix 6: Shipping Bill (2023):

SERVICE FACTURATION

Mediterranean Shipping Company Algeria Sarl- Agence Bejaia

Agent de Consignation et Courtier Maritime

Quartier Seghir, Lot N° 94, Bejaia 06000, Bejaia

NIF:000816081303265 RC: 0913032-B-00 Art: 06 016 002773 NIS: 000816010297357

Tel :+213 34 12 52 22/24 Fax :+213 34 12 57 19

Banque :AGB 032 00107 0074301208 08 Capital: 3 000 000.00 DA

Facture N°: BJAI[redacted]

Date: 12/04/2023

[redacted] Du 12/04/2023

[redacted]

Quai: 22 Poste: Gros 498

Lieu Livraison: 22 BEJAIA

Nbr Cntr(s)20 :0, 40 :4

Poids Brut: 88 784.00 KG

Article(s): STRIGOE CIMERE 45-CARTON GRIS

Doit :

NIS: [redacted]

Désignation	P.U.(DA)	Qté	Montant (DA)	Tx TVA	Notes
Prestation Agence Import 40'	42 600,00	4	171 200,00	19%	Par Conteneur
Peages	24,06	117	2 817,36	0%	Au Tonnage
Timbre sur B/L	1 000,00	1	1 000,00	0%	Par B/L
Total Frot et Taxes			3 817,36		
Total Produits			171 200,00		
T.V.A			32 528,00		
Timbre espèces			0,00		
Total TTC			207 545,36		

Listing Cntr(s) BEAU5932798(40')|CAAU5159494(40')|MSDU8398785(40')|TEMU5963324(40')|

Listing Cntr(s) BEAU5932798(40')|CAAU5159494(40')|MSDU8398785(40')|TEMU5963324(40')|

[redacted]

Apurement par Cheque[redacted]E, Du 17/04/2023, BANQUE EXTERIEURE D'ALGERIE

0

Transitaire: IDRES. Rampe du port Bejaia 03416 75 56

[redacted] 17/04/2023 14:54:45

La contestation des factures émises doit intervenir dans un délai maximum de huit (08) jours calendaires (weekend et fêtes légales inclus) à compter de la date de leur réception

SERVICE FACTURATION

[redacted]

Abstract :

The maritime shipping has historically played a pivotal role in facilitating global trade, serving as the artery of the international trade and economy transporting goods across international borders due to its cost-effectiveness, reliability, and capacity to carry large quantities of cargo.

Until the COVID-19 pandemic widespread forcing governments and health authorities to impose trade restrictions such as Lockdowns, port closures, and reduced labor availability disrupted supply chains, leading to cargo delays and bottlenecks. Ships facing extended waiting times at ports, crew changes becoming challenging, and container shortages exacerbating existing problems. These constraints significantly slowed down the movement of goods, leading to delays and increased uncertainty for businesses and consumers.

The impact of these disruptions extended to shipping costs. Freight rates skyrocketed as demand for shipping services outstripped supply. Limited capacity, coupled with increased operational costs due to safety measures and crew-related challenges, pushed shipping rates to historic highs. Businesses found themselves grappling with elevated transportation costs, which were subsequently passed on to consumers. The maritime shipping industry, while resilient, faced a myriad of challenges in adapting to the new normal imposed by the pandemic.

Key words : international trade, maritime shipping, COVID-19, Freight rates, Trade restrictions

الملخص :

لعب الشحن البحري تاريخياً دوراً محورياً في تسهيل التجارة العالمية، حيث كان بمثابة شريان التجارة الدولية والاقتصاد الذي ينقل البضائع عبر الحدود الدولية بسبب فعاليته من حيث التكلفة والموثوقية والقدرة على حمل كميات كبيرة من البضائع.

الى انتشار جائحة كوفيد-19، أجبرت الحكومات والسلطات الصحية على فرض قيود تجارية مثل عمليات الإغلاق وإغلاق الموانئ واخفاض توافر العمالة، مما أدى إلى تعطيل سلاسل التوريد، مما أدى إلى تأخير الشحنات والاختناقات. واجهت السفن فترات انتظار طويلة في الموانئ، وأصبح تغيير الطاقم أمرًا صعبًا، كما أدي نقص الحاويات إلى تفاقم المشكلات القائمة. أدت هذه القيود إلى تباطؤ حركة البضائع بشكل كبير، مما أدى إلى التأخير وزيادة عدم اليقين بالنسبة للشركات والمستهلكين.

وامتد تأثير هذه الاضطرابات إلى تكاليف الشحن. ارتفعت أسعار الشحن بشكل كبير حيث تجاوز الطلب على خدمات الشحن العرض. أدت القدرة المحدودة، إلى جانب زيادة التكاليف التشغيلية بسبب تدابير السلامة والتحديات المتعلقة بالطاقم، إلى ارتفاع أسعار الشحن إلى مستويات تاريخية. فوجدت الشركات نفسها تعاني من ارتفاع تكاليف النقل، والتي تم نقلها لاحقًا إلى المستهلكين واجهت صناعة الشحن البحري، على الرغم من مرونتها، عددًا لا يحصى من التحديات في التكيف مع الوضع الطبيعي الجديد الذي فرضه الوباء

الكلمات المفتاحية: التجارة الدولية، الشحن البحري، كوفيد-19، أسعار الشحن، القيود التجارية.

Résumé:

Le transport maritime a toujours joué un rôle central dans la facilitation du commerce mondial, servant d'artère du commerce et de l'économie internationaux transportant des marchandises à travers les frontières internationales en raison de sa rentabilité, de sa fiabilité et de sa capacité à transporter de grandes quantités de marchandises.

Jusqu'à ce que la pandémie de COVID-19 se généralise, obligeant les gouvernements et les autorités sanitaires à imposer des restrictions commerciales telles que des confinements, des fermetures de ports et une disponibilité réduite de main-d'œuvre, les chaînes d'approvisionnement ont été perturbées, entraînant des retards et des goulots d'étranglement dans les marchandises. Les navires sont confrontés à des temps d'attente prolongés dans les ports, aux changements d'équipage devenant difficiles et à la pénurie de conteneurs exacerbant les problèmes existants. Ces contraintes ont considérablement ralenti la circulation des marchandises, entraînant des retards et une incertitude accrue pour les entreprises et les consommateurs.

L'impact de ces perturbations s'est étendu aux coûts d'expédition. Les tarifs de fret ont grimpé en flèche à mesure que la demande de services d'expédition dépassait l'offre. Une capacité limitée, associée à une augmentation des coûts opérationnels en raison des mesures de sécurité et des défis liés à l'équipage, a poussé les tarifs d'expédition à des sommets historiques. Les entreprises se sont retrouvées aux prises avec des coûts de transport élevés, qui ont ensuite été répercutés sur les consommateurs. L'industrie du transport maritime, bien que résiliente, a été confrontée à une myriade de défis pour s'adapter à la nouvelle normalité imposée par la pandémie.

Mots clés : commerce international, transport maritime, COVID-19, taux de fret, restrictions commerciales