



**THE CONTRIBUTION OF SEABORNE COMMERCE TO THE SOUTH AFRICAN ECONOMY**

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A dissertation submitted in partial fulfillment of the requirements for the degree of  
Master of Commerce.

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JANUARY 2020

## DECLARATION

I, Khayakazi Mswepu, declare that:

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- iii. This dissertation/thesis does not contain other persons' data, pictures, graphs or other information, unless specifically acknowledged as being sourced from other persons.
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## ACKNOWLEDGEMENTS

Firstly, I would like to extend word of gratitude to Almighty God who always been my side since I began this journey, giving me courage, perseverance, strength and ability to be able accomplish this dissertation.

My sincere gratitude goes to my supervisor, Professor Trevor Jones, who meticulously read through the drafts and guided me with valuable criticisms, guidance and support through the various stages of the writing and completion of this dissertation. His efforts, knowledge and experience in international trade and maritime transport related issues, have contributed towards the success of this dissertation.

My heartfelt thanks to my entire family, my parents and my siblings.

Special thanks to my friends, especially Mr V Vundla, Ms Z Saba, Mr S Landzela, Mr B Dyakopu, Mr J Mawonga and Ms F Mneno who have been there for me, emotionally support, their encouraging words, their kindness, love and always been there for me all the time. May God continue to bless them.

Finally, the whole Maritime Studies Unit at the University of KwaZulu-Natal. I would also like to thank my fellow colleagues at the University for their support especially; Mr Mpahlwa, and Mr Madikizela

*“If God hadn’t been there for me, I never would made it (Psalm 94 vs 17-19)*

## **ABSTRACT**

The dissertation seeks to address the contribution of seaborne commerce in the South African economy. Basically the research is trying to look at the development of the carriage of goods by sea to and from South Africa, and the related development of the maritime transport industry, and how these contribute to the economic growth of the country. South Africa is regarded as a maritime country, which is substantiated by its commercial ports and the very substantial cargo flows that pass through those ports. The research interrogates the gaps which have been highlighted such as the question of how to develop a maritime industry when cargo owners are not involved in the transport arrangements. There is not much available literature about the contribution of seaborne commerce to the South African economy. South Africa has a large trade volume; however this large volume does not necessarily mean that it has a competitive advantage in transporting those commodities. South Africa it is not a significant ship operating nation. Cargo movements are not controlled by South African cargo owners, but rather by our foreign buyers and suppliers. South Africa exports the majority of bulk cargoes and that is a vital part of the South African economy and generates a substantial amount of the country's foreign exchange. This dissertation interrogates those terms of shipment, which are dominated by FOB exports sales, notably in bulk exports. The ruling commercial terms of shipment have considerable influence over the benefits the country receives from the maritime industry. This represents a substantial loss of potential revenue in invisible earnings for the country's service account of the balance of payments. This dissertation recommends that a feasibility study be undertaken for the contribution of seaborne commerce to the economic growth of the country.

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## **GLOSSARY AND ACRONYMS**

BOP	Balance of Payments
CFR	Cost and Freight
CIF	Cost Insurance Fund
CMPT	Comprehensive Maritime Transport Policy
CPT	Carriage Paid To
DIA	Durban International Airport
DAP	Delivered at Place
DAT	Delivered at Terminal
DDP	Delivered Duty Paid
FAS	Free Alongside Ship
FCA	Free Carrier
FOB	Free on Board
GDP	Gross Domestic Product
ICC	International Chamber of Commerce
INCOTERMS	International Terms of Shipment
PE	Port Elizabeth
SA	South Africa
SAMSA	South African Maritime Safety Authority
SARB	South African Reserve Bank
TNPA	Transnet National Ports Authority
TPT	Transnet Port Terminals
UNCTAD	United Nations Conference on Trade and Development

## **CHAPTER 1**

### **INTRODUCTION**

In this introductory Chapter the rationale for this study is explained and an overview of the thesis is provided. The Chapter starts off by presenting the context within which this study was conducted as well as the researcher's background, the problem statement where the writer identifies the gaps in the current topic which need to be addressed, statement of purpose, research methodology and the organization of the study.

#### **1.1. BACKGROUND AND CONTEXT**

There are various sectors which play a vital role in building the economic growth of any country, including the maritime industry. The broad sea transport industry is one of the industries which contribute to the South African economy. In this dissertation the writer will attempt to present a breakdown of the contribution of principal sectors (bulk and liner) to the wider economy and more particularly to highlight the contribution of seaborne commerce in South Africa<sup>1</sup>.

South Africa is recognized as a maritime nation, illustrated by its oceans, international exchange patterns and its endowment of significant marine real estate. In spite of the fact that South Africa is located far from its major trade partners and markets, South Africa possesses a geostrategic area on a major sea-trading route that lies at the core of the South-South Trade and interfaces the Asia markets with those of the Americas. South Africa enjoys advantages not only through its strategic location, but also through our developed ports and transport infrastructure and the commodity base of our sea trade. South African maritime transport activity is growing, especially in container and dry-bulk trades, to a point to be able to contribute substantially to the

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<sup>1</sup> [www.transport.gov.za](http://www.transport.gov.za)

economy of the country and bolster the national development plan<sup>2</sup>. South Africa is situated in one of the busiest and most successful international sea routes and its geographical location therefore presents compelling opportunities for an increased level of trade and a thriving maritime industry<sup>3</sup>. It is paramount to recognize the contribution that the maritime industry makes towards the local and global trade and recognizing that that global trade is not happening without the vessels on which they operate. Shipping is one of the most efficient and cost effective forms of cargo transportation globally, with an estimate of 90% of world trade transported by sea, thereby providing a compelling case for South Africa to invest in transportation.

South Africa's ports serve as conduits for trade between South Africa and its trading partners in the Southern African region, yet additionally as centres of movement to and from the rest of the world. The bulk of the international commodity trade of South Africa (roughly 98%)<sup>4</sup> is moved via sea through the eight commercial ports which are Saldanha Bay, Cape Town, Mossel Bay, Port Elizabeth, East London, Ngqura, Durban, and Richards Bay, as shown in Figure 1.1 below. The performance of these ports with respect to prices, reliability and speed of cargo handling is essential to the competitiveness of the nation's international trade. The state-owned entity, Transnet National Ports Authority (TNPA), controls and manages the country's eight major ports and Transnet Port Terminal (TPT) is the dominant provider of port services, with limited private sector competition<sup>5</sup>.

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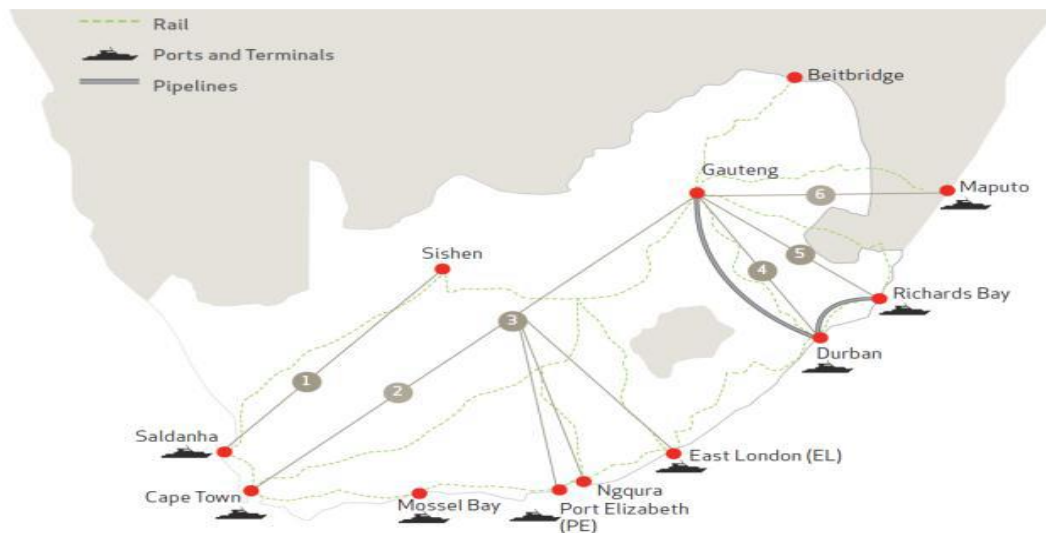
<sup>2</sup> Department of Transport , *Comprehensive Maritime Transport policy*: (South Africa 2017)

<sup>3</sup> <<https://www.export.gov/article?id=South-Africa-port-infrastructure>>

<sup>4</sup> Africa ports, *National Port Authority of South Africa, 2018, Annual Statistics (Online)*, Available.

<sup>5</sup> TNPA, 2018 <[www.transnet.net](http://www.transnet.net) › *Investor Relations*>.

**Figure1.1: South Africa’s principal commercial ports**



Source: [www.TNPA 2017.co.za](http://www.TNPA2017.co.za)

Development of the seaports infrastructure helps in promoting the flow of commerce and that in turn contributes to the economic development of the country.<sup>6</sup> South Africa’s commercial ports have established international shipping networks which have served not only a strategic role of trade facilitation, but have also helped to shape the economic growth and development of the entire Southern African region.

The Government of South Africa views the country’s ports and terminals as key engines for economic growth<sup>7</sup> and a major boost to the economy. Therefore it is significant to mention that South African president in 2014 has encouraged the re-industrialization of the shipping industry through operation Phakisa<sup>8</sup>. In order to unlock the economic potential of South Africa’s oceans the government has launched Operation Phakisa Ocean Labs that has placed the maritime economy firmly on the national socio-

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<sup>6</sup>Chasomeris, M.G. “*South Africa’s Maritime Policy and Transformation of the Shipping Industry*” unpublished paper: Department of Economics and Finance, University of KwaZulu Natal.

<sup>7</sup> Meyiwa, A and Chasomeris, M. (2016) “*Restructuring Port Governance in South Africa*” Journal of Economics and Financial Science /JEF/ 2016 9(3), pp.854-873.

<sup>8</sup> TG, Mabiletsa (2016). “*South African owned shipping and potential benefit for South Africa: A ship owner’s perspective*”: Dissertation submitted at World Maritime University.

economic development agenda. Operation Phakisa (meaning hurry up in Sesotho) is derived from the Malaysian concept of Big Fast Results Methodology. It is a results-driven approach to development, involving various stakeholders such as business, labour, academics, civil society and government. Oceans Economy is one of the areas that has been identified for Operation Phakisa.

Due to the projected growth in the sector, new projects and the special zones were being announced and supported by initiatives such as Industrial Development Zones, Special Economic Zones Areas (Dube trade port) and the reason is to boost the capacity as major logistics for the Southern Africa<sup>9</sup>.

Government has demonstrated a long term view of the country through the National Development Plan and through the South African government has made a massive investment to the development of the country. In 2016 budget speech South African government had recognized the significance of investing in the maritime sector<sup>10</sup>.

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<sup>9</sup> South Africa's Ocean Economy

<sup>10</sup> Economic Development & Growth in EThekweni "Port and Logistics" 11<sup>th</sup> Issue December 2014.

**Table 1.1: CARGO HANDLED BY SOUTH AFRICAN PORTS, 2014-2018 (million tons)**

<b>PORT</b>	<b>2018 mt</b>	<b>2017 mt</b>	<b>2016 mt</b>	<b>2015 mt</b>	<b>2014 mt</b>
Richards Bay	103.550	99.984	99.588	102.657	94.783
Durban	83.161	78.106	76.828	79.840	81.188
Saldanha Bay	63.424	69.946	66.527	71.820	64.729
Cape Town	15.966	15.900	16.733	16.721	15.587
Port Elizabeth	13.096	11.676	11.229	11.538	12.217
Ngqura	11.703	11.022	7.789	8.649	9.588
Mossel Bay	1.311	1.744	1.832	2.518	2.029
East London	2.078	2.050	2.531	2.946	2.211
Total all ports	294.290mt	290.428mt	283.058mt	296.689mt	282.342mt

Source: [www.africaports.co.za](http://www.africaports.co.za)

Table 1.1, above, sets out total port traffic, including container traffic on the basis of average container mass, for the eight commercial ports under the supervision of the TNPA, over the period 2014-2018. Aggregate cargo handled has remained relatively

static over the period, but the 2018 cargo volume of 294.29 million tons increased somewhat from the 283mt recorded in 2016, but stood below the 2015 traffic peak<sup>11</sup>.

“South Africa has experienced an increasing trend in the volume of cargo that passes through its ports. This can be contrasted with the declining number of vessels that are arriving on South Africa’s shores. The economic downturn is one factor but the decline also needs to be seen in the context of larger ships being used to transport goods and a drive to greater efficiencies by the shipping lines which have faced enormous cost pressures since the start of the downturn in 2008/9 as well as changes in the cargo mix, with bulks (which use large ships) growing faster than general cargo (which uses smaller ships)”<sup>12</sup>. The number of vessels calling to South African ports continues to decrease recently as in 2014 to 2017 especially in busy port such as Richards’s bay and the port of Durban<sup>13</sup>.

This Chapter outlines the role of seaborne commerce in South Africa economic growth. It also examines industry perspectives that contribute towards a better understanding of the historical role of seaborne commerce in South Africa.

## **1.2. PROBLEM STATEMENT**

In the research study, the author is seeking to understand and analyse the contribution of seaborne commerce in South Africa. The problem is that in South Africa we cannot really talk about the contribution of seaborne commerce or interpret the maritime industry in South Africa, in a way we would like to. South Africa as a part of the contribution to the growth, currently country is not a ship operation nation. What access

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<sup>11</sup> [www.Africaports.co.za](http://www.Africaports.co.za)

<sup>12</sup> Trade and Industrial Policy Strategies (2014) “*Review of regulation in the Ports Sector*” Centre for competition Regulation and Economic Development: University of Johannesburg.

<sup>13</sup> <https://www.iol.co.za/mercury/news/cargo-volumes-in-sa-ports-on-the-rise-19044791> (accessed 07 March 2020)

do we have as part of freight revenue that arises in terms of transporting South African cargo? Consequently, since cargo owners are not involved, in what way can a situation be envisioned whereby a greater proportion of ocean carriage revenue that is generated in the carrying of these commodities may be secured by South Africa?

### **1.3. AIMS AND OBJECTIVES OF THE STUDY**

The central research challenge that this study seeks to illuminate, is that the country is not benefiting from the sea freight bill which is generated through transport arrangements currently controlled largely by foreign economic actors, through the ruling patterns of the international terms of shipments (Incoterms) that govern South African import-export sea trade. This paper is trying to shed some greater light on the identified problem. The study will make an attempt to estimate the size of the South African sea freight bill, and to highlight the ruling pattern of INCOTERMS in these South African trades. The study will then explore possible routes whereby cargo owners become more involved in transport process and how the country can benefit from this large stake of freight bill.

The reason for this research is to examine the significance of the seaborne commerce to the economic growth of the country. It is already mentioned above that South Africa is not a ship owning nation, however there are high volumes of cargo exported and imported using sea transport. <sup>14</sup>The South African economy is served both by liner shipping and, particularly by the bulk shipping industry. The liner sector is dominated by foreign carrying lines that operate through Consortia and Alliances. However, the bulk shipping industry internationally and also in South Africa is served by smaller competitive operators through various charter arrangements, but most of the vessels chartered are prepared or rather arranged by foreign buyers or sellers as the South Africa's bulk exports are ordinarily sold on Free on Board (FOB) and our imports are

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<sup>14</sup>Chasomeris, M. "South Africa's Maritime Policy and Transformation of the Shipping Industry" Presentation Slides.



Cost Insurance and Freight (CIF). Selling FOB implies that the buyer is arranging the transport, with attendant benefits<sup>15</sup>.

The essence of the problem is that we are handing over control of the transport process to foreigners, including choice and nomination of the carrying vessel, responsibility for freight arrangements, insurance and the like. The question one may ask is how a more comprehensive shipping industry may be developed if a country's exporters and importers are not involved in transport process. The challenge then becomes how mechanisms may be established to get cargo owners involved in the transport process.

There is a potential fund of freight revenue that is associated with the carriage of any country's commodity exports and imports. Should a country not participate in this carriage of goods by sea, then such a country is not laying claim to this potential freight transport revenue. This research study will attempt to explore the nature and estimate the extent of these freight transport revenues and to explore the possibility of South Africa getting a larger stake of that revenue fund. There is a lack of accurate statistics with which to measure and evaluate the contribution of cargo and maritime related services to the national economy<sup>16</sup>.

#### **1.4. RESEARCH QUESTIONS.**

The purpose of the study is to examine the status of the maritime sector in South Africa economy. Some of the pivotal research questions that will be addressed are:

1. How to develop a shipping industry if cargo owners (exporters and importers) follow patterns of the Incoterms that does not involve them in transport processes (i.e predominantly FOB exports and CIF imports?)
2. If the ruling Incoterms are principally fob exports and cif imports, who is currently paying this sea freight transport bill?

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<sup>15</sup> Department of Transport , *Part 1 Growth of a South African Maritime Transport Industry* , 2011<[www.transport.gov.za](http://www.transport.gov.za)>.

<sup>16</sup>SAMSA "*State of South Africa's Maritime Industry Transport Portfolio Committee*" 8 May 2012.

3. Is it economically a good idea to carry a greater proportion of South Africa exports and imports in South African vessels?
4. What would be the benefits of carrying South African cargo in nationally-registered ships?
5. What is the nature of the sea freight transport revenue fund and is there a possibility of South Africa getting a larger share of that potential revenue?

### **1.5. OUTLINE OF THE STUDY**

In the first chapter, the introduction to and an overview of the research has been presented, together with the principal motivation and research objectives. In addition, the research questions and problem statement are presented. The chapter concludes with the outline of each chapter and structure of the research paper.

In Chapter Two a more extensive review of the study is presented. The chapter presents the general outline of the maritime industry such as the economic role that maritime and seaborne commerce play out. The chapter further analyses the role of seaborne commerce in the South Africa maritime sector, identifying the market arrangements and principal carrying lines that currently service South African seaborne commerce.

The third chapter presents a review of relevant received literature. Major areas of conceptual focus will include the terms of shipment (the Incoterms), the development of a national shipping registry and the contribution of port infrastructure to the maritime sector in driving seaborne commerce.

Chapter four is the methodology approach

Finally, Chapter Five presents the data collected and seeks to use these data to address and illuminate the study's research questions. Finally, it sets out the study's conclusions as to the prospects that South African cargo owners have to participate more fully in transport arrangement and addition, a range of recommendations, which are related directly and indirectly to improving to the role and the contribution of the seaborne commerce in the South Africa economy are identified, together with their potential benefits.

## **CHAPTER 2**

### **AN OVERVIEW OF SEABORNE COMMERCE IN SOUTH AFRICA**

South Africa is a major sea trading nation. It is well represented on the demand side in terms of the demand for bulk and liner transport capacity that South African import-export sea trade places on the maritime industry, but very insignificant on the supply side. Cargo owners in South Africa are not involved in transport arrangements, and to all intents and purposes there are few foreign-going vessels registered on the South African Ship Registry. South Africa's import-export trade is therefore carried almost exclusively in foreign vessels.

The purpose of the chapter is to develop a summary global picture of the maritime industry inserting South Africa in that context. A global perspective of seaborne commerce is presented in simple demand and supply terms to construct a brief but coherent overview of the global maritime industry. On the demand side, aggregate sea trade is set out in terms of total nominal cargo volumes and in real ton-miles terms, and this is then disaggregated into basic bulk and general cargo divisions. The major different organizational parts of the industry (liner/container vs bulk shipping) and their respective organizational patterns of behaviour are set out. The author will attempt to fit South Africa into this global framework, by cargo volume and type, and in terms of patterns of control by cargo owners.

#### **2.1. GLOBAL OVERVIEW PERSPECTIVE**

The shipping industry is responsible for the transport of the vast majority of international trade with the share ranging between 80 and 90 per cent. This majority is particularly marked in developing countries where trade structures include the low volumes of intraregional trade limit opportunities for land transport and air transport. Over the last 50 years seaborne trade has seen remarkable developments. There are long term growth and changes in commodity composition in the maritime industry. There are

components which have grown relatively faster and slower because of the changes and developments where the maritime industry has embarked on in previous years<sup>17</sup>.

The global maritime transport industry is not a homogeneous industry, but it has major component parts that operate very differently. These components namely, dry bulk, container (liner) and liquid bulk (tanker), work in different perspectives and serve different purposes. The bulk industry is quite broadly competitive in nature, with a large number of independent lines, engaged principally in the carriage of major bulk commodities such as coal, iron ore, and grain. The container shipping is significantly less competitive, but is organized much more along oligopoly lines, through individual container majors with significant market shares, and through overlapping consortium and alliance arrangements among container majors. The majority of manufactured goods are transported using containerized liner shipping, running to fixed schedules to call at several named ports during a journey<sup>18</sup>.

After the financial crisis in 2008, many industries were affected negatively, including the maritime industry. The world economy embarked on a slow-moving recovery since 2013 which was led by the uneven growth in the developed economies and the slowdown in developing countries in this evolution. World seaborne trade is again increasing, supported by the upswing in the global economy. Expanding at 4 per cent the fastest growth in 2017, global maritime trade gathered momentum and raised sentiment in the shipping industry. Total volumes reached 10.7 billion tons, reflecting an additional 411 million tons in 2017, nearly half of which were made of dry bulk commodities. Projections for the medium-term point to on-going development, with volumes developing at an expected compound yearly development rate of 3.2 percent in the 2017-2022 period. Volumes are set to extend over all sections, with containerized trade and real dry bulk trade recording the strongest sustained development<sup>19</sup>.

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<sup>17</sup> United Nations Conference on Trade and Development, 2018, *Review of Maritime Transport*, Published by UNCTAD: New York and Geneva.

<sup>18</sup> Ibid 12

<sup>19</sup> Ibid 12

There are new developments which are affecting the industry positively especially in countries like China, India, Singapore and the United States. The expansion of the transit capacity of the Panama Canal has also resulted in changes in the face of shipping countries. Countries have to adapt in terms of infrastructure and superstructure developments as new big vessels were ordered. Over 90% of shipbuilding activity occurred in China, Japan and the Republic of Korea, while South-east Asia remains the centre of global ship breaking. While all these new developments and the increase in the shipping industry and new trends seem positive, the recovery remains nevertheless fragile, notably in respect of an absence of sustained recovery of freight rates in both bulk and container markets<sup>20</sup>.

The industry has also witnessed more consolidation through the mergers and acquisitions and the global alliance restructuring. Individual carriers started expanding their networks to a larger number of countries. In the past years, a wave of market consolidation had changed the worldwide container shipping industry, leading to mergers and acquisitions between container lines, a reshuffling of shipping alliances and the expansion of shipping companies into port operations. The question arises as to the implications for the market concentration levels, whether the industry is becoming an oligopoly on specific route since there is a potential for more consolidation. For many previous years, container shipping has struggled with low freight rates, dwindling earnings and poor financial returns. Container market consolidation has two sides of the story; firstly container lines can expect to reduce costs, achieve better management of vessels capacity and enhance efficiency<sup>21</sup>. Secondly, “shippers, trade and ports can be negatively affected, if on a given route, consolidation results in reduced competition, constrained supply, market power abuse, and higher rates and prices” stated on policy brief UNCTAD 2018. All these trends call for systematic and regular monitoring and assessment of consolidation trends in container shipping. The number of companies providing services per country declined by 38 per cent in an average between the year 2004 and 2018. In this context and given the potential for more consolidation in the

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<sup>20</sup> Ibid 12

<sup>21</sup> Ibid 12

future, the critical issue is whether the container shipping industry is moving towards oligopolistic markets<sup>22</sup>.

Many of the leading major container carriers are now involved in one of the three global alliances shown in the table 2.1 below. These bring together the largest eight container carriers into groups of more or less equivalent market share. 2M consists of the two largest container carriers, the Danish Maersk and the Italian-Swiss MSC, and has been operational since 2015. Alliances have now developed into a leading feature of container shipping. Since global alliances in container shipping emerged around two decades ago, with the creation of Global Alliance and the Grand Alliance in 1996, the market shares covered by carriers in global alliances have increased steadily, particularly during the last few years. Global market shares are actually fairly imprecise indicators in this respect, as global alliances mainly operate on East-West trade lanes<sup>23</sup>.

Figure 2.1 and Table 2.1, overleaf, show global market share of global alliances from 1996-2018.

**Table 2.1 Overview of the three global alliances in container shipping (June 2018)**

Alliance	Carriers	Global market share (%)	Global carrier rank
2M	Maersk	19	1
	MSC	15	2
Ocean Alliance	Cosco-OOCL	12	3
	CMA CGM	12	4
	Evergreen	5	7
THE Alliance	Hapag-Lloyd	7	5
	ONE	7	6
	Yang Ming	3	8

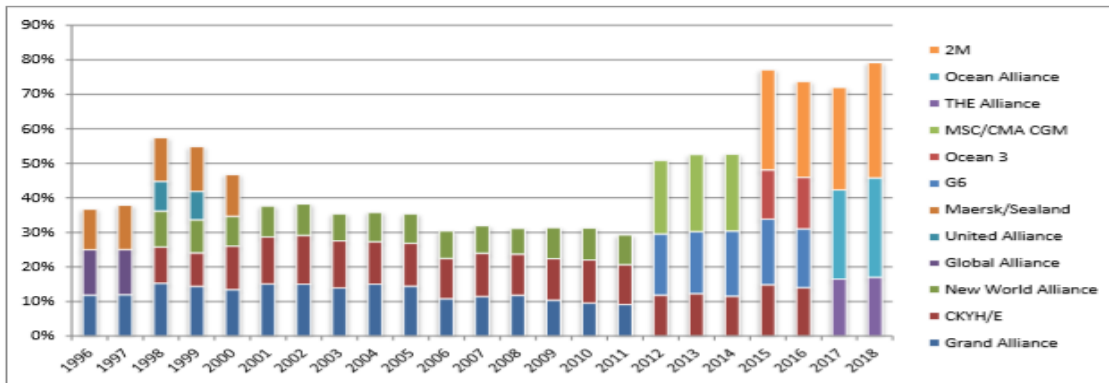
Note: Global market share indicates the share of global container carrying capacity of the carrier

Source: Alphaliner

<sup>22</sup> *Review of Maritime Transport 2018*. <http://unctad.org/RMT> (accessed 13 September 2018).

<sup>23</sup> International Transport Forum, *The Impact of Alliances in Container Shipping*, (4 June 2018).

**Figure: 2.1. Global market share (container carrying capacity) of global alliances (1996-2018)**



Source: Author's elaborations based on data from Alphaliner (1996-2018)

There is a reduction in the global number of companies after taking over of the mergers. The three global liner shipping alliances dominate capacity deployed on the three developed major routes, the east-west container routes in the northern hemisphere. These alliances members are continuing to compete on price while operation efficiency and capacity utilization gains are helping to maintain low freight rate levels. These alliances have made the carriers to strengthen their bargaining power vis-à-vis seaports when negotiating port calls and terminal operations.

Liner shipping alliances and vessels upsizing have made the relationships between container shipping lines and ports more complex and have triggered new dynamics where shipping lines have greater bargaining power and influence. It seems like liner shipping has benefited from efficiency gains arising from consolidation and alliance restructuring, and have also benefited from port infrastructure and superstructure expansion in many leading ports. However, the industry is facing potential market power abuse by the large shipping lines and the related impact on smaller players<sup>24</sup>.

Container lines will find it difficult to compete if not members of alliances. Other shipping lines stated they will be forced to join alliances with one of the major strategic players.

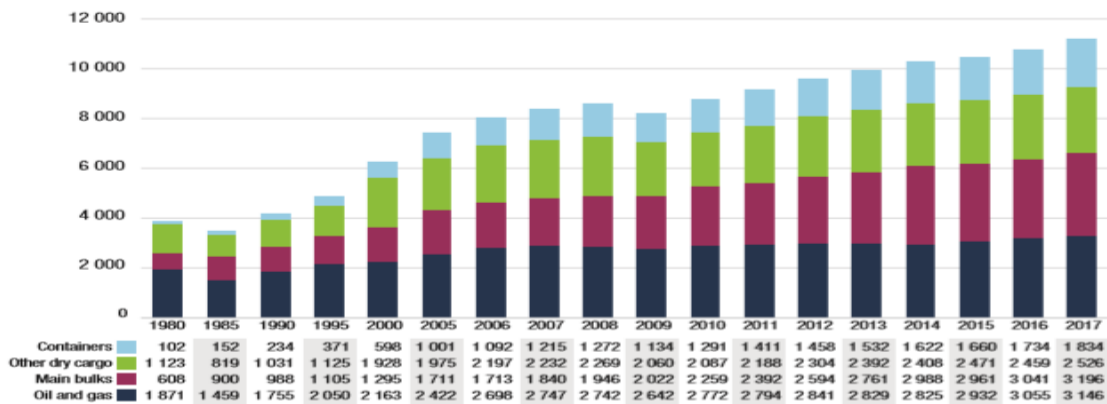
<sup>24</sup>Ibid 12

Others contend that some independent container lines will continue to operate in niche markets. Evidence suggests that smaller container lines operating in niche market are already losing market share ground to mega alliances<sup>25</sup>. 2M alliance from 2015 to 2018 had received high market share comparing to other alliances.

## 2.2. GLOBAL AGGREGATE DEMAND

The global demand for the maritime seaborne trade is growing rapidly, predominantly in respect of containerised and dry bulk cargoes. The demand is supported by an upswing in the global economy. UNCTAD's (2018) projections for overall seaborne trade are consistent with historical trends, whereby seaborne trade increased at an annual average rate of 3.5 per cent between 2005 and 2017. Projections of rapid growth in dry cargo are in line with a five decade-long pattern that saw the share of tanker volumes being displaced by dry cargoes, dropping from over 50 per cent in 1970 to less than 33 per cent in 2017. The changes in the growth of millions tons in different components are presented in figure 2:2 below.

**2:2 International Seaborne Trade, Selected Years (millions of tons loaded)**



Source: *Review of Maritime Transport*, various issues. For 2006–2017, the breakdown by cargo type is based on Clarksons Research, 2018a.  
 Notes: 1980–2005 figures for main bulks include iron ore, grain, coal, bauxite/alumina and phosphate. Starting in 2006, main bulks include iron ore, grain and coal only. Data relating to bauxite/alumina and phosphate are included under "other dry cargo".

Figure 2.2 above shows the changing broad commodity composition and overall

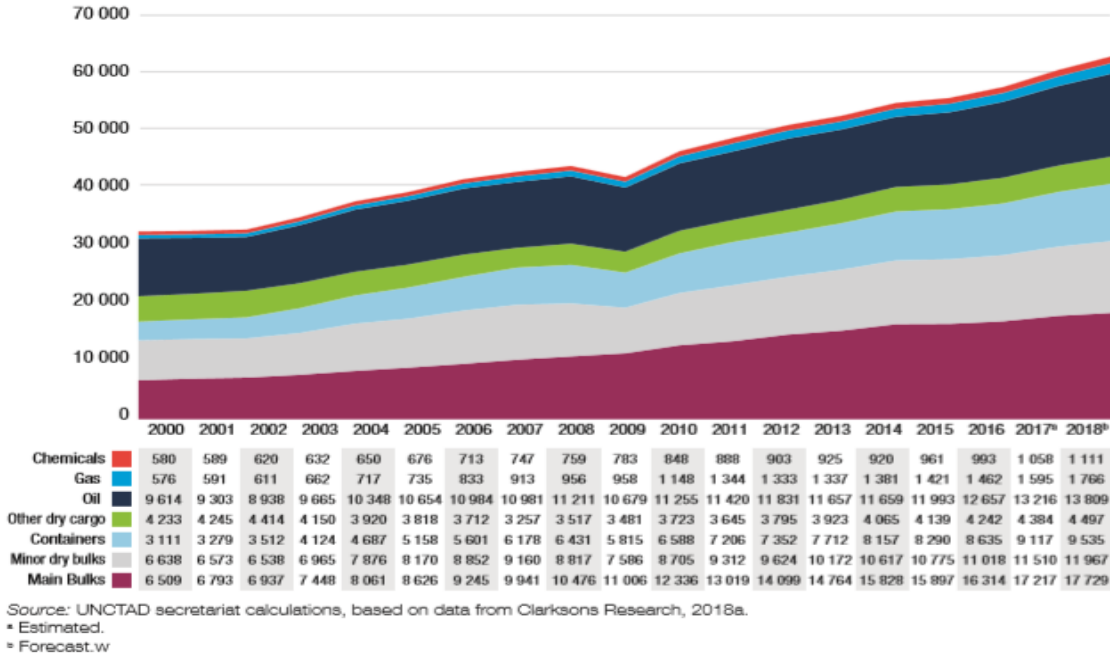
<sup>25</sup><https://www.hellenicshippingnews.com/market-consolidation-in-container-shipping->



development of international seaborne trade from 1980 to 2017. What the UNCTAD data in Figure 2.2 shows is a relative stability of liquid-bulk volumes (shown in black), but far more sustained growth in the major dry-bulks (in red) and even more notably in respect of containerized volumes (shown in blue). The five major dry bulk cargoes are coal, iron ore, grain, bauxite and alumina, and these have grown from 680mt in 1980 to 7.6 billion tons in 2017, or by some 4.6 percent an annual average growth. The most rapid sustained growth, however, is exhibited by containerized sea trade, with volumes expanding over nearly four decades at an annual average growth rate of 8.1 per cent, to reach 1 843mt by 2017. The dry bulk market has benefited from stronger industrial production, most powerfully from China, but now increasingly also from a growing Indian economy<sup>26</sup>.

It is significant to also have a look of the measurement of the freight transportation performed by ocean going vessels during a given period. Figure 2:3 below is the reflection of cargo ton miles.

**Figure 2:3 World Seaborne Trades in Cargo Ton-miles 2000-2018 (billions of ton-miles)**



<sup>26</sup> Ibid 12

From the period of 18 years from 2000 to 2017 according to UNCTAD, the seaborne trade measured in ton-miles to reflect distances travelled and the employment of ship capacity increased. The average ton-miles generated by seaborne trade in 2017 amounted to an estimated 58,098 billion ton-miles. Crude oil and coal shipment contributed to the growth, which have greatly benefited the shipping industry, given the growth in volumes and distances. Growth in tanker ton-miles was supported by firm import demand in China, as well as its oil supply diversification strategy. China has been sourcing more crude oil. Crude oil trade had contributed 17.5 per cent to ton-mile growth while the major dry bulks had contributed nearly one third. Together, minor bulks and other dry cargo accounted for 17.7 per cent of ton-mile from 2010 to 2018, while containerized shipments contributed 17.4 per from 2010 to 2018. The contributions of gas and petroleum products were much smaller. Tanker trade ton-miles, including crude oil and refined petroleum products, rose by 4.4 per from 2010 to 2018 and major dry bulks and containerized trade ton-miles increased by 5.5 per cent and 5.6 per cent, respectively. Minor bulks ton-miles increased by 4.5 per cent<sup>27</sup>.

## **2.3. DIFFERENT COMPONENTS**

### **2.3.1. Container Cargo trades**

The container liner shipping is an increasing and attractive transport market segment. The market structure in which the liner shipping industry operates is an oligopolistic market. Container trade is a segment that operates under the liner sector. In reality there are few markets which can be classified as purely competitive. Assuming that the container shipping is an oligopolistic market nonetheless, a more detailed analysis can determine what kind of an oligopoly it is or negate the assumption. The liner shipping industry is more concentrated due to consolidation<sup>28</sup>.

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<sup>27</sup> Ibid 12

<sup>28</sup>Christa Sys, *“Measuring the degree of concentration in the container liner shipping industry”* ;: University of Antwerp

Christa (2009) states that there is no agreement as to whether or not the liner shipping industry are oligopolistic market. In addition, with the abolishment of the anti-monopoly immunity of freight conferences (as from 18 October 2008) and given the trend towards consolidation, the question whether the container liner shipping industry is an oligopoly is yet again of current interest. It is a relevant question because the market structure under which a carrier operates will determine its behaviour. Christa concluded by stating that the study found that the degree of oligopoly depends on the trade lane. In terms of concentration, the container line shipping is a loose oligopoly or a tight oligopoly depending on the trade lane<sup>29</sup>.

Container trade is one of the components which has grown fastest and gained the greatest momentum in the global perspective. China and the rapid growth of intra-Asian trade had contributed to the increase in volumes of container trade. Further trends affecting containerized trade include positive trends which are unfolded against the backdrop of continued market consolidation; alliance reshuffling; ordering of larger ships but with the likelihood that vessel capacity will stabilise at close to 20,000-22,000 TEUs<sup>30</sup>.

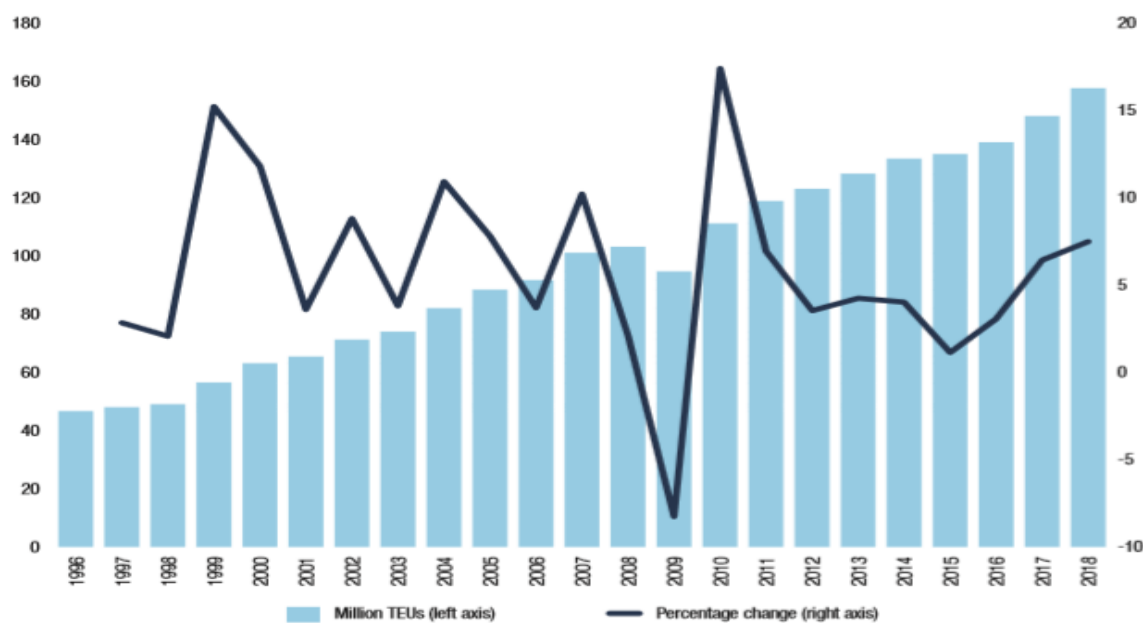
It is significant to have look on the behaviour of the container trade. Figure 2.4 below reflects the global contenerisation changes from 1996 to 2018.

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<sup>29</sup>Christa Sys “*Is the container liner shipping industry an oligopoly?*”, Transport Policy University College Ghent: 16(5) (2009) 259-270.

<sup>30</sup> Ibid 12

**Figure 2:4 Global containerized trade, 1996-2018**



Source: UNCTAD secretariat calculations, based on data from MDS Transmodal, 2018.  
 Note: Data for 2018 are projected figures.

Container market conditions improved in 2017, and strong growth in volumes was recorded across all routes. World containerized trade volumes expanded by a strong 6.4 per cent in 2017, the fastest rate since 2011. Global volumes reached 148 million TEUs, supported by various positive trends. The modest global recovery was central to the rise in containerized volumes<sup>31</sup>. The modest global recovery is central to the rise in containerized volumes. Strong import demand from China and the rapid growth of intra-Asian trade reflecting the effect of regional integration and participation in global value chains, contributed to the recovery. Trade growth strengthened on the major East–West trade lanes, namely Asia–Europe, the Trans-Pacific and transatlantic routes<sup>32</sup>.

Positive patterns in the containerized trade market unfolded against the background of continued market consolidation; alliance reshuffling; ordering of bigger vessels, with limits prone to stabilize out at close 20,000–22,000 TEUs; just as a developing momentum encompassing e-commerce and digitalization. Due to above mentioned

<sup>31</sup> Ibid 12

<sup>32</sup> Ibid 12

factors the containerized trade and liner trade are reshaped new challenges and opportunities for the sector. With the increase of the mega alliances, there is a possibility to reinforce the commoditization of the container transportation services, as they tend to limit liner shipping service. To be a member of the alliance, the service of a shipping line may not be able to offer faster and more consistent services than its alliance partners. This is because shippers are unaware as to which vessel or operator is handling their cargo in an alliance arrangement. Overall, it seems that alliances help to expand the service range available but tend to heighten operational complexities and detract from transparency along the logistics chain<sup>33</sup>.

### **2.3.2. Dry bulk Cargo trades**

Dry bulk trades are very significant in the shipping industry, and seaborne commodities are significant contributors to the growth of the world economy. Basically there are three major dry bulk commodities: iron ore, coal (which includes steam coal and coking coal), and grains. Dry bulk commodities cover a variety of produce and the raw materials; they are homogenous<sup>34</sup>. Dry bulk has grown faster in the global perspective according to UNCTAD analysis on the behaviour of different components. Commodities such as iron ore, coal and grain contributed to the increase of dry bulk. Asia is the driving force for the increase in the dry bulk commodities; and more specifically China is the major importer of iron ore.

The global dry bulk shipping industry is an essential part of the international shipping industry, with ocean-going vessels representing the most efficient, and often the only method of transporting large volumes of basic commodities. The dry bulk shipping is defined as the transportation of homogenous bulk cargoes by bulk vessels on an irregular unscheduled line. In the year 2017, the global dry bulk shipping market was growing due to increase in steel production. Significant growth in the market would be observed in future because of upcoming production projects, rising coastal shipping and

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<sup>33</sup><https://www.southafricanmi.com/dry-cargo-shipping-unctad-28july2019.html>

<sup>34</sup><https://www.maritimeinfo.org/en/Maritime-Directory/dry-bulk-cargo>

scrapping of ships and the increase in steel demand. However, fluctuation in the market is expected due to transportation and infrastructure costs, trade barriers and regulatory risks<sup>35</sup>.

#### **2.4. AGGREGATE SUPPLY**

There is a slight increase on the world fleet growth. A total of 42 million gross tons were added to the global tonnage in 2017, equivalent to a modest 3.3 per cent growth rate. The positive performance it reflected in both a slight upturn in new deliveries and decline in demolition activity, which resulted from optimistic analysis among ship owners given the development in demand and freight rates. The faster growth in demand and as well as seaborne trade volumes resulted in the expansion in ship supply capacity and supporting improved freight rates and earnings. More than 90 per cent of ship building activities were concentrated in China, in the Republic of Korea and Japan<sup>36</sup>. The developments in the global fleet unfolded against a background of oversupply in ship carrying capacity. The reasons behind this trend have included consolidation, mergers and acquisitions which has witness's significant growth in recent years<sup>37</sup>.

Aggregate demand growth of seaborne trade volume has increased, which is the leading indicator and the merchandise trade expansion. However, for all these exchanges will not be possible with the shipping services, which provides in particular the world fleet of different vessels that cater for especially every differ type of cargo transported across the sea<sup>38</sup>.

If seaborne trade volume is a proxy for the well-being of the global economy, the world fleet and the industry that provides the necessary vessels and services are the backbones of that economy. Beyond carrying 80 per cent of global trade by volume,

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<sup>35</sup><https://www.marketwatch.com › press-release › dry-bulk-shipping-market->

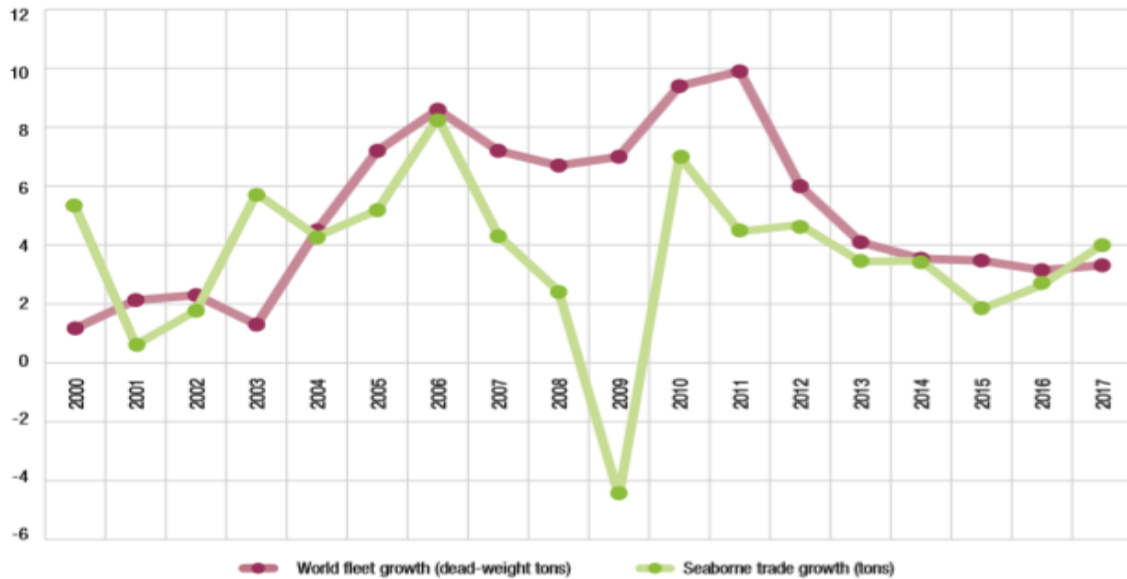
<sup>36</sup> Ibid 12

<sup>37</sup> United Nations Conference on Trade and Development, 2019, *Review of Maritime Transport*, Published by UNCTAD: New York and Geneva.

<sup>38</sup> Ibid 12

ships also provide livelihoods for a wide range of businesses in nearly all countries of the world. Figure 2.5 below depicts the unfolding growth balance between seaborne trade growth and fleet capacity growth since 2000. The global fleet consisted of 19 171 vessels with a combined tonnage of 1.92 billion dwt<sup>39</sup>.

**Figure 2.5 Annual Growth Of World Fleet and Seaborne Trade, 2000-2017 (%)**

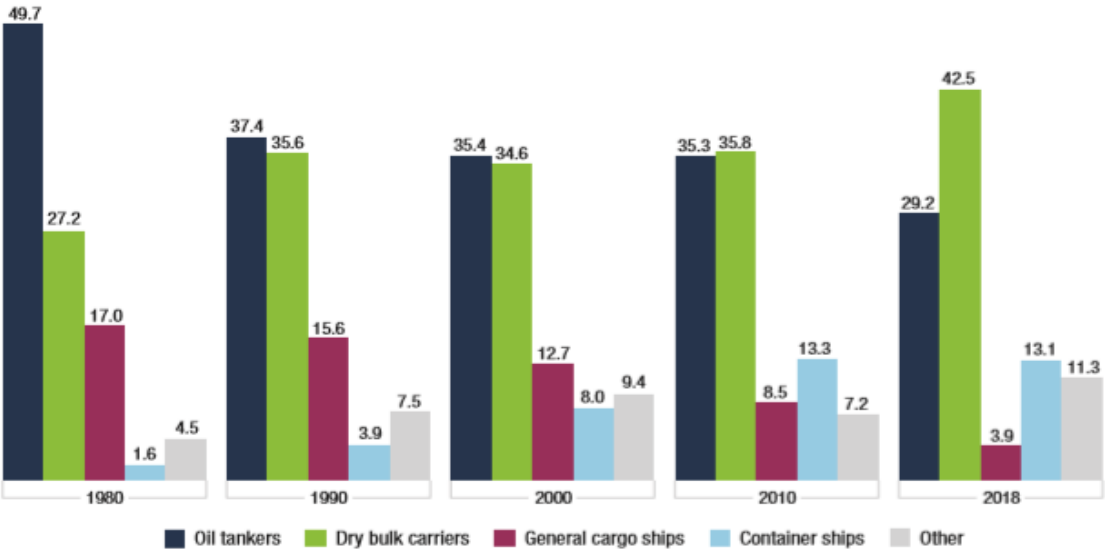


Source: UNCTAD, *Review of Maritime Transport*, various issues.

UNCTAD data in the figure 2.5 reflect world fleet growth (shown in red), but further more growth in seaborne trade growth (shown in green). With the exception of 2017, fleet capacity has generally outgrown sea trade demand growth. Therefore, in this case the law of demand applies, when there is too much supply, prices go down. Aggregate supply will now be disaggregated by principal vessel types from 1980 to 2018.

<sup>39</sup> Ibid 12

**Figure 2.6: Share of world fleet in dead weight tonnage by principal vessel type, 1980- 2018**

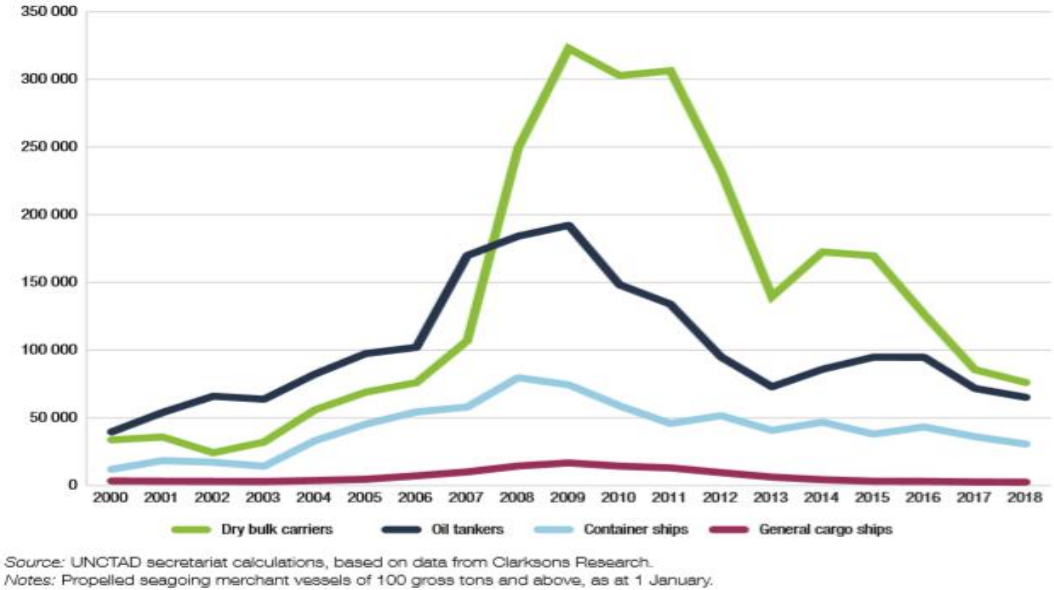


Source: Unctad 2018

Figure 2.6 shows the changing vessel type composition and the entire world fleet in dead weight tonnage from 1980 to 2018. The figure shows the stability tanker vessel types (shown in black), dry bulk vessel type (in green) and the container vessels (shown in blue). Dry bulk carriers which carry iron ore, coal, grain and similar cargo, account for the largest share in the global fleet and the largest share of total cargo carrying capacity. It is followed by oil tankers, which carry crude oil and the third largest fleet is the container vessels. As container vessels carry goods of higher unit value than dry and the tanker ships and usually travel at high speed, they effectively carry more than half of total seaborne trade by the monetary value.



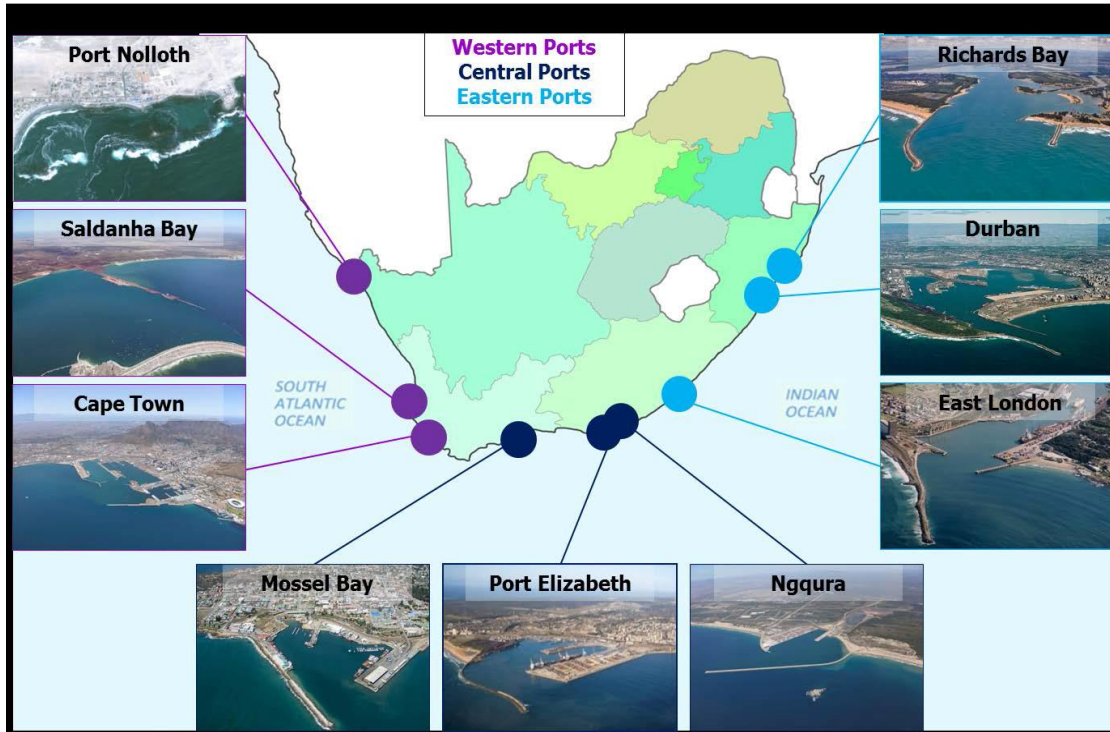
**Figure 2.7 World Tonnage on Order, 2000-2018(Thousands of dead-weight tons)**



The order book for the main vessel type tonnage had decreased in 2018. In the order book as it shown in the graph above, there have been fluctuations in dry bulk carriers, oil tankers, container ships and the general cargo ships from the year 2000 to 2018 (figure 2.7). Compared with the peaks in 2008 and 2009, the current tonnage on orders decreased by 62% for container ships, 66% for the oil tankers and 76% for the dry bulk carriers. There is a decrease in demand of all specific vessel types in 2018.

## 2.5. SOUTH AFRICA INTO GLOBAL FRAMEWORK

Figure 2.8: South Africa Port Map



Source: Transnet

South Africa is a maritime country this substantiated by nine commercial ports. Figure 2.8 above is a summary map showing the location of the ports and their landside corridors. The nine South African ports that fall under the custodianship of Transnet, as per the National Port Regulations which include: Port Nolloth, Saldanha Bay, Cape Town, Mossel Bay, Port Elizabeth, Ngqura, East London, Durban and the Port of Richards Bay. The nine ports are grouped into the Western Ports (Western Cape), Central Ports (Eastern Cape) and Eastern Ports (KwaZulu-Natal). Some of the ports work as complementary rather than competitive ports systems, such the ports of Port Elizabeth and Ngqura, and the port of Durban and port of Richards Bay.

TNPA is currently executing infrastructure works at the Port of Port Nolloth and preplanning works at the Port of Boegoebaai. There were recommendations which were proposed to be done to the Minister of Public Enterprises on its initiatives for the small

harbours. The figure 2.8 above does not reflect any new proposed developments, the Durban international port and other new small ports (Nolloth and Boegoebaai)<sup>40</sup>.

## 2.6. AGGREGATE DEMAND IN SOUTH AFRICA

The combined ports total traffic handled is 294.29 million tonnes (mt) of all cargoes, including containers by averaged weight as his compared with 283mt in 2016 and 297mt in 2015. Over the past five years the port total traffic it has grown in a stable way. Following is the discussion on total traffic for past five years per port, looking for the top five ports<sup>41</sup>.

In the past five years as presented in table 1 (page 5) the cargo handled per port, and the port Richards Bay is the leading port in term of volume handled. The major portion of South Africa's dry bulk exports is shipped from the port of Richards Bay, but in particular coal. In 2018 the port of Richards Bay handled 103.550mt where as in 2014 it was on 94.783mt, there is a significant growth in terms of dry bulk exports. Richards Bay port is primarily a coal port but also handles significant volumes of woodchips, forest products chrome, fertilizer, rutile, zircon, magnetite and vermiculite as exports; and alumina, coking coal, petcoke and sulphur as imports. Steam coal exports, however, remain the central prop of port activity<sup>42</sup>.

Port of Durban is the second highest in terms of cargo handling in the past five years. Due to its relative proximity to the Gauteng hinterland and economic hub of the country, the port of Durban is one of the main drivers of container traffic, followed by the port of Cape Town which services a major economic region in the country<sup>43</sup>.Port of Durban specializes in handling on container volumes. However the port of Durban, which had

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<sup>40</sup> Republic of South Africa "oceans economy summary progress report June 2019: Operation Phakisa.

<sup>41</sup> Transnet "Chapter 4", Transnet, *Long Term Plan Transnet*, (2016) pp199-318.

<sup>42</sup>Port Regulator of South Africa "*South African port capacity and utilization report*" 2015/16.

<sup>43</sup> Ibid 34

remained stagnant in terms of container volumes over several years, produced an encouraging 9.50 per cent improvement on 2017<sup>44</sup>.

Saldanha Bay is also a dry bulk port, specializing to an overwhelming extent in the export of iron ore. On the table it ranges on as third in terms of cargo volumes handled in the past five years, handling 69.45mt of all cargoes in 2017, but falling somewhat to 63,42mt in 2018. The port of Cape Town is the fourth largest port in cargo handling in the previous five years. It is also the second largest container port in South Africa, It handles the largest amount of fresh fruit, petroleum products, chemicals, fertiliser, iron, steel, barley, and maize and wheat are the other major breakbulk commodities handled<sup>45</sup>. In the past five years there had been fluctuations in terms of cargo handling, but comparing 2014 to 2018 there is an increase in the cargo million tons handled. In 2014 was 15.587 mt and in 2018 is 15.966 mt.

The port of Port Elizabeth is equipped to handle dry bulk (principally manganese ore), bulk liquid, general cargo and container cargo; facilities at the port include a tanker terminal and a car terminal as well as a privately operated fresh produce terminal<sup>46</sup>. In 2014 the port handled 12.217mt to 13.096 mt in 2018.

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<sup>44</sup> Ibid 4

<sup>45</sup> <https://www.ship-technology.com › projects › port-cape-town>

<sup>46</sup> Trade and Industrial Policy Strategies, (2014), *Review of regulation in the Ports Sector* <http://www.tips.org.za/researcharchive>.

## 2.7. COMMODITY COMPOSITION OF SOUTH AFRICAN SEA TRADE

### 2.7.1. Container Trade

South African container liner shipping is increasing; the container volumes at all ports has increased by just short 250,000 TEU (5.36%) to reach 4.883 million TEU. Container volumes are performing well exceeding the expectations for the year. The Port Elizabeth and Ngqura container terminals have significantly outperformed their expected volumes as a result of increased transshipment volumes<sup>47</sup>.

Table 2.2 below tracks the behaviour of container traffic (in TEUs) in the past five years, including deepsea, coastal, transshipment and empty containers. The total container traffic in all ports in 2018 reached 4,883,329 million TEUs. The port of Durban is the busiest container handling port and second is Cape Town.

**Table 2.2: CONTAINERS (measured by TEUs)**

PORT	2018 TEUs	2017 TEUs	2016 TEUs	2015 TEUs	2014 TEUs
Durban	2,956,670	2,699,978	2,620,026	2,770,335	2,664,330
Cape Town	898,147	881,913	926,611	888,976	892,557
Port Elizabeth	184,208	168,283	152,455	216,629	259,917
Ngqura	774,899	806,090	572,021	636,663	705,377
East London	59,787	63,324	71,901	66,293	41,957
Richards Bay	6,510	15,241	12,302	19,011	24,189
Total all ports	4,883,329	4,634,829	4,355,320	4,597,922	4,588,419

*Source: Africaports*

<sup>47</sup><https://www.transnet.net/InvestorRelations/AR2018/TPT.pdf>

### **2.7.2. Dry Bulk**

The South African port system handles three main major dry bulk cargoes, i.e. iron ore (port of Saldanha Bay), coal (port of Richards Bay), and manganese (ports of Port Elizabeth and Saldanha Bay). South Africa generates 4 per cent of all iron ore imports to China. Demand for high grade iron ore is driven by the global steel industry and its subsequent supply to the manufacturing of automobiles, construction and specialised infrastructure markets. South Africa is currently exporting large quantities of coal to India. In May 2019 South African Revenue Services (SARS) reported about 66.8% of all South Africa coal goes to India. Furthermore dry bulk commodities such as iron ore and steel were largely exported<sup>48</sup>.

## **2.8. MAJOR COMMODITIES NATIONAL CARGO DEMAND**

Coal exports maintain the greatest share of South Africa commodity demand. The demand for iron ore is experiencing relatively low growth. According to Transnet 2016, the coal export demand was at 73mtpa, that is the largest demand which was being transported through the national port system, followed by iron ore exports at 58mtpa, and the demand (import and exports) for container and liquid bulk cargoes, each to 29mtpa and 34mtpa respectively. Even if not as significant in cargo demand tonnage such as coal and iron ore, exports of manganese is experiencing the largest percentage increase in dry bulk tonnage in the port of Port Elizabeth, although, according to Transnet, the manganese terminal will be transferred to Ngqura only in 2023<sup>49</sup>. The figure below is forecast, in total in 7 years and in 30 years.

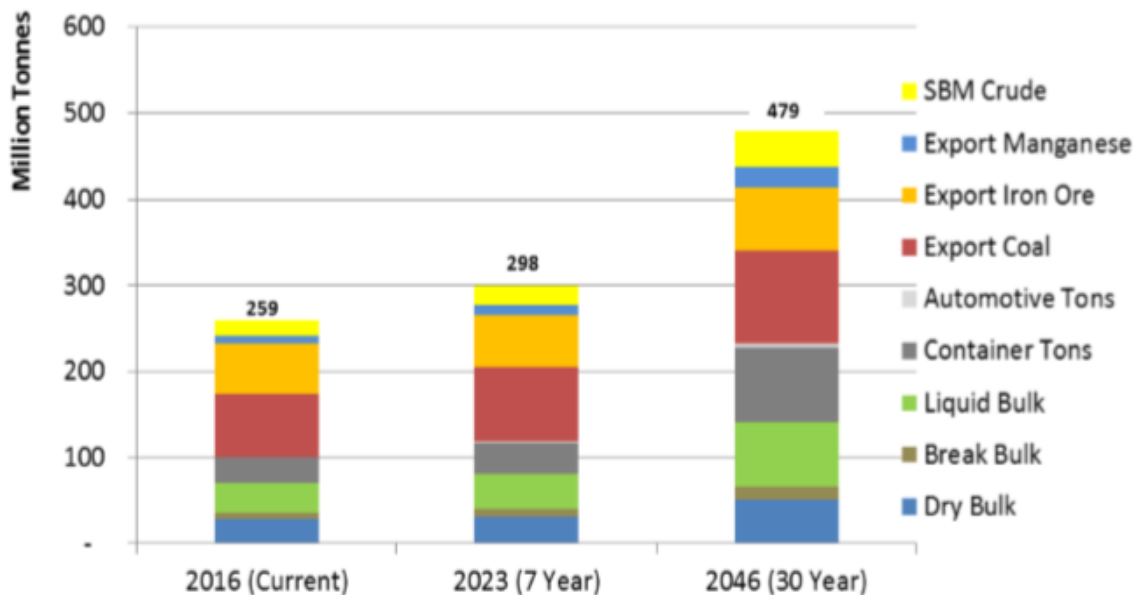
Figure 2.9, below above is the forecast to the above shown major commodities (SBM Crude, Export Manganese, Export Iron Ore, Export Coal, Automotive Tons, Container Tons, Liquid Bulk, Break Bulk and Dry Bulk) in South Africa. The high demand for iron ore is driven by the global steel industry and its subsequent supply to the manufacturing of automobiles, construction and specialized infrastructure markets.

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<sup>48</sup> [www.southafricanmi.com](http://www.southafricanmi.com) › maritime-transport-review-2018-24jul 2019 (Access 7 March)

<sup>49</sup> <https://africaports.co.za/2018/01/17africa-ports-ships-maritime-news>.

**Figure 2.9 National Port Tonnage Forecast, Total**



Source: Transnet LTPF

Figure 2.10 below is a forward view vessel sizes which are accommodated in South Africa ports. As it reflected below these vessel types reflect the major contribution to the economic growth (GDP) in terms of cargo freight in the South Africa port system. Vessels visiting South Africa are summarized for the current and medium term for the container, dry bulk and liquid bulk. The summary below provides the critical dimensions of the vessels, with the indication of the ports which are currently able to accommodate the vessel and which are subject to port expansion projects in the medium term<sup>50</sup>.

<sup>50</sup> Ibid 34

**Figure 2.10: Port Development Plan Vessel Sizes and Current Port Capabilities.**

Vessel	Side view	Dimensions (LOA x Beam x Draft)	SB	CT	PE	Ng	EL	Dig- out	Dur	RB
Container: Feeder 3 000 TEU		210m x 30m x 11,0m		✓	✓	✓	✓	✓	✓	✓
Container: Panamax 4 500 TEU		240m x 32m x 12,0m		✓	✓	✓		✓	✓	
Container: Post Panamax 6 600 TEU		300m x 40m x 14,5m		✓		✓		✓	✓	
Container: Ultra large 18 000 TEU		400m x 59m x 16,0m				✓		✓		
Dry Bulk: Handysize 35 000 t		177m x 28m x 10,0m	✓	✓	✓	✓	✓		✓	✓
Dry Bulk: Panamax 80 000 t		229m x 32m x 14,6m	✓			✓			✓	✓
Dry Bulk: Cape Size 180 000 t		289m x 45m x 18,0m	✓							✓
Liquid Bulk: Handymax 50 000 t		183m x 32m x 11,0m	✓	✓	✓	✓	✓	✓	✓	✓
Liquid Bulk: Suezmax 175 000 t		300m x 43m x 16,5m	✓					✓		

Source: Transnet port development plan.

Figure 2.10 shows the current and future vessel sizes which were derived from an analysis of global current and future vessel trends. These includes different vessel types which include container vessels, dry bulk and liquid bulk vessels and these vessel types are the reflection the major contributions to GDP in terms of cargo freight in the South African port system. This summary presents the principal vessel caller types, and indicates which ports are currently capable to accommodate each vessel. The port of Ngqura has the capacity to accommodate the largest Ultra Large Container ships. Richards Bay and Saldanha Bay are the two ports which are capable to accommodate the largest dry bulk carrier, generally of so-called Cape size. The maximum liquid bulk carrier, the Suezmax tanker, can only be accommodated in the port of Saldanha Bay and in the future, in the proposed Durban dig-out port<sup>51</sup>.

<sup>51</sup> Ibid 34



The National Ports Authority (TNPA) had planned to spend R21.3 billion on expanding and upgrading the infrastructure of the Durban harbour. The investment involved a lot different projects, which were designed to create the infrastructure necessary to facilitate an increase in, create in the overall capacity of the port. Upgrading and expanding the existing port infrastructure to accommodate the capacity of larger vessels which are new in the market. The development of the dig out port would possible be tendered out as a Build, Operate and Transfer (BOT). The development of the new port will also allow for improved port efficiency and hence the ability to achieve these volumes of container handling<sup>52</sup>.

Economically it is necessary to consider if the digout Durban International Airport (DIA) port expansion, it is to the extent of a maximum projected demand growth of 12.6 million TEUs cargo throughput by 2023 against port capacity supply. However, the externality costs of construction and operation; do not justify enlarging the DIA port to a total Durban container capacity of 15.7 million TEUs. As the type of vessel traffic growth cannot be predicted, differing berth types should all be constructed but Berths 1, 2, 3 and 4d are not economically necessary, being unprofitable. These developments may create more macroeconomic benefits of increased competition, trade, employment, revenue and expenditure, increasing total cargo handed, vessel numbers and gross vessel tonnage. The proposed digout port will allow additional growth and decrease port congestion with the potential economic benefits of increasing expenditure, trade and port revenue for the provincial and local Durban economy, “national GDP growth and employment in alignment with South Africa’s ASGI-SA (Accelerated and Shared Growth Initiative). In conclusion, the addition of a second Durban port/current port modernisation may attract larger but more eco-efficient vessels, fewer in numbers with lower associated emissions costs per vessel visit than current users”<sup>53</sup>.

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<sup>52</sup> A. Mahara “*Economic Development Position Paper on Port Expansion*”: EThekweni Municipality Economic Development and Investment Promotion Unit: Policy, Strategy, Information & Research.

<sup>53</sup> J A. Dyer (2014) “*Is Durban’s Port Expansion Really Necessary?*” Tips Discussion Paper: University of KwaZulu Natal Unit of Maritime Studies.

## **2.9. WHERE IT MIGHT BE EASIER OR MORE DIFFICULT FOR SOUTH AFRICAN OPERATORS TO BREAK IN TO THE INDUSTRY.**

In maritime industry there are different components which work differently. These are the dry bulk, container liner and the tanker trade as stated. It is very important to identify where it might be easier as well difficult for South African operators to break in to the industry.

The author's view is that the easier industry segment for South African's operators to break into the dry bulk sector. Firstly, as mentioned earlier, the bulk industry is quite generally competitive in nature and comprised a large number of independent operators. The majority of cargo which is exported in high volumes is coal, iron ore and grain and manganese.

In respect of containers shipping it can be more difficult for South Africa operators to break in to that industry, firstly since it is characterized by less competition and highly considered much more as oligopoly. Also the industry is composed of overlapping consortium and alliance arrangements among container majors.

## **2.10. FUTURE PERSPECTIVE**

Transnet is set out port development plans to ensure capacity ahead of demand, but it also considering the sustainability of the infrastructure being planned. Sustainability of infrastructure relates to its performance lifespan and durability while also examining the social, economic and environmental impacts the infrastructure development will have throughout its lifespan. Strategic focus areas, key initiatives and performance indicators that are relevant to the port sector include the expansion and maintenance of economic infrastructure, growing volumes and improving market share, enabling regional integration, improving performance, productivity, and operational efficiencies. The objective is to increase cargo handling volumes on major commodities, coal, iron ore and automotive cargo. Transnet is focusing on key initiatives and performance, which

are relevant to the port sector. The export coal still maintains the highest share in South Africa cargo in port of Richards Bay<sup>54</sup>.

Container terminal land space (stacking areas, yards etc.) are projected to grow from 360ha to approximately 812ha with the acquisition of the land for the Dig-out Port at the old Durban International Airport and ultimately 1 100ha with the onset of Bayhead dig-out, Cape Town reclamation and Ngqura seaward expansion. Container capacity planning was undertaken over a 30-year planning period, for the four dedicated container terminals. The port of Durban handles close to 5 000 commercial ships every year. This is highest number in South Africa and translates to an impressive 74 million tons of cargo per year. In 30 years' time there is an expectation of 175 million tons, with major growth being forecast in containers and bulk liquid handling and moderate growth in automotive cargo. According to Transnet Port Terminal there is potential to improve throughput capacity by reconfiguring the existing precincts of the Durban Container Terminal<sup>55</sup>.

## **2.11. CHAPTER SUMMARY**

In summary, the chapter has looked at a global overview of maritime seaborne commerce inserting South Africa seaborne commerce. The chapter started by showing the behaviour of the components of sea trade and highlighted any changes in the commodity composition of seaborne commerce. To fit South Africa sea trade into global framework, what cargo volumes and of what type were estimated, identifying the major and more minor ports and establishing the point that we have largely complementary rather than competitive ports system. In the context of the major component parts of the sea transport industry, the chapter ended by posing the more challenging question as to where it might be easier or more difficult for South African operators to break in to the industry in the future.

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<sup>54</sup> Ibid 34

<sup>55</sup><https://mg.co.za/article/2015-07-17-south-africas-ports-expanding>

## CHAPTER 3

### LITERATURE RIEW

The purpose of this chapter is to engage with a body of received literature relevant to some of the central issues that relate to the development of South African seaborne commerce and the South African shipping industry. The central conceptual areas to be interrogated are the ruling terms of shipment and their influence on the development of the seaborne commerce in South Africa, and on the ability of South African cargo owners to participate in the transport of the country's seaborne exports and imports, and on the Balance of Payments (BOP). The chapter will start by giving a full spectrum of the terms of shipments (INCOTERMS) and therefore with the basic of INCOTERMS 2010 and tease out the implications for the involvement of buyers and sellers in the transport process and why this is important.

#### 3.1. TERMS OF SHIPMENT

In every transaction of trade between buyers and sellers (or importers and exporters), there must have a common ground understanding and perception in terms and conditions under which they trade. Therefore, to avoid unnecessary conflicts and misunderstanding between parties involved, standard trade definitions most commonly used in international trade are needed. This standard trade definitions were developed and administered by the International Chamber of Commerce (ICC) in Paris. International Commercial Terms ("Incoterms") are internationally recognized standard trade terms used in contracts of sale (not of the contract of carriage). INCOTERMS inform the parties what to do with respect to carriage of the goods from buyer to seller as well as export and import clearance. They also explain the division of costs and risks between the parties<sup>56</sup>.

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<sup>56</sup>Kemitraan, S. "Evaluating the Shift in Incoterms for Indonesian Export Products": Final Report (2016)

The terms of shipments are a set of delivery terms which were first developed from the International Chamber of Commerce (ICC) resolution 13 of 1920, to overcome the difficulties which result to all the interested parties from the different interpretation given to the shipping terms. Incoterms were first established in 1936 and had been updated in 1953, 1967, 1976 1980 and 2000 and the more recent amendment was made in 2010 which became effective in January 2011<sup>57</sup>. To keep pace with the ever-evolving global trade landscape, the latest update to the trade terms is currently in progress and is set to be unveiled in the second half of 2019 for entry into force on 1 January 2020<sup>58</sup>.

The Incoterms establish the costs, risk and the practical aspects of carriage of goods between the buyer and the seller. The application of these rules enables one to mitigate any misunderstandings which may result from the lack of precise knowledge of the trade practices. Coetzee claims that the “incoterms represent a codification of the international mercantile customs and usages applicable to the delivery obligations of the seller and buyer where goods have to be transported from one place to another”<sup>59</sup>.

Incoterms have been updated in almost 10 years; however that was not a rule. The reasons for the set of new rules were the changes in relations between business partners. Ramberg explained that the reason for the additional rules was the loophole experienced and the first version of the Incoterms was clearly focused on commodity trading and fixed the important delivery points at the ship's side or at the moment when the goods are taken on board the ship. Incoterms enables the business partners to define their responsibilities. There are eleven (11) Incoterms 2010, and these are grouped according to their mode of transport. Incoterms 2010 rules determine the division of costs and risks as well as responsibilities between the seller and the buyer. These terms have been subject to numerous changes over the years. The main reason

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<sup>57</sup>Ramberg, J. “INCOTERMS 2010” Penn State International Law Review: Volume 29 Article 3

<sup>58</sup> International Chamber of Commerce, Incoterms 2010, Published by ICC, Paris.

<sup>59</sup> Joanna Kadlubska “*The Significance of the Incoterms Rules in the Freight Forwarding Services Market*” University of Technology, Czestochowa Poland: WSN 57 (2016) 97-105.

for modifications is the changing world's economy and economic factors concerning cost reduction. Using Incoterms provides a useful and consistent set of benchmarks against which international trade business transactions may be classified and presented<sup>60</sup>

### **3.1.1. OVERVIEW OF TERMS OF SHIPMENTS/INCOTERMS**

Incoterms have become an international standard to the extent that they are globally used to interpret trade transactions. The Incoterms 2010 provide harmonized interpretation rules for eleven common trade terms<sup>61</sup>. A trader has to decide the Incoterms which is appropriate to the specific transaction to engage in from these eleven common terms. These are:

- EXWORKS;
- Free Carrier (fca);
- Carriage Paid To(cpt);
- Cost and Insurance Paid To (cip);
- Free AlongsideShip (FAS);
- Free on Board (FOB);
- Cost and Freight (CFR);
- Cost and Insurance Fund (CIF);
- Delivered At Terminal (DAT);
- Delivered At Place (DAP);
- Delivered Duty Paid (DDP)

International Chamber of Commerce the latest update is Incoterms 2010 when this research was done. In this paper the focus will be on the current used Incoterms 2010.

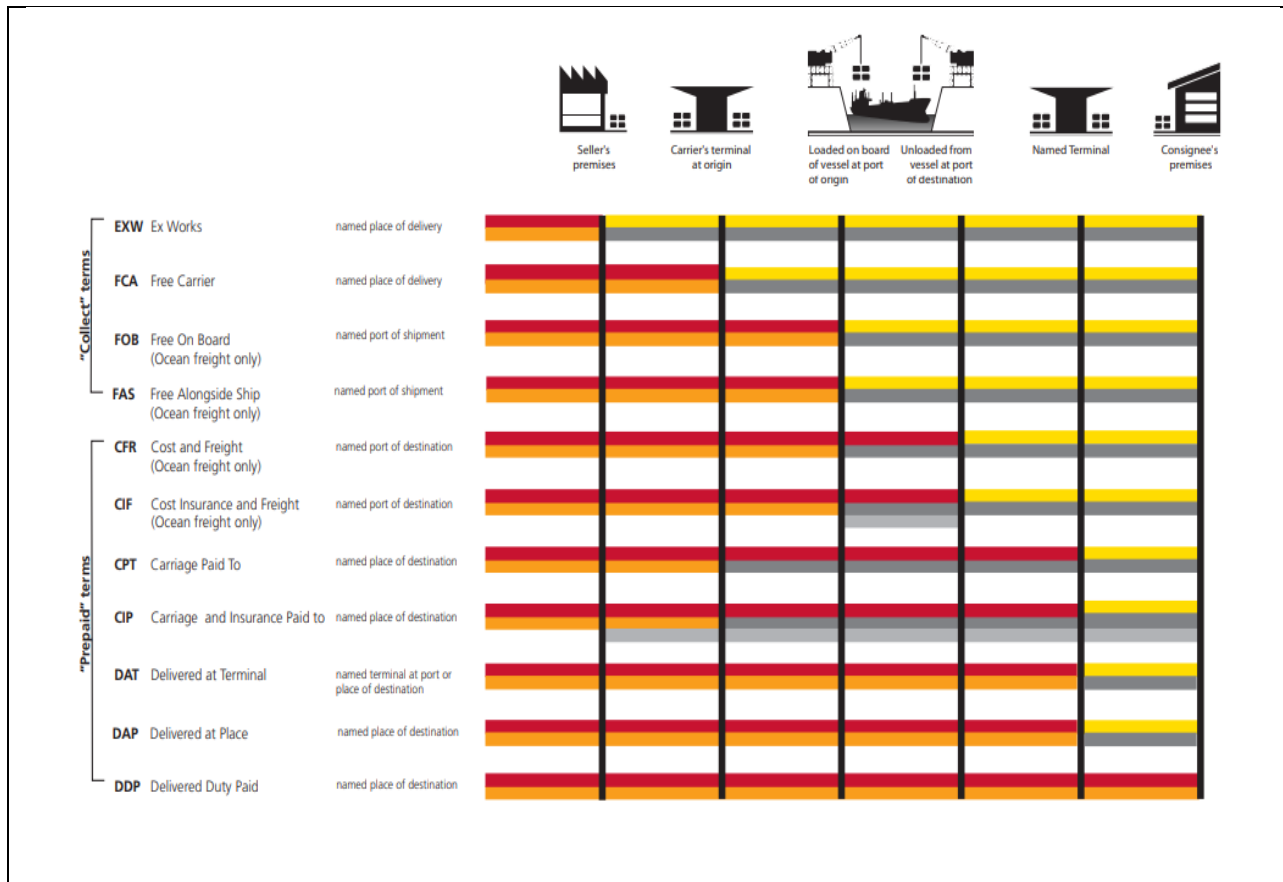
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<sup>60</sup> J Kadlubska “*The Significance of the Incoterms Rules in the Freight Forwarding Services Market*”, Czestochowa University of Technology, Czestochowa, Poland: 57 (2016) 97-105

<sup>61</sup> Ibid 47

Incoterms 2010 are divided by the mode of transport. The terms of shipment have been arranged in the manner that balances the obligations between seller and buyer.

**Figure 3.1: Basic overview of the INCOTERMS 2010**



Source: [www.dhl.com](http://www.dhl.com)

Incoterms are grouped into four categories which is E; F; C and D terms explained below:

- E-terms (only EXW): the goods are placed at the disposal of the buyer at the seller's premises – 'come to collect the goods';
- F-terms: the buyer is responsible for the cost and risk of the main international carriage – goods are 'sent from';
- C-terms: the seller pays for the main international carriage, but does not bear the risks thereof – goods are 'sent to, freight prepaid';

- D-terms: the seller bears all costs and risks up to the delivery point in the country of destination – goods are ‘delivered at’<sup>62</sup>.

### 3.1.1.1. FOUR MARITIME INCOTERMS

There are four principal Incoterms which can be used in maritime transport. What is more significant and the biggest concern in this research are maritime-related Incoterms which are FAS, FOB, CFR and CIF<sup>63</sup>. These will be discussed in some detail by looking at how the risk passes from one part (seller) to another part (buyer) and who is involved in the transport arrangements (who chooses the vessel and pays for the transport) and who is involved in the ocean freight rates, figure 3:1 shows.

This exercise will draw on the work of Ramberg (2011), whose guide to Incoterms 2010 addresses the practical use of the respective terms; and teases out the implications for the involvement of buyers and sellers in the transport process. One of the major questions asked in this research is, how to develop a shipping industry if cargo owners (exporters and importers) follow patterns of the INCOTERMS that do not involve them in transport processes (i.e predominantly fob exports and cif imports?).

1. **Free, alongside Ship** – the seller delivers the goods alongside the ship which is nominated by the buyer at the named port of shipment. The risk passes when the seller delivered the goods alongside the ship. Under FAS it is the seller’s obligation to clear the goods for export and to obtain any export license or other official authorization. This is a change compared with FAS as interpreted in the versions of the Incoterms rules before 2000. The seller’s obligation to clear the goods for export is now the same as under FOB<sup>64</sup>.
2. **Free On Board (FOB)** – the buyer nominates the vessel and the seller delivers the goods inside the vessel nominated by the buyer. The risk passes when the goods are on board the ship and the seller clears the goods for export. In the

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<sup>62</sup> Ibid 47

<sup>63</sup> Ibid 47

<sup>64</sup> Ibid 47



case of transport arrangements the buyer controls the transport to carry the goods. The seller must clear all the goods for export including the cost for customs, duties and taxes. Furthermore, the seller is expected to pay the pre-shipment inspection<sup>65</sup>.

3. **Cost and Freight (CFR)** - the obligation of the seller under CFR is to deliver the goods on board the ship nominated by the buyer or to the carrier. The seller is responsible to pay the ocean freights to deliver the goods into the named port destination. The risk passes when the goods have arrived at the nominated destination. As noted above, delivery under the CFR term occurs at the moment the goods are placed on board the vessel at the port of shipment. Thus, the CFR term, like the FOB term, is evidence of a shipment contract<sup>66</sup>.
  
4. **Cost, Insurance and Freight** - what is meant by CIF is that the seller must deliver the goods on board the ship nominated by the seller. Like the CFR the risk passes when the goods are on board the ship and the seller is also responsible to pay freight rates to bring the goods into a named place of destination. The seller will also cover the minimum insurance against the buyer's loss of goods during the time of carriage if the buyer can expressly extend its own extra insurance arrangements<sup>67</sup>.

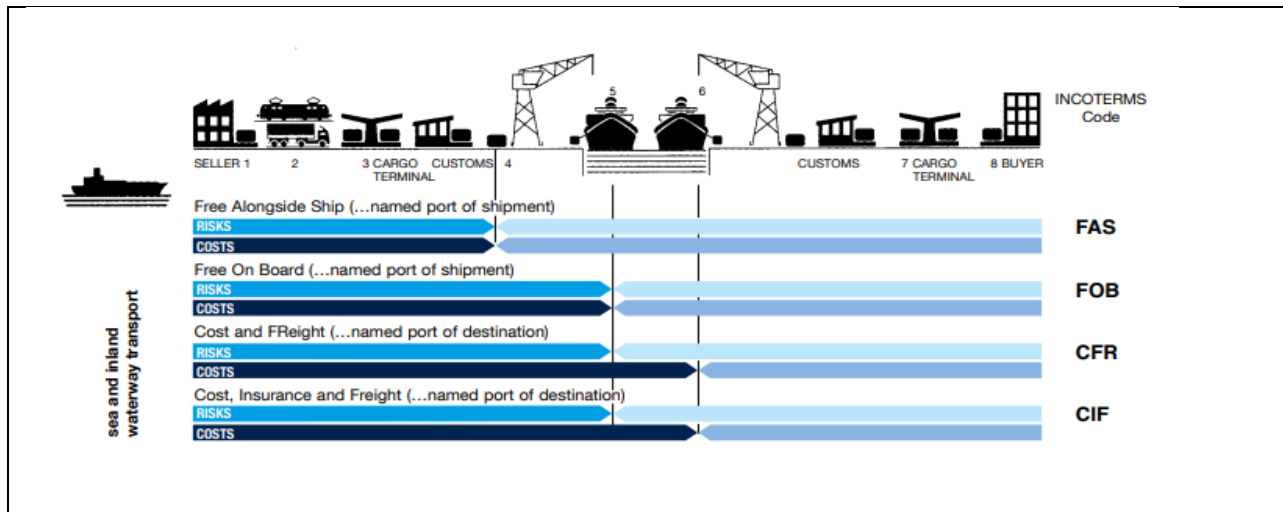
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<sup>65</sup> Ibid 47

<sup>66</sup> Ibid 47

<sup>67</sup> Ibid 47

**Figure 3:2 Passing of Risk and Costs**



Source: [www.kuehne-nagel.ch](http://www.kuehne-nagel.ch)

The figure 3:2 above it shows the passing of risk and the cost of the buyer and the seller. In FOB, CFR, and FAS the obligation of the buyer is rather more involved in arranging the transport. The seller delivers the goods on a vessel nominated by the buyer, whereas under CIF the seller nominates the vessel and the risk passes when the goods are inside the vessel at the port of shipment. In international transport it is very significant to understand who must organise the transport in the process of international trade<sup>68</sup>. As a general principle, the entire transport should be organized either by seller or buyer.

Following from this more generalized discussion of the various standard forms of the INCOTERMS in international maritime transactions, the focus of this research will now turn to transport processes in South Africa, and the ruling patterns of the INCOTERMS that apply to these.

<sup>68</sup> Ibid 47

### **3.2. SOUTH AFRICAN LITERATURE INCOTERMS**

According to Comprehensive Maritime Transport Policy (CMTP, 2017), sea trade accounts for between 80 and 90 per cent of the South Africa economy. The majority of South Africa (SA) exports are conveyed by sea approximately 98 per cent and imports, as mentioned in chapter one of this research. For the purposes of this research, it is therefore of relevance to interrogate the literature on the SA terms of shipments (INCOTERMS), and their implications for the development of the South African shipping industry.

The chosen terms of shipments exercise have a considerable influence over the benefits the country receives from the maritime industry. Buying Free on Board (FOB) and selling Cost, Insurance, and Freight (CIF) allows the trader to nominate the carrier of their choice. A maritime and trading nation should be able to provide for most if not for all the services required for international trade to take place and to allow for appropriate choices between its services and those offered internationally. These services should include insurance, freight and related costs<sup>69</sup>.

There are two major literature sources on the terms of shipment in South Africa that the author found, Jones & Kennedy (1991) on the terms of shipment of South African seaborne trade and Lushkinov (2003), who did a study on a critical analysis of the international terms of shipment in dry bulk exporters from the port of Richard Bay. It is important to mention what these scholars mention as the part of the literature.

Jones and Kennedy did a study which was build up on an impression of terms of shipment (FOB vs CIF) governing South African exports, mainly bulk exports. The study examined reasons why these respective shipment paths were chosen, and attempted to identify problems that militate against a higher proportion of CIF arrangements. The study was based more or rather focused on the bulk cargoes and the majority is exported using FOB terms. on the interviews which were conducted with the major exporters of both bulk and liner cargoes reveals that the bulk of the sub-continent exports move on fob terms, the situations that leave the choice of carrying vessels in hand of the overseas buyers of South African products. A minority of CIF exports did

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<sup>69</sup> Ibid 2

exist and are primarily on the sphere of higher valued cargoes or to cargoes susceptible to damage in transit. The higher incidence of CIF export sales is likely to benefit both the South African shipping industry and the balance of payment<sup>70</sup>.

According Lushnikov, two of the eleven available terms deserve particular discussions. These are Free on Board (FOB) and Cost Insurance and Freight (CIF), which are mostly used in dry bulk commodities in South Africa. Both terms are long established and ideal for seaborne transport in port-to-port shipments. As mentioned above on FOB, when goods are sold on FOB terms the seller's obligation is to load the goods in the nominated ship by the buyer and therefore all risks are transferred to the buyer<sup>71</sup>. The vital difference between the two terms is the nomination of the vessel to transport the goods. The FOB allows the buyer to nominate the ship and CIF the seller nominates the ship and also the subsequently exercise a degree of control of the costs of the shipment. These two terms have had an important influence in the development of international and fundamentally South African seaborne trade<sup>72</sup>. The port of Richards Bay exports the majority of South African dry-bulk cargo and is the leading port presently in handling dry-bulk cargoes. Given such a background the study tried to critically analyze the choice of trade terms, particularly between FOB and CIF options, accustomed by major exporters of dry bulk commodities from the port of Richards Bay.

### **3.2.1. RULING PATTERN OF SOUTH AFRICA'S TERMS OF SHIPMENT**

The majority of export is sold FOB, while the imported cargo is purchased CIF, which leaves the shipping arrangements to foreign importers and exporters (Jones, 1987)<sup>73</sup>. In the study by Jones & Kennedy, it was mentioned that the centre of gravity in the

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<sup>70</sup>Jones T., Kennedy T.L., 1991, "*The terms of shipment of South African seaborne exports, Final Report*", National Institute for Transport and Road Research, South Africa

<sup>71</sup>Lushnikov A, 2003, "*A critical analysis of the international terms of shipment in dry-bulk exports from the port of Richards Bay*": University of Natal.

<sup>72</sup> Ibid 5

<sup>73</sup> Jones, T. (1987), "*The international shipping industry and South Africa's seaborne trade*", Technical Report, National Institute for Transport and Road Research: South Africa.

majority of bulk sector based on the survey high commodities such as, coal, manganese ore, chrome ore, iron ore, maize, sugar, molasses and vermiculite fob exports, but not all principal bulk shippers were included in the survey, hence no fully coherent commodity by commodity picture could be presented. Based on the survey which was done the majority of bulk are FOB even though there are minority of CIF on higher valued benefited goods such as ferrochrome and ferromanganese recorded a somewhat higher incidence of CIF sales<sup>74</sup>.

South Africa bulk exports are dominated by coal. South Africa coal industry is the sixth biggest in the world<sup>75</sup>. In the work of Jones (1991), the author notes that “the market for South African exports is no exception, and it quickly became clear that many but no means all, exporters, including some substantial actors in the coal, saw themselves as less powerful, and less able to secure favourable freight terms, than their overseas customers”. Some of the larger coal and mineral exporters are committed to 100% fob sales, and defend this on the grounds that “they are miners, not shippers.

### **3.2.2. WHY TRADERS SELECT THE RESPECTIVE INCOTERMS**

Free on Board and Cost and Insurance Fund are the most dominating terms of shipments used for exports and imports in South African sea trade. In the survey of exporters conducted in the Jones and Kennedy study, many responded that their overseas buyers possess both the power and the willingness to insist on fob terms. Buyer insistence on fob terms, particularly from Japanese and other far eastern buyers, is one of the most common responses to questions as to why a higher proportion of exports are not transported in vessels controlled by South African interests<sup>76</sup>. The identified shipper attitudes of relative indifference towards a greater involvement with

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<sup>74</sup>Jones, T. (1991), *“The shipping industry and South African Balance of payments”*, Department of Economics: University of Natal Durban.

<sup>75</sup> A Eberhard *“The Future Of South African Coal: Market, Investment, And Policy Challenges”* Working Paper 2011: Stanford University.

<sup>76</sup> Ibid10

the sea transport of their products as a serious stumbling block in path of a higher proportion of cif sales, and a larger role for South African carriers. Jones & Kennedy (1991) stated "there are no hard and fast rules that apply in deciding whether a contract will be FOB or CIF and this is generally decided on a case-by-case basis according to the respective strengths of the seller and buyer at the time of negotiation". Furthermore, every trader is coherent, profit maximising operators and who always look for the low priced and most efficient means of transportation. For these reasons it is significant for the author to take the reader to the factors in favour of FOB and CIF<sup>77</sup>.

### **3.2.2.1. FACTORS IN FAVOUR OF FOB TERMS**

There are reasons for the meticulous choice in the terms of shipment and there are variables that influence that choice. As for the INCOTERMS, reasons for specific choice differ from commodity to commodity and as well from exporter to exporter. As mentioned above there are factors expressed in defence of Free on Board as follows:

1. The choice in terms of shipment depends on customer requirements;
2. Customary practices in the trade of certain commodities may dictate ruling terms;
3. Buyers have stronger market power;
4. Buyers can negotiate better freight rates, compared with abilities of the sellers;
5. FOB terms are dictated by exporter's commercial decisions and provide shorter terms of payments as opposed to CIF terms;

The fact that FOB terms provide shorter terms of payments as opposed to CIF terms, undoubtedly indicates that, according to certain exporters, CIF terms are mistakenly believed to be arrival contracts, in which the seller would bear all risks and costs until the goods have actually arrived at the agreed point. However, it must be stressed that CIF terms are of the same nature as the FOB terms in that the seller fulfils the contract in the country of shipment. Thus, the CIF terms, like FOB terms, fall within the category of shipment contracts. Furthermore the argument of South African exporters regarding

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<sup>77</sup> Ibid 60

the dominant relative position of importers in the market place is questionable, especially in the exports of coal and chromite where South Africa commands the leading position<sup>78</sup>.

### **3.2.2.2. FACTORS IN FAVOUR OF CIF TERMS**

FOB terms are easier, but very limited compared with C-terms or additional extended arrival contracts, the proponents of CIF terms agreed. Moreover CIF&CFR terms allowed shippers to create added value, control inventory levels, and are considered more market orientated compared with FOB terms. These terms not only required the seller to nominate the carrying vessel, which is similar to CIF terms, but also keep exporters responsible for the arrival of the goods at the agreed place or point of destination within the country of import. Following are the factors of CIF terms:

1. The choice in terms of shipment depends on customer requirements;
2. Control by exporters over the value chain and logistics of the operations was facilitated by CIF sales;
3. Shipment on CIF terms allowed seller to secure the vessel most suitable for trade;
4. In certain instances, the seller was able to negotiate better freight rates than the buyer;
5. CIF terms provide exporters with additional revenue.

### **3.2.2.3 ADVANTAGES OF THE SELLER ORGANIZING TRANSPORT**

A seller may have a better chance to secure a better transport arrangement and at cheaper price than the occasional buyer of similar quantities. The author agrees with is statement for the seller is always in the business therefore it can be very easy to understand and to be familiar with the industry, hence advantageous to the seller.

In many instances, traders may be unable to make a full estimation of the cost off carriage early in the execution when negotiating the contract. The seller may neglect an

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<sup>78</sup> Ibid 61

important opportunity to manage the transport and charge some commission to the buyer for the service rendered. The seller has the advantage to consolidate the shipment arrangements at a low cost. The supplier can negotiate with the transporter of his choice, whom he knows and trusts to transport a specific parcel of goods. If the seller organises the transport it will be to the benefit of the buyer and may also lead to lower freight cost. Moreover, if the seller includes transport charges in his selling price, it can be easier for the buyer to compare offers internationally<sup>79</sup>.

#### **3.2.2.4 DISADVANTAGES OF THE SELLER ORGANIZING TRANSPORT**

The seller will be disadvantaged if the quotation price to the buyer includes the transport and the insurance and the time when the contract to be executed and the carrier prices are higher than the initial contract between the seller and buyer. Including freight in the selling price means that this difference will reduce the profit margin.

The buyer may encounter a problem when the seller fails to pay the carrier if the duty is on the seller. The latter will then have a right of retention on the goods, and the buyer although he might already have paid the price of the goods including freight to the seller, will have to pay the freight to the carrier if he wants to take delivery. The buyer stands for a better opportunity to organise the transport on the larger<sup>80</sup>. The main reason for modifications is the changing world's economy and economic factors concerning cost reduction. The issue of universal adoption and clear understanding and application of INCOTERMS remain a challenge more than eight decades later<sup>81</sup>.

#### **3.3. COMMONLY USED INCOTERMS IN OTHER COUNTRIES**

Following analysis in some depth with the commonly used INCOTERMS in South Africa, this study attempts to set out some comparison with other selected maritime countries such as Indonesia, United States and Canada. Indonesia has a closely similar same path as South Africa, exporting using FOB and importing using CIF terms.

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<sup>79</sup> Ibid 60

<sup>80</sup> Ibid 60

<sup>81</sup> Robert, B. "Managing Incoterms 2010 risks: tension with trade and banking practices": *Int. J. Economics and Business Research*, Vol. 6 on 19 January 2018.



Kemitraan conducted a study to evaluate the shift in terms of delivery from FOB to CIF for Indonesia's export products under the World Bank. The study aimed to evaluate the use of FOB vs CIF on four key Indonesian export products, namely crude palm oil, coal, rubber and shrimp. The majority of Indonesian export products are shipped under Free on Board (FOB) terms while import products are under Cost, Insurance and Freight (CIF) terms. In 2016, it was estimated that 95% of Indonesian foreign trade is shipped with foreign-flag vessels. Shifting the term of delivery from FOB to CIF allows the exporters to demand freight as they will organize these transportation arrangements, theoretically. Similarly, the usage of FOB term on imports can generate lower freight as the importer may organize sea transport and carry risk earlier in the supply chain. Therefore, the government of Indonesia seeks to implement a policy for exporting CIF and importing FOB. Additionally, in order to minimize the differences, the government obligated to use a CIF term on the export declaration (PEB) merely for Indonesian export products<sup>82</sup>.

Secondly, the author has found terms which are used in United States and Canada. In these countries INCOTERMS choices are generally limited to three forms commonly referred to as D terms. In this group are the Delivered at Terminal (DAT), Delivered at Place (DAP), and Delivered Duty Paid (DDP) options. The major difference between these three is that DDP transaction puts almost full responsibility on the shipper, including for payment of customs, taxes and brokerage fees. DAT and DAP shipments place responsibility for customs related fees and taxes on the importer/buyer. Canadians want shipments to arrive on time, in good condition, but due to DAT or DDP, automatically fails those expectations due to border delays and unexpected costs. "As this discussion has made clear, the advantages of choosing the Delivered Duty Paid (DDP) Incoterms far outweigh any benefits of shipments arriving at the border with duties outstanding. In fact, the benefits are so obvious, that many Canadian businesses have made DDP shipping a nonnegotiable condition of sale"<sup>83</sup>.

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<sup>82</sup> Ibid 46

<sup>83</sup> Purolator International, Inc. (2015)

### 3.4. THE TERMS OF SHIPMENT AND THE BALANCE OF PAYMENTS

Shipping is an integral part of the global economy, as resources are not always situated where the people most need them; therefore, shipping makes it possible for such resources to move to where they are desired (economically justified if consumer demand is great enough). Through this process the balance of payments account of a country may become either healthy or unhealthy. Depending to the terms of shipments being used to transport goods, this affects specifically the services account. The balance of payments criterion for example has been excessively used in the literature as a good reason for developing and maintaining a merchant marine: the substitution of domestic ships for the foreign ones previously used to carry the country's external trade would save foreign exchange payments for freight transportation and, furthermore, the domestic fleet would be able to earn additional foreign exchange by cross-trading<sup>84</sup>.

Successful trading countries such as China, Korea and India had followed this path. CMTF 2017 holds that the ability of South Africa to carry its own import and export trade has been in sharp decline since the 1980s. This has resulted in the final absence of merchant ships on the South African ship register and this has affected the country in many ways including the loss of critical and strategic public and private sector maritime expertise, a commercial maritime service capacity, industrial capacity including capacity to do research, development and innovation that a country accumulates from regulating/owning and operating an indigenous merchant shipping industry. Maritime Transport is the jugular vein of the South African economy<sup>85</sup>.

The absence of a South African Merchant Marine may play a critical role in the overall performance of this country's economy. Currently the South African Merchant Marine simply does not exist, and this is detrimental not only to South Africa's foreign exchange, but also in terms of invisible earnings, creating job opportunities, and

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<sup>84</sup>Haralambides. E, (2015) "*The economic impact of shipping on the national economy*", Center of maritime economics & Logistics Erasmus University Rotterdam: Purolator International.

<sup>85</sup> Ibid 2

expanding the skills base in the dry bulk business. Thus the employment of South African flag vessels on the export side will have a direct positive influence on the country's balance of payments. "If investment in shipping is accompanied by protection, e.g. flag discrimination, which results in higher freight rates in the protected market, it is no longer the earnings of the national-flag ships which represent a gain to the balance of payments: it is the earnings of the foreign ships which could replace them without protection and at lower freight rates" (Goss: 1965 pp 104)<sup>86</sup>.

Tebogo, state that one of the possible reason for the absence of merchant marine, shipping requires large amount to finance it and it had been seen as near absence of shipping financing institutions to support the growth and the development of South African Shipping. According to the South African Department of Trade and Industry (2015), quite a number of key constraints such as the shortage of skilled labour, lack of a clear roadmap for future ports expansions, lack of innovation and technology development, skewness in industry needs and current available training and an extensive number of companies are undercapitalized and face difficulties in investing in product development; among other key constraints these have continued to hamper the development of the South African maritime industry says Tebogo<sup>87</sup>.

Finally, it is necessary, in the context of this research, to make a statement that emphasizes the importance of the terms of shipment for a country's balance of payments. It will be a very daunting task however to make any estimation of the amount of money lost in payments on FOB terms for transport services to foreign ship-owners. Since these transactions do not involve South African factors of production, they remain outside the RSA balance of payments accounts. This exercise will be attempted in Chapter Five<sup>88</sup>.

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<sup>86</sup> Goss, R.O. (1965) "*Investment in Shipping and the Balance of Payments: A Case-Study of Import-Substitution Policy*", *The Journal of Industrial Economics*, Vol. 13, No. 2 (Mar., 1965), pp. 103-115 : Wiley

<sup>87</sup> Ibid 8

<sup>88</sup> Mthethwa, S.N, "*The maritime industry in South Africa an opportunity for logistics advancement in the bulk exports*", School of business, university of Natal: Durban.

## **CHAPTER 4**

### **RESEARCH METHODOLOGY**

Chapter three had laid a foundation, through the literature review, for any possible realignment of critical questions and refocusing of this research. This chapter builds on this foundation by setting out quite briefly the methodological approach that this will be utilized to interrogate the research questions already identified. The research will be conducted using a secondary data approach. This dissertation is essentially an exercise in desktop research. Some of the literature material is from published authors and research material. The research approach will be an empirical investigation. The data sources will be generated from Transnet, International Shipping Sources, and Marketing Information, UNCTAD, shipbrokers, Desktop searches, the South African Revenue Bank, Trade Map and Easy Data Quantec.

#### **4.1 OBJECTIVES AND CRITICAL QUESTIONS**

This research study will attempt to explore the nature and estimate the extent of the freight transport revenues that are generated (or the freight payments that are outlaid) in the carriage of South Africa's principal seaborne imports and exports, and to explore the possibility of South Africa getting a larger stake of that revenue fund. There is a lack of accurate statistics with which to measure and evaluate the contribution of cargo and maritime related services to the national economy. The questions that the author seeks to address have been strengthened or rather sharpened by the information which was generated from the literature review in Chapter Three. These principal research questions are:

1. How to develop a shipping industry if cargo owners (exporters and importers) follow patterns of the Incoterms that does not involve them in transport process (i.e predominantly FOB exports and CIF imports)?
2. Is it economically a good idea to carry a greater proportion of South Africa exports and imports in South African vessels?

3. What would be the benefits of carrying South African cargo in nationally-registered ships?
4. What is the nature of the sea freight transport revenue fund and is there a possibility of South Africa getting a larger share of that potential revenue?
5. If the ruling INCOTERMS are principally FOB exports and CIF imports, who is currently paying this sea freight transport bill, and how much are they paying?

#### **4.2 DATA COLLECTION METHOD AND RESEARCH APPROACH**

This research adopts a qualitative approach to fulfill the purpose of this dissertation. The manner of research includes raising questions and approaches and the researcher making interpretations of the meaning of the records. The data collection methods are principally quantitative. The total traffic base of the South African ports – roughly 300 million tons – has been estimated from Transnet data, and this traffic base has been disaggregated into principal commodity types, also in part from Transnet sources, but supplemented by independent estimates, Africa Ports. The sea freight bill associated with this traffic has then been estimated by associating each broad commodity type with indicative freight rates drawn from price data available in the public domain (IHS Fairplay, Drewry Maritime Research). These estimates are then interrogated in the context of the published Freight Services data published in the South African Balance of Payments (BOP) accounts, to attempt to account for the apparent under-recording of freight payments on the published BOP, and to seek to understand who does bear those fuller sea freight costs, and whether that pattern of payments and responsibilities may be changed more favourably from a South African perspective. All data collected are available in the public domain and any presentation and analysis of that data will be in the form of estimated calculations and tables, and then discussed fully in Chapter 5. The research methodology will cover the necessary content that will be sufficient to address the research question and draw a meaningful conclusion on contribution on seaborne commerce in South Africa economy.

## CHAPTER 5

### ANALYSIS AND INTERPRETATION OF RESULTS

In this chapter, the main findings and results are presented together with an analysis and discussion thereof. The results presentation is in line with the dissertation research hypothesis. Two relatively distinct exercises are attempted in this chapter, both relating to analysis and interpretation of results. The first exercise attempts to estimate the aggregate import and export sea freight bill associated with South Africa's seaborne commerce. The second exercise seeks to explore the possibility of and the extent to which a greater slice of this freight bill might be captured by South Africans as opposed to foreigners, and by what routes this greater retention of this greater freight revenue might be possible. Two pathways are attempted to look at this; firstly the services account of the balance of payment is interrogated, and secondly the possibilities of a greater control of cargo on the part of South African shippers or a greater control of national ships, are considered.

#### 5.1 EXERCISE 1

The total traffic base of the South African ports – roughly 300 million tons – has been estimated from Transnet data, and this traffic base has been disaggregated into principal commodity types, also in part from Transnet sources, but supplemented by independent estimates<sup>89</sup>.

Total traffic of 300 million tons cargo handled annually by South Africa commercial ports is disaggregated as follows: 4.6 m TEUs come from containers which equates to about 60 million tons. Dry bulk is made up principally of coal (72 mt)<sup>90</sup> and iron ore (60mt); however, there are other significant commodities of note, such as manganese ore (16mt) as well as chrome ore and woodchips (5-6 mt), plus other more minor bulks not enumerated specifically here. Total dry bulk traffic is roughly 171 mt. Liquid bulk volumes are some 30 million tons, made up of 25 million tons of crude oil imports, and approximately 5 million tons of refined petroleum product and chemicals. Other cargoes,

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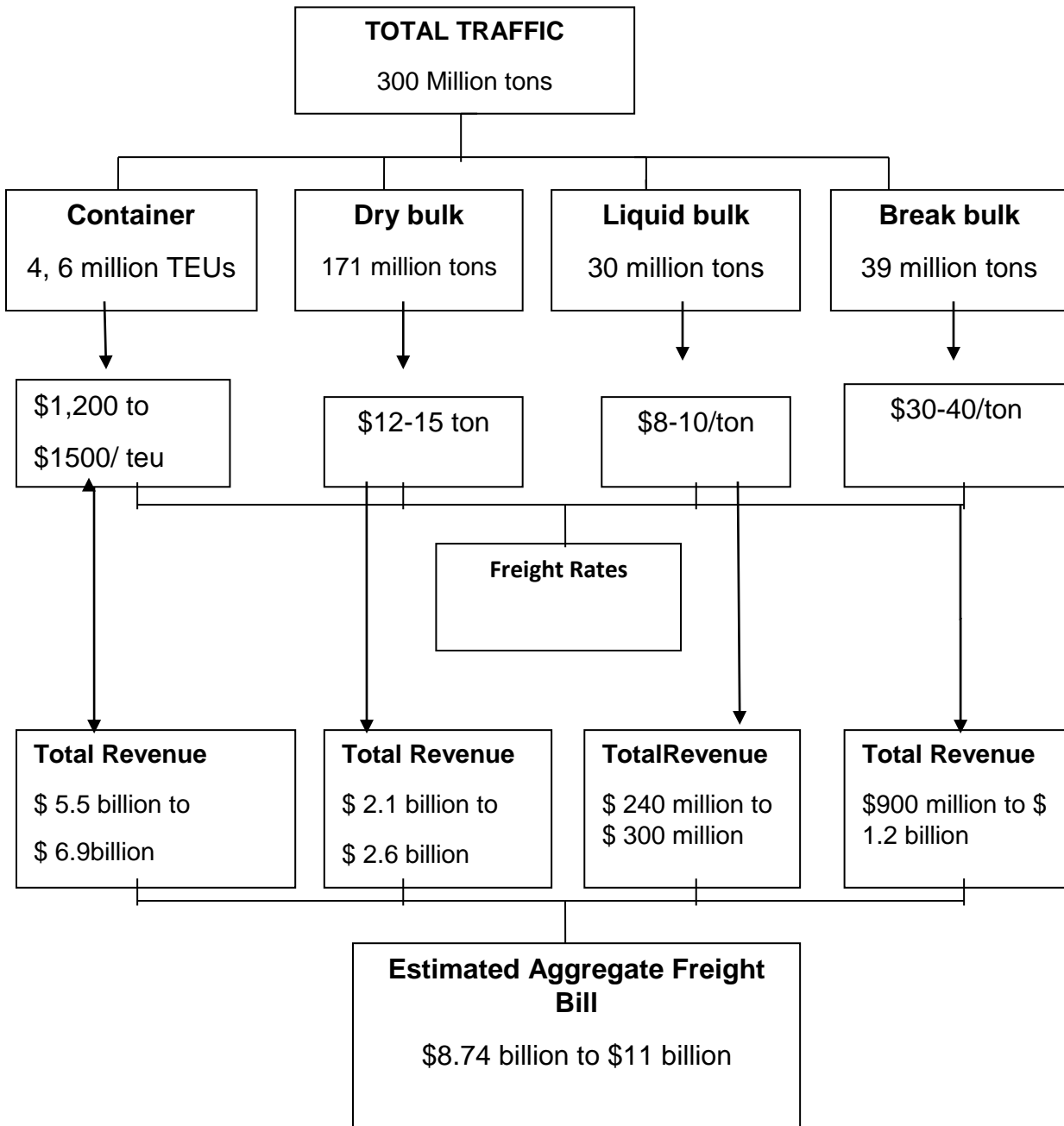
<sup>89</sup>Ibid 11

<sup>90</sup><https://www.transnet.net/InvestorRelations/AR2019/Port%20Terminals.pdf>

including conventional break bulk cargoes, automotive cargoes and important commodities like steel, have not been disaggregated in this exercise, but are treated here as a single residual category of some 39 million tons. This exercise will attempt to estimate the aggregate import and export freight bill associated with this seaborne commerce, as shown below. A range of standard freight rates, adapted from sources such as IHS Fairplay and Drewry are \$1200 to \$1500/teu for containerized cargo, a rather more robust estimate of \$12-\$15/ton in respect of major dry-bulk cargo, a more speculative \$30 to \$40 per ton for residual breakbulk cargo and \$8 to \$10/ ton for liquid bulk oil and petroleum cargoes, are then applied to the respective categories of cargo. This process generates the total revenue for each commodity class and then these are aggregated to arrive at an estimated freight bill. The estimated cargo volumes and freight rates are shown in the figure 5.1 below. This is not an accurate exercise, since the precise freight rates are not always known and therefore higher- and lower-case freight bill estimates will be produced.

The total estimated freight bill as it is shown in 5.1 below generates a high-case freight revenue fund of R157.96 billion and a low-case estimate of R125.51 billion, at ruling January 2020 Rand/US Dollar exchange rates. The first part is an estimate of volume or tonnage as per the commodity composition (and is seen as robust estimate), and to each volume component an indicative freight rate has been attached to generate potential freight revenue for each component and then for the total. The reader must be aware that these are estimated not precise figures. The total freight revenue for containerized cargo of R99.1 billion represents the dominant component of this total freight fund, with the revenue associated with the dry bulk cargoes standing at some R37.34 billion. This represents the aggregate potential fund of revenue that could benefit South African transport interests if South African cargo owners are more involved in transport arrangements, and if more cargoes were to be carried by South Africa vessels.

**Figure 5.1: An Estimate of Aggregate Import and Export Freight Bill**



Source: Author development



## 5.2 EXERCISE 2

Attention is now directed at the published accounts of the South African Balance of Payments (BOP), in an attempt to understand the extent to which the BOP reflects South Africa's sea freight receipts and payments.

The table 5.1 and table 5.2, overleaf, present the services account of the South African balance of payment (BOP) accounts for the past eight years. The first table records the receipts and the second table records payments. The services account show transportation, travel and other services, but the item of greatest interest for the purposes of this research is the "Transportation other" category, which reflects service receipts and payments, respectively, associated with the transport of commodities traded between South Africans and non-South Africans. If only 2018 is considered, the published Services account data show that South African transport interests received some R18.6 billion from foreigners through rendering non-passenger (freight) transport services, but that South African paid out to foreign transport interests some R51.3 billion, showing a considerable net deficit of some R32.7 billion in respect of the freight costs associated with this country's merchandise import-export trade. Given the dominance of sea transport, the majority of these transactions represent sea freight transactions. It is clear, however, that the published freight services magnitudes are substantially below the estimated sea freight costs estimated in section 5.1, above. This shows that the published BOP data fails to capture anything close to the full transportation bill. The reason for this, quite simply, is the dominance of FOB export sales, where no South African is involved and therefore the transactions are unrecorded on BOP.

Jones (1991) conducted a study on the shipping industry and the South African balance of payment. As part of this exercise, he showed that the published services account of the BOP reflects only a fraction of the overall freight costs associated with the carriage by sea of this country's import-export trade, and the interesting question which may arise is how large is this overall freight bill?.The robust conclusions were firstly that the subcontinent seaborne freight bill is far more substantial than the BOP data reflect and secondly that an overwhelming proportion of the associated payments finally fall into

pockets of foreign ship owners, but are also paid by foreign cargo owners and not by South Africans<sup>91</sup>.

**Table 5.1 Balance of Payment (Services, Income and Transfer Receipts)**

Services, income and transfer receipts  
Annual figures

R millions

	2011	2012	2013	2014	2015	2016	2017	2018
Services								
Transportation..... (5700Y)	24 286	25 774	30 201	32 908	31 410	32 116	30 891	29 209
Passenger fares ..... (5041Y)	8 676	9 907	11 823	12 430	11 241	13 017	11 853	10 564
Other..... (5042Y)	15 610	15 867	18 378	20 478	20 169	19 099	19 038	18 645
Travel..... (5043Y)	69 320	82 047	89 189	101 447	105 066	116 357	117 573	118 366
Business ..... (5701Y)	5 633	7 123	7 512	8 354	8 680	9 844	9 807	9 720
Other..... (5702Y)	63 687	74 924	81 677	93 093	96 386	106 513	107 766	108 646
Other services..... (5051Y)	32 579	36 968	42 793	48 370	55 129	62 392	61 774	62 840
Manufacturing services on physical inputs owned by others..... (5733Y)	28	28	32	34	31	41	35	34
Repairs and maintenance services on movable goods n.i.e..... (5734Y)	204	260	560	960	424	432	560	705
Financial and insurance services..... (5735Y)	8 843	9 732	10 902	12 024	13 487	14 639	14 601	15 620
Charges for the use of intellectual property..... (5736Y)	976	1 024	1 156	1 260	1 334	1 601	1 586	1 589
Telecommunications, computer and information services..... (5737Y)	3 936	4 660	5 777	6 664	7 288	8 424	8 853	8 325
Personal, cultural and recreational services ..... (5738Y)	1 024	1 180	1 389	1 576	2 172	2 898	3 146	3 286
Other business and miscellaneous services..... (5739Y)	17 568	20 084	22 977	25 962	30 395	34 357	32 993	33 281
of which:								
Legal services ..... (5740Y)	2 740	2 380	3 334	4 858	5 142	5 749	5 081	5 472
Accounting services ..... (5741Y)	1 548	1 475	1 695	1 546	2 150	2 714	2 754	3 140
Advertising and market research services (5742Y)	1 004	1 060	1 141	1 226	1 592	2 282	3 304	3 337
Architectural, engineering and other technical services..... (5743Y)	3 740	5 371	6 169	7 007	9 188	10 667	9 574	9 592
Total services..... (5002Y)	126 185	144 789	162 183	182 725	191 605	210 865	210 238	210 415

Source: SARB

<sup>91</sup> T Jones (1991) "The Shipping Industry and the South African Balance of Payment" University of Natal: Paper presented at National Maritime Conference, Cape Town.

**Table 5.2 Balance of Payment (Services, Income and Transfer Payments)**

**Services, income and transfer payments**  
Annual figures

R millions

	2011	2012	2013	2014	2015	2016	2017	2018
Services								
Transportation..... (5720Y)	60 609	66 399	75 027	81 686	81 894	83 158	84 758	90 123
Passenger fares ..... (5057Y)	22 519	25 201	29 520	34 088	34 609	36 636	37 433	38 801
Other..... (5058Y)	38 090	41 198	45 507	47 618	47 285	46 522	47 325	51 322
Travel..... (5059Y)	38 028	33 387	33 076	34 349	38 103	41 857	43 405	44 872
Business ..... (5721Y)	10 785	9 124	8 999	9 301	10 389	11 556	11 901	12 490
Other..... (5722Y)	27 241	24 263	24 077	25 048	27 714	30 301	31 504	32 382
Other services..... (5067Y)	52 294	55 457	66 059	68 793	77 646	93 815	87 381	82 944
Manufacturing services on physical inputs owned by others..... (5744Y)	-	-	-	-	-	-	-	-
Repairs and maintenance services on movable goods n.i.e ..... (5745Y)	52	48	56	83	46	79	81	54
Financial and insurance services..... (5746Y)	5 620	6 336	7 012	7 709	8 171	8 446	8 379	8 840
Charges for the use of intellectual property..... (5747Y)	15 362	16 534	18 651	18 791	21 839	28 969	28 298	23 932
Telecommunications, computer and information services..... (5748Y)	5 632	7 444	9 831	11 380	13 359	16 325	16 040	16 615
Personal, cultural and recreational services .... (5749Y)	220	164	220	222	204	267	443	460
Other business and miscellaneous services..... (5750Y)	25 408	24 931	30 289	30 608	34 027	39 729	34 140	33 043
of which:								
Legal services ..... (5751Y)	412	525	707	972	1 271	1 620	1 610	1 982
Accounting services ..... (5752Y)	1 284	1 354	1 443	1 441	1 443	1 533	1 167	1 480
Advertising and market research services (5753Y)	1 356	1 430	1 511	1 614	1 746	2 362	2 354	2 754
Architectural, engineering and other technical services ..... (5754Y)	11 640	9 423	13 043	11 991	13 426	17 910	12 983	11 347
Total services..... (5004Y)	150 929	155 243	174 162	184 828	197 643	218 830	215 544	217 939

Source: SARB

In this case the published Balance of Payments is not a useful avenue to explore the total freight revenue landscape. The critical question to ask, based on the estimated freight bill is whether there is a possibility of capturing a greater slice share of this freight bill if so how? The two obvious routes that present themselves are greater control of cargo (terms of shipment) on the part of South African shippers, and/or greater carriage of goods by sea in South African ships, but overlaid on this is the strong qualification that the BOP will only benefit materially if a higher proportion of transport costs can be captured domestically, in Rand terms. It has been shown that, for the most part, South

African cargo owners use FOB terms to export and CIF terms to import, and those imports and exports are carried overwhelmingly in foreign vessels. In the case of FOB exports, the foreign buyers pay for freight, largely to foreign ship-owners and therefore South African factors of production are not involved, nor are the transactions recorded on the published BOP.

According to the Maritime Charter, the policy recommendation was that government must educate the cargo owners to be more involved in transport arrangements, therefore to use INCOTERMS which involve them to control their cargo. Government therefore would be advised to promote the growth and enlarge the engagement of local entrepreneurs in the maritime industry and to incentivize this engagement. What is significant is how to benefit from the freight which is currently earned by the foreign ships. The alternative (or a complementary engagement) could be a greater direct involvement in the operation and control of ships; however, South Africa is not yet a significant ship owning country, but is currently a consumer of international maritime transport and hence this component represents a significant expense item for South Africa's international trading system. This creates an economic imbalance, which if not addressed, will continue to facilitate the loss of much needed revenue<sup>92</sup>.

Jones notes the simplistic argument, frequently advanced in developing countries, that expanding locally-owned and -operated shipping services will significantly boost the services account of the BOP, on the basis that shifting from foreign to the domestic vessels will decrease invisible imports and improve invisible exports. He demonstrates, however, that this crude argument requires critical appraisal, since it takes little cognisance of the costs of operating the shipping services. Those simplistic ideas gained great currency in different developing maritime countries and were actively pushed in SA in years immediately after World War II, particularly in the advertising campaigns of Safmarine, the major South African carrying line. It is indeed the case that all the freight receipts received by locally operated vessels in all foreign trades must be considered as effective credits in the current account of the country BOP, regardless of whether these freights are paid in foreign currency or in domestic currency by local

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<sup>92</sup> Ibid 2

residents. Receipts from national vessels, in the former case, evidently constitute a new inflow of foreign exchange, while Rand receipts may be argued to reflect a saving of foreign exchange that would otherwise have been paid to foreign carriers. However, the overall effect on the BOP will be related not only to the freight earned by national ships, but also in the foreign exchange expenses they incur abroad, and to the revenues no longer earned by serving foreign ships in home ports. Goss (1965) shows that the pivotal counterfactual question to pose when attempting to estimate the overall BOP effect is “what is the net extent to which the BOP differs from what it would have been if the investment in ships had not taken place? If this simple question is applied, the net annual BOP effect of a decision to participate in deep-sea transportation can be expressed”<sup>93</sup>. Jones attempts to apply this simple methodology to the activities of the South African shipping industry.

In his pioneering research on the relationship between investment in shipping and the Balance of Payments of the investor nation, Goss has demonstrated that investing in ship owning and operations may potentially help to improve the balance of payments, but that this is not a guaranteed outcome, since vessel operating also involves many foreign exchange costs. “It may be noted, however, that what is relevant is the freight currently being earned by the foreign ships. If investment in shipping is accompanied by protection, e.g. flag discrimination, which results in higher freight rates in the protected market, it is no longer the earnings of the national-flag ships which represent a gain to the balance of payments: it is the earnings of the foreign ships which could replace them without protection and at lower freight rates”. A correct analysis shows that there is no characteristic in shipping which makes this effect larger than in other industries; and the size of the improvement in the balance of payments is partly dependent on the return on capital<sup>94</sup>.

One of the critical questions raised in this research is “How to develop a shipping industry if cargo owners (exporters and importers) follow patterns of the Incoterms that do not involve them in transport process (i.e. predominantly FOB exports and CIF

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<sup>93</sup> Ibid 91

<sup>94</sup> Ibid 68

imports)?” Jones states that a powerful influence on the future prospects for a domestic shipping industry and on the services account of the BOP will be the change in the terms of shipments which are currently ruling seaborne commerce in SA. “As a simple rule of thumb, it can be asserted that sales affected on the FOB terms give the buyer the right to determine the vessel carrying the commodities concerned, whereas CIF places this responsibility in the hands of the seller”<sup>95</sup>.

This research has shown that the critical forward path in securing for South Africans a greater share in this country’s import-export freight transportation is likely to be achieved through a greater involvement on the part of shippers in sea transport arrangements, and that a complementary but secondary path may open up if a larger number of vessels were to be owned, managed and operated directly by South African vessel owners and operators.

In summary the relationship between the terms and locally owned vessels is not a simple one, and the change in the attitude of exporters towards a higher proportion of C&F sales would not automatically feed further business to the South African ship owners. However, that change would certainly strengthen the local shipping industry, for the national carriers would be placed to strengthen and to compete more effectively for larger slice of the transport pie. An increase in the number of exports sales (CIF) and imports (FOB) should also improve the balance of payments.

In the literature review studies by Jones & Kennedy and Lushnikov both studies concluded that South Africa exports are sold on FOB terms and imports on CIF and that this relationship has a generally negative relationship on the BOP of the country. One of the questions mentioned above as to how then to develop shipping industry if cargo owners are not involved is still a gap which really needs more research. Jones and Kennedy, on the research about the terms of shipments the surveys which was done shows that the majority of bulk export cargoes (coal, iron ore) are controlled by mining interests whose core business is not shipping, and who are reluctant to involve themselves in transport arrangements since they are “miners and not shippers”.

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<sup>95</sup> Ibid 89

The answer to the broad and basic question as to whether it is economically a good idea to carry a greater proportion of South Africa exports and imports in South African vessels is surely yes, but any associated positive relationship with the BOP (notably the services and current account of the BOP) will depend upon the success of the shipping industry in absorbing a higher proportion of costs domestically, and in Rand terms.

### **5.3 AREAS FOR FURTHER RESEARCH IN THE FIELD OF SEABORNE COMMERCE IN SOUTH AFRICA**

This research has sought to address areas pertaining to recognition of the terms of shipment as one of the major determinants of the fortunes of the shipping industry and its contribution to economic growth. Therefore, this study is an important contribution to the scant available studies in the field of commercial practices among South African exporters.

Consideration of the broader strategic and policy frameworks affecting transport in general, in particular the maritime sector is significant as these are central overarching policies that shape the sector within which government and maritime programmes must be aligned. Through the Department of Transport, Government has developed a Comprehensive Maritime Transport Policy (CMTP) framework to guide the integrated governance, regulation and development of the wider ocean economy and in particular of maritime transportation in South Africa.

## BIBLIOGRAPHY

### PUBLICATIONS

A. Mahara “*Economic Development Position Paper on Port Expansion*”: EThekwini Municipality Economic Development and Investment Promotion Unit: Policy, Strategy, Information & Research.

Chasomeris, M. “*South Africa’s Maritime Policy and Transformation of the Shipping Industry*” Presentation Slides.

Chasomeris, M.G. “*South Africa’s Maritime Policy and Transformation of the Shipping Industry*” unpublished paper: Department of Economics and Finance, University of KwaZulu Natal.

Christa Sys “*Is the container liner shipping industry an oligopoly?*”, Transport Policy University College Ghent: 16(5) (2009) 259-270.

Christa Sys, “*Measuring the degree of concentration in the container liner shipping industry*”: University of Antwerp

Economic Development & Growth in EThekwini “Port and Logistics” 11<sup>th</sup> Issue December 2014.

Goss, R.O. (1965) “*Investment in Shipping and the Balance of Payments: A Case-Study of Import-Substitution Policy*”, *The Journal of Industrial Economics*, Vol. 13, No. 2 (Mar., 1965), pp. 103-115: Wiley.

Haralambides. E, (2015) “*The economic impact of shipping on the national economy*”, Center of maritime economics & Logistics Erasmus University Rotterdam: Purolator International.

International Chamber of Commerce, Incoterms 2010, Published by ICC, Paris.

International Transport Forum, *The Impact of Alliances in Container Shipping*, (4 June 2018).

J A. Dyer (2014) “*Is Durban’s Port Expansion Really Necessary?*” Tips Discussion Paper: University of KwaZulu Natal Unit of Maritime Studies.

J Kadlubska “*The Significance of the Incoterms Rules in the Freight Forwarding Services Market*”, Czestochowa University of Technology, Czestochowa, Poland: 57 (2016) 97-105



Jones T (1991) *“The Shipping Industry and the South African Balance of Payment”*  
 University of Natal: Paper presented at National Maritime Conference, Cape Town.

Jones T., Kennedy T.L., 1991, *“The terms of shipment of South African seaborne exports, Final Report”*, National Institute for Transport and Road Research, South Africa

Jones, T. (1987), *“The international shipping industry and South Africa's seaborne trade”*, Technical Report, National Institute for Transport and Road Research: South Africa.

Jones, T. (1991), *“The shipping industry and South African Balance of payments”*, Department of Economics: University of Natal Durban.

Kemitraan, S. “Evaluating the Shift in Incoterms for Indonesian Export Products”: Final Report (2016)

Lushnikov A, 2003, *“A critical analysis of the international terms of shipment in dry- bulk exports from the port of Richards Bay”*: University of Natal.

Meyiwa, A and Chasomeris, M. (2016) *“Restructuring Port Governance in South Africa”*  
 Journal of Economics and Financial Science /JEF/ 2016 9(3), pp.854-873.

Mthethwa, S.N, *“The maritime industry in South Africa an opportunity for logistics advancement in the bulk exports”*, School of business, university of Natal: Durban.

Port Regulator of South Africa *“South African port capacity and utilization report”*  
 2015/16

Purolator International, Inc. (2015).

Ramberg, J. “INCOTERMS 2010” Penn State International Law Review: Volume 29  
 Article 3

Republic of South Africa “oceans economy summary progress report June 2019:  
 Operation Phakisa.  
*Review of Maritime Transport 2018*. <http://unctad.org/RMT> (accessed 13 September 2018).

Robert, B. “Managing Incoterms 2010 risks: tension with trade and banking practices”:  
*Int. J. Economics and Business Research*, Vol. 6 on 19 January 2018.

SAMSA *“State of South Africa's Maritime Industry Transport Portfolio Committee”* 8 May 2012.

South Africa's OCEAN ECONOMY.

South African Reserve Bank, 2019, Quarterly Bulletin, (Online), Available at<[www.resbank.co.za](http://www.resbank.co.za)>.

Trade and Industrial Policy Strategies (2014) “*Review of regulation in the Ports Sector*”  
Centre for competition Regulation and Economic Development: University of Johannesburg.

Trade and Industrial Policy Strategies, (2014), *Review of regulation in the Ports Sector*<<http://www.tips.org.za/researcharchive>>.

Transnet “Chapter 4”, Transnet, *Long Term Plan Transnet*, 2016, pp199-318.

*Transport*, Published by UNCTAD, New York and Geneva: United Nations Conference on Trade and Development, 2018, *Review of Maritime*.

*Transport*, Published by UNCTAD: New York and Geneva: United Nations Conference on Trade and Development, 2019, *Review of Maritime*  
[www.Africaports.co.za](http://www.Africaports.co.za).

## ONLINE SOURCES

www.transport.gov.za

Department of Transport, *Comprehensive Maritime Transport policy*. (South Africa 2017)

Department of Transport , *Part 1 Growth of a South African Maritime Transport Industry*, 2011 <[www.transport.gov.za](http://www.transport.gov.za)>.

<<https://www.export.gov/article?id=South-Africa-port-infrastructure>>

Africa ports, *National Port Authority of South Africa, 2018, Annual Statistics (Online)*, Available.

TNPA, 2018 <[www.transnet.net](http://www.transnet.net) › [Investor Relations](#)>.

<https://www.hellenicshippingnews.com/market-consolidation-in-container-shipping->

<https://www.southafricanmi.com/dry-cargo-shipping-unctad-28july2019.html>

<https://www.maritimeinfo.org/en/Maritime-Directory/dry-bulk-cargo>

<https://www.marketwatch.com> › [press-release](#) › [dry-bulk-shipping-market-](#)

<https://www.ship-technology.com> › [projects](#) › [port-cape-town](#)

<https://www.transnet.net/InvestorRelations/AR2018/TPT.pdf>

<https://africaports.co.za/2018/01/17africa-ports-ships-maritime-news>.

<https://mg.co.za/article/2015-07-17-south-africas-ports-expanding>

<https://www.iol.co.za/mercury/news/cargo-volumes-in-sa-ports-on-the-rise-19044791>  
(accessed 07 March 2020).

<https://www.transnet.net/InvestorRelations/AR2019/Port%20Terminals.pdf>

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

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

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

[www.southafricanmi.com](http://www.southafricanmi.com)›[maritime-transport-review-2018-24 Jul 2019](#) (Access 7 March)