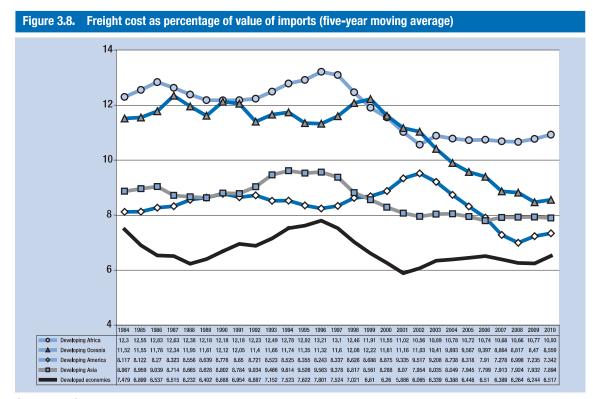
UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT

# REVIEW OF MARITIME TRANSPORT

2012





Source: UNCTAD.

between freight costs and value of goods has occurred among all country groupings. Furthermore, the freight rates share of developing countries tend to converge to those of developed economies. Developing Oceania achieved a transport cost share reduction from 11.7 per cent in 1994 to 8.6 per cent in 2010, while the developing nations of America and Asia have already reached a transport cost share approximately 1 per cent above that of developed economies. An exception from this trend of convergence is developing Africa, with a stable ratio of freight costs to import value of 10.9 per cent between 2003 and 2010.

Low productivity, high charges and congestions in many African ports are some of the factors explaining these discrepancies.<sup>51</sup> Vessel operators tend to pass these costs on to shippers when calculating their freight rates. In addition, African ports are often difficult to access from the hinterland due to a lack of transport infrastructure.<sup>52</sup>

On the shipping side, the UNCTAD Liner Shipping Connectivity Index (LSCI) (see also chapter 4) reveals a lack of economies of scale and competition in many African countries. African ports cannot host the largest ships that offer the most competitive freight rates. The relatively small number of alternative operators serving most African ports results in low competitive pressure, thus keeping freight rates high. Trade imbalances are another factor contributing to higher freight rates in Africa. With an import surplus for containerized cargo, and exports that mostly comprise bulk goods, which are transported by tankers and dry bulk carriers, vessels can often only be fully utilized on one route.<sup>53</sup> Consequently, ship operators have to charge a freight rate for a single trip that compensates their expenditures for both the fronthaul and the backhaul lanes.

## C. POLICY OPTIONS TO REDUCE MARITIME TRANSPORT COSTS

Transport costs remain an important component of the price of the goods when purchased by the final consumer. High maritime transport costs for imported goods impact the price level of the basket of consumer goods. Conversely, excessive freight rates for exports affect the trade competitiveness of the products of a country in the global markets. Hence, countries may want to define approaches to reduce inbound and outbound maritime transport costs in their trade with partners, as discussed below. The freight rate cost analysis, conducted for the case of a 10,000 dwt tanker (figure 3.7), illustrates major cost elements of freight rates and can assist when identifying policy measures aimed at reducing individual cost drivers. The policy options available to a single country that could produce a substantial reduction of freight rates are, nonetheless, limited. Vessel operators can choose worldwide between many alternative suppliers when procuring the goods and services they need for their vessel operations, thus levelling comparative cost advantages of individual destinations. In most large ports, for instance, cheap fuelling services are offered and, even if these services are not provided, a ship can choose to use bunkering services at an alternative destination. If one country alone were able to offer goods and services at costs significantly below the level of other nations, these competitive advantages would probably not be reflected in the freight rate to or from that country. Hosting competitive insurance service providers, for example, will not assist a country to reduce its maritime transport costs. These cost advantages are likely to be passed on equally to the freight rates for all routes a vessel operator serves within his shipping network.

When evaluating the elements comprising freight rate costs, three major strategic options remain that countries can choose from, and by which maritime freight rates from and to that country can be influenced. Figure 3.9 summarizes these options and their potential effect on ship operating costs and freight rates.

#### **Option 1 – developing coastal shipping**

Individual countries can exercise only a limited influence on international maritime shipping, which operates as an open market with very little regulation other than relevant international rules on carrier liability, security and safety. An exception to this is coastal shipping and specifically cabotage, which lies completely within the jurisdiction of a single nation. Countries can directly influence the price level for these services through the design of ship registration requirements, industry development policies and infrastructural investments such as the development of a feeder port network.

In a market where cabotage is restricted to domestic carriers only, ship operators have no choice but to comply with the country's regulatory set up. An improvement of the ship registration requirements will therefore directly affect operating costs. The potential monetary impact has been quantified by a study of the United States Department of Transportation. It estimates, for example, that the costs for United States-flag vessels in 2010 were around 2.7 times higher than those of foreign flag equivalents.<sup>54</sup>

Opening cabotage to international shipping lines is another policy option. The entrance of new market players may reduce freight rates for shippers and lead to better and more diverse services. However, most countries often give cabotage rights exclusively to domestic carriers with the aim of protecting and promoting the national shipping industry.

Another measure to support cabotage is the expansion of a country's feeder port network. This will facilitate access of traders to coastal shipping and encourage them to shift from land to maritime transport. The increased volumes may lead to higher utilization rates and lower freight rates.

#### Option 2 – developing port competitiveness

Countries with sea access can apply a wide range of policies that aim at increasing the operational and administrative efficiency of their port network. This includes decisions on the legal and institutional framework, the selection of an ownership model or the allocation of funds for infrastructure investments. The reforms should target all entities having a relevant role in the port, such as the landlord, regulator, operator, marketer and cargo handler, thus reducing port charges related to each function.

The negotiation of a balanced concession agreement between the terminal operator and the responsible regulatory institution is a critical element when shaping a performance-orientated port business environment. This should include appropriate incentives that promote a continuous improvement of operations, competitive price setting mechanisms and a comprehensive performance monitoring system. However, considering that port charges only constitute about 10 per cent of the total freight rate, the lever of these measures appears to be limited – according to the figures indicated in the example freight rate breakdown in figure 3.7, a reduction of port handling charges by 50 per cent would only lead to a total freight rate reduction of 5 per cent.

#### Option 3 – developing port hinterland connections

The first two options contain policy measures targeting directly the improvement of maritime transport chain elements. In contrast, the third option addresses other modes of transport that indirectly affect freight rates of ships through their role within the multimodal transport chain. Inland transport linkages are the arteries of ports connecting them to regional markets. They enable ports to consolidate exports from the region and distribute imports to their final destination in the hinterland.

As an example, the port of Durban in South Africa offers more modern and extensive rail linkages than the neighbouring port of Maputo in Mozambique, thus giving it an advantage when competing for customers. Another example is the structure of the transport network within Mozambique. It offers well-developed north–south road connections, which specifically serve the transport needs within the country's territory. However, only a few east-west linkages exist that connect domestic entrepreneurs with ports along the country's long coastline, making it difficult for them to present their goods on the international markets.

Improving transport connections to and from markets in the hinterland, therefore, enables ports to attract greater cargo volumes. This does not only lead to economies of scale within the ports. It may also attract larger vessels with lower unit transport costs or more alternative maritime transport service providers.

	Three national policy rela	ated generic strategies to redu	uce maritime freight rates
Strategy	1. Developing coastal shipping	2. Developing port competitiveness	3. Developing port hinterland connections
Selected field of policy making	<ul> <li>Opening cabotage to global competition or restricting it to domestic operators</li> <li>National ship registration policies</li> <li>Institutional framework (e.g. maritime authority)</li> <li>Investment policies and ownership model</li> <li>Maritime infrastructure (e.g. feeder ports)</li> </ul>	<ul> <li>Port administration related laws and regulations</li> <li>Port management structures and ownership model</li> <li>Institutional framework (e.g. port authority)</li> <li>Port operations</li> <li>Port infrastructure (e.g. links to other modes of transport)</li> </ul>	<ul> <li>Intermodal interface connecting port with national and regional markets (options: Rail, road, waterway and air transport)</li> <li>Regulatory and institutional framework for land transport modes</li> <li>Regional transit and transport development agreements</li> <li>Public private partnerships</li> </ul>
Potential impact on freight rates	<ul> <li>The compliance with new ship registration requirements may reduce or increase operations costs</li> <li>Opening cabotage can increase competitive pressure thus reducing freight rates</li> <li>Improving coastal shipping infrastructure connects remote regions to international trade networks -&gt; modal shift to maritime transport and better economies of scale</li> </ul>	<ul> <li>Reducing port related charges for maritime transport service providers through:         <ul> <li>a. efficiency gains in port operations and port administration</li> <li>b. reasonable profit margin of port operator in a more competitive business environment</li> <li>→ Includes charges for all port functions: Landlord, regulator, operator, marketer and cargo – handler (e.g. cargo handling fees, channel fees)</li> </ul> </li> </ul>	<ul> <li>Improved port connectivity:         <ul> <li>Increases cargo handling volumes in ports → lower unit handling costs</li> <li>attracts larger ships → lower unit transport costs</li> <li>attracts new transport service providers → lower margins due to increased competition</li> </ul> </li> </ul>

### Figure 3.9. Strategies to reduce maritime freight rates

Source: UNCTAD secretariat.