

## PORT EFFICIENCY

Artificial barriers for international trade – tariff as well as non-tariff barriers – have been reduced considerably during the past decades, and not only by industrialised, also by developing countries. From the early 1980s until the late 1990s, Asian countries reduced their average tariff levels from 30percent to 14 percent, while Latin American countries lowered it from 31percent to 11percent. The decrease of artificial trade barriers, however, means that the relative weight of the non-artificial part of total translocational costs, namely transport costs proper, gained importance as (one) determinant of international trade. The degree of effective protection (and automatically also the burden of higher import costs and/or lower export earnings) caused by transport costs is for several countries already higher than that provided by artificial trade barriers. Thus, it is worthwhile to have a closer look at transport costs, its determinants and its effects. Clark, Dollar and Micco (see reference) do so in a recent article. They focus on maritime transport costs and on sea port efficiency, the latter being one determining factor of shipping costs.

While distance and its effect on transport costs cannot be changed by countries, port efficiency can be influenced. Insofar as ports are public undertakings, it is the government who must care for cost effective port operations.

Port efficiency depends partly on the capital (e.g. cranes and other equipment for loading and deloading) invested in ports. But of importance is also the efficiency of port activities and services like pilotage, towing, tug assistance or cargo handling. Port efficiency is also effected by customs clearing requirements which often reduce port efficiency and may even influence the timing of port operations. Moreover, port workers providing stevedoring services are in many countries privileged by the requirement of special stevedoring licences that reduces the supply of such type of labour and increases costs.

The port of Singapore is generally regarded as one of the most efficient ports in the world. This is reflected also in the graph where countries are ranked according to a "Port Efficiency Index". However, this index does represent port efficiency only in an indirect way. The authors have taken it

**Table 1**  
Clearance time and container charges in sea ports in selected countries

	Customs clearance time (days)	Container handling charges (US-\$ / TEU)
Belgium	n.a.	120
Bulgaria	2	n.a.
Canada	2	190
France	3	201
Germany	5	163
Italy	2	228
Japan	n.a.	250
Netherlands	n.a.	156
Poland	3	n.a.
Portugal	8	n.a.
Russia	7	n.a.
Singapore	2	117
Spain	4	200
Sweden	2	n.a.
United Kingdom	4	173
United States	5	259

\* TEU means "twenty feet equivalent unit" (i.e., a standardised container).

Source: See reference; compilation and selection of countries by the Ifo Institute.

as a proxy from the Global Competitiveness Report.

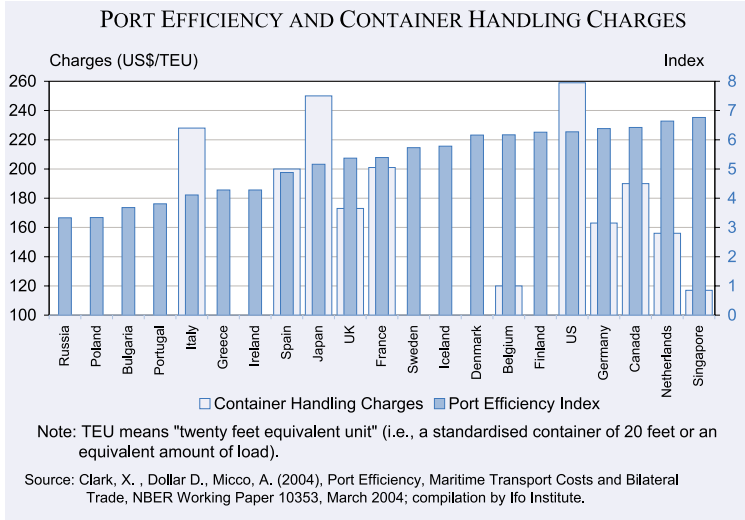
In Singapore also container handling charges (see Table 1) are the lowest, while customs clearance time (2 days) is also on a low level. In Germany and the US, handling charges and clearance days are considerably higher. In Portugal and Russia customs clearance takes even more days.

However, customs clearance is only one parameter influencing total time necessary for shipment completion or total average waiting time per vessel

**Table 2**  
Clearance time and container charges in sea ports, by continent

	Customs clearance time (days)	Container handling charges (US-\$ / TEU)
East Europe	2.38	n.a.
North America	3.50	261.7
Europe (excl. East)	4.00	166.7
Former Soviet Union	5.42	n.a.
North Africa	5.50	n.a.
East Asia and Pacific	5.57	150.5
Latin America and Caribbean	7.08	251.4
East and South Africa	12.00	n.a.

Source and note: See Table 1.



arrived at a port. Unfortunately, no such figures seem to be available. Casual evidence in several ports in the world on the number of vessels lying in the roads seems to suggest that total waiting time differs much more than the figures in Table 1 (with a selection of countries only) reflect.

Table 2 gives a more comprehensive picture, when countries are grouped by continent (or part of it). Eastern European ports have, interestingly, the lowest customs clearance time, whereas it is highest in East and South Africa (12 days). Information on container handling charges is only sparingly available. But costs in Latin America are almost as high as in North America.

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**Reference**

Clark, X., D. Dollar and A. Micco (2004), "Port Efficiency, Maritime Transport Costs and Bilateral Trade", *NBER Working Paper* 10353, March.