

## **A new revolution rebuttal**

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As someone involved in revolutions, I read with great interest Martin Stopford's 'A New Revolution' in the January 2001 issue of *CI* (pp46-48). There are several points where I agree with his analysis, but there are many more where I do not.

I more than agree that e-commerce and EDI foster trade globalizations and related growth in container traffic for the near future.

I only partially agree with Stopford's observation on the need for fast services as a basis for market segmentation. With current technologies, the production cost of fast ships (35 - 40 knots) is \$1 - 1.5/ FEU-NM, or 10 times that of large conventional containerships (25 knots) of \$0.10 - 0.15 FEU-NM. This cost differential seems to be way beyond that justified by the time differential, especially since time savings are limited to the water segment of the intermodal trip, which may account only for about half of the total transit time. However, I do not rule out that, for certain applications, especially for short, shuttle-type services, fast ships may be proven viable, eg intra-Asia.

The above-mentioned shuttle services bring me to the first subject where I disagree with Stopford: Stopford's call for a revival of direct services provided by large containerships calling multiple ports at each region seems anachronistic. The era of transshipment, the product of the 'third revolution', is with us to stay and tremendously amplify, especially if the 'fourth revolution' is ever realized.

It seems that Stopford does not distinguish between economies of scale and those of transshipment. The first relates to the substitution of a fully utilized 1,200TEU ship by a 6,500TEU one on a long, line-haul leg, which involves, as mentioned by Stopford, limited savings (\$150 a la Figure 4 of his analysis). The second relates to the substitution of a 6,500TEU ship by a 1,200TEU one for carrying 1,200TEU on a short, regional leg, between a hub and a feeder port. The second substitution involves much larger savings than the \$200 spent on the mother-to-feeder handling - otherwise the 50 million TEU/year transshipment operations would never develop!

Moreover, transshipments can also save time, increase service frequency and provide more transport options. The time saving is the result of avoiding calls at wayports and the related off-route deviations on the line-haul leg, which may more than compensate for the additional time required for the mother-feeder transfer. Likewise, the common practice of mother-to-mother transshipment allows consolidation of several services, resulting in more frequent services on the same route. This consolidation also allows for deployment of larger and faster ships (see Froude's hydrodynamics). Finally, transshipment provides for the development of a comprehensive network of services, including regional feeder

services that call at smaller ports not called at by direct services that preceded them.

The development of the network also brings me to another subject of disagreement: Stopford's call for segmentation of services (Figure 3).

Container shipping has an inherent tendency toward 'graying' of assets and commoditization of the basic transport service (after all, that was Malcom McLean's original motive). Still, segmentation, better defined as differentiation, can be achieved through the 'extras', such as the option to obtain ship space upon short notice, obtain specialty boxes, assign on-board slots to be first in the discharge sequence, etc. Such service differentiation may provide sufficient ground for price differentiation as evidenced in the airline industry.

The area where I totally disagree with Stopford is his environmentally-driven appeal for direct services calling at smaller, regional ports.

Direct calls by large, line-haul ships mandate the development of numerous, large regional ports to accommodate these ships. Such regional ports should have deep channels, large gantry cranes and vast waterfront areas. In my opinion, regional calls should be reserved to smaller, feeder vessels, which have modest requirements from the shore-based facilities. I would even go further to suggest that future, very large line-haul ships (e. g. 18,000TEU Malacca-max) should be entirely banned from regional, shore-based ports. Instead, these ships should be restricted to off-region 'pure-transshipment ports'.