

Indeed, there's a big difference between sustaining 20 percent growth when volume is at 8 million TEUs and 25 million TEUs, but the strength the Bohai ports showed in 2009 shouldn't be diminished. Part of that strength comes from the geographical differences that affect the way cargo flows in northeastern China versus in the Yangtze and Pearl River deltas. While the Yellow River flows directly into the Bohai Sea, it's not even comparable as a cargo waterway to the Yangtze or Pearl rivers.

"So you have inland movements that are counted as cargo for the Bohai ports," Beard said. Movements that might move by feeder

ship or barge on the Yangtze, for example.

Another factor fueling the Bohai ports' success is there are fewer outlets for cargo than in China's more developed parts, particularly the Pearl River Delta region, where there is acute container terminal overcapacity.

"The hinterlands (in the Bohai Bay) aren't nearly as contested as they are in South China," Beard said.

To underscore that point, Beard pointed to statistics that show there are 75 container berths in the Bohai Bay region. GHK projects the number of berths to swell to 118 by 2015, then to 133 by 2020. In South China,

GHK is projecting 140 berths by 2020, but for a much smaller population. Thinking in terms of the way China's economy will develop over the next decade — more imports, with exports still growing, albeit on a lower trajectory — consumption clusters will matter nearly as much as low-cost labor. That places the Bohai ports in a good situation.

The Bohai region's dearth of container terminal development (relative to the rest of China, at least), suggests there may actually be a capacity shortage as soon as 2016 if cargo volumes keep increasing moderately, GHK said.

Power at the top

U.S. import statistics show that while major Asian ports lost volume in 2009 they grew market share.

By ERIC JOHNSON

While 2009 may have been an unqualified disaster for most of Asia's ports, some interesting dynamics began to emerge in terms of U.S. imports.

According to data provided to *American Shipper* by Zepol Corp., a host of top ports in Asia actually benefited from the container demand downturn by boosting their market share of goods shipped to the United States.

Zepol's statistics measure inbound containers using U.S. Customs data straight from carrier bills of lading. As Kevin Palmstein, Zepol's director of marketing and product development, put it, the data shows the point from "where the carrier took possession of the goods."

So while Shanghai, the second-busiest container port in the world, actually saw total volume recede 10.7 percent in 2009 to 25 million TEUs compared to 2008, the share of U.S. imports passing through the port increased from 16.8 percent to 17.6 percent last year.

In other words, the pie became smaller, but Shanghai's slice relative to other ports became bigger.

The import origin information, which Zepol calls "place receipt," is significant for a variety of reasons. On a basic level, it shows where the United States is sourcing its goods. For carriers, this type of information is critical in determining how services should be arranged.

But the data also provides a snapshot of which ports in Asia are focused on import/

export cargo and which ones are truly reliant on transshipment cargo. Transshipment cargo can help ports increase their volume and draw services, but it is far less lucrative and consistent than import/export cargo (August 2008 *American Shipper*, page 68-72).

An easy example of this dichotomy is Singapore, the world's busiest port for several years running, and one that readily accepts its role as a Southeast Asia transshipment hub. Roughly 95 percent of the port's 2009 volume, or 25.9 million TEUs in 2009, is from transshipment, and volume dropped 13.5 percent last year. Though Singapore handles a huge number of transshipment containers headed for U.S. ports, it handles a relatively small amount of direct exports headed there.

According to Zepol, it is the 25th-largest point of origin for U.S. imports from Asia (The Port of Shenzhen's individual terminals — Yantian, Chiwan and Shekou — are broken out as individual points in Zepol's data, and all three rank ahead of Singapore). U.S. imports from Singapore have shrunk from 97,797 TEUs in 2007 to 94,914 TEUs in 2008, to 73,628 TEUs in 2009, or 0.03 percent of its total volume.

Hong Kong, another port that relies heavily on transshipment, is similarly losing impact in terms of direct U.S. imports. Its volume shrank from 961,706 TEUs in 2007 to 809,688 TEUs in 2008, to 586,868 TEUs in 2009. Exports to the United States from Hong Kong have shrunk 46.2 percent since a recent high in 2006.

Shanghai, on the other hand, has a more balanced mix of import/export and transshipment volume. Of the port's 25 million TEUs in 2009, 8.4 percent was derived from export traffic to the United States. That was a falloff from the 9 percent U.S. imports represented in 2008, but not so steep considering the nosedive in U.S. demand for containerized goods.

Shanghai's neighbor, Ningbo, also benefited in the last year, raising its share of U.S. imports from 4.8 percent to 5.4 percent despite its volume to the United States dropping 4.5 percent to 636,976 TEUs.

Busan, Korea's biggest port, also grew its share of U.S. imports from 4.2 percent to 4.3 percent, despite its volume to the United States dropping 11.5 percent to 512,240 TEUs, and its total volume dropping 11.1 percent to just less than 12 million TEUs. Interestingly, Busan gained more share of U.S. imports in 2009, when its volume dropped 11.5 percent from 2008, than it did in 2008, when its volume dropped only 4.7 percent from 2007.

Yantian, the biggest terminal in the Port of Shenzhen, and larger on its own than most ports, saw its market share of U.S. imports rise steadily from 2003 through 2007 until it finally dropped off in 2008, when the U.S. housing downturn started. Yantian has traditionally been the largest origin for U.S. imports and it held steady in 2009, gaining 0.1 percent market share in a year in which its U.S. import volume dwindled 14.3 percent. However, Shanghai has been gradually reeling Yantian in — since 2006 Shanghai's market share has grown from 14.9 percent to 17.6 percent while Yantian's has fallen from 18.9 percent to 18.4 percent.

Another upward mover is Ho Chi Minh City, which saw its share of U.S. imports grow to 2.5 percent in 2009 from 2.4 percent in 2008 and 1 percent in 2003. Vietnam's

Yet the Bohai Bay ports have yet to emerge as major origin points for eastbound transpacific trade. That's not to say Qingdao, Tianjin and Dalian don't account for U.S. imports (roughly 10 percent of U.S. imports originate collectively in the three ports), but they still lie far behind Shenzhen and Shanghai in terms of importance to U.S. importers.

Europe appears to have a stronger connection with the three ports, with double the number of mainline services as on the transpacific. *American Shipper* ocean capacity research affiliate *ComPair Data* lists seven services directly connecting the

ports to North America (mostly through Qingdao) and 14 to Europe. In short they've become core ports served on the major east/west lanes. Connections between the Bohai ports are plentiful and growing.

The ports also benefit from trade between China and Japan and Korea. In many ways, Busan, the fifth-busiest port in the world, is competing against the Bohai ports more than any others. The Bohai ports' ability to lure more direct services has hurt Busan's ability to lure transshipment destined for northeastern China.

Growth in the Bohai Bay container trade is primarily driven by intra-Asia

and domestic trades. And though there's not massive momentum in terms of direct exports to North America, it's important to remember that roughly half of intra-Asia trade is still powered by exports to North America and Europe.

"There's been some decoupling (in terms of intra-Asia volume being driven by local demand), but it's theory being ahead of practice," Beard said.

That means Qingdao, Tianjin and Dalian might be having a greater impact on transpacific and Asia/Europe trade than pure port-to-port numbers might indicate.

largest container gateway has grown its share in each of the seven years for which Zepol provided statistics, a feat matched only by Shanghai, Qingdao, Ningbo and Xiamen.

In all, the top 10 ports on the list accounted for more than 65.7 percent of U.S. import volume. And those ports gaining market share at the top means that ports with smaller volume to the United States were losing market share. Tokyo, Laem Chabang (in Thailand), and Kobe are among the dozen or so large ports whose market share shrank in 2009.

The data also shows some strong his-

torical patterns of concentration at the top. Whereas the leading origin points for U.S. imports in 2003 was very fragmented — Yantian was tops with 16.3 percent and Shanghai was second with 9.4 percent — now those two account for more than 36 percent of U.S. imports. Factor in Ningbo's 5.4 percent share and the 4.9 percent from Hong Kong and 1.8 percent share from Shenzhen's other terminals (all are in the west Pearl River Delta) and more than 48 percent of U.S. imports from Asia originate from two metropolitan regions.

China's third blossoming region, the Bohai Bay (related story), has a long way

to go in terms of developing as an origin point for U.S. imports. The four main ports — Qingdao, Tianjin, Dalian and Xingang — have a combined market share of 9.1 percent. Not bad, but not yet comparable to the clusters of terminals in the Pearl River and Yangtze river deltas.

That Qingdao, Tianjin, and Dalian actually gained volume in 2009 when almost every other cluster of ports lost volume speaks to the potential of those ports to become a larger player in transpacific trade. As of now, their volume seems to be largely driven the by intra-Asia and Asia/Europe trades. ■

Asian port origins for U.S. imports

(Based on location ocean carrier took possession of goods.)

City/Country	2005		2006		2007		2008		2009	
	TEUs	Market share%	TEUs	Market share%	TEUs	Market share%	TEUs	Market share%	TEUs	Market share%
Yantian, China	2,146,181	17.7%	2,713,516	18.9%	2,878,031	19.3%	2,554,204	18.3%	2,188,923	18.4%
Shanghai, China	1,557,229	12.8%	2,137,131	14.9%	2,448,551	16.4%	2,345,376	16.8%	2,086,575	17.6%
Ningbo, China	398,490	3.3%	567,632	4.0%	673,595	4.5%	667,159	4.8%	636,976	5.4%
Qingdao, China	449,973	3.7%	575,215	4.0%	633,022	4.2%	621,748	4.5%	571,499	4.8%
Hong Kong, Hong Kong	1,172,873	9.7%	1,091,817	7.6%	961,706	6.5%	809,688	5.8%	586,868	4.9%
Busan (Pusan), South Korea	546,948	4.5%	597,369	4.2%	607,525	4.1%	578,917	4.2%	512,240	4.3%
Xiamen, China	369,829	3.1%	450,674	3.2%	478,505	3.2%	445,425	3.2%	401,849	3.4%
Ho Chi Minh City, Vietnam	184,895	1.5%	232,088	1.6%	308,734	2.1%	327,617	2.4%	303,062	2.5%
Xingang, China	323,142	2.7%	434,867	3.0%	460,896	3.1%	419,615	3.0%	305,182	2.6%
Shenzhen, China	237,573	2.0%	275,646	1.9%	320,470	2.2%	284,630	2.0%	214,255	1.8%
Kaohsiung, Taiwan	255,038	2.1%	268,568	1.9%	260,605	1.7%	261,238	1.9%	208,972	1.8%
Tokyo, Japan	185,746	1.5%	188,186	1.3%	203,096	1.4%	211,922	1.5%	158,567	1.3%
Jakarta, Indonesia	134,847	1.1%	156,157	1.1%	161,519	1.1%	155,848	1.1%	149,961	1.3%
Nagoya, Japan	199,101	1.6%	209,338	1.5%	198,559	1.3%	180,435	1.3%	127,767	1.1%
Dalian, China	124,849	1.0%	161,629	1.1%	177,756	1.2%	159,250	1.1%	133,846	1.1%
Laem Chabang, Thailand	190,693	1.6%	188,304	1.3%	174,490	1.2%	163,284	1.2%	129,330	1.1%
Taichung, Taiwan	144,283	1.2%	150,596	1.1%	151,301	1.0%	143,831	1.0%	114,245	1.0%
Bangkok, Thailand	162,185	1.3%	190,411	1.3%	168,050	1.1%	158,947	1.1%	119,705	1.0%
Fuzhou, China	95,618	0.8%	132,827	0.9%	130,029	0.9%	106,825	0.8%	96,249	0.8%
Yokohama, Japan	156,481	1.3%	163,593	1.1%	135,274	0.9%	126,924	0.9%	88,055	0.7%

Source: Zepol Corp.