



THE CHINESE CONTAINER PORT SYSTEM



COMPETITION AND COOPERATION

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DIFFERENT SPEEDS IN REGIONAL GROWTH

Only 25 years ago the container port system in mainland China was still in its infancy stage. During that time, Hong Kong acted as the only container gateway to China and the Taiwanese ports of Kaohsiung and Keelung benefited from Taiwan's economic success in international trade. In May 1980, the Chinese government established the Shenzhen Special Economic Zone, the first special economic zone in China.

By the late 1980s, mainland Chinese ports in the Pearl River Delta saw the first fruits of this opening up policy. Growth dynamics slowly started to shift from Taiwan to the Delta following port development in Shenzhen, Guangzhou and later also in other ports. As a result, the Pearl River Delta recorded an average annual growth of 19.3% between 1985 and 1995. The market share of the Delta peaked in 1995 at 55% (see Figure 1). In

the ten following years the Delta's growth remained high with traffic increases of between 12 and 13% per year.

The Chinese government developed a strong focus on Shanghai in the mid-1990s. As a result the Yangtze River Delta emerged as the most prominent container growth region in China reaching an elevated average annual growth of 30% in container throughput between 1995 and 2005. The region increased its market share in combined China/Taiwan/Hong Kong container traffic from 5.6% in 1995 to 30% in 2008, with Shanghai and Ningbo as the main growth engines. In the early 1990s, the Shanghai Port Authority started to convert general cargo terminals into container terminals, building dedicated container terminals at the Waigaoqiao area. Efforts were also made to build the Waigaoqiao area into a procurement and distribution centre for the Asia Pacific Region. The capacity problem and the lack

of deep-water berths in the beginning of this millennium were solved by the construction of a new port at the Yangshan islands, 100km south of Shanghai and 30km offshore. In December 2005, phase one was opened. Phase four is planned to be completed in 2017 and should bring the port's container handling capacity to 40 million TEU.

The centre of gravity in container growth is no longer only in the Yangtze River Delta. The strongest growers are now to be found in northeastern China, more in particular in the Bohai Bay area consisting of the Shandong, Jin-Ji and Liaoning port regions. This not only includes larger ports such as Dalian, Tianjin and Qingdao, but also a lot of new kids on the block such as Yingkou, Dandong, Yantai, Rizhao and Tangshan. At the same, we see a recovery in the relative importance of the Taiwan Strait, mainly driven by growth in the mainland Chinese port of Xiamen and spurred by the

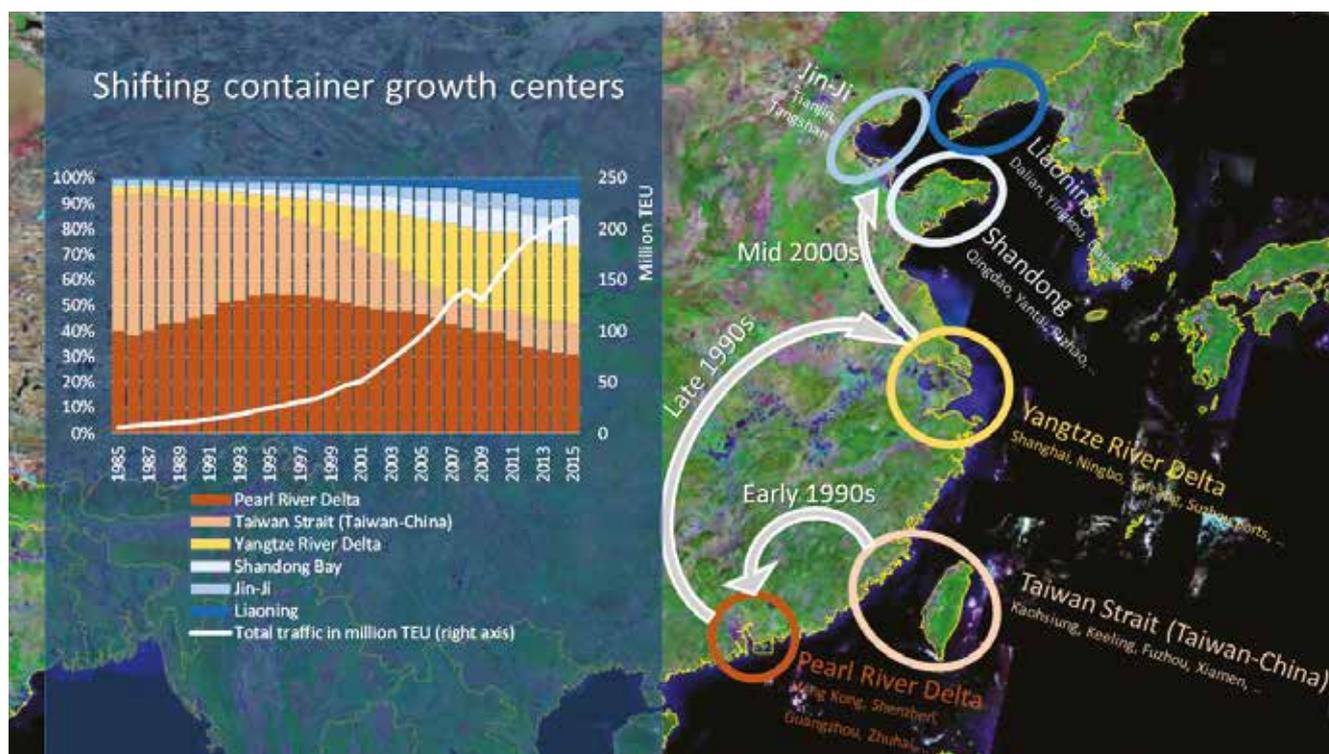


Figure 1: Share of port regions in total TEU traffic of mainland China, Taiwan and Hong Kong SAR

start of direct cross-Strait sea transport services on December 15, 2008. The Taiwanese Ministry of Transportation and Communications (MOTC) reported that in 2014 direct cross-Strait container traffic amounted to 2.48 million TEU compared to 1.56 million TEU in 2009 the year after the opening up of direct services.

CHINA COMPARED TO NORTH AMERICA AND EUROPE?

Recent reports suggest that Chinese container ports are feeling the full impact of the Chinese economic slowdown and the weak global economic situation. How significant is the slowdown in container throughput in Chinese gateways and how do the figures compare to the situation in other key container port regions around the world?

Figures 2 and 3 show the evolution of container throughput and the year-on-year growth rates in the three main container port regions in China. We compare these volume dynamics with some key port systems in North America and Europe: the port system along the North American West Coast including ports such as Seattle/Tacoma, Vancouver, LA, Long Beach and Oakland; East Coast ports such as Norfolk, Charleston, New York/Ney Jersey, Baltimore, Savannah and Halifax; the Hamburg-Le Havre port range consisting of key north-European container ports such as Rotterdam, Antwerp, Hamburg, Bremerhaven, Le Havre, Zeebrugge and Wilhelmshaven;

and the West Mediterranean including Spanish, French, Italian and Adriatic Med ports.

The Pearl River Delta shows a much lower growth rate than the two other Chinese port regions. Since 2004, its growth pattern is very similar to the one observed in the Hamburg-Le Havre range. Actually, after the financial crisis year 2009 year-on-year growth in the Pearl River Delta is even slightly weaker than in the considered European and North American port systems. It remains the most important container port region in the world, but recorded a modest traffic decline of 0.7% in 2015 mainly as a result of the weaker performance of Hong Kong. Shenzhen is now the largest port in the Pearl River Delta, and even Guangzhou is fast closing in on Hong Kong.

The Yangtze River Delta recorded elevated annual growth rates of 15 to 40% before the economic crisis. Since 2011 container volumes have increased by a much more modest 4 to 7% per annum. In 2015 growth reached 5.2% with Shanghai +3.4% and Ningbo +6% and slightly higher growth rates for river ports Nanjing and Suzhou. The Yangtze River Delta handled close to 65.2 million TEU in 2015 and is now just behind the Pearl River Delta which recorded a throughput of 65.6 million TEU.

The Bohai Bay region was one of the fastest rising container regions in the world in recent years. However, its growth pattern shows a sudden and

strong downward trend since 2010. In 2015 container traffic grew at 'only' 3% with growth in major ports Tianjin (+3.2), Qingdao (+5.3%) and most other medium-sized ports, but a traffic decline of more than 8% in Dalian. With this result, growth in the Bohai Bay region is getting close to the growth figures recorded by more mature port regions such as the Pearl River Delta, the Hamburg-Le Havre range (-1.6% mainly caused by traffic decline in Zeebrugge, Hamburg and Bremerhaven) and the US West Coast. Still, the Bohai bay region strengthened its position as the third most important container port region in the world handling 55.8 million TEU in 2015.

HAVE CHINESE PORT REGIONS REACHED MATURITY?

The above discussion underlines that it is important to focus on regional dynamics when talking about the development of the Chinese container port system. The world's top three container handling regions are in China, each handling 55 to 65 million TEU in 2015. To put the container figures of these three Chinese port regions in perspective: the entire North American container port system handled about 50 million TEU in 2015 while the entire European container port system reached just over 100 million TEU in the same year.

Still, Figure 2 reveals that 2015 was a weak year in the container port industry, also in China. Compared to the temporary

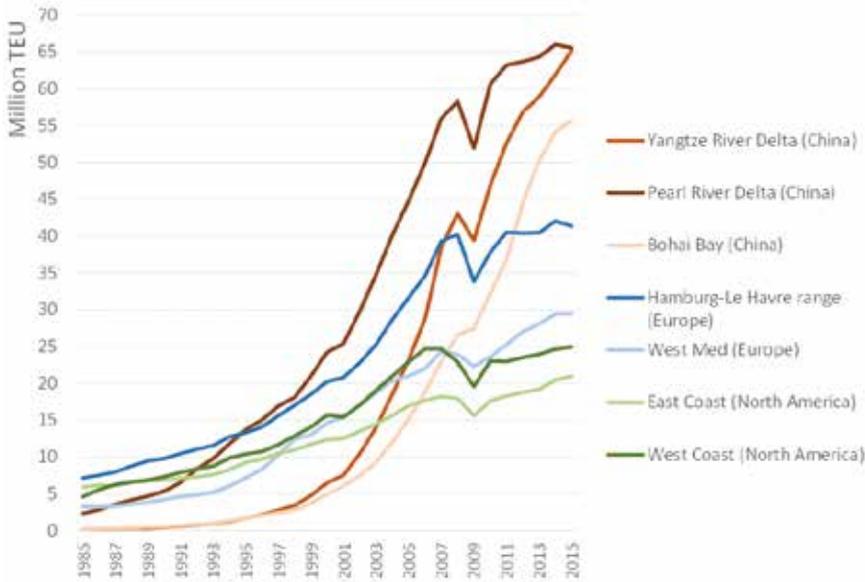


Figure 2: Container throughput in Chinese port regions and key port regions in Europe and North America, 1985-2015, in million TEU

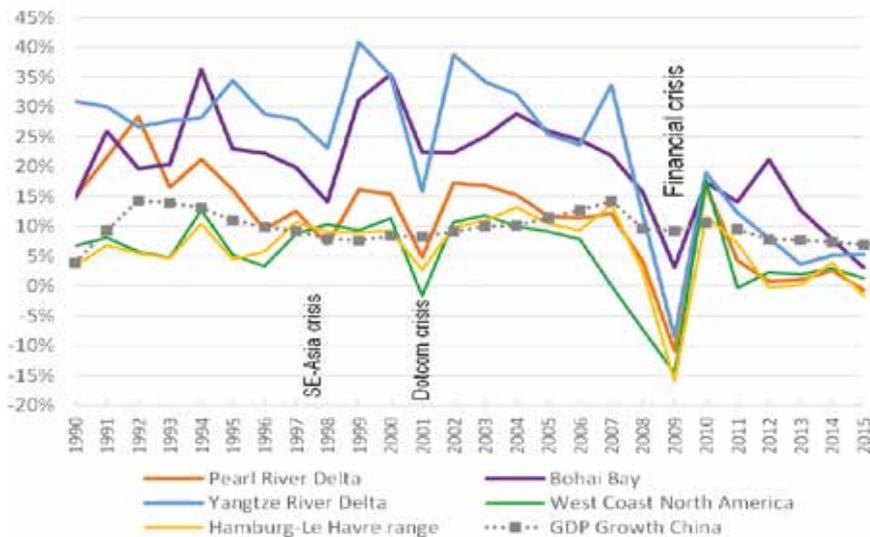


Figure 3: Y-o-y growth rate in Chinese port regions and key port regions in Europe and North America

slowdowns observed during the Southeast Asian crisis (1997-1998), the Dotcom crisis (2001) and even the financial crisis (late 2008-2009), the volume slowdown of the past five years is visible in all port regions considered and seems to be of a more structural nature. Figure 3 further demonstrates that the link between GDP growth in China and container growth is changing. For a very long time, the GDP multiplier was well above one, meaning that any increase in GDP coincided with a much higher container throughput growth. In the past five years, the GDP multiplier is below one for most of the port regions in China.

This illustrates that the Chinese economy is going through a transition phase with more focus on the services sector and a growing dependency on domestic demand instead of external trade.

PORT COOPERATION ON THE RISE

Against the background of slowing port growth, increased competition and growing international opportunities (also in light of the One Belt One Road policy), port cooperation has become a hot topic in China. The port complexes of Zhoushan and Ningbo in Zhejiang Province merged at the end of September, 2015 to

form the largest port group in the world handling some 880 million tons. Next to the creation of Ningbo-Zhoushan Port Group, a provincial port company was set up to integrate smaller ports in Zhejiang Province.

Another example is found in Northeastern China. Dalian Port Group has extended its activities outside the Dalian port perimeter by taking a 20% stake in Jinzhou Port. The group might also invest in other ports in the region. The resulting port groups are also increasingly exploring international expansion and investment opportunities.

Similarly to the merger between China Shipping and COSCO in container shipping, the creation of larger port groups is supported by Beijing in view of creating national champions able to play a role on the international scene. This increasing internationalisation is also felt in the terminal business with companies such as China Merchants Holdings, COSCO Pacific (now part of the COSCO/China Shipping merger group) and Shanghai International Port Group (SIPG) increasingly investing abroad.

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ABOUT THE ORGANISATION

PortEconomics is a web-based initiative aiming at generating and disseminating knowledge about seaports. It is developed and empowered by the members of the PortEconomics group, who are actively involved in academic and contract research in port economics, management, and policy. Since October 2012, Port Technology International and PortEconomics have been engaged in a partnership. www.porteconomics.eu

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