

Tonnage titans - top 20 ports by annual cargo throughput

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Taking the top spot - Shanghai. Credit: Getty

Being a bulk specialist may have been difficult for shipowners in the past five years, given fleet oversupply and fluctuating freight rates, but it is the opposite for ports specialising in this type of cargo. An analysis of IHS Markit Maritime and Trade data of total annual cargo throughput of the top 20 ports worldwide indicates that bulk facilities have been the clear winners when it comes to growth between 2011 and 2016.

While Shanghai takes the top spot in the listing of annual cargo throughput at 700 million tonnes in 2016, volumes have fallen 4.1% since 2011. It is the only port in the top 20 list to register negative growth, with the rest forging ahead and focusing mainly on bulk. Singapore, Suzhou, Tianjin, and Guangzhou complete the top five, and all recorded positive growth over the five-year period.

Australia's Port Hedland, which claims a respectable ninth place in the total listing with 484.5 million tonnes in 2016, leads in total growth and boasts a five-year increase of 143%, up from its 2011 total of 199 million tonnes.

The next four ports to lead the growth stakes are all in China. Zhoushan recorded a five-year growth rate of 92.88% (220.8 million tonnes to 425.9 million tonnes), Caofeidian 70.45% (170 million tonnes to 289.8 million tonnes), Tangshan 62.7% (317 million tonnes to 515.8 million tonnes), and Suzhou 50.98% (380 million tonnes to 573.8 million tonnes).

Only three ports in the top 20 ranking of annual cargo throughput are outside Asia. The aforementioned Port Hedland; Rotterdam, which takes the 10th spot at 461.2 million tonnes; and Port of South Louisiana, which placed 16th, with 295 million tonnes. Rotterdam is also one of the slower growth performers on the list, registering a modest 5.6% increase in throughput over the five years. A slight dip in iron ore, scrap metals, coal, agribulk, crude oil, and liquefied natural gas (LNG) handled is one reason why progression at the port has not been more substantial.

Just failing to make the top 20 cut is Hong Kong, which recorded a total annual throughput of 256.7 million tonnes in 2016. However, the port recorded a negative growth of 7.4% over the five-year period.

Top 20 ports by total cargo throughput in m dwt - IHS Markit Ports and Terminals

Port	2011	2012	2013	2014	2015	2016	5-year change
Shanghai	730	736	776	756	717.6	700	-4.10%
Singapore	531.2	537.6	557.5	581.3	575.8	593.3	11.69%
Suzhou	380	428	454.3	478	540	573.8	50.98%
Tianjin	450	477	500	540	552.5	550	22.22%
Guangzhou	429	434	471.5	499	475.5	521.8	21.63%

Tangshan	317	364.6	446.2	500.8	493	515.8	62.71%
Qingdao	370	406.9	450	465	485	500.8	35.35%
Ningbo	385	453	496	526.5	510	500	30%
Port Hedland	199	246.7	288.4	446.9	460.4	484.5	143%
Rotterdam	436.6	441.5	440.5	444.7	466.4	461.2	5.60%
Dalian	337	374	410	428	415	437	29.67%
Zhoushan	220.8	291	313.8	347	379	425.9	92.88%
Busan	294.3	311	324.9	346.6	359.7	362.4	23.11%
Rizhao	250	281	283.7	300	337	350.6	40.24%
Yingkou	261	301.1	300	345	338	347	32.95%
Port of South Louisiana	274.3	278.9	241.6	291.8	292.8	294.9	7.50%

Zhangjiagang	221	250	260	270	280	290	31.22%
Caofeidian	170	227	245	286	259.9	289.8	70.45%
Yosu	234	242	240.6	254.4	272	284.6	21.62%
Yantai	200	200.7	221.6	236.1	245.2	265.4	32.68%

#1 Shanghai

After experiencing steady growth between 2011 and 2012, the port of Shanghai recorded its highest figure to date in 2013, handling approximately 776 million tonnes of cargo. However, over the five-year period from 2011 to 2016, the amount of cargo handled at the port has dipped slightly (-4.1%), mainly because of the demand for containers, bulk, and breakbulk goods being offset by higher revenue costs from logistics and service companies. At the same time, China is attempting to restore economic equilibrium, which has unsurprisingly dented all port handling figures. Despite this, Shanghai is currently the world's busiest port, based on both annual tonnage throughput and teu handled, with a recorded volume of 700 million tonnes in 2016.

#2 Singapore

The port of Singapore has shown steady signs of growth over the past five years. As of August, preliminary estimates indicate that the port will, once again, surpass the tonnage throughput figures of previous years, with 527.9 million tonnes of cargo already handled in 2017. Singapore recorded a rise of 11.69% in cargo volumes between 2011 and 2016, with 593 million tonnes handled in 2016. The port is increasingly focused on LNG trading and opened its first LNG bunkering terminal in April.

#3 Suzhou

Suzhou is located on the Grand Canal, and is fortunate to have access to both the Yangtze River and the Tai Lake, making it one of the largest river ports in China. Suzhou recorded a 50.98% rise in total cargo throughput from 380 million tonnes in 2011 to 573.8 million tonnes in 2016. Improved infrastructure coupled with plans for a new container terminal and coal pier could see the port climb higher in this list over the next couple of years.

#4 Tianjin

Primarily handling containers, general cargo, dry, and liquid bulk cargoes, Tianjin offers various facilities for a wide selection of cargoes. The port's figures have increased by 100 million tonnes over the past five years (450 million in 2011 to 550 million in 2016), a rise of 22.22%. This growth can be partly attributed to Tianjin's ability to process ultra large container vessels, not to mention the fact it can boast about being China's largest man-made port. However, a recent ban imposed on using trucks to transport coal to the port may hinder its performance in 2017.

#5 Guangzhou

The port of Guangzhou is situated at the intersection of the rivers of Dongjiang, Xijiang, and Beijiang in southern China. All three rivers intersect here as part of the Pearl River Estuary. The strategic location of the port makes it one of China's busiest, and it handled more than 520 million tonnes of cargo in 2016, a 21.63% rise from 2011. However, the port, which is the largest coal transport hub in south China, has reportedly banned foreign imports of coal – something China had levied onto smaller ports – which could affect future business.

#6 Tangshan

The Tangshan port was built in 1988 with considerable land reclamation work still in progress today. Out of the 515.8 million tonnes handled at the port in 2016, a 62.71% rise on 2011 volumes, the main cargoes were coal, ore, oil, gas, steel, and containers. Jintang International Container Terminal Co recently announced plans to develop, manage, and operate a new container terminal in the Jingtang port area of Tangshan, thus increasing its future tonnage throughput figures. Statistics indicate a significant growth in dry bulk throughput at the port in 2017.

#7 Qingdao

A large port for foreign, domestic, and passenger trades, Qingdao is divided into three districts – Dagang, Qianwan, and Huagdao. Cargoes include large-scale containers, crude oil, and iron ore. Total annual cargo throughput at Qingdao has increased from 370 million tonnes in 2011 to just over 500 million tonnes in 2016, a 35.35% rise. A new coal and grain-handling terminal and the development of new container berths across the Qianwan bay will increase the ports general cargo throughput and transshipment capacity. The port has also joined up with PetroChina in 2017 to build a 600,000 m³ crude oil storage tank in the Dongjiakou port area.

#8 Ningbo

Ningbo recorded a total annual throughput of 500 million tonnes in 2016, a 30% rise from its 385 million tonnes in 2011. The main cargoes handled at Ningbo are crude oil, coal, iron ore, fertilisers, grain, timber, metals, cement, salt, general cargo, containers, and chemicals. The port of Ningbo-Zhoushan has recently received state approval for a USD1.85 billion investment to expand eight berths. In July, the port joined a focus group to collaborate in offering LNG bunkering, along with Singapore, Ulsan, Yokohama, and Zeebrugge.

#9 Port Hedland

Port Hedland is Australia's largest export facility, in terms of annual throughput, and the largest bulk minerals port in the world. The port services the mineral-rich East Pilbara region of Western Australia and its main export is iron ore. In July 2014 Dampier and Port Hedland combined port authorities to form Pilbara Ports Authority. The port was the first ever to handle more than 100 million tonnes of cargo back in 2004–05. Port Hedland handled 484.5 million tonnes in 2016 from an annual cargo throughput of 199 million tonnes in 2011. This is a staggering 143% increase and the biggest rise in total annual throughput over a five-year period for all the ports in this analysis.

#10 Rotterdam

The biggest and busiest port in Europe, and a leading gateway to a market of more than 350 million consumers, Rotterdam is the main port for European container transport. The port, which has a total quayage of 83 km, has three main functions: transshipment and transport, industry, and distribution. The port's large industrial centre and its position at the gateway of the European inland waterway network allow it to handle large quantities of cargo. Rotterdam, which is well equipped having facilities for bulk and general cargoes, coal and ores, crude oil, LNG, biofuels, agricultural products, chemicals, containers, cars, fruit, and refrigerated cargoes, handled 461.2 million tonnes in 2016, a 5.6% rise on the 436.6 million tonnes it handled in 2011. Rotterdam recently introduced CargoSmart in order to digitise its business and connect its ecosystem of shippers, transportation providers, and depots to improve the efficiencies of planning and shipping through the port.

#11 Dalian

Dalian, which posted total annual cargo throughput of 437 million tonnes in 2016, up 29.67% from the 337 million tonnes it handled in 2011, is the transshipment centre of oil products for northeast China and Asia. The port is mainly engaged in loading, unloading, and storing crude oil, oil end products, and liquid chemical products. The Dalian Beiliang Grain terminal is the second largest in the world and the largest in Asia. The port is also the second largest container transshipment hub in mainland China and the largest multipurpose port in northeast China.

#12 Zhoushan

Zhoushan is a deepwater port with several deepwater harbour areas, engaged in sea-going transshipments of dry bulk and oil cargoes including crude oil, edible oil, coal, ore, cement, timber, stone, and containers. The port handled 220.8 million tonnes in 2011 and this climbed 92.88% to 425.9 million tonnes last year.

#13 Busan

Busan is South Korea's principal port, with its main imports consisting of cement, grain, machinery, oil, timber, steel products, containers, and general cargo. The port's primary exports include machinery, manufactured goods, and containerised cargoes. Busan processed 362 million tonnes of cargo in 2016, up 23.11% from the 294 million tonnes it handled in 2011.

#14 Rizhao

Rizhao lies to the south of the Shandong peninsula, in Haizhou Bay. The port mainly handles coal, iron ore, containers, grain, liquid chemicals, and oil products, but has facilities for ro-ro vessels and international cruise ships. Its annual cargo throughput has risen 40.24% from 250 million tonnes in 2011 to 350.6 million tonnes in 2016.

#15 Yingkou

Yingkou is located at the entrance of Liaohe River, in the central part of the Liaodong peninsula. The complex is made up of Yingkou Old Port, Bayuquan New Port, and Xianren Dao. Yingkou is a major port for foreign trade in northeast China and its main cargoes include general cargo, steel, grain, timber, coal, ore, containers, liquefied petroleum gas, and chemical fertilisers. The port handled 347 million tonnes in 2016, up 33% from the 261 million tonnes it handled in 2011.

#16 Port of South Louisiana

The largest port by tonnage in the Western Hemisphere, the Port of South Louisiana stretches 87 km along the Mississippi River. Cargo throughput at the US port has risen from 274.27 million tonnes in 2011 to 295 million tonnes in 2016, a 7.5% rise. The port is already producing stronger numbers in 2017 compared with last year's totals. This year, the majority of freight seems to be comprised of petrochemicals, maize, soyabeans, and crude oil.

#17 Zhangjiagang

Located on the Yangtze River, the port's main cargoes include steel, timber, ore, coal, cement, chemical fertilisers, edible oils, liquid chemicals, and dangerous goods. Total annual cargo throughput rose 31.22% to 290 million tonnes in 2016 from 221 million tonnes in 2011.

#18 Caofeidian

Caofeidian is situated on an island of the same name, in the west of Bohai Bay, and is approximately 80 km south of Tangshan and 70 km east of Tianjin. Widely considered to be the principal coal port in China, Caofeidian has five berths dedicated purely to handling this cargo. In addition to coal, iron ore, LNG, and crude, while general and bulk cargoes are also managed. Caofeidian has seen its annual throughput volumes rise 70.45% from 170 million tonnes in 2011 to 289.7 million tonnes last year.

#19 Yosu

The second port from South Korea on this list, Yosu Port is administered by the Yeosu Regional Maritime Affairs and Fisheries Office and consists of the ports of Yosu and Gwangyang. Principal exports are cereals, apples, and dry bulk, while it imports general cargo, containers, cement, oil, and coal. Total annual throughput has increased 21.62% from 234 million tonnes in 2011 to 284.6 million tonnes in 2016.

#20 Yantai

Yantai, also known as Chefoo, is a multipurpose port with facilities for wet and dry shipments and major drydock facilities. Imports include iron ore, fertiliser, grain, timber, fish, and steel;

while the main exports are cement, construction materials, coal, crude oil, corn, and refrigerated cargoes. Its annual cargo throughput in 2016 was 265.4 million tonnes, up 32.68% from the 200 million tonnes recorded in 2011.

On the fringe

Just missing out on the top 20 was Hong Kong. The port saw an annual cargo throughput of 256.7 million tonnes in 2016, down 7.4% from its 2011 total of 277.4 million tonnes. The only other port in this analysis to record negative growth over the five-year period was Shanghai. Hong Kong includes 8,500 m of quays at Kwai Chung-Tsing Yi Basin, with nine terminals providing 20 berths for large vessels. It also includes 7,804 m of quays at public cargo working areas, and 29 mooring buoys for ocean-going vessels. There are eight public cargo working areas, all of which are managed by the Hong Kong Marine Department.