



Flanders
State of the Art

A photograph of a container yard at sunset. In the center, a forklift is lifting a blue container. The yard is filled with stacks of containers in various colors: red, blue, orange, and green. The sky is a mix of orange, yellow, and blue, with the sun low on the horizon. The overall scene is industrial and dynamic.

INTERNATIONAL LOGISTICS BUSINESS

IN CHINA

FLANDERS INVESTMENT & TRADE MARKET SURVEY

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CHINA'S INTERNATIONAL
LOGISTICS BUSINESS

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1. GENERAL INFORMATION

1.1 INTRODUCTION

China has been the world's biggest logistics market for 7 years. Versus 2021, in 2022, China's total value of logistics goods was CNY 347.6 trillion, an increase of around 3.6%. Its total logistics revenue was CNY 12.7 trillion (nearly CNY 2 trillion was made by the top 50 companies), an increase of about 5% and its international express courier services handled 2.02 billion pieces of pouches, an increase around 4.1%. A top Chinese express couriers' business volume is bigger than that of some world players in the sector, but the turnover and profit is smaller¹. A top logistics company in China can make an annual revenue of at least CNY 100 billion. In the coming years, the average increase rate of China's transport and logistics business is said to be around 6%. Over 50 million people in China work for the logistic business.

Since the end of 2022, China's latest focuses on the promotion of international logistics has been: connection of infrastructures, smoothening of international transport, safety assurance of international logistic supply chains, and connection of mechanism and rules. The international railway logistics and cross-border e-commerce logistics are two hot spots in the business. "The Domestic and International Dual Circulation" and "the Belt and Road Initiative" are two major economic themes in the country, demanding more developed international logistics. In the coming period, the growth of the world economy will still be slow, the geopolitical crisis remains, the global trade protectionism will expand and the pressure which China's international logistic businesses faces are obvious.

China's international logistics still cannot match its position as the biggest foreign trader in the world, around 70% of China's international logistics depends on foreign service providers. China's exports are usually on FOB terms, therefore the high-added-value international transport, insurance, overseas customs clearance, etc., are controlled by foreign logistics companies. The revenue of China's biggest international freight forwarder, Sinotrans, is around 1/2 of Kuehne+Nagel's, the market capitalization of the former is 1/10 of the latter.

China's own operations at foreign seaports are still not enough, besides those at Piraeus and Gwadar. China's logistics companies have little end-service network in foreign countries, hard to provide one-bill full multimodal transport service. China is not strong enough to control the cross-border e-commerce logistics' standards, rules, information and data, etc. China's over 2000 overseas warehouses are run by many different Chinese companies separately with simple function, difficult to compete with Amazon's system.

China's international logistic cost rate is around 14.3%, while that of the developed countries is around 7%; the reasons for China's high costs are the low logistic technology level, less efficient logistics resource allocation, less efficient multimodal transport, less connection of different transport systems, etc. The international marine transport certification and insurance business are controlled by Western companies like SGS and Lloyd's, these are potential risks to China's independent development of international logistics.

¹ www.guandian.cn/article/20230308/333868.html



The COVID-19 pandemic impacted China’s international logistics. The world economy declined, China’s foreign trade shrank, therefore the country’s foreign transport decreased; the anti-pandemic lock-down also stopped some logistic operations. China’s economy is showing resilience in 2023, with its international logistics bouncing back.

The “decoupling” of the West against China influences China’s international logistics as well. America is introducing a new project, FLOW (Freight Logistics Optimization Works), to improve data sharing among the leading Western logistic companies, this excludes China; the West is trying to change the situation that Chinese cranes with Chinese software are widely used at Western seaports. On the other hand, the “decoupling” is difficult; for example, China’s seaports’ capacity is much bigger than that of ASEAN plus South Asia, the latter can’t meet the demand of the transport of the goods related to China, and Chinese seaports are important international transit points for strategic resources like oil, natural gas and coal. To avoid the “decoupling” risks, Chinese logistics companies are adding investments in new markets like Brazil, Saudi Arabia and Mexico, to extend their networks; Cainiao set up its Latin American head office in Sau Paulo with Brazil Post as its local partner; Chinese and Saudi Arabic transport ministers met online in June/2023 to strengthen bilateral logistic cooperation; in 2023, the first introduction session in Mexico on the China International Supply Chain Expo was organized

Main risks which Chinese international logistic companies face:

- Market risks
 - fluctuation of the macro economy
 - trade frictions
 - competition from same or different transport models
 - fluctuation of costs (specially, fuel)
 - fluctuation of exchange rates of foreign currencies
- Operational risks
 - changing customer demands
 - expansion of business scales and types
 - shortages of innovation versus digital and intelligent administration
 - legal compliance especially in foreign markets
 - transport safety
 - force majeure



Top 10 logistics companies in China in 2021

	Company's website	Revenue of logistics (CNY 10000)
1	www.coscointl.com	48,062,271.00
2	www.xiangyu.cn	23,125,812.00
3	www.sf-express.com	20,369,023.00
4	www.sinotrans.com	12,434,553.10
5	www.cmst.com.cn	7,645,000.00
6	www.jdl.com	7,037,333.00
7	www.meituan.com	6,192,589.00
8	www.crmg.com.cn	5,309,188.00
9	www.yundaex.com	4,172,929.00
10	www.yto.net.cn	3,583,209.00

(See more ranking at www.clic.org.cn/qywsq/308626.jhtml, in Chinese only)

Top 10 forwarders in China in 2021

	Company's website	Revenue of forwarding (CNY 10000)
1	www.sinotrans.com	12,434,553.10
2	www.coscointl.com	5,348,940.00
3	www.cmst.com.cn	5,145,000.00
4	www.crct.com	3,273,394.00
5	www.dhl.com	3,179,519.00
6	www.cimcwetrans.com	2,887,409.13
7	www.ctsfreight.com	2,466,766.00
8	www.apexglobe.com	2,311,124.00
9	www.kerrylogistics.com	2,021,924.00
10	www.szjiuli.com	1,682,454.54

(See more ranking at www.cifa-china.com/cn/news-content.html?id=392745940563398656, in Chinese only)



China's national logistic hubs in 2022

City	Type
Tianjin	Trade service hub
Datong	Inland port hub
Ordos	Manufacture service hub
Changchun	Inland port hub
Suifenhe-Dongning	Inland border port hub
Nanjing	Airport hub
Jiaxing	Manufacture service hub
Bengbu	Manufacture service hub
Quanzhou	Trade Service hub
Jiujiang	Marine port hub
Yantai	Marine port hub
Zhengzhou	Inland port hub
Nanyang	Trade service hub
Shiyan	Manufacture service hub
Huaihua	Trade service hub
Guangzhou	Airport hub
Pingxiang	Inland border port hub
Chongqing	Manufacture service hub
Chengdu	Airport hub
Kunming-Mohan	Inland port (Inland border port) hub
Xi'an	Manufacture service hub
Baoji	Manufacture service hub
Jiuquan	Inland port hub
Yinchuan	Trade service hub
Korla	Inland port hub

1.2 THE 14TH 5-YEAR PLAN

In China's 14th 5-year Plan's Modern Logistics Development Scheme, the international logistics business is strengthened as follows.

Improvement of the international channel network.

China is further building the infrastructure of its national logistic hubs, improving the customs clearance functions, linking the international and domestic logistics; setting up overseas trading and logistics cooperation zones; improving international railway and highway services; constructing overseas warehouses with standard systems; developing overseas distribution networks with foreign seaports.

Improvement of the international aviation logistics.

China is further integrating the aviation goods supply with the national airport hubs, strengthening the aviation logistics platforms with one-stop services, developing the leading enterprises, optimizing the belly compartment capacity of passenger planes, extending cargo planes' routes and flights, with support for the country's major industries.



Improvement of the international marine logistics.

China is further extending the maritime transport routes, building seaports, improving the international transit shipment functions, developing the relative international financial and trading service; integrating the world’s leading ports in the Changjiang River Delta; strengthening the connection with seaports and inland logistic hubs with more railway-sea and river-sea transports; encouraging more cooperation between the ports, shipping lines and exporters, to expand the overseas end services.

Improvement of the comprehensive international logistic services.

China is further developing the monitor system of the China Railway Express to Europe, building its train hubs, extending its overseas goods distribution network, developing its both-way transport balance, improving its operation efficiency; developing the link between international marine transport, aviation transport, the China Railway Express, and the New International Land-Sea Trade Corridor; developing the international passenger trains’ goods transport capacity; strengthening the railway, river and highway border ports’ transit and transport capacity, and the international shipping lanes’ services; developing the link and mutual recognition of the international logistic document handling, goods inspection and quarantine, goods certification and customs clearance, etc.

2. MARINE LOGISTICS

2.1 GENERAL INTRODUCTION

In 2022, the scale of China’s marine transport market was 319.2 million DWT (dead weight tonnage), at an increase rate of 3.8% against that of 2021²; China’s marine transport trading volume was 8569.6 million tons, while the world’s volume was 22654 million tons; China’s bulk ship goods trading volume was 2408 million tons, while the world’s volume was 5464 million tons³.

While China’s (also the world’s) maritime transport business in 2023 may have generally declined; Chinese shipping lines are signing more long-term contracts with the customers to avoid further price risks. There will be more marine transport volume specially between China and ASEAN for equipment and half industrial products from China, and raw materials and agricultural products from ASEAN. Digital technologies are strongly developed in the business in China, to improve ship dispatch, transport link, transport efficiency, goods safety, loading efficiency and automation, etc. In the coming years, China’s import transport of iron ore and coal will decline, that of cereal and petroleum will increase. Big Chinese goods owners are purchasing their own fleets, they are steel makers like Baosteel and Shougang, and power generators like Huaneng, Shenhua and Zheneng Fuxing.

² <https://m.163.com/dy/article/HLIOP8MM051481OF.html>
³ www.askci.com/news/chanye/20221107/1024202012815.shtml



China’s top 5 international shipping lines

Companies	Transport capacity	Number of vessel
www.coscointl.com	113.82 million DWT	1394
www.cmhk.com	45.42 million DWT	333
www.sdshipping.cn	13.00 million DWT	69
Shanghai Leading Energy Shipping Co Ltd	1.96 million DWT	25
www.seacon.com	1.26 million DWT	22

China’s automobile export is a new promising market for marine logistics. In 2022, China exported 3.111 million units of automobiles (679,000 units were new energy cars, mainly to Europe and South America) at an increase rate of 54.4%; this made China the world’s No. 2 automobile export country, and it may be the No.1 in 2023⁴. In the first quarter of 2023, the business continued to grow, with an export volume of 994,000 units at an increase rate of over 70%⁵. The supply of automobile vessel transports in China is in shortage till 2024 at the earliest, the transport price is high. The orders from China for PCTC (Pure Car and Truck Carrier) have risen by 110% (88% was generated by Chinese companies). SAIC, BYD, Geely, Chery and Great Wall Motor, etc. are the main Chinese automobile exporters/manufacturers. Chinese automobile vessels transport capacity is only 2.63% of the world’s capacity, recently only 9 vessels served the country’s foreign trade of automobile⁶. COSCO ordered 15 7500CEU automobile vessels from Chinese ship builders in 2022, and plans to add 6 more. SAIC, BYD and Chery, the manufacturers themselves, are also purchasing vessels.

Besides PCTC, Chinese companies are also using container in ship, special rack in ship, train, to export cars. Belgium is a main import country of Chinese cars, with Zeebrugge as the world’s biggest car distribution port and North Sea Port as a main stop of the China Railway Express to Europe. In the first quarter of 2023, Belgium imported 67,000 Chinese cars, ranking as No 3 import country after Russia and Mexico⁷. The main part of the Chinese cars shipped to Belgium are finally sold to other European countries. COSCO is the biggest carrier of China’s car export. Anji (www.anji-logistics.com) and Changjiu (www.changjiulogistics.com.cn) are the leading Chinese logistics companies specialized in car export.

In 2022, compared with 2021, China’s seaports throughput volume was 12,350 million tons at an increase rate of 1.3%; China’s seaports foreign trade goods throughput volume was 4,520 million tons at an increase rate of –1.9%; China’s inland ports foreign trade goods throughput volume was 84.35 million tons at an increase rate of –0.6%; for seaport, with a handling capacity of over 200 million tons, of which China has 23; containers, coal, metal ore, mine construction materials, petroleum and its relative products are the 5 main goods categories handled by China’s seaports, which together took a share of 85%; cement, steel and iron, LNG were the main goods witnessing a decrease of the volume handled.

In 2022, compared to 2021, China’s biggest seaport clusters ranked as, the Changjiang River Delta (increased by 1.6%), Shandong Province (increased by 6.1%), Tianjin City – Hebei Province (increased by 3.5%), and the Pearl River Delta (increased by –3.8%).

⁴ <https://m.yangtse.com/wap/news/2683362.html>
⁵ <http://wap.itxinwen.com/index.php?a=show&catid=20&id=121863>
⁶ www.zgsyb.com/news.html?aid=649271
⁷ <https://baijiahao.baidu.com/s?id=1765589629401774765&wfr=spider&for=pc>

In 2023, China’s seaports throughput volume is estimated to be 12,700 million tons at an increase rate of 2.6%.

China’s top 10 seaports in 2022⁸

Seaport	Seaport’s Website	Volume handled (million tons)
Ningbo-Zhoushan	www.nbport.com.cn	1261.34
Tangshan		768.87
Shanghai	www.portshanghai.com.cn	727.77
Qingdao	www.qdport.com	657.54
Guangzhou	www.gzpgroup.com	629.06
Suzhou	www.suzport.com	572.76
Rizhao		570.57
Tianjin	www.ptacn.com	549.02
Yantai	www.yantaiport.com.cn	462.57
Beibuwan	www.bbwpport.cn	371.34

The Port of Ningbo-Zhoushan is the world’s No.1 port in terms of goods volume handled for 14 years. The Port of Shanghai is the world’s No.1 port in terms of container volume handled for 13 years; in 2022, the volume was 47.3 million TEU.

Some main focuses of Chinese seaports further development are, quality improvement, optimization of the transport structure, more river-sea links, more innovation on technology and administration for resource integration.

2.2 MAJOR COMPANIES

COSCO

Transport capacity of COSCO⁹
(www.coscointl.com)

31/12/2022

Fleet category	Transport capacity	Number of vessel	Position in the world
Container	3.02 million TEU	487	Leading
Dry bulk	45.14 million DWT	437	No. 1
Tanker	29.18 million DWT	228	No. 1
General and specialized cargo	5.87 million DWT	175	No. 1

By 31/12/2022, COSCO had invested in 56 terminals all over the world, including 49 container terminals; its annual container terminal throughput had reached 131.79 million TEU (No.1 in the world); its global transport volume of bunker fuel had exceeded 28.3 million tons (No.1 in the world); its container leasing volume has reached 3.91 million tons TEU (No.3 in the world); its

⁸ <https://baijiahao.baidu.com/s?id=1763922905187980102&wfr=spider&for=pc>
⁹ www.coscointl.com



offshore engineering manufacture and vessel agent business had also ranked a leading position in the world¹⁰.

In 2022, the turnover of COSCO Shipping Holdings Co., Ltd. was CNY 391.058 billion at an increase rate of 17.19%, the net profit was CNY 109.595 billion at an increase rate of 22.66%, hitting a record high¹¹.

In the first quarter of 2023, COSCO’s net profit attributable to the parent company greatly decreased to CNY 9.933 billion by 74.91%, mainly due to low demand of the marine container transport caused by global central banks’ interest rate increase and the regional wars. COSCO is coping with the situation by cutting costs and developing more non-traditional-marine business, like rail-ocean multimodal transport, overseas warehouse services, truck services, complete supply chain services, port operations, more integration with key customers, etc.

New developments of COSCO:

- Extension of the international container hub at Port of Yangpu, Hainan Province, China, started in January 2023 with an investment over CNY 10 billion
- Rail-ocean transport service connecting the New International Land-Sea Trade Corridor in Southwest China, with Rotterdam etc. as the destinations, started in November 2022
- More operations in leading Chinese ports like Tianjin, Shanghai and Guangzhou
- Kick-off of its first online visual supply chain system “Taihong”, with trucks – customs clearance – ocean transport connection, in January 2023, at its e-commerce platform SynCon Hub
- More intelligent ship and port technologies
- More green and sustainable technologies
- New subsidiary in Guangzhou for automobile transport to support China’s expanding automobile exports, alternatively using of special racks and containers for automobile transport due to low supply and high cost of ro-ro ships
- More attention on Southeast Asia, under RCEP
- Kick-off of its automobile supply chain digital platform, linking Port of Xiamen and Port of Antwerp-Bruges, in April 2023
- Acquisition of 24.9% of a container yard in Hamburg, approved in October 2022

¹⁰ www.coscointl.com

¹¹ www.coscointl.com



COSCO's major foreign ports

Port	COSCO's share	Number of berth	Handling capacity (TEU)	Depth of water (meter)
Piraeus	100%	8	6,200,000	14.5-19.5
CSP Zeebruges	90%	3	1,300,000	17.5
CSP Abu Dhabi	40%	3	2,500,000	18
CSP Valencia	51%	6	4,100,000	16
CSP Bilbao	39.51%	3	1,000,000	21
CSP Chancay	60%	2	1,000,000	16-18
		2	6,200,000 tons	14
Suez Canal	20%	8	5,000,000	17
Kumport	26%	6	2,100,000	15-16.5
Antwerp	20%	4	3,700,000	16
Singapore	49%	5	4,850,000	18
Busan	4.23%	8	4,000,000	15-16
Seattle	13.33%	2	400,000	15.2
Euromax	17.85%	5	3,200,000	17.65
Jeddah	20%	11	5,200,000	18
Vado Ligure	40%	2	250,000	14.5
		2	600,000 pallets	14.1
		2	860,000	17.25

China Merchants

By 31/12/2021, the China Merchants Group (www.cmhk.com) had been the world's No.2 non-financial vessel owner; its VLCC fleet had owned 54 vessels (the world's No.1); its VLOC fleet had owned 34 vessels (the world's No.1); it has a leading container vessel fleet in Asia, especially experienced in the routes to Japan and Taiwan; it has operations in 50 ports all over the world, annually handling 136.13 million TEU at an increase rate of 11.8%, 33.31 million TEU among them at an increase rate of 15.3% has been from overseas projects; it also has handled 610 million tons of bulk and general goods¹². The company is the biggest public port operator in China. China's biggest and the world's No.3 forwarder, Sinotrans, is owned by the group.

The company is extending its fleet of LNG transports with 16 more ships, renovating its bulk cargo ships (at least 4 93000-ton ships) with clean tech, promoting river-sea, sea-railway, truck-connected multimodal transport, coping with the lesser demand for container transport by better service and cost management, improving its digital management systems on ships, crews and ports. The company newly started to operate the world's first windsail-combined VLCC, shifted 3 ships from domestic trade transport to foreign transport, ordered from a sister company 6 9000-CEU ro-ro ships (the world's biggest) for automobile transport, opened transport routes to the Persian Gulf, Southeast Asia and the Red Sea with its own ro-ro ships as its important business breakthrough.

¹² <https://www.cmhk.com/>



3. THE AVIATION LOGISTICS

3.1 GENERAL INTRODUCTION

In 2022, compared to 2021, China’s air cargo transport handled 6.076 million tons of cargo and postal parcels (-17%); among them, the international air cargo routes handled 2.638 million tons (-1.1%)¹³; so although both declined, the international demand was still much more stable than the domestic demand. China’s import and export air cargo are mainly 3C equipment (computer, communication products, consumer electronic products), medical devices, semiconductors, parts for manufacturing, raw materials, pharmaceuticals, medical reagents, etc. In the past 5 years, China added over 6 million tons air cargo transport capacity. In the first half of 2023, China plans to build over 1 million m² new air cargo facilities and around 200 cargo plane aprons, with a total investment of over CNY 12 billion. In the coming years, China’s aviation logistics will focus on the 3 systems of service, support and monitor, specially benefitting the sectors like high-end manufacturing, post and express delivery, cross-border e-commerce, etc. The cold-chain transport is a growth point of China’s international aviation logistics. In 2022, China’s cold-chain logistics market amounted to CNY 490 billion at an increase rate of 7.2%. The main cargo are fresh products, biological agents, pharmaceuticals, precise instruments, etc.

China’s digital and intelligent aviation logistics are further developing; the online handling of airway bills, cargo declaration, cargo release, space booking, payment, etc., via computer or mobile phone APPs, are more popular. Chinese airports are improving the efficiency and methods of cargo’s security checks. Chinese aviation logistics are more supporting the country’s export, like those of the cross-border e-commerce. Recently, China’s international airfreight rates greatly decreased; the rate for the China – North America route decreased from CNY 70 / kg to CNY 40 / kg, the rate for the China – Europe route decreased from CNY 50 / kg to CNY 30 / kg. The air cargo routes to ASEAN countries, South Asia and Latin America are more developed now.

With the fade-away of COVID-19, China’s passenger flight belly compartments are taking the main share again in the aviation transport versus cargo planes, as the former have more intensive networks, higher efficiency, and lower prices. In the world, the transport capacity of passenger flight belly compartments versus cargo planes is 50% - 50%, while in China it is 70% - 30%.

By the end of 2022, Chinese companies had 212 cargo aircrafts, 5.2% of China’s civil transport aircrafts¹⁴. In 2022, Chinese companies purchased 31 cargo aircrafts, 23 among them were middle and long-range planes like Boeing 757F, 767F and 777F¹⁵. China now operates 5000 international cargo flights per week, reaching 53 countries over 120 cities.

Some focuses of the Civil Aviation Administration of China (www.caac.gov.cn) on air cargo transport development are, intelligent logistics, adding cargo flight time slots, higher efficiency of cargo flights and route approval, improvement of top-level policies, better key resource allocation, etc. China’s guidelines on air cargo transport are changing: the cargo transport should be as important as the passenger transport, previously the former did not draw enough attention; the cargo service should be from door to door, previously it was from airport to airport; the cargo

¹³ <https://www.bilibili.com/read/cv23563709/>
¹⁴ http://www.caacnews.com.cn/1/tbtj_/202301/t20230119_1361597.html
¹⁵ http://www.caacnews.com.cn/1/tbtj_/202301/t20230119_1361597.html



logistics should be deeply integrated with speedy couriers, cross-border e-commerce and manufacturing companies, forming the whole industrial chains, previously it was only a single service; the government should offer more flexibility and liberty to the companies, previously it controlled everything.

China’s top 10 cargo aircraft operators in 2022

Company	Company’s website	Number of cargo aircraft
SF Airlines	www.sf-airlines.com	77
China Postal Airlines		29
Air China Cargo	www.airchinacargo.com	15
China Southern Airlines	www.csair.com	15
China Cargo Airlines	www.ckair.com	15
YTO	www.yto.net.cn	11
Air Central	www.airlonghao.com	11
China Eastern Air Logistics	www.eal-ceair.com	10
Central Airlines	www.zzairlines.com	8
Tianjin Air Cargo		6

They are still much smaller than the world’s leading players like Fedex, UPS and DHL.

China’s international air cargo transport network and its supporting services are still not strong. Over 60% of China’s international air cargo is transported by foreign carriers. Few Chinese companies have overseas cargo stations, which is not only a warehouse, but a spot with information systems connection, customs rules mutual accreditation, independent operation of cargo handling and customs clearance, etc., and finally becoming a safeguard facility of the international supply chain. In 2021, Zhengzhou Xinzheng Airport set up such a cargo station at Hungary’s Budapest Airport (the first one outside China); it became a big success with 37,000 tons of cargo handled in 2022. Xinzheng Airport plans to build 2 more cargo stations at Germany’s Leipzig Airport and Malaysia’s Kuala Lumpur Airport.



China's top 10 cargo airports in 2022¹⁶

Airport	Cargo and postal parcel volume (ton)	Increase rate
Shanghai Pudong	3,117,215.6	-21.7%
Guangzhou Baiyun	1,884,082.0	-7.9%
Shenzhen Baoan	1,506,955.0	-3.9%
Beijing Shoudu	988,674.6	-29.4%
Hangzhou Xiaoshan	829,831.4	-9.2%
Zhengzhou Xinzheng	624,654.1	-11.4%
Chengdu Shuangliu	529,873.1	-15.8%
Chongqing Jiangbei	414,775.4	-13.0%
Nanjing Lukou	377,920.8	5.2%
Kunming Changshui	310,122.2	-17.8%

The volume decreased mainly due to the COVID-19 pandemic.

The cargo infrastructure of Chinese airports is still not strong, the design is outdated, the supporting services are weak, especially for the transport of pharmaceuticals, cold chain cargo, fresh food; and daytime cargo flight time slots are quite limited.

3.2 MAJOR COMPANIES

SF (Shunfeng)

SF Airlines' fleet in March 2023¹⁷

Type of cargo aircraft	Number
Boeing 757 - 200F	41
Boeing 767 - 300BCF	19
Boeing 737 - 300/400F	17
Boeing 747 - 400ERF	3

They are basically second-hand passenger aircraft converted to cargo aircraft with ages of over 20 years. 30% of them are wide-body aircraft. The company also operates another 20 aircraft which are not self-owned. Because of SF Airlines' much longer experience on the purchase and operation of cargo aircraft, better knowledge on the market access, and better resources like the traffic rights, it is difficult for other Chinese cargo airlines to catch up with SF Airlines in years.

As China's biggest cargo airline, SF Airlines now flies to over 40 cities and regions in the country, with nearly 150 flights per day. The company's own all cargo aircrafts have operated 67 international routes with over 6,700 flights and over 190,000 tons of cargo, reaching 44 countries; the company has also outsourced 11,000 international routes with 340,000 tons of cargo.

With the local government, SF co-invests (SF takes a 46% share) and co-builds the Ezhou Airport, Asia's first and the world's fourth 4E-level professional cargo airport, with a total investment of

¹⁶ <http://hkjj.zua.edu.cn/info/1017/2521.htm>

¹⁷ <https://baijiahao.baidu.com/s?id=1761401281378987368&wfr=spider&for=pc>

CNY 15.857 billion¹⁸. The airport has 2 3,600-meter runways, a terminal building of 15,000 m² and a station apron with 124 parking spaces; it will be the global hub of SF's international aviation logistics¹⁹. It started operation in July 2022, its cargo transit centre will start to operate in 2023. It plans to have 40 domestic cargo routes and 6 international cargo routes including one to Frankfurt and one to Osaka by the end of 2023; and have annual cargo handling capacity of 3.30 million tons by 2030. The world's top 3 air cargo transporters, Fedex, UPS and DHL, and some leading Chinese manufacturers may also station at the airport in the coming years. The airport's first international cargo route with 2 flights per week is from Ezhou to Belgium's Liege, it started to operate on the 1st of April 2023 with a Boeing 747-400ERF all cargo plane, carrying 105 tons of cargo.

SF is China's biggest and the world's fourth biggest courier. In 2022, SF's network covers over 200 countries, realized a turnover of CNY 267.490 billion at an increase rate of 29.11%, with a net profit of CNY 6.174 billion at an increase rate of 44.62%, handling 11.14 billion parcels at an increase rate of 5.5%²⁰. In 2022, SF's supply chain and international business, which is its second biggest business thanks to its acquisition of Kerry Logistics (www.kerrylogistics.com) in the 4th quarter of 2021, had a tax-free turnover of CNY 87.87 billion at an increase rate of 124.1%²¹. The group will build more overseas warehouses to support its international business, and especially strengthen its local courier service in Southeast Asia with Kerry Logistics' existing network. The group focuses its international business on two fields: international courier service and cross-border e-commerce logistics; for the latter, the main services are, the complete end to end logistics from Chinese suppliers to foreign customers, and sales return and exchange. The group also has joint ventures with DHL (www.sf-dsc.com) and Havi (<https://havi.com/>) for the group's supply chain business within China.

China's top 3 passenger airlines

The air cargo transport is still not the main business of China's top 3 passenger airlines, their cargo profit per ton per kilometre are all less than CNY 2.50, but they are catching up by spinning off their cargo business for IPO, adding more cargo aircrafts, and promoting their passenger aircrafts' belly compartments for cargo. They have different logistics partners with joint investments; China Southern Airlines is with Sinotrans, China Eastern Airlines is with JD, Air China is with Cainiao. How to win in the homogeneous competition is always a question to these airlines.

China's top 3 airlines' air cargo volume in 2022

Airlines	Air cargo volume (ton)	Increase rate
China Southern	1,327,000	-8.0 %
China Eastern	920,000	-29.1 %
Air China	844,000	-28.9 %

In 2022, logistics was the only business that made profits for China Southern Airlines; the profit was CNY 4.654 billion at an increase rate of -18.25%; the turnover was CNY 21.538 billion²². By April 2023, China Southern Airlines had 16 Boeing 777 cargo aircraft, operated over 60 international all

¹⁸ https://m.thepaper.cn/baijiahao_16335376
¹⁹ http://news.cnhubei.com/content/2023-07/24/content_16262321.html
²⁰ <https://baijiahao.baidu.com/s?id=1761674739204164070&wfr=spider&for=pc>
²¹ <https://baijiahao.baidu.com/s?id=1761674739204164070&wfr=spider&for=pc>
²² <https://baijiahao.baidu.com/s?id=1761690303820228500&wfr=spider&for=pc>



cargo flights weekly. The flights are based in Guangzhou and Shanghai to cover the world. In Guangzhou, the company has 9 cargo routes to Europe, North America and Southeast Asia; in Shanghai, the company has 7 cargo routes to Europe and North America. China Southern Airlines also has 879 passenger aircrafts which have belly compartments for cargo. The company has 15 own cargo stations in China, with a total warehouse area of 270,000 m² and a handling capacity of 2.36 million tons²³.

China Eastern Air Logistics got listed in China's stock market in June 2021. In 2022, the company realized a turnover of CNY 23.47 billion at an increase rate of 5.59%, with a net profit of CNY 3.637 billion at an increase rate of 0.27%²⁴. The company's 3 main business are aviation express transport, ground services and comprehensive logistic solutions. China Eastern Air Logistics' first foreign market is Southeast Asia, it is now extending to Europe and North America, owning already 17 cargo stations in China with a total warehouse area of 1.5 million m² (including temperature controlled warehouse in China), connecting 15 foreign cities. The company has 13 Boeing 777 and 2 Boeing 747 aircrafts, with 15 all cargo routes from Shanghai and 2 from Shenzhen.

In 2022, Air China Cargo realized a turnover of CNY 22.785 billion at an increase rate of -4.9%, the net profit attributable to the parent company was CNY 3.081 billion at an increase rate of -28.4%²⁵. Air China Cargo now has 16 cargo aircrafts, all are Boeing 7X7, 11 of them are wide-body aircrafts; it will add 5 more B777F before 2025²⁶. By the end of 2022, it had 487 passenger aircrafts with belly compartments available for cargo. Its all-cargo aircrafts have 24 routes covering 8 countries and 21 cities. 80% of the company's turnover is from international business, its customers are mainly multinational companies like Schenker, DGF, Expeditors and Apple.

4. THE RAILWAY LOGISTICS

4.1 GENERAL INTRODUCTION

In 2022, the China State Railway Group Co., Ltd. (www.china-railway.com.cn) realized a total goods delivery volume of 3.9 billion tons at an increase rate of 4.7%, with a total turnover of CNY 478.6 billion at an increase rate of 9.8%²⁷.

The China Railway Express to Europe is China's main international railway route. The New International Land-Sea Trade Corridor (www.xibulhxt.com) in Southwest China is another route connecting international transport; it operated 756,000 standard containers in 2022 at an increase rate of 18.5%²⁸; its main route is from Chongqing to Port of Beibuwan, with extensions from Chongqing to Lanzhou, Xining, Urumqi, connecting the China Railway Express to Europe, and from Chongqing to the Changjiang River, connecting the eastern ports. Another international route, the China-Laos railway, has handled 3.63 million tons of cross-border goods since it started to operate in December/2021²⁹.

²³ https://www.thepaper.cn/newsDetail_forward_19117559
²⁴ <https://baijiahao.baidu.com/s?id=1762887616746051014&wfr=spider&for=pc>
²⁵ https://roll.sohu.com/a/663353002_121119655
²⁶ <https://cj.sina.com.cn/articles/view/1850649324/6e4eaec020015mkq>
²⁷ <https://baijiahao.baidu.com/s?id=1754008288350282169&wfr=spider&for=pc>
²⁸ <http://bbwb.gxzf.gov.cn/ywdt/t15048268.shtml>
²⁹ <https://baijiahao.baidu.com/s?id=1763138321161093114&wfr=spider&for=pc>



4.2 MAJOR PLAYERS

China Railway Express to Europe

In 2022, the China Railway Express to Europe owned by the China State Railway Group Co., Ltd., operated 16000 shifts of train at an increase rate of 9%, and 1,600,000 standard containers at an increase rate of 10%³⁰.

The China Railway Express to Europe, transporting over 50000 types of commodities, mainly exports electronic products, clothes and agricultural products, and mainly imports auto parts, wood, wine and seafood; China’s new-energy cars for Europe are also being transported by the trains. It connects 25 European countries with 208 cities, runs from 75 Chinese cities, with around 90 container yards in 20 countries. Xi’an is the network’s biggest departure city, other departure cities are, Zhengzhou, Chongqing, Chengdu and Urumqi; Khorgas is the network’s biggest border port in China, with others in Alashankou, Erenhot, Manzhouli and Suifenhe.

The main economic advantages of the China Railway Express to Europe are:

- The cost is around 1/5 of the aviation transport
- The delivery time is around 1/4 of the marine transport
- The carbon emission is around 1/15 of the aviation transport and 1/7 of the highway transport
- 8-20% cheaper than the comprehensive logistic cost of the traditional sea-railway transport

The China Railway Express to Europe creates many jobs for the countries alongside, promotes digital trading network, coastalisation of inland cities, renovation of global supply chains, industrial concentration, regional innovation, enterprise efficiency, and narrows regional development gaps. The great attention of the countries alongside the network is a main reason of its success; for example, the countries cooperate in building new and faster customs control models for the network.

Main routes of the China Railway Express to Europe

Route	Delivery time
China-Kazakhstan-Russia-Europe	20 days
China-Mongolia-Russia-Europe	25 days
China-Kazakhstan-Caspian Sea-Turkey-Bulgaria-Serbia-Hungary-Slovakia	30 days
China-Kazakhstan-Caspian Sea-Black Sea-Romania	40 days
China-Kazakhstan-Iran-Turkey-Europe	30 days

The Russia-Ukraine war influenced the China Railway Express to Europe. The volume of goods transported to and from West Europe, passing Russia, decreased; but the volume of goods to and from Russia itself increased. The route passing through Ukraine has been stopped. China is

³⁰ <https://baijiahao.baidu.com/s?id=1754002309353709226&wfr=spider&for=pc>



developing an alternative route via Kyrgyzstan, Uzbekistan and Caspian Sea, building on a new railway linking the two countries may be started again in 2024; this new route will be around 900 km shorter than the Russia route, saving 7-8 delivery days.

5. OTHER MAJOR COMPANIES

China Logistics Group

The company (www.chinalogisticsgroup.com.cn) was newly established in December 2021, owned by China’s central government, as a merger of several other companies. It is mainly like a forwarder, but with complete and strong modern supporting services. It owns 24.26 million m² of land, 4.95 million m² warehouses, 3.56 million m² goods yards, and over 3 million freight vehicles, with a total registered capital of CNY 30 billion³¹. In 2022, the company’s turnover was CNY 190.3 billion, the profit was CNY 6.06 billion, the number of employee was 22,000³².

The company’s business is, logistics for manufacturing, engineering, FMCG, cold chain, delivery of actuals and futures, dangerous goods, strategic goods, reverse logistics, international forwarding of marine, aviation and train goods, etc.

Cainiao

The company (www.cainiao.com) is the logistics arm of Alibaba Group. Its business is, global logistics for consumer parcels, operation of global supply chain, development of relative smart technologies, and development of relative smart infrastructure, etc. Its turnover in 2022 was CNY 63.8 billion. It is planning for listing at Hongkong Exchanges at the end of 2023, as Alibaba’s first spin-off IPO.

The company is especially strong at the logistics for cross-border e-commerce, supporting Alibaba. Its network covers over 200 countries and regions, with a daily handling capacity of over 4.5 million parcels. It now has 15 international distribution centres, its biggest one in Europe is the eWTP Hub in Liege, Belgium; and started to build its first domestic air cargo centre at Shenzhen Airport in April 2023, cooperating with Atlas Air. The company operates over 3 million m² cross-border e-commerce warehouses in over 30 countries, having over 240 shifts of chartered flights monthly, connecting over 60 airports around the world with co-built intelligent customs clearance systems. It promises to deliver any consumer parcel within a cost of “5 USD and 10 days” to around 20 major countries like Spain, France and the Netherlands.

In April 2023, Cainiao published a white paper on its new generation global air cargo stations. It has started IATA’s “ONE Record” standard for its air cargo stations; it uses the technologies of IoT, AI algorithm, big data, etc., to raise its air cargo stations’ capacity.

In March 2023, the United Nations World Food Program signed a 3-year logistics contract with Cainiao, this is the first Chinese global logistics partner of WFP.

³¹ <https://www.chinalogisticsgroup.com.cn/>

³² <http://www.logclub.com/articleInfo/Njl3ODA=>



Xiangyu

The logistics business of Xiangyu Group (www.xiangyu-group.com) is mainly based within China, with strong self-owned railway, river and highway transport and warehouse network, especially for big bulk commodities like agricultural products, energy and chemical products, metallic ore, etc.; it also operates the import business of these products. Its international logistic services are predominantly focused on Southeast Asia, also connecting with other networks like the China Railway Express to Europe. Supported by its logistic arm, the operation of industrial supply chains is the company's core business.

The company operates Xiamen Xiangyu Comprehensive Bonded Zone, it is a leading international logistic zone in China with the functions of international purchase, distribution, trading and transit. In 2022, its import value was USD 1,731.5266 million at an increase rate of 89.8%, its export value was USD 3,583.864 million at an increase rate of -9.6%³³. The American computer brand Dell has a global distribution centre at the zone.

6. OTHER USEFUL LINKS

Leading association:

China Federation of Logistics & Purchasing, www.chinawuliu.com.cn

Leading exhibitions:

Transport Logistic China, www.tl-c.cn

China International Logistics and Supply Chain Fair, www.scmfair.com

Leading magazines:

China Logistics & Purchasing, www.clpma.cn

Material Flow, www.materialflow.com.cn

7. CONCLUSION

China's international logistics business offers opportunities for Flanders.

Chinese logistic companies and/or exporters may continue to establish hubs in Flanders for marine, aviation and railway transport, with complete, high-efficiency and low-cost customs clearance service and further inland distribution network. Flanders' ideal geographical location and strong international logistic tradition are perfect matches with Chinese companies' long-term strategy on the development of the European market.

³³ <https://www.huaon.com/channel/tradedata/870846.html>



The leading Chinese products exporting to Western Europe are consumer electronic appliances, industrial electronics and electrical products, clothes and shoes, household electrical appliances, furniture and lighting, etc.; they need more logistic services. The leading Chinese logistic players mentioned in this report, the Chinese visitors to the logistics exhibitions in Western Europe, and the Chinese exhibitors at the product exhibitions in Europe can be the first targets for selling Flemish logistic services.

Chinese companies may further establish offices, rent warehouses, set up distribution centres, operate terminals at Port of Antwerp-Bruges, North Sea Port, Brussels Airport, and Ghent, Antwerp and Zeebrugge as destinations of the China Railway Express to Europe. Some may strengthen their Customs clearance teams in Flanders, in cooperation with Flemish partners, to take advantage of Belgium's faster and cheaper customs services. Some may build their own truck fleets in Flanders to cover the-last-one-kilometre transport to their West European end customers. A Chinese company's logistics hub in Flanders is much more than a cargo yard, the digital data management and full-package cargo handling capacity must be strong. The leading Chinese logistic companies mentioned in this report are the main players for all the above mentioned, they are the main Chinese targets for Flemish logistic service providers. In the other direction, Flanders' international logistic service providers may set up more presence in China's leading seaports and airports and cooperate with the leading Chinese counterparts mentioned in this report, to be stronger involved in the centre of the global supply chain.

Belgium is already well known to Chinese logistics players. How to maintain and strengthen the reputation is a key element to keep in mind for the Flemish logistics industry.

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