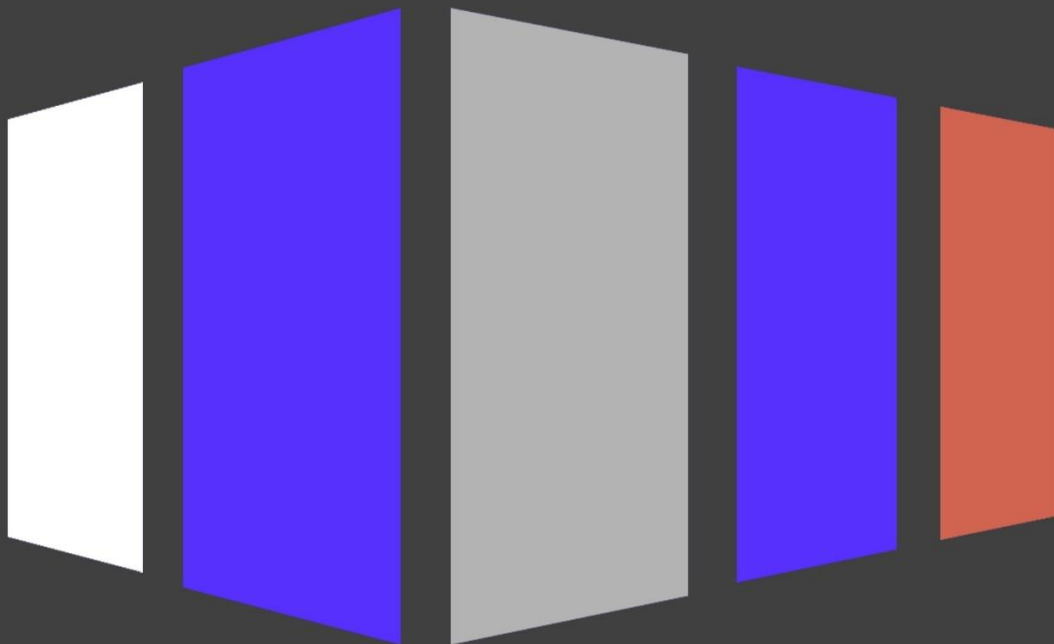


BUSINESS ENVIRONMENT OF MAJOR CONTAINER PORTS IN CHINA 2024



December 2024

China Customs Brokers Association (CCBA)
Beiling Re-code Trade Security and Facilitation Research Center



Business Environment of Major Container Ports in China

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Statement

This report is jointly completed by China Customs Brokers Association (hereinafter referred to as CCBA) and Beijing Re-code Trade Security and Facilitation Research Center (hereinafter referred to as Re-code) and has not been commissioned by any other entity or individual.

The information and data validity of the indicators of this evaluation are as of October 31, 2024. If you think the information or data is incorrect, please contact us.

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Overview

When conducting cross-border trade, various procedures and formalities need to be handled at the port, including but not limited to Customs clearance, document exchange with shipping agents, cargo exchange with container yards, and so on. These procedures and formalities can be collectively referred to as "Business Environment". After completing these procedures and formalities, traders can use the imported goods or sell them into the domestic market, while exported goods can be loaded onto means of transport by the carrier and shipped abroad. Therefore, traders or their agents are highly concerned about the performance of the container port in terms of Business Environment. For the governments of cities with ports, improving the performance of the business environment of the container port will contribute to the economic development of the entire city.

Since 2019, Re-code and CCBA have been continuously conducting the evaluation of the performance of China's major container ports in terms of "cross-border trade cost", "cross-border trade timeliness", "regulatory environment", "business services", "digitalization" and "other supporting facilities" through surveys of enterprises, data collection from public channels and special research, in order to more comprehensively reflect the business environment performance of major container ports, and help relevant governmental departments more accurately advance cross-border trade facilitation in the right direction.

On the basis of the analysis of data from surveys, public channel information and special re-search data, here are the findings of the evaluation of 2024:

The business environment of 12 major container ports is in excellent condition. Taking Business Environment star rating as the evaluation tool, Qingdao and Xiamen have achieved 4.5 stars; Shanghai, Ningbo, Lianyungang, Fuzhou, Tianjin, Guangzhou and Shenzhen have achieved 4 stars; Dalian, Zhuhai, and Huangpu have achieved 3.5 stars.

For the 6 first-level indicators: Fuzhou has achieved 5 stars in the indicator of Cross-border trade timeliness; Qingdao, Shanghai and Ningbo have achieved 5 stars in the indicator of Regulatory environment; Qingdao, Shanghai, Xiamen, Ningbo, Guangzhou and Shenzhen have reached 5 stars in the indicator of Digitalization.

Methodology

(i) Scope of the evaluation

1. Range of goods

In order to unify the coverage of the data calculation and the survey by questionnaire, this evaluation defines the scope of goods to be “standard goods”, namely: general goods in shipping containers. It does not involve LCL, bulk cargo and other forms of shipment, and does not involve all kinds of goods that require special procedures and formalities (such as: transit goods, perishable goods, dangerous goods, processing trade goods, temporarily imported goods, goods transported along the coast, etc.). Neither does it involve import license control or various special circumstances (such as goods under investigation, or goods for emergency disaster relief).

2. Geographical range

This evaluation is only in regard to the 12 major container ports in China, including Dalian, Tianjin, Qingdao, Shanghai, Ningbo, Lianyungang, Fuzhou, Xiamen, Guangzhou, Huangpu, Shenzhen and Zhuhai. The “port” here refers to the collection of foreign trade ports and their extension sites (container yard, physical inspection sites) in the areas directly under the jurisdiction of the correspond regional Customs office. Taking “Shenzhen” as an example, it includes a series of port zones, such as Yantian, Shekou and Chiwan, as well as related container yards and physical inspection sites under the jurisdiction of Shenzhen Customs.

3. Scope of the evaluation period

The evaluation period is from 1 October 2023 to 31 October 2024, which applies to the timeliness for the responses required from participants in the survey, the validity of the public information used as well as the validity of the information obtained through several special research.

(ii) The setting and weights of evaluation indicators

A total of 6 first-level indicators have been set up in this evaluation, and 2 to 5 second-level indicators are set under each first-level indicator, with a total of 19. On this basis, according to the importance of the indicators, the corresponding weights are set, and the indicator system is formed as follows (including weights):

Table 1 Distribution of indicators and weights at all levels

First-level indicator			Second-level indicator		
No.	Name	Weight	No.	Name	Weight
1	Cross-border trade cost	25%	1.1	Cross-border trade cost satisfaction	50%
			1.2	Actual import regular cost	15%
			1.3	Actual export regular cost	15%
			1.4	Reduction and exemption of operation fees for Customs physical inspection	20%
2	Cross-border trade timeliness	25%	2.1	Cross-border trade timeliness satisfaction	50%
			2.2	Overall import release timeliness	10%
			2.3	Container pick-up timeliness at terminal	10%
			2.4	Container drop-off timeliness at	10%

First-level indicator			Second-level indicator		
No.	Name	Weight	No.	Name	Weight
				terminal	
			2.5	Inspection and quarantine treatment timeliness	20%
3	Regulatory environment	15%	3.1	Regulatory environment satisfaction	80%
			3.2	Department contact information disclosure and consulting service	20%
4	Business service	15%	4.1	Operational efficiency and service awareness satisfaction	45%
			4.2	Fees and charges transparency satisfaction	45%
			4.3	Complaint-handling mechanism	10%
5	Digitalization	15%	5.1	Paperless handling of cargo and container interchange	50%
			5.2	Data exchange between Customs and main supervised sites	40%
			5.3	Local function module of the International Trade Single Window	10%
6	Other supporting facilities	5%	6.1	Traffic around the port	50%
			6.2	Business and living supporting facilities	50%

1. Cross-border trade port cost

This is used to investigate the costs incurred by traders due to Customs clearance and other necessary commercial and operational procedures at the port, including the following four aspects:

- 1) Cross-border trade cost satisfaction: This is used to investigate the cost pressures of various trade-related enterprise entities on Customs clearance process and related port operations.
- 2) Actual import regular cost: This is used to investigate the cost directly borne by the importer or its agent during the import process from “arrival of cargo ship” to “goods picked up from terminal” to “returning empty container to container management yard¹” under normal circumstances. The “normal circumstances” here refer to the situations where declaration is filed timely by the trader or its agent upon or before arrival of the cargo ship at the port, duties and taxes are paid timely by the trader, without intervention of Customs physical inspection, and the goods are picked up timely from the terminal by the trader or its agent. In addition, it does not include any domestic transportation cost.
- 3) Actual export regular cost: This is used to investigate the cost directly borne by the exporter or its agent during the export process from “retrieving empty containers” to “stuffing the containers and transporting them to the terminal” and then to “completing loading of the goods onto the ship” under normal circumstances. The “normal circumstances” here refer to the situations where arrangements are made timely for stuffing the containers and transporting them to the terminal, declaration is filed timely by the trader or its agent upon or before arrival of the goods at the terminal, duties and taxes are paid timely by the trader, Customs physical inspection is not applied, and loading of goods onto the ship is completed as planned. In addition, it does not include any domestic transportation costs.
- 4) Reduction and exemption of operation fees for Customs physical inspection: This is used to investigate the reduction or exemption of costs borne by traders due to the operations related to Customs inspection during the import or export process, provided that no abnormalities are

¹ Container management yard may be abbreviated as container yard in subsequent text.

detected in the inspection.

Consideration of the weight of each second-level indicator: There are significant differences in the urban income level of the different cities where the investigated ports are located. It is not accurate and reasonable to only make simple comparisons of the actual cost level. Therefore, the actual cost level and the satisfaction of enterprises should be considered at the same time. The weights of the subjective perception of the financial burden given to traders (Cross-border trade cost satisfaction) and the objective actual cost are assigned 50% respectively. For the 50% of the actual cost, Import regular cost and Export regular cost account for 15% respectively, while Reduction and exemption of operation fees for Customs physical inspection account for 20%.

2. Cross-border trade timeliness

This is used to investigate the time spent by traders for Customs clearance and other necessary port commercial and operational procedures at the port, including the following five aspects:

- 1) Cross-border trade timeliness satisfaction: It is used to investigate enterprises' sentiment regarding the timeliness of Customs clearance processes and related port operations.
- 2) Overall import release timeliness: This indicator mainly investigates the time consumed in the process from "arrival of cargo ship" to "Customs release", not caused by traders themselves and without involving Customs physical inspection.
- 3) Container pick-up timeliness at terminal: This indicator mainly investigates the time consumption between "empty trucks entering the terminal gate" and "trucks loaded with containers leaving the terminal gate" when the trader or its agent arranges trucks to pick up the containers after the imported goods are released by Customs, in order to reflect the timeliness of terminal container pick-up process. The time from "Customs release" to "empty truck entering the terminal gate" is contingent on the trader's own planning and is not part of the consideration for port timeliness.
- 4) Container drop-off timeliness at terminal: This indicator mainly investigates the time consumed from "trucks loaded with containers entering the terminal gate" to "empty trucks leaving the terminal gate", in order to reflect the efficiency in container drop-off process.
- 5) Inspection and quarantine treatment timeliness: This indicator investigates the delay time caused by three factors: Customs general physical inspection, Customs quarantine inspection and quarantine treatment.

Consideration of the weight of each second-level indicator: Cross-border trade timeliness mainly includes two aspects: one is the trader's intuitive perception of the cross-border trade timeliness (Cross-border trade timeliness satisfaction), and the second is the estimation of the time consumed in actual operation scenarios (reflected by four indicators: Overall import release timeliness, Container pick-up timeliness at terminal, Container drop-off timeliness at terminal, Inspection and quarantine treatment timeliness). For the purpose of this evaluation, it is believed that the two aspects are equally important, so each aspect is given 50% of weight respectively; the four scenarios in the second aspect are given 10%, 10%, 10% and 20% of the weight respectively, among which Inspection and quarantine treatment timeliness is given the highest weight. This is because most traders report that while the timeliness of Customs clearance and port operations is increasingly optimized, the timeliness of Customs inspection and follow-up treatment has an increasingly important impact on the efficiency of the entire Customs clearance, which becomes "the last mile" of release time reduction at ports.

3. Regulatory environment

Regulatory environment includes two indicators:

- 1) Regulatory environment satisfaction: This indicator measures enterprises' perceptions of the regulatory environment composed of various regulatory entities (Customs, maritime authorities, immigration authorities, port administrations, and local commerce departments).
- 2) Department contact information disclosure and consulting service: This indicator measures the disclosure of contact information of Customs, as well as the speed and quality of Customs feedback to online inquiries from enterprises.

Consideration of the weight of each second-level indicator: This evaluation gives 80% of the weight to Regulatory environment satisfaction, and 20% to Department contact information disclosure and consulting service.

4. Business service

Business service includes three indicators:

- 1) Operational efficiency and service awareness satisfaction: This indicator measures enterprises' perception of the performance of the business service entities (terminal operators, tally operators, pilot agencies, shipping companies/shipping agencies, freight forwarders, Customs brokers, truck transportation operators, container management yards, physical inspection sites, certification agencies, inspection and quarantine treatment agencies) in terms of their operation efficiency and service awareness.
- 2) Fees and charges transparency satisfaction: This indicator measures enterprises' perception of the performance of the business service entities (terminal operators, tally operators, pilot agencies, shipping companies/shipping agencies, freight forwarders, Customs brokers, truck transportation operators, container management yards, physical inspection sites, certification agencies, inspection and quarantine treatment agencies) in terms the transparency of their fees and charges.
- 3) Complaint-handling mechanism: This indicator investigates the performance of service hot-lines/platform on soliciting the complaints to business service entities and resolving issues raised.

5. Digitalization

Digitalization includes three indicators:

- 1) Paperless handling of cargo and container interchange: This indicator investigates the digitalization of several import formalities during the stage of Delivery Order (abbreviated as "D/O") exchange, container release, container pick-up (at terminal), and empty container returning (at container management yard), as well as of several export formalities during the stage of container release, container pick-up (at container management yard), and container drop-off.
- 2) Data exchange between Customs and main supervised sites: This indicator investigates whether the instructions for release and inspection by Customs can be directly transmitted to the operators of the main Customs supervised sites, so as to reduce the legwork of traders or their agents to transmit information and improve overall efficiency.
- 3) Local function module of the International Trade Single Window. This indicator mainly investigates the degree of satisfaction of enterprises with relevant functional modules of the International Trade Single Window.

Consideration of the weight of each second-level indicator: The weights given to Paperless handling of cargo and container interchange, Data exchange between Customs and main supervised sites, and Local function module of the International Trade Single Window are 50%, 40%, and 10% respectively.

6. Other supporting facilities

This first-level indicator includes two second-level indicators:

- 1) Traffic around the port: This indicator investigates enterprises' perception of the traffic conditions around the port.

- 2) Business and living supporting facilities: This indicator investigates the adequacy of supporting facilities for business operations and personnel living, including bank branches around the port area, mobile network signals within the port area, gas station density around the port area, and truck parking lot density around the port area.

Although the above two second-level indicators are not the focus of the whole evaluation, the improvement of supporting facilities will indirectly affect the convenience for business.

Consideration of the weight of each second-level indicator: The evaluation gives a 50% weight to Traffic around the port and the Business and living supporting facilities respectively.

(iii) Data sources

The basic original data for the second-level indicators are mainly obtained through a questionnaire survey, information collection from public channels and special researches.

In terms of the questionnaire, three types of questions are set: survey on satisfaction/perception, verification of specific matters, and specific estimates. In order to ensure the quality of the responses, it is necessary to put forward specific requirements for the professional background of the respondents to the questionnaire. A total of 445 valid questionnaires were collected from the respondents in this evaluation of 2024.

The information from public channels primarily originates from: information on fees & charges published on the local International Trade Single Window at various ports and the information of fees & charges published by the relevant commercial entities (such as port operators, container yard operators, shipping agencies, etc.).

The special research is a series of investigations on different topics carried out by Re-code. The investigations were mainly conducted through in-depth interviews with relevant industry professionals at different ports and simulation tests.

Table 2 Data sources for each second-level indicator

First-level indicator	Second-level indicator	Data sources
Cross-border trade cost	Cross-border trade cost satisfaction	Questionnaire (satisfaction/perception)
	Actual import regular cost	Public channel + questionnaire survey (specific estimate)
	Actual export regular cost	
	Reduction and exemption of operation fees for Customs physical inspection	Special research
Cross-border trade timeliness index	Cross-border trade timeliness satisfaction	Questionnaire (satisfaction/perception)
	Overall import release timeliness	Questionnaire (specific estimate)
	Container pick-up timeliness at terminal	
	Container drop-off timeliness at terminal	
	Inspection and quarantine treatment timeliness	
Regulatory environment	Regulatory environment satisfaction	Questionnaire (satisfaction/perception)
	Department contact information disclosure and consulting service	Special research
Business service	Operational efficiency and service awareness satisfaction	Questionnaire (satisfaction/perception)
	Fees and charges transparency satisfaction	
	Complaint-handling mechanism	Questionnaire (verification of specific matters)
Digitalization	Paperless handling of cargo and container interchange	Special research

First-level indicator	Second-level indicator	Data sources
Other supporting facilities	Data exchange between Customs and main supervised sites	Questionnaire (satisfaction/perception)
	Local function module of the International Trade Single Window	
	Traffic around the port	
	Business and living supporting facilities	

(iv) Scoring and star rating methods

The calculation of scores for each first-level indicator includes three steps:

- 1) Convert the basic data obtained through different channels into standardized scores of 0-3 according to certain rules.
- 2) Convert the standardized scores to the scores for the second-level indicators:
- 3) Weight and average the scores for the second-level indicators to calculate the scores for the first-level indicators, and then the scores for the first-level indicators are weighed and averaged to calculate the score for the overall Business Environment Index (BEI) of each container port.

The specific calculation process above can be found in Annex I (Specific calculation process for each indicator's score).

After the scores for the first-level indicators and Business Environment Index are calculated, they shall be converted into corresponding star ratings according to the star rating rules as follows:

Table 3 Star rating rules

Score	Star rating
2.50-3.00 (including 2.50)	5 stars (★★★★★)
2.25-2.50 (including 2.25)	4.5 stars (★★★★☆)
2.00-2.25 (including 2.00)	4 stars (★★★★)
1.75-2.00 (including 1.75)	3.5 stars (★★★☆☆)
1.50-1.75 (including 1.50)	3 stars (★★★)
1.25-1.50 (including 1.25)	2.5 stars (★★☆)
1.00-1.25 (including 1.00)	2 stars (★★)
0.50-1.00 (including 0.50)	1 star (★)
Below 0.5	No star rating

The difference in throughput of different ports and the urban income level of the cities where the ports are located are considered in the process of score calculation, and the 'port throughput coefficient' and the 'income level coefficient' of each port are respectively set according to the throughput level and the minimum medical insurance contribution base, which serves as an indirect indicator of the average urban income level.

Table 4 Port throughput coefficient

Port	2023 container throughput range (10,000 TEU)	Port throughput coefficient
Shanghai	4000-5000	1.30
Ningbo	3000-3500	1.20
Shenzhen	2500-3000	1.15
Qingdao	2500-3000	1.15
Guangzhou	2000-3000	1.15
Tianjin	2000-2500	1.10
Xiamen	1000-1500	1.00
Lianyungang	500-1000	0.95
Dalian	500-1000	0.95
Fuzhou	Less than 500	0.90

Port	2023 container throughput range (10,000 TEU)	Port throughput coefficient
Huangpu	Less than 500	0.90
Zhuhai	Less than 500	0.90

Table 5 Income level coefficient

Port	Minimum medical insurance contribution base (unit: RMB yuan)	Contribution base range (unit: RMB yuan)	Income level coefficient
Shanghai	7384	7000-7500	1.35
Shenzhen	6475	6000-6500	1.25
Guangzhou	5996	5500-6000	1.20
Huangpu	5996	5500-6000	1.20
Tianjin	5013	5000-5500	1.15
Lianyungang	4879	4500-5000	1.10
Ningbo	4812	4500-5000	1.10
Dalian	4696	4500-5000	1.10
Xiamen	4433	4000-4500	1.05
Fuzhou	4433	4000-4500	1.05
Qingdao	4416	4000-4500	1.05
Zhuhai	3958	3500-4000	1.00

Note: The minimum medical insurance contribution base in each city is the minimum lower limit of the medical insurance contribution base for urban employees stipulated by the local government after July 1st, 2024.

Conclusion

(i) Cross-border trade cost

The results of calculation for the Cross-border trade cost (CBTC) and its second-level indicators of the 12 major container ports in 2024 are as follows:

Table 6 Results of calculation for Cross-border trade cost

Ranking	Port	Second-level indicator				CBTC score
		CBTC satisfaction	Actual import regular cost	Actual export regular cost	Reduction and exemption of operation fees for Customs physical inspection	
		Second-level indicator weight				
		50%	15%	15%	20%	
1	Xiamen	2.01	2.71	2.49	2.50	2.29
2	Tianjin	1.86	2.58	2.44	2.50	2.18
3	Ningbo	1.88	3.00	3.00	1.50	2.14
4	Fuzhou	2.12	2.12	1.68	2.50	2.13
5	Qingdao	1.99	2.05	2.17	2.50	2.13
6	Lianyungang	1.88	2.84	1.61	2.50	2.11
7	Guangzhou	1.77	2.47	2.33	2.50	2.11
8	Shenzhen	1.85	2.73	2.71	1.50	2.04
9	Shanghai	1.68	3.00	3.00	1.50	2.04
10	Dalian	1.72	1.97	2.44	2.50	2.02
11	Huangpu	1.83	2.33	2.21	1.50	1.90
12	Zhuhai	1.58	1.97	1.59	1.50	1.62

Analysis of the calculation results:

- 1) In terms of Cross-border trade cost: Xiamen has reached 4.5 stars; Tianjin, Ningbo, Fuzhou, Qingdao, Lianyungang, Guangzhou, Shenzhen, Shanghai and Dalian have reached 4 stars; Huangpu has reached 3.5 stars; Zhuhai has reached 3.0 stars.
- 2) The relatively well-performing ports on each indicator are as follows:

Second-level indicator	Relatively well-performing ports
Cross-border trade cost satisfaction	Xiamen, Tianjin, Ningbo, Fuzhou, Qingdao, Lianyungang, Shenzhen
Actual import regular cost	Xiamen, Tianjin, Ningbo, Lianyungang, Shenzhen, Shanghai
Actual export regular cost	Xiamen, Tianjin, Ningbo, Guangzhou, Shenzhen, Shanghai, Dalian
Reduction and exemption of operation fees for Customs physical inspection	Xiamen, Tianjin, Fuzhou, Qingdao, Lianyungang, Guangzhou, Dalian

(ii) Cross-border trade timeliness

The results of calculation for the Cross-border trade timeliness (CBTT) and its second-level indicators of the 12 major container ports in 2024 are as follows:

Table 7 Results of calculation for Cross-border trade timeliness

Ranking	Port	Second-level indicator					CBTT score
		CBTT satisfaction	Overall import release timeliness	Container pick-up timeliness at terminal	Container drop-off timeliness at terminal	Inspection and quarantine treatment timeliness	
		Second-level indicator weight					
		50%	10%	10%	10%	20%	
1	Fuzhou	2.50	2.68	2.03	2.64	2.64	2.51
2	Qingdao	2.38	3.00	2.68	3.00	1.49	2.35
3	Xiamen	2.23	3.00	1.91	2.10	2.45	2.31
4	Lianyungang	2.36	2.71	2.30	2.53	1.50	2.24
5	Zhuhai	1.98	2.70	2.70	2.70	1.71	2.14
6	Shanghai	1.90	3.00	2.22	2.35	1.87	2.08
7	Tianjin	2.08	3.00	0.90	2.16	1.96	2.04
8	Ningbo	1.91	3.00	2.03	3.00	0.99	1.96
9	Huangpu	2.03	2.61	1.88	1.88	1.40	1.93
10	Shenzhen	2.01	3.00	2.05	2.12	0.96	1.91
11	Guangzhou	1.73	3.00	2.32	2.32	1.01	1.83
12	Dalian	1.72	2.63	1.80	1.82	1.15	1.72

Analysis of the results of calculation:

- 1) In terms of the cross-border trade port timeliness index, Fuzhou has achieved a 5-star rating; Qingdao and Xiamen have reached a 4.5-star rating; Lianyungang, Zhuhai, Shanghai, and Tianjin have achieved a 4-star rating; Ningbo, Huangpu, Shenzhen, and Guangzhou have reached a 3.5-star rating; Dalian has achieved a 3-star rating.
- 2) The relatively well-performing ports on each indicator are as follows:

Second-level indicator	Relatively well-performing ports
Cross-border trade timeliness satisfaction	Fuzhou, Qingdao, Xiamen, Lianyungang, Tianjin
Overall import release timeliness	Qingdao, Xiamen, Shanghai, Tianjin, Ningbo, Shenzhen, Guangzhou
Container pick-up timeliness at terminal	Qingdao, Lianyungang, Zhuhai, Shanghai, Guangzhou
Container drop-off timeliness at terminal	Fuzhou, Qingdao, Lianyungang, Zhuhai, Ningbo
Inspection and quarantine treatment timeliness	Fuzhou, Xiamen, Zhuhai, Shanghai, Tianjin

(iii) Regulatory environment

The results of calculation for the Regulatory environment and its second-level indicators of the 12 major container ports in 2024 are as follows:

Table 8 Results of calculation for Regulatory environment

Ranking	Port	Second-level indicator		Regulatory environment score
		Regulatory environment satisfaction	Department contact information disclosure and consulting service	
		Second-level indicator weight		
		80%	20%	
1	Shanghai	2.98	2.26	2.84
2	Qingdao	2.80	2.25	2.69
3	Ningbo	2.59	2.36	2.54

Ranking	Port	Second-level indicator		Regulatory environment score
		Regulatory environment satisfaction	Department contact information disclosure and consulting service	
		Second-level indicator weight		
		80%	20%	
4	Guangzhou	2.42	2.80	2.50
5	Shenzhen	2.46	2.61	2.49
6	Tianjin	2.44	2.36	2.42
7	Xiamen	2.40	2.30	2.38
8	Lianyungang	2.33	2.31	2.33
9	Zhuhai	2.09	2.37	2.14
10	Fuzhou	1.95	2.85	2.13
11	Huangpu	1.95	2.31	2.02
12	Dalian	1.75	2.19	1.84

Analysis of the results of calculation:

- 1) In terms of the regulatory environment index, Shanghai, Qingdao, Ningbo, and Guangzhou have reached 5 stars; Shenzhen, Tianjin, Xiamen, and Lianyungang have reached 4.5 stars; Zhuhai, Fuzhou, and Huangpu have reached 4 stars; Dalian has reached 3.5 stars.
- 2) The relatively well-performing ports on each indicator are as follows:

Second-level indicator	Relatively well-performing ports
Regulatory environment satisfaction	Shanghai, Qingdao, Ningbo, Guangzhou, Shenzhen, Tianjin, Xiamen
Department contact information disclosure and consulting service	Guangzhou, Shenzhen, Fuzhou

(iv) Business service

The results of calculation for Business service and its second-level indicators of the 12 major container ports in 2024 are as follows:

Table 9 Results of calculation for Business service

Ranking	Port	Second-level indicator			Business service score
		Operational efficiency and service awareness satisfaction	Fees and charges transparency satisfaction	Complaint-handling mechanism	
		Second-level indicator weight			
		45%	45%	10%	
1	Lianyungang	2.12	2.09	2.71	2.17
2	Qingdao	2.25	1.97	2.27	2.13
3	Fuzhou	2.05	2.22	1.88	2.11
4	Xiamen	2.06	1.99	2.54	2.08
5	Ningbo	2.09	1.88	1.43	1.93
6	Guangzhou	1.95	1.93	1.67	1.91
7	Zhuhai	1.80	1.94	2.25	1.91
8	Tianjin	1.83	1.85	2.33	1.89
9	Shenzhen	1.81	1.75	2.50	1.85
10	Shanghai	1.93	1.49	2.76	1.82
11	Dalian	1.52	1.63	2.36	1.66
12	Huangpu	1.53	1.55	2.60	1.65

Analysis of the results of calculation:

- 1) In terms of Business service: Lianyungang, Qingdao, Fuzhou, and Xiamen have reached 4 stars; Ningbo, Guangzhou, Zhuhai, Tianjin, Shenzhen, and Shanghai have reached 3.5 stars; Dalian and Huangpu have reached 3 stars.
- 2) The relatively well-performing ports on each indicator are as follows:

Second-level indicator	Relatively well-performing ports
Operational efficiency and service awareness satisfaction	Lianyungang, Qingdao, Fuzhou, Xiamen, Ningbo, Guangzhou, Shanghai
Fees and charges transparency satisfaction	Lianyungang, Qingdao, Fuzhou, Xiamen, Ningbo, Guangzhou, Zhuhai
Complaint-handling mechanism	Lianyungang, Xiamen, Tianjin, Shenzhen, Shanghai, Dalian, Huangpu

(v) Digitalization

The results of calculation for the Digitalization and its second-level indicators of the 12 major container ports in 2024 are as follows:

Table 10 Results of calculation of Digitalization

Ranking	Port	Second-level indicator			Digitalization score
		Paperless handling of cargo and container interchange	Data exchange between Customs and main supervised sites	Local function module of the International Trade Single Window	
		Second-level indicator weight			
		50%	40%	10%	
1	Qingdao	2.85	3.00	2.52	2.88
2	Ningbo	2.85	3.00	2.48	2.87
3	Shanghai	2.80	3.00	2.05	2.81
4	Xiamen	2.85	2.75	2.47	2.77
5	Shenzhen	2.35	3.00	1.87	2.56
6	Guangzhou	2.25	3.00	1.87	2.51
7	Tianjin	2.05	3.00	2.33	2.46
8	Dalian	2.25	2.75	1.97	2.42
9	Lianyungang	1.75	2.75	2.78	2.25
10	Fuzhou	1.80	2.25	2.31	2.03
11	Huangpu	1.55	1.50	2.32	1.61
12	Zhuhai	1.50	1.50	2.11	1.56

Analysis of the results of calculation:

- 1) In terms of Digitalization: Qingdao, Ningbo, Shanghai, Xiamen, Shenzhen, and Guangzhou have reached 5 stars; Tianjin, Dalian, and Lianyungang have reached 4.5 stars; Fuzhou has reached 4 stars; Huangpu and Zhuhai have reached 3 stars.
- 2) The relatively well-performing ports on each indicator are as follows:

Second-level indicator	Relatively well-performing ports
Paperless handling of cargo and container interchange	Qingdao, Ningbo, Shanghai, Xiamen, Shenzhen, Guangzhou, Dalian
Data exchange between Customs and main supervised sites	Qingdao, Ningbo, Shanghai, Xiamen, Shenzhen, Guangzhou, Tianjin, Dalian, Lianyungang
Local function module of the International Trade Single Window	Qingdao, Ningbo, Xiamen, Tianjin, Lianyungang, Fuzhou, Huangpu

(vi) Other supporting facilities

The results of calculation for Other supporting facilities and its second-level indicators of the 12

major container ports in 2024 are as follows:

Table 11 Results of calculation for Other supporting facilities

Ranking	Port	Second-level indicator		Other supporting facility score
		Traffic around the port	Business and living supporting facilities	
		Second-level indicator weight		
		50%	50%	
1	Lianyungang	2.33	2.29	2.31
2	Fuzhou	1.90	2.21	2.05
3	Guangzhou	2.36	1.74	2.05
4	Xiamen	1.84	2.09	1.96
5	Qingdao	1.61	2.24	1.93
6	Tianjin	1.60	2.02	1.81
7	Ningbo	1.27	2.35	1.81
8	Shenzhen	1.57	1.85	1.71
9	Dalian	1.68	1.73	1.70
10	Shanghai	1.34	1.96	1.65
11	Huangpu	1.38	1.45	1.41
12	Zhuhai	1.20	1.54	1.37

Analysis of the results of calculation:

- 1) In terms of Other supporting facilities: Lianyungang has reached 4.5 stars; Fuzhou and Guangzhou have reached 4 stars; Xiamen, Qingdao, Tianjin, and Ningbo have reached 3.5 stars; Shenzhen, Dalian, and Shanghai have reached 3 stars; Huangpu and Zhuhai have reached 2.5 stars.
- 2) The relatively well-performing ports on each indicator are as follows:

Second-level indicator	Relatively well-performing ports
Traffic around the port	Lianyungang, Fuzhou, Guangzhou, Xiamen, Dalian
Business and living supporting facilities	Lianyungang, Fuzhou, Xiamen, Qingdao, Tianjin, Ningbo, Shanghai

(vii) Comprehensive performance of Business Environment

The results of calculation for the Business Environment Index (BEI) of the 12 major container ports in 2024 are as follows:

Table 12 Business Environment Index score and star rating

Port	First-level indicator						BEI score	BEI star rating
	CPTC	CPTT	Regulatory environment	Business service	Digitalization	Other supporting facilities		
	First-level indicator weight							
	25%	25%	15%	15%	15%	5%		
Qingdao	2.13	2.35	2.69	2.13	2.88	1.93	2.37	★★★★
Xiamen	2.29	2.31	2.38	2.08	2.77	1.96	2.33	★★★★
Shanghai	2.04	2.08	2.84	1.82	2.81	1.65	2.23	★★★★
Ningbo	2.14	1.96	2.54	1.93	2.83	1.81	2.22	★★★★
Lianyungang	2.11	2.24	2.33	2.17	2.25	2.31	2.21	★★★★
Fuzhou	2.13	2.51	2.13	2.11	2.03	2.05	2.20	★★★★
Tianjin	2.18	2.04	2.42	1.89	2.46	1.81	2.16	★★★★
Guangzhou	2.11	1.83	2.50	1.91	2.51	2.05	2.13	★★★★

Port	First-level indicator						BEI score	BEI star rating
	CPTC	CPTT	Regulatory environment	Business service	Digitalization	Other supporting facilities		
	First-level indicator weight							
	25%	25%	15%	15%	15%	5%		
Shenzhen	2.04	1.91	2.49	1.85	2.56	1.71	2.11	★★★★
Dalian	2.02	1.72	1.84	1.66	2.42	1.70	1.91	★★★
Zhuhai	1.62	2.14	2.14	1.91	1.56	1.37	1.85	★★★
Huangpu	1.90	1.93	2.02	1.65	1.61	1.41	1.82	★★★

Analysis of the results of calculation for the Business Environment Index and corresponding star rating:

The score for Business Environment Index calculated in this year's evaluation serves as an interim assessment and not the definitive conclusion. The ultimate evaluation conclusion is the star rating of Business Environment, which implies that, within the same star rating, this report refrains from differentiating the nuances in the performance level of Business Environment across various ports. All the 12 major ports have reached 3.5 stars and above (1.75 points and above). Among them: Qingdao and Xiamen have achieved 4.5 stars; Shanghai, Ningbo, Lianyungang, Fuzhou, Tianjin, Guangzhou, and Shenzhen have achieved 4 stars; Dalian, Zhuhai, and Huangpu have achieved 3.5 stars.

Annex I Specific calculation process of the scores for indicators

(i) Specific calculation process of the scores for second-level indicators of Cross-border trade cost

1. Cross-border trade cost satisfaction

a. Data source and calculation method

The original data for this indicator comes from a questionnaire survey. A total of 407 questionnaires gave answers on the reasonableness of the cross-border trade cost of each port. Different degrees of reasonableness correspond to different scores:

- Very reasonable: 3 points
- Relatively reasonable: 2 points
- Moderately reasonable: 1 point
- Unreasonable: 0 points
- These are consistent with the 2023 survey conclusion: The same score as that of the indicator in 2023.

The final score is obtained by arithmetically averaging the scores corresponding to the answers given by the respondents for each port.

b. Conclusion of calculation

The distribution of responses and the final score for this indicator of each port are as follows:

Table 13 Distribution of responses and the final score for Cross-border trade port cost satisfaction

Port	2023 Survey Conclusion	Consistent with the 2023 survey conclusion	Very reasonable	Mid	Relatively reasonable	Mid	Moderately reasonable	Mid	Unreasonable	Score
Dalian	1.56	42	5	2	9	4	2	1		1.72
Guangzhou	1.60	8		1	3					1.77
Huangpu	1.62	18	2	2	2	1				1.83
Ningbo	1.73	34	4	2	3		1			1.88
Qingdao	1.74	36	7	7	5	3				1.99
Xiamen	1.64	18	7	1	4	1				2.01
Shanghai	1.53	51	2	4	5	1				1.68
Shenzhen	1.61	14	2	1	6	1				1.85
Tianjin	1.81	33		3	4		1			1.86
Zhuhai	1.29	12		2	4	1				1.58
Fuzhou ¹	-	-	6		7		4			2.12
Lianyungang	-	-			7		1			1.88

2. Actual import regular cost

a. Data source and calculation method

The original data of this indicator comes from public channels, mainly including the schedules of fees and charges published by various entities at the International Trade Single Window and the verification conducted by the research team during the research process. In addition, the situation of "Customs brokerage fee" was verified through a questionnaire survey. The score for Actual import regular cost was calculated by integrating the relevant data. The best performance was set at 1,533.1 yuan² and the worst performance at 2,555.1 yuan. The corresponding score is calculated by the "distance to frontier method"³.

After the distance to frontier score being calculated, it must be multiplied by the corresponding

¹ Fuzhou and Lianyungang joined the evaluation for the first time in 2024, so there are no reference performance data from the 2023 evaluation.

² Considering the factor of inflation, this evaluation has adjusted the best performance value of 1530 and the worst performance value of 2550 from 2022 by adding the full-year CPI for 2023. Specifically, the calculated best performance value is $1530 \times (1 + 0.2\%) = 1533.1$. The calculated worst performance value can be derived in the same manner.

³ Distance to frontier method: set a worst performance value W and a best performance value B; and set the actual value of the evaluated object as D, and the distance to frontier score under 0-3 corresponding to D is $(D-W)/(B-W) \times 3.00$ (If it exceeds 3.00, it will be scored as 3.00)

Income level coefficient of the city where the port is located. The reason for setting this coefficient is mainly to take into account the different levels of labor cost in different cities.

b. Conclusion of calculation

The average value calculated from the original data for Actual import regular cost and the final score of each port are as follows:

Table 14 Average value and the final score for Actual import regular cost

Port	Actual import regular cost (unit: yuan)	Distance to frontier score	Coefficient-adjusted score
Dalian	1944.7	1.79	1.97
Guangzhou	1853.4	2.06	2.47
Huangpu	1892.7	1.94	2.33
Ningbo	1605.9	2.79	3.00
Qingdao	1891.3	1.95	2.05
Xiamen	1674.3	2.59	2.71
Shanghai	1790.1	2.25	3.00
Shenzhen	1811.2	2.18	2.73
Tianjin	1790.5	2.24	2.58
Zhuhai	1885.2	1.97	1.97
Fuzhou	1867.0	2.02	2.12
Lianyungang	1674.5	2.58	2.84

3. Actual export regular cost

a. Data source and calculation method

The original data of this indicator comes from public channels, mainly including the schedules of fees and charges published by various entities at the International Trade Single Window and the verification conducted by the research team during the research process. In addition, the situation of “Customs brokerage fee” was verified through a questionnaire survey. The score for Actual import regular cost was calculated by integrating the relevant data. The best performance was set at 1,226.5 yuan and the worst performance at 2,248.5 yuan. The corresponding score is calculated by the “distance to frontier method”.

After the distance to frontier score being calculated, it must be multiplied by the corresponding Income level coefficient of the city where the port is located. The reason for setting this coefficient is mainly to take into account the different levels of labor cost in different cities.

b. Conclusion of calculation

The average value calculated from the original data for Actual export regular cost and the final score of each port are as follows:

Table 15 Average value and the final score for Actual export regular cost

Port	Actual export regular cost (unit: yuan)	Distance to frontier score	Coefficient-adjusted score
Dalian	1493.0	2.22	2.44
Guangzhou	1588.0	1.94	2.33
Huangpu	1622.3	1.84	2.21
Ningbo	1320.7	2.72	3.00
Qingdao	1545.9	2.06	2.17
Xiamen	1441.7	2.37	2.49
Shanghai	1477.2	2.26	3.00
Shenzhen	1510.2	2.17	2.71
Tianjin	1525.7	2.12	2.44
Zhuhai	1708.4	1.59	1.59
Fuzhou	1705.0	1.60	1.68
Lianyungang	1750.0	1.46	1.61

4. Reduction and exemption of operation fees for Customs physical inspection

a. Data source and calculation method

The data for this indicator comes from special research, which is conducted on the ways operation fees for Customs physical inspection are reduced or exempted at each container port when it is determined that there are no abnormalities after Customs inspection. Scores are given according to certain rules taking into account the results obtained from the survey.

When goods are targeted for physical inspection by Customs, instructions for Customs physical inspection can be classified into three cases: ① general inspection only; ② quality & quarantine inspection only; ③ both general inspection and quality & quarantine inspection.

If there are no abnormalities at Customs inspection:

Operation fees are reduced or exempted in all cases (①②③): 3 points;

Operation fees are reduced or exempted in case ① or case ③: 2.5 points;

Operation fees are reduced or exempted in case ②: 1.5 points;

Operation fees receive no reduction or exemption in any cases, 0 point.

b. Conclusion of calculation

Reduction and exemption of operation fees for Customs physical inspection in different cases and the scores of each port are as follows:

Table 16 Reduction and exemption of operation fees for Customs physical inspection in different cases and the corresponding score

Port	General inspection	quality & quarantine inspection	Both general inspection and quality & quarantine inspection	Score
Dalian	Exempted	Not exempted	Exempted	2.50
Guangzhou	Exempted	Not exempted	Exempted	2.50
Huangpu	Exempted	Not exempted	Not exempted	1.50
Ningbo	Exempted	Not exempted	Not exempted	1.50
Qingdao	Exempted	Not exempted	Exempted	2.50
Xiamen	Exempted	Not exempted	Exempted	2.50
Shanghai	Exempted	Not exempted	Not exempted	1.50
Shenzhen	Exempted	Not exempted	Not exempted	1.50
Tianjin	Exempted	Not exempted	Exempted	2.50
Zhuhai	Exempted	Not exempted	Not exempted	1.50
Fuzhou	Exempted	Not exempted	Exempted	2.50
Lianyungang	Exempted	Not exempted	Exempted	2.50

(ii) Specific calculation process of the scores for second-level indicators of Cross-border trade timeliness

1. Cross-border trade timeliness satisfaction

a. Data source and calculation method

The data for this indicator comes from a questionnaire survey. A total of 420 questionnaires gave answers to the satisfaction with the cross-border trade timeliness of each port. Different levels of satisfaction correspond to different scores:

- Very reasonable: 3 points
- Relatively reasonable: 2 points
- Moderately reasonable: 1 point
- Unreasonable: 0 points
- These are consistent with the 2023 survey conclusion: The same score as that of the indicator in 2023.

The final score is obtained by arithmetically averaging the scores corresponding to the answers given by the respondents for each port.

b. Conclusion of calculation

The distribution of responses and the final score for this indicator of each port are as follows:

Table 17 Distribution of responses and the final score for Cross-border trade timeliness satisfaction

Port	2023 Survey Conclusion	Consistent with the 2023 survey conclusion	Very reasonable	Mid	Relatively reasonable	Mid	Moderately reasonable	Mid	Unreasonable	Score
Dalian	1.64	44	1	1	16	2	2	1		1.72
Guangzhou	1.53	8		1	3					1.73
Huangpu	1.91	15	3	2	1	4				2.03
Ningbo	1.70	36	6	1	4					1.91
Qingdao	2.12	29	12	13	2	1				2.38
Xiamen	2.03	22	5	4	2					2.23
Shanghai	1.80	47	1	8	6	2	1			1.90
Shenzhen	1.68	15	4	2	3					2.01

Port	2023 Survey Conclusion	Consistent with the 2023 survey conclusion	Very reasonable	Mid	Relatively reasonable	Mid	Moderately reasonable	Mid	Unreasonable	Score
Tianjin	2.03	38		4						2.08
Zhuhai	1.80	15	1	3	2					1.98
Fuzhou	-	-	8		8					2.50
Lianyungang	-	-	5		5		1			2.36

2. Overall import release timeliness

a. Data source and calculation method

The data for this indicator comes from a questionnaire survey. A total of 311 questionnaires gave answers to the overall import Customs clearance time of each port. Relevant data is consolidated to calculate the average estimate of overall import Customs clearance time, setting the best performance as 12 hours and the worst performance as 48 hours. The corresponding score for Overall import release timeliness is calculated through the “distance to frontier method”.

After calculating the distance to frontier score, considering that the throughput of a port (indicating the operational pressure on the port) has a certain impact on the overall import Customs clearance time of the port, it is necessary to multiply the score by the Port throughput coefficient corresponding to each port.

b. Conclusion of calculation

The distribution of the responses of overall import Customs clearance time, and the final score for this indicator of each port are:

Table 18 Distribution of responses, overall import Customs clearance time estimate and the corresponding score

Port	Time estimate in 2023 (hours)	Consistent with the choice of most respondents in 2023	Within 6 hours	6-12 hours	12-18 hours	18-24 hours	24-36 hours	36-48 hours	Over 48 hours	Time estimate (hours)	Distance to frontier score	Coefficient-adjusted score
Dalian	14.58	47	2	1		1		1		14.79	2.77	2.63
Guangzhou	8.66	9	1		1					8.99	3.00	3.00
Huangpu	11.30	18							1	13.23	2.90	2.61
Ningbo	8.21	31	2				1			8.72	3.00	3.00
Qingdao	7.87	42	6				1			8.09	3.00	3.00
Xiamen	8.22	20	6							7.71	3.00	3.00
Shanghai	20.09	41		2	3	1	2			19.75	2.35	3.00
Shenzhen	13.17	11	1	2						12.06	2.99	3.00
Tianjin	9.25	35			1					9.41	3.00	3.00
Zhuhai	11.10	3								11.10	3.00	2.70
Fuzhou	-	-	6	2		1	2			12.27	2.98	2.68
Lianyungang	-	-	3		1	3				13.71	2.86	2.71

3. Container pick-up timeliness at terminal

a. Data source and calculation method

The data for this indicator comes from a questionnaire survey. A total of 170 questionnaires gave answers to the Container pick-up timeliness at the terminal of each port. Relevant data is consolidated to estimate the terminal container pick-up time, setting the best performance as 30 minutes and the worst performance as 90 minutes. The corresponding score for Container pick-up timeliness at terminal is calculated through the “distance to frontier method”.

After calculating the distance to frontier score, considering that the throughput of a port (indicating the operational pressure on the port) has a certain impact on the container pick-up time of the port, it is necessary to multiply the score by the Port throughput coefficient corresponding to each port.

b. Conclusion of calculation

The distribution of the responses of terminal container pick-up time, and the final score for this indicator of each port are:

Table 19 Distribution of responses, terminal container pick-up time estimate and the corresponding score

Port	Time estimate in 2023 (minutes)	Consistent with the choice of most respondents in 2023	Within 20 minutes	20-30 minutes	30-45 minutes	45-60 minutes	60-90 minutes	Over 90 minutes	Time estimate (minutes)	Distance to frontier score	Coefficient-adjusted score
Dalian	52.03	36							52.03	1.90	1.80
Guangzhou	51.67	6			1				49.64	2.02	2.32
Huangpu	48.21	8							48.21	2.09	1.88
Ningbo	55.00	17					1		56.11	1.69	2.03
Qingdao	43.94	30	1			1			43.46	2.33	2.68
Xiamen	51.88	6							51.88	1.91	1.91
Shanghai	55.89	22			1		1		55.92	1.70	2.22
Shenzhen	54.28	7							54.28	1.79	2.05
Tianjin	73.68	25							73.68	0.82	0.90
Zhuhai	23.33	2							23.33	3.00	2.70
Fuzhou	-	-			1	1			45.00	2.25	2.03
Lianyungang	-	-	1			2			41.67	2.42	2.30

4. Container drop-off timeliness at terminal

a. Data source and calculation method

The data for this indicator comes from a questionnaire survey. A total of 176 questionnaires gave answers to the Container drop-off timeliness at the terminal of each port. Relevant data is consolidated to estimate the terminal container drop-off time, setting the best performance as 30 minutes and the worst performance as 90 minutes. The corresponding score for Container drop-off timeliness at terminal is calculated through the “distance to frontier method”.

After calculating the distance to frontier score, considering that the throughput of a port (indicating the operational pressure on the port) has a certain impact on the container drop-off time of the port, it is necessary to multiply the score by the Port throughput coefficient corresponding to each port.

b. Conclusion of calculation

The distribution of the responses of terminal container drop-off time, and the final score for this indicator of each port are:

Table 20 Distribution of responses, terminal container drop-off time estimate and the corresponding score

Port	Time estimate in 2023 (minutes)	Consistent with the choice of most respondents in 2023	Within 20 minutes	20-30 minutes	30-45 minutes	45-60 minutes	60-90 minutes	Over 90 minutes	Time estimate (minutes)	Distance to frontier score	Coefficient-adjusted score
Dalian	51.41	36			1		1		51.66	1.92	1.82
Guangzhou	51.67	6			1				49.64	2.02	2.32
Huangpu	48.21	9							48.21	2.09	1.88
Ningbo	39.17	18							39.17	2.54	3.00
Qingdao	34.39	29	1	1		1			34.21	2.79	3.00
Xiamen	48.01	7							48.01	2.10	2.10
Shanghai	55.86	23		1	1				53.89	1.81	2.35
Shenzhen	53.11	7							53.11	1.84	2.12
Tianjin	50.80	24							50.80	1.96	2.16
Zhuhai	25.36	4							25.36	3.00	2.70
Fuzhou	-	-		1	1				31.25	2.94	2.64
Lianyungang	-	-	1		1	1			36.67	2.67	2.53

5. Inspection and quarantine treatment timeliness

For calculating the performance of Inspection and quarantine treatment timeliness, three aspects were investigated: delay due to Customs general inspection, delay due to Customs quarantine inspection and delay due to Customs quarantine inspection and treatment.

1) Delay due to Customs general inspection

a. Data source and calculation method

The data for this indicator comes from a questionnaire survey. A total of 318 questionnaires gave answers to the delay due to Customs general inspection at each port. Relevant data is consolidated to estimate the delay due to Customs general inspection, setting the best performance as 12 hours and the worst performance as 48 hours. The corresponding score for Delay due to Customs general

inspection is calculated through the “distance to frontier method”.

b. Conclusion of calculation

The distribution of the responses of the delay due to Customs general inspection, and the final score for this indicator of each port are:

Table 21 Distribution of responses, time estimate of delay due to Customs general inspection and the corresponding score

Port	Time estimate in 2023 (minutes)	Consistent with the 2023 survey conclusion	0-2 hours	2-4 hours	4-8 hours	8-12 hours	12-18 hours	18-24 hours	1-2 days	2-3 days	3-4 days	4-5 days	Over 5 days	Time estimate (hours)	Distance to frontier score
Dalian	33.45	44					2	1		4			1	36.21	0.98
Guangzhou	39.02	9			1					1				37.92	0.84
Huangpu	29.43	17				1						1		32.54	1.29
Ningbo	30.16	37								1				30.94	1.42
Qingdao	27.67	42	1			3	1	1		2				26.98	1.75
Xiamen	17.35	19	2	1	1			1	2					16.68	2.61
Shanghai	31.98	41			2	2		2	1	2				30.82	1.43
Shenzhen	39.01	13												39.01	0.75
Tianjin	23.16	33					1		2					23.65	2.03
Zhuhai	15.36	3												15.36	2.72
Fuzhou	-	-		2	5	3		1						7.91	3.00
Lianyungang	-	-			2	1	2	2	2					18.44	2.46

2) Delay due to Customs quarantine inspection

a. Data source and calculation method

The data for this indicator comes from a questionnaire survey. A total of 310 questionnaires gave answers to the delay due to Customs quarantine inspection at each port. Relevant data is consolidated to estimate the delay due to Customs quarantine inspection, setting the best performance as 12 hours and the worst performance as 48 hours. The corresponding score for Delay due to Customs quarantine inspection is calculated through the “distance to frontier method”.

b. Conclusion of calculation

The distribution of the responses of the delay due to Customs quarantine inspection and the final score for this indicator of each port are:

Table 22 Distribution of responses, time estimate of delay due to Customs quarantine inspection and the corresponding score

Port	Time estimate in 2023 (minutes)	Consistent with the 2023 survey conclusion	0-2 hours	2-4 hours	4-8 hours	8-12 hours	12-18 hours	18-24 hours	1-2 days	2-3 days	3-4 days	4-5 days	Over 5 days	Time estimate (hours)	Distance to frontier score
Dalian	32.69	52								1			1	34.81	1.10
Guangzhou	37.28	10								1				39.34	0.72
Huangpu	29.59	16				1								28.44	1.63
Ningbo	38.60	34						1	1				1	40.26	0.65
Qingdao	31.69	40	1				2	1		2	1			32.42	1.30
Xiamen	22.42	17	2			1	1		3					21.51	2.21
Shanghai	30.63	40		1	1	1	1			1				29.31	1.56
Shenzhen	40.61	15												40.61	0.62
Tianjin	26.69	32					1		1	2			1	30.95	1.42
Zhuhai	26.72	3												26.72	1.77
Fuzhou	-	-		2	5	1	2			1				12.36	2.97
Lianyungang	-	-			1	1	2	1	2	1		1		34.11	1.16

3) Delay due to Customs quarantine inspection and treatment

a. Data source and calculation method

The data for this indicator comes from a questionnaire survey. A total of 308 questionnaires gave answers to the delay due to Customs quarantine inspection and treatment at each port. Relevant data is consolidated to estimate the delay due to Customs quarantine inspection and treatment, setting the best performance as 36 hours and the worst performance as 96 hours. The corresponding score for Delay due to Customs quarantine inspection and treatment is calculated through the “distance to frontier method”.

b. Conclusion of calculation

The distribution of the responses of the delay due to Customs quarantine inspection and treatment and the final score for this indicator of each port are:

Table 23 Distribution of responses, time estimate of delay due to Customs quarantine inspection and treatment and the corresponding score

Port	Time estimate in 2023 (minutes)	Consistent with the 2023 survey conclusion	0-2 hours	2-4 hours	4-8 hours	8-12 hours	12-18 hours	18-24 hours	1-2 days	2-3 days	3-4 days	4-5 days	5-6 days	6-7 days	Over 7 days	Time estimate (hours)	Distance to frontier score
Dalian	62.76	49							1		2			1		64.81	1.56
Guangzhou	81.17	10				1										74.70	1.06
Huangpu	63.29	14							2		1					61.30	1.74
Ningbo	87.34	33								2		1	1			87.63	0.42
Qingdao	83.07	41	1					1	2	1					1	79.32	0.83
Xiamen	47.89	22	2							2						45.22	2.54
Shanghai	72.00	37		1	1		1		1		2				1	69.55	1.32
Shenzhen	76.81	13							1	1						72.97	1.15
Tianjin	54.68	32							1		2		1			57.94	1.90
Zhuhai	72.18	3														72.18	1.19
Fuzhou	-	-		1	2		1	1	1	4		1				39.55	2.82
Lianyungang	-	-							3	2	1	1			1	73.50	1.13

Through the arithmetic averaging of the distance to frontier scores for Delay due to Customs general inspection, Delay due to Customs quarantine inspection and Delay due to Customs quarantine inspection and treatment, the score for Inspection and quarantine treatment timeliness of each port is obtained. Considering that the throughput of a port (indicating the operational pressure of the port) has a certain impact on the inspection and quarantine treatment timeliness of the port, it is necessary to multiply the score by the Port throughput coefficient corresponding to each port.

Table 24 Inspection and quarantine treatment timeliness score

Port	Customs general inspection delay	Customs quarantine inspection delay	Customs quarantine inspection and treatment delay	Score (before coefficient adjustment)	Score (after coefficient adjustment)
	1/3	1/3	1/3		
Dalian	0.98	1.10	1.56	1.21	1.15
Guangzhou	0.84	0.72	1.06	0.88	1.01
Huangpu	1.29	1.63	1.74	1.55	1.40
Ningbo	1.42	0.65	0.42	0.83	0.99
Qingdao	1.75	1.30	0.83	1.29	1.49
Xiamen	2.61	2.21	2.54	2.45	2.45
Shanghai	1.43	1.56	1.32	1.44	1.87
Shenzhen	0.75	0.62	1.15	0.84	0.96
Tianjin	2.03	1.42	1.90	1.78	1.96
Zhuhai	2.72	1.77	1.19	1.89	1.71
Fuzhou	3.00	2.97	2.82	2.93	2.64
Lianyungang	2.46	1.16	1.13	1.58	1.50

(iii) Specific calculation process of the scores for second-level indicators of Regulatory environment

1. Regulatory environment satisfaction

a. Data source and calculation method

The data for this indicator comes from a questionnaire survey. A total of 430 questionnaires gave answers to the regulatory environment satisfaction at each port. Different satisfaction levels correspond to different scores:

- Very satisfied: 3 points
- Relatively satisfied: 2 points
- Moderately satisfied: 1 point
- Dissatisfied: 0 point
- These are consistent with the 2023 survey conclusion: The same score as that of the indicator in 2023.

The final score is obtained by arithmetically averaging the scores corresponding to the answers given by the respondents for each port.

b. Conclusion of calculation

The distribution of responses and the final score for this indicator of each port are:

Table 25 Distribution of responses and the final score for Regulatory environment satisfaction

Port	2023 survey conclusion	Consistent with the 2023 survey conclusion	Very satisfied	Mid	Relatively satisfied	Mid	Moderately satisfied	Mid	Dis-satisfied	Score (before coefficient adjustment)	Score (after coefficient adjustment)
Dalian	1.79	49	3	1	10	3	1	1		1.84	1.75
Guangzhou	2.04	11	1		1					2.11	2.42
Huangpu	2.13	24	1	1	1					2.17	1.95
Ningbo	2.01	37	5	4	2					2.16	2.59
Qingdao	2.34	37	9	10	3	1				2.44	2.80
Xiamen	2.24	23	5	6						2.40	2.40
Shanghai	2.20	48	6	8	2	1				2.30	2.98
Shenzhen	1.93	15	3	3	4					2.14	2.46
Tianjin	2.24	38		2			1			2.22	2.44
Zhuhai	2.29	15	1	2	2					2.32	2.09
Fuzhou	-	-	7		8		2		1	2.17	1.95
Lianyungang	-	-	6		4		1			2.45	2.33

2. Department contact information disclosure and consulting service

a. Data source and calculation method

This indicator involves two aspects of communication between enterprises and Customs, one is the disclosure of Customs department contact information, the other is consulting service provided. The data of both aspects are derived from relevant special research.

In terms of the disclosure of department contact information, the research team conducted an investigation on the disclosure of the contact telephone numbers published by the regional Customs of each port on their official websites of its own internal offices and their subordinate Customs offices announced. Different scores are given according to different situations:

Table 26 Scoring method for the disclosure of department contact information

Internal offices	Subordinate Customs offices
Phone number of the internal offices directly given (1.5 points)	Phone number of the offices directly given (1.5 points)
Switchboard transfer needed (1 point)	Switchboard transfer needed (1 point)
Unpublished (0 point)	Unpublished (0 point)

The score for the department contact information disclosure is equal to the sum of the above two scores

In terms of consulting service, the research team conducted investigations based on two methods: one is the simulated consultation survey, the other is the general survey of the online consulting service of the General Administration of China Customs.

For the simulated consultation survey, the research team set up simulated questions and conducted consultation through the consulting service module of Customs official website. According to the speed and quality of the feedback obtained after consultation, the scores are given below:

Table 27 Scoring method for the consulting service

Reply speed	Reply quality
Within 24 hours (1.5 points)	Clear answers/paths and specific corresponding laws or regulations given (1.5 points)
Within 48 hours (1 point)	Clear answers/paths given (1 point)
Over 48 hours (0.5 points)	Reply, but no clear answer/paths given (0.5 point)
No reply (0 point)	No reply (0 point)

The score for consulting service is equal to the sum of the above two scores

For the general survey, the research team used the relevant content of the survey report "Interaction between Customs and Enterprises in 'Internet + Customs' - Investigation on the Reply Status of Shanghai Customs Online Consulting Service" completed by the trade facilitation scientific research and innovation team of Shanghai Customs College under the guidance of Re-code. The

report sorted out 1,658 various inquiries on the consulting service module of Customs websites in the first and second quarters of 2023, evaluated the online replies from 42 regional Customs nationwide in terms of the speed and quality through data analysis, and also scored each reply according to the same scoring method as that of the simulated consultation survey.

b. Conclusion of calculation

The performance of the two aspects and the final score for Department contact information disclosure and consulting service of each port are:

Table 28 Performance of Department contact information disclosure and consulting service and corresponding scores.

Port	Department contact information disclosure			Consulting service			Overall score
	Contact phone number of the internal offices of regional Customs	Contact phone number of subordinate Customs offices	Score	Reply speed	Reply quality	Score	
Dalian	Switchboard transfer	Directly given	2.50	Within 48 hours	0.88	1.88	2.19
Guangzhou	Directly given	Directly given	3.00	Within 24 hours	1.11	2.61	2.80
Huangpu	Switchboard transfer	Directly given	2.50	Within 48 hours	1.13	2.13	2.31
Ningbo	Switchboard transfer	Switchboard transfer	2.00	Within 24 hours	1.21	2.71	2.36
Qingdao	Switchboard transfer	Switchboard transfer	2.00	Within 24 hours	0.99	2.49	2.25
Xiamen	Directly given	Switchboard transfer	2.50	Within 48 hours	1.10	2.10	2.30
Shanghai	Switchboard transfer	Directly given	2.50	Within 48 hours	1.03	2.03	2.26
Shenzhen	Directly given	Switchboard transfer	2.50	Within 24 hours	1.22	2.72	2.61
Tianjin	Directly given	Switchboard transfer	2.50	Within 48 hours	1.22	2.22	2.36
Zhuhai	Switchboard transfer	Directly given	2.50	Within 48 hours	1.24	2.24	2.37
Fuzhou	Directly given	Directly given	3.00	Within 24 hours	1.20	2.70	2.85
Lianyungang	Switchboard transfer	Switchboard transfer	2.00	Within 24 hours	1.13	2.63	2.31

Note: ① Clear answers/paths and specific corresponding laws or regulations given; ② Clear answers/paths given; ③ Reply, but no clear answer/paths given; ④ No reply.

(iv) Specific calculation process of the scores for second-level indicators of Business service

1. Operational efficiency and service awareness satisfaction

Through the questionnaire survey, the indicator of Operational efficiency and service awareness satisfaction were studied from six aspects: terminal, shipping agency, container yard, physical inspection site, certification agency, and quarantine treatment agency. Corresponding weights were assigned to, respectively: terminal 50%, shipping agency 15%, container yard 15%, physical inspection site 10%, certification agency 5%, quarantine treatment agency 5%.

1) Terminal operational efficiency and service awareness satisfaction

a. Data source and calculation method

The data for this indicator comes from a questionnaire survey. A total of 280 questionnaires gave answers to the terminal operational efficiency and service awareness satisfaction of each port. Different satisfaction levels correspond to different scores:

- Very satisfied: 3 points
- Relatively satisfied: 2 points
- Moderately satisfied: 1 point
- Dissatisfied: 0 point
- These are consistent with the 2023 survey conclusion: The same score as that of the indicator in 2023.

The final score is obtained by arithmetically averaging the scores corresponding to the answers.

b. Conclusion of calculation

The distribution of responses and the final score for this indicator of each port are:

Table 29 Distribution of responses and the final score for the terminal operational efficiency and service awareness satisfaction

Port	2023 Survey Conclusion	Consistent with the 2023 survey conclusion	Very satisfied	Mid	Relatively satisfied	Mid	Moderately Satisfied	Mid	Dis-satisfied	Score (before coefficient adjustment)	Score (after coefficient adjustment)
Dalian	1.57	43	1	1	5	1		1		1.63	1.55
Guangzhou	1.78	9			2	1				1.79	2.06
Huangpu	1.84	15		2	3	1				1.91	1.72
Ningbo	1.99	32	2	2	1		1			2.05	2.46
Qingdao	2.05	37	4	11						2.22	2.55
Xiamen	1.76	19	3	4	1					2.01	2.01
Shanghai	1.59	35	1	4	3	1				1.73	2.25
Shenzhen	1.64	12		1	1	1				1.71	1.97
Tianjin	1.66	28	1		7		2			1.72	1.90
Zhuhai	1.93	6		1						2.01	1.81
Fuzhou	-	-	4		5		3			2.08	1.88
Lianyungang	-	-	1		5		1			2.00	1.90

2) Shipping agency operational efficiency and service awareness satisfaction

a. Data source and calculation method

The data for this indicator comes from a questionnaire survey. A total of 301 questionnaires gave answers to the shipping agency operational efficiency and service awareness satisfaction of each port. Different satisfaction levels correspond to different scores:

- Very satisfied: 3 points
- Relatively satisfied: 2 points
- Moderately satisfied: 1 point
- Dissatisfied: 0 points
- These are consistent with the 2023 survey conclusion: The same score as that of the indicator in 2023.

The final score is obtained by arithmetically averaging the scores corresponding to the answers.

b. Conclusion of calculation

The distribution of responses and the final score for this indicator of each port are:

Table 30 Distribution of responses and the final score for the shipping agency operational efficiency and service awareness satisfaction

Port	2023 Survey Conclusion	Consistent with the 2023 survey conclusion	Very satisfied	Mid	Relatively satisfied	Mid	Moderately Satisfied	Mid	Dissatisfied	Score
Dalian	1.51	47	1		1	1	1	1		1.52
Guangzhou	1.63	10			2					1.69
Huangpu	1.35	15			2					1.43
Ningbo	1.20	36		2						1.27
Qingdao	1.54	27	4	4	5	3		1		1.79
Xiamen	1.74	16	3	3	1	1				2.00
Shanghai	1.13	38		2	4	1	1			1.27
Shenzhen	1.43	14		1						1.50
Tianjin	1.48	29		2	2		1			1.56
Zhuhai	1.82	2								1.82
Fuzhou	-	-	3		6		3			2.00
Lianyungang	-	-	2		3					2.40

3) Container yard operational efficiency and service awareness satisfaction

a. Data source and calculation method

The data for this indicator comes from a questionnaire survey. A total of 175 questionnaires gave answers to the container yard operational efficiency and service awareness satisfaction of each port. Different satisfaction levels correspond to different scores:

- Very satisfied: 3 points
- Relatively satisfied: 2 points
- Moderately satisfied: 1 point
- Dissatisfied: 0 points
- These are consistent with the 2023 survey conclusion: The same score as that of the indicator in 2023.

The final score is obtained by arithmetically averaging the scores corresponding to the answers.

b. Conclusion of calculation

The distribution of responses and the final score for this indicator of each port are:

Table 31 Distribution of responses and the final score for the container yard operational efficiency and service awareness satisfaction

Port	2023 Survey Conclusion	Consistent with the 2023 survey conclusion	Very satisfied	Mid	Relatively satisfied	Mid	Moderately Satisfied	Mid	Dissatisfied	Score (before coefficient adjustment)	Score (after coefficient adjustment)
Dalian	1.56	35	1							1.60	1.52
Guangzhou	1.75	7			1					1.78	2.05
Huangpu	1.23	8						1		1.15	1.03
Ningbo	1.30	17				1				1.31	1.57
Qingdao	1.63	19	2	6	3		1			1.90	2.18
Xiamen	2.29	5		1	1					2.28	2.28
Shanghai	1.01	17		1	1	4		2		1.15	1.49
Shenzhen	1.31	6		1						1.48	1.71
Tianjin	1.53	23		1			1			1.54	1.70
Zhuhai	2.00	3								2.00	1.80
Fuzhou	-	-	2							3.00	2.70
Lianyungang	-	-	1		3					2.25	2.14

4) Physical inspection site operational efficiency and service awareness satisfaction

a. Data source and calculation method

The data for this indicator comes from a questionnaire survey. A total of 314 questionnaires gave answers to the physical inspection site operational efficiency and service awareness satisfaction of each port. Different satisfaction levels correspond to different scores:

- Very satisfied: 3 points
- Relatively satisfied: 2 points
- Moderately satisfied: 1 point
- Dissatisfied: 0 points
- These are consistent with the 2023 survey conclusion: The same score as that of the indicator in 2023.

The final score is obtained by arithmetically averaging the scores corresponding to the answers.

b. Conclusion of calculation

The distribution of responses and the final score for this indicator of each port are:

Table 32 Distribution of responses and the final score for the physical inspection site operational efficiency and service awareness satisfaction

Port	2023 Survey Conclusion	Consistent with the 2023 survey conclusion	Very satisfied	Mid	Relatively satisfied	Mid	Moderately Satisfied	Mid	Dissatisfied	Score (before coefficient adjustment)	Score (after coefficient adjustment)
Dalian	1.43	47	1			3	1	1		1.44	1.37
Guangzhou	1.68	10			1	1				1.70	1.95
Huangpu	1.54	16			3					1.61	1.45

Port	2023 Survey Conclusion	Consistent with the 2023 survey conclusion	Very satisfied	Mid	Relatively satisfied	Mid	Moderately Satisfied	Mid	Dissatisfied	Score (before coefficient adjustment)	Score (after coefficient adjustment)
Ningbo	1.87	34	1	1	1			1		1.89	2.26
Qingdao	1.27	34	2	6	1	1	1		1	1.50	1.72
Xiamen	1.87	18	4	3			1			2.09	2.09
Shanghai	1.51	36	2	4	4	1		1		1.67	2.18
Shenzhen	1.56	12		1		1				1.62	1.86
Tianjin	2.00	33		1		1				2.00	2.20
Zhuhai	1.91	3								1.91	1.72
Fuzhou	-	-	4		4		3			2.09	1.88
Lianyungang	-	-	3		6					2.33	2.22

5) Certification agency operational efficiency and service awareness satisfaction

a. Data source and calculation method

The data for this indicator comes from a questionnaire survey. A total of 388 questionnaires gave answers to the certification agency operational efficiency and service awareness satisfaction of each port. Different satisfaction levels correspond to different scores:

- Very satisfied: 3 points
- Relatively satisfied: 2 points
- Moderately satisfied: 1 point
- Dissatisfied: 0 points
- These are consistent with the 2023 survey conclusion: The same score as that of the indicator in 2023.

The final score is obtained by arithmetically averaging the scores corresponding to the answers.

b. Conclusion of calculation

The distribution of responses and the final score for this indicator of each port are:

Table 33 Distribution of responses and the final score for the certification agency operational efficiency and service awareness satisfaction

Port	2023 Survey Conclusion	Consistent with the 2023 survey conclusion	Very satisfied	Mid	Relatively satisfied	Mid	Moderately Satisfied	Mid	Dissatisfied	Score
Dalian	1.52	55	1	1	4	4	1	1		1.56
Guangzhou	1.45	10			2	1				1.54
Huangpu	1.47	16	1	1	3		1			1.64
Ningbo	1.80	34	3	4	1		1			1.94
Qingdao	2.16	38	4	7		1		1		2.23
Xiamen	1.81	21	3	5	2		1			2.01
Shanghai	1.71	44	2	6	3	2	1			1.83
Shenzhen	1.50	19		2	2					1.63
Tianjin	1.61	31		1	2					1.66
Zhuhai	1.84	14	1	1	2					1.96
Fuzhou	-	-	5		9		3			2.12
Lianyungang	-	-	7		3					2.70

6) Quarantine treatment agency operational efficiency and service awareness satisfaction

a. Data source and calculation method

The data for this indicator comes from a questionnaire survey. A total of 306 questionnaires gave answers to the quarantine treatment agency operational efficiency and service awareness satisfaction of each port. Different satisfaction levels correspond to different scores:

- Very satisfied: 3 points
- Relatively satisfied: 2 points
- Moderately satisfied: 1 point
- Dissatisfied: 0 points
- These are consistent with the 2023 survey conclusion: The same score as that of the indicator in 2023.

The final score is obtained by arithmetically averaging the scores corresponding to the answers.

b. Conclusion of calculation

The distribution of responses and the final score for this indicator of each port are:

Table 34 Distribution of responses and the final score for the quarantine treatment agency operational efficiency and service awareness satisfaction

Port	2023 Survey Conclusion	Consistent with the 2023 survey conclusion	Very satisfied	Mid	Relatively satisfied	Mid	Moderately Satisfied	Mid	Dissatisfied	Score
Dalian	1.49	46	1	1	2	1	1		1	1.52
Guangzhou	1.63	10		1						1.70
Huangpu	1.36	15		1	1					1.47
Ningbo	2.14	31	2	2		1				2.19
Qingdao	1.64	30	3	6	2			1		1.85
Xiamen	1.98	21	3	2		1				2.11
Shanghai	1.52	36	3	2	3		1			1.69
Shenzhen	1.38	11		2	1	1				1.58
Tianjin	1.86	33		1			1	1		1.81
Zhuhai	1.70	4								1.70
Fuzhou	-	-	5		5		2			2.25
Lianyungang	-	-	5		3					2.63

Combining 1)-6) above, the final score for Operational efficiency and service awareness satisfaction of each port is:

Table 35 The score for Operational efficiency and service awareness satisfaction

Port	Terminal	Shipping agency	Container yard	Physical inspection site	Certification agency	Quarantine treatment agency	Score
	50%	15%	15%	10%	5%	5%	
Dalian	1.55	1.52	1.52	1.37	1.56	1.52	1.52
Guangzhou	2.06	1.69	2.05	1.95	1.54	1.70	1.95
Huangpu	1.72	1.43	1.03	1.45	1.64	1.47	1.53
Ningbo	2.46	1.27	1.57	2.26	1.94	2.19	2.09
Qingdao	2.55	1.79	2.18	1.72	2.23	1.85	2.25
Xiamen	2.01	2.00	2.28	2.09	2.01	2.11	2.06
Shanghai	2.25	1.27	1.49	2.18	1.83	1.69	1.93
Shenzhen	1.97	1.50	1.71	1.86	1.63	1.58	1.81
Tianjin	1.90	1.56	1.70	2.20	1.66	1.81	1.83
Zhuhai	1.81	1.82	1.80	1.72	1.96	1.70	1.80
Fuzhou	1.88	2.00	2.70	1.88	2.12	2.25	2.05
Lianyungang	1.90	2.40	2.14	2.22	2.70	2.63	2.12

2. Fees and charges transparency satisfaction

Through the questionnaire survey, the indicator of Fees and charges transparency satisfaction were studied from six aspects: terminal, shipping agency, container yard, physical inspection site, certification agency, and quarantine treatment agency. Corresponding weights were assigned to, respectively: terminal 50%, shipping agency 15%, container yard 15%, physical inspection site 10%, certification agency 5%, and quarantine treatment agency 5%.

1) Terminal fees and charges transparency satisfaction

a. Data source and calculation method

The data for this indicator comes from a questionnaire survey. A total of 325 questionnaires gave answers to the terminal fees and charges transparency satisfaction of each port. Different satisfaction levels correspond to different scores:

- Very satisfied: 3 points
- Relatively satisfied: 2 points
- Moderately satisfied: 1 point
- Dissatisfied: 0 points
- These are consistent with the 2023 survey conclusion: The same score as that of the indicator in 2023.

The final score is obtained by arithmetically averaging the scores corresponding to the answers.

b. Conclusion of calculation

The distribution of responses and the final score for this indicator of each port are:

Table 36 Distribution of responses and the final score for the terminal fees and charges transparency satisfaction

Port	2023 Survey Conclusion	Consistent with the 2023 survey conclusion	Very satisfied	Mid	Relatively satisfied	Mid	Moderately Satisfied	Mid	Dissatisfied	Score
Dalian	1.62	43	1	1	4	4	1			1.67
Guangzhou	2.00	10	1							2.09
Huangpu	1.83	18		1	1					1.87
Ningbo	2.05	35	2	1						2.11
Qingdao	2.02	37	6	4	2	1		1		2.13
Xiamen	1.83	19	3	2				1		1.97
Shanghai	1.57	39	1	3	2	2				1.68
Shenzhen	1.98	14		1	1					2.01
Tianjin	2.00	37				1				1.99
Zhuhai	2.00	7								2.00
Fuzhou	-	-	4		6		2			2.17
Lianyungang	-	-			5		1			1.83

2) Shipping agency fees and charges transparency satisfaction

a. Data source and calculation method

The data for this indicator comes from a questionnaire survey. A total of 295 questionnaires gave answers to the shipping agency's fees and charges transparency satisfaction of each port. Different satisfaction levels correspond to different scores:

- Very satisfied: 3 points
- Relatively satisfied: 2 points
- Moderately satisfied: 1 point
- Dissatisfied: 0 points
- These are consistent with the 2023 survey conclusion: The same score as that of the indicator in 2023.

The final score is obtained by arithmetically averaging the scores corresponding to the answers.

b. Conclusion of calculation

The distribution of responses and the final score for this indicator of each port are:

Table 37 Distribution of responses and the final score for the shipping agency fees and charges transparency satisfaction

Port	2023 Survey Conclusion	Consistent with the 2023 survey conclusion	Very satisfied	Mid	Relatively satisfied	Mid	Moderately Satisfied	Mid	Dissatisfied	Score
Dalian	1.49	45	1	2	1		1	1		1.54
Guangzhou	1.94	10			1					1.94
Huangpu	1.35	15		1			1			1.39
Ningbo	1.27	31		1	1		1			1.32
Qingdao	1.61	34	3	3	1		2	1		1.72
Xiamen	1.78	19	2	2			1			1.91
Shanghai	1.17	38	1	1	2	1	1	1		1.26
Shenzhen	1.36	13			2					1.45
Tianjin	1.48	33					1			1.46
Zhuhai	2.00	3								2.00
Fuzhou	-	-	2		7		3			1.92
Lianyungang	-	-	2		3					2.40

3) Container yard fees and charges transparency satisfaction

a. Data source and calculation method

The data for this indicator comes from a questionnaire survey. A total of 174 questionnaires gave

answers to the container yard fees and charges transparency satisfaction of each port. Different satisfaction levels correspond to different scores:

- Very satisfied: 3 points
- Relatively satisfied: 2 points
- Moderately satisfied: 1 point
- Dissatisfied: 0 points
- These are consistent with the 2023 survey conclusion: The same score as that of the indicator in 2023.

The final score is obtained by arithmetically averaging the scores corresponding to the answers.

b. Conclusion of calculation

The distribution of responses and the final score for this indicator of each port are:

Table 38 Distribution of responses and the final score for the container yard fees and charges transparency satisfaction

Port	2023 Survey Conclusion	Consistent with the 2023 survey conclusion	Very satisfied	Mid	Relatively satisfied	Mid	Moderately Satisfied	Mid	Dissatisfied	Score
Dalian	1.50	33	1		3		1			1.57
Guangzhou	1.18	6		1						1.37
Huangpu	0.68	7								0.68
Ningbo	1.44	16				1				1.44
Qingdao	1.60	21	1	5	1		1	1		1.75
Xiamen	2.09	5		1		1				2.06
Shanghai	0.76	19		1	1	2	1	1	1	0.90
Shenzhen	1.42	8								1.42
Tianjin	1.66	24								1.66
Zhuhai	1.86	4								1.86
Fuzhou	-	-	2							3.00
Lianyungang	-	-	1		3					2.25

4) Physical inspection site fees and charges transparency satisfaction

a. Data source and calculation method

The data for this indicator comes from a questionnaire survey. A total of 308 questionnaires gave answers to the physical inspection site fees and charges transparency satisfaction of each port. Different satisfaction levels correspond to different scores:

- Very satisfied: 3 points
- Relatively satisfied: 2 points
- Moderately satisfied: 1 point
- Dissatisfied: 0 points
- These are consistent with the 2023 survey conclusion: The same score as that of the indicator in 2023.

The final score is obtained by arithmetically averaging the scores corresponding to the answers.

b. Conclusion of calculation

The distribution of responses and the final score for this indicator of each port are:

Table 39 Distribution of responses and the final score for the physical inspection site fees and charges transparency satisfaction

Port	2023 Survey Conclusion	Consistent with the 2023 survey conclusion	Very satisfied	Mid	Relatively satisfied	Mid	Moderately Satisfied	Mid	Dissatisfied	Score
Dalian	1.53	47	1		2		2			1.56
Guangzhou	1.94	10		1						1.99
Huangpu	1.40	16		1			1			1.43
Ningbo	2.03	33	1	2			1			2.05
Qingdao	1.64	34	3	3	4	2		1		1.78
Xiamen	1.95	18	2	1	1			1		2.01
Shanghai	1.52	39	1	4	2			1		1.64
Shenzhen	1.58	16								1.58

Port	2023 Survey Conclusion	Consistent with the 2023 survey conclusion	Very satisfied	Mid	Relatively satisfied	Mid	Moderately Satisfied	Mid	Dissatisfied	Score
Tianjin	2.13	35		1						2.14
Zhuhai	1.80	3								1.80
Fuzhou	-	-	4		4		4			2.00
Lianyungang	-	-	2		3		1			2.17

5) Certification agency fees and charges transparency satisfaction

a. Data source and calculation method

The data for this indicator comes from a questionnaire survey. A total of 378 questionnaires gave answers to the certification agency fees and charges transparency satisfaction of each port. Different satisfaction levels correspond to different scores:

- Very satisfied: 3 points
- Relatively satisfied: 2 points
- Moderately satisfied: 1 point
- Dissatisfied: 0 points
- These are consistent with the 2023 survey conclusion: The same score as that of the indicator in 2023.

The final score is obtained by arithmetically averaging the scores corresponding to the answers.

b. Conclusion of calculation

The distribution of responses and the final score for this indicator of each port are:

Table 40 Distribution of responses and the final score for the certification agency fees and charges transparency satisfaction

Port	2023 Survey Conclusion	Consistent with the 2023 survey conclusion	Very satisfied	Mid	Relatively satisfied	Mid	Moderately Satisfied	Mid	Dissatisfied	Score
Dalian	1.66	55	2		3	2	1	1		1.69
Guangzhou	1.60	10		1	1					1.71
Huangpu	1.63	15	1	1	1	1				1.76
Ningbo	2.01	38	3	2						2.10
Qingdao	2.20	40	3	4	1		1			2.25
Xiamen	1.93	25	2	3	1					2.05
Shanghai	1.68	48	1	2	4	2				1.75
Shenzhen	1.52	19			1	2	1			1.52
Tianjin	1.70	34			1					1.70
Zhuhai	1.74	16	1		2					1.84
Fuzhou	-	-	6		5		6			2.00
Lianyungang	-	-	6		3					2.67

6) Quarantine treatment agency fees and charges transparency satisfaction

a. Data source and calculation method

The data for this indicator comes from a questionnaire survey, and total of 302 questionnaires gave answers to the quarantine treatment agency fees and charges transparency satisfaction of each port. Different satisfaction levels correspond to different scores:

- Very satisfied: 3 points
- Relatively satisfied: 2 points
- Moderately satisfied: 1 point
- Dissatisfied: 0 points
- These are consistent with the 2023 survey conclusion: The same score as that of the indicator in 2023.

The final score is obtained by arithmetically averaging the scores corresponding to the answers.

b. Conclusion of calculation

The distribution of responses and the final score for this indicator of each port are:

Table 41 Distribution of responses and the final score for the quarantine treatment agency fees and charges transparency satisfaction

Port	2023 Survey Conclusion	Consistent with the 2023 survey conclusion	Very satisfied	Mid	Relatively satisfied	Mid	Moderately Satisfied	Mid	Dissatisfied	Score
Dalian	1.75	46	1	1	2	1		1		1.77
Guangzhou	2.00	9	1							2.10
Huangpu	1.38	16		1						1.44
Ningbo	2.00	33	2	1						2.07
Qingdao	1.76	31	4	4	3		1			1.94
Xiamen	2.00	19	3	1					1	2.06
Shanghai	1.52	40	1	2	1		1			1.59
Shenzhen	1.46	14			1					1.50
Tianjin	1.87	37								1.87
Zhuhai	1.70	4								1.70
Fuzhou	-	-	3		5		4			1.92
Lianyungang	-	-	4		3					2.57

Combining 1)-6) above, the final score for Fees and charges transparency satisfaction at each port is as follows:

Table 42 The score for Fees and charges transparency satisfaction of each port

Port	Terminal	Shipping agency	Container yard	Physical inspection site	Certification agency	Quarantine treatment agency	Score
	50%	15%	15%	10%	5%	5%	
Dalian	1.67	1.54	1.57	1.56	1.69	1.77	1.63
Guangzhou	2.09	1.94	1.37	1.99	1.71	2.10	1.93
Huangpu	1.87	1.39	0.68	1.43	1.76	1.44	1.55
Ningbo	2.11	1.32	1.44	2.05	2.10	2.07	1.88
Qingdao	2.13	1.72	1.75	1.78	2.25	1.94	1.97
Xiamen	1.97	1.91	2.06	2.01	2.05	2.06	1.99
Shanghai	1.68	1.26	0.90	1.64	1.75	1.59	1.49
Shenzhen	2.01	1.45	1.42	1.58	1.52	1.50	1.75
Tianjin	1.99	1.46	1.66	2.14	1.70	1.87	1.85
Zhuhai	2.00	2.00	1.86	1.80	1.84	1.70	1.94
Fuzhou	2.17	1.92	3.00	2.00	2.00	1.92	2.22
Lianyungang	1.83	2.40	2.25	2.17	2.67	2.57	2.09

3. Complaint-handling mechanism

a. Data source and calculation method

The data for this indicator comes from a questionnaire survey. A total of 132 questionnaires gave answers to the Complaint-handling mechanism of each port. Different situations correspond to different scores:

- The port service hotline/platform can solve most of the problems: 3 points.
- The port service hotline/platform can solve certain problems: 2 points.
- The port service hotline/platform can solve a limited number of problems: 1 point.
- The port service hotline/platform is not set up or does not work at all: 0 point.

b. Conclusion of calculation

The scores for problem resolution by port service hotline/platform are as follows:

Table 43 The score for Complaint-handling mechanism

Port	The port service hotline/platform can solve most of the problems	The port service hotline/platform can solve certain problems	The port service hotline/platform can solve a limited number of problems:	The port service hotline/platform is not set up or does not work at all	Score
Dalian	13	8	4		2.36
Guangzhou	3	3		3	1.67
Huangpu	3	2			2.60
Ningbo	2		4	1	1.43
Qingdao	4	6	1		2.27

Xiamen	9	3		1	2.54
Shanghai	16	5			2.76
Shenzhen	6	3	1		2.50
Tianjin	7	3	1	1	2.33
Zhuhai	2	1	1		2.25
Fuzhou	3	3		2	1.88
Lianyungang	6		1		2.71

(v) Specific calculation process of the scores for second-level indicators of Digitalization

1. Paperless handling of cargo and container interchange

a. Data source and calculation method

The data for this indicator comes from relevant special research. The specific evaluation methods are:

In terms of handling import cargo and container interchange, the forms in which procedures are handled for the exchanges of D/O and containers and the exchange of documents involved in the whole process from “container pick-up from terminal” to “returning empty container to container yard” was investigated. The specific rules for scoring can be found in the conclusion of calculation. In terms of handling export cargo and container interchange, the forms in which procedures were handled for the exchange of containers and documents involved in the whole process from “container release” to “returning loaded containers to terminal” were investigated. The specific rules for scoring can be found in the conclusion of calculation.

b. Conclusion of calculation

The score for Paperless handling of cargo and container interchange (import) of each port is:

Table 44 The score for Paperless handling of cargo and container interchange (import)

Procedure		Scoring rules	Dalian	Guang-zhou	Huang-pu	Ningbo	Qing-dao	Xiamen	Shang-hai	Shen-zhen	Tian-jin	Zhu-hai	Fu-zhou	Lian-yun-gang	
D/O exchange	Form of Handling	Online handling: 0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
		Partial online handling: 0.2													
		On-site handling: 0.0													
	B/L form	Electronic: 0.2	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.1
		Partial electronic: 0.1													
		Paper: 0.00													
Delivery order form	Electronic: 0.4	0.4	0.2	0.2	0.4	0.4	0.4	0.4	0.4	0.2	0.4	0.2	0.2	0.2	
	Partial electronic: 0.2														
	Paper: 0.0														
Container release procedure	Form of Handling	Online handling: 0.4	0.4	0.2	0.2	0.4	0.4	0.4	0.4	0.2	0.2	0.2	0.2	0.2	
		Partial online handling: 0.2													
		On-site handling: 0.0													
	Equipment interchange receipt form	Electronic: 0.4	0.4	0.2	0.2	0.4	0.4	0.4	0.4	0.4	0.2	0.2	0.2	0.2	0.2
		Partial electronic: 0.2													
		Paper: 0.0													
Container pick-up reservation	Form of Handling	Online handling: 0.6	0.6	0.6	0.3	0.6	0.6	0.6	0.6	0.6	0.6	0.3	0.3	0.6	
		Partial online handling: 0.3													
		On-site handling: 0.0													
	Container pick-up information form	Electronic: 0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1
		Partial electronic: 0.1													
		Paper: 0.0													
Empty container return	Equipment interchange receipt form	Electronic: 0.4	0.2	0.4	0.2	0.4	0.4	0.4	0.4	0.0	0.2	0.2	0.2	0.2	
		Partial electronic: 0.2													
		Paper: 0.0													
Total			2.4	2.0	1.5	2.7	2.7	2.7	2.7	1.7	2.1	1.4	1.5	1.8	

The score for Paperless handling of cargo and container interchange (export) of each port is:

Table 45 The score for Paperless handling of cargo and container interchange (export)

Procedure		Scoring rules	Dalian	Guangzhou	Huangpu	Ningbo	Qingdao	Xiamen	Shanghai	Shenzhen	Tianjin	Zhuhai	Fuzhou	Lianyungang	
Container release	Form of Handling	Online handling: 0.6	0.3	0.3	0.3	0.6	0.6	0.6	0.6	0.6	0.3	0.3	0.3	0.3	
		Partial online handling: 0.3													
		On-site handling: 0.0													
Equipment interchange receipt form	Equipment interchange receipt form	Electronic: 0.6	0.3	0.3	0.3	0.6	0.6	0.6	0.6	0.6	0.3	0.3	0.3	0.3	
		Partial electronic: 0.3													
		Paper: 0.0													
Empty container pick-up	Equipment interchange receipt form	Electronic: 0.6	0.3	0.6	0.3	0.6	0.6	0.6	0.6	0.6	0.3	0.3	0.3	0.3	
		Partial electronic: 0.3													
		Paper: 0.0													
Container return reservation	Form of Handling	Online handling: 0.9	0.9	0.9	0.5	0.9	0.9	0.9	0.9	0.9	0.9	0.5	0.9	0.5	
		Partial online handling: 0.5													
		On-site handling: 0.0													
	Container return information form	Container return information form	Electronic: 0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.3	0.3
			Partial electronic: 0.2												
			Paper: 0.0												
Total			2.1	2.4	1.6	3.0	3.0	3.0	2.9	3.0	2.0	1.6	2.1	1.7	

The final score for Paperless handling of cargo and container interchange of each port is:

Table 46 The final score for Paperless handling of cargo and container interchange

Port	Dalian	Guangzhou	Huangpu	Ningbo	Qingdao	Xiamen	Shanghai	Shenzhen	Tianjin	Zhuhai	Fuzhou	Lianyungang
Import	2.40	2.10	1.50	2.52	2.70	2.70	2.70	1.70	2.10	1.40	1.50	1.80
Export	2.10	2.40	1.60	3.00	3.00	3.00	2.90	3.00	2.00	1.60	2.10	1.70
Overall	2.25	2.25	1.55	2.76	2.85	2.85	2.80	2.35	2.05	1.50	1.80	1.75

2. Data exchange between Customs and main supervised sites

a. Data source and calculation method

The data source for this indicator is the corresponding special research which investigated the data exchange between Customs and its main supervised sites (terminals and physical inspection sites). The specific rules for scoring can be found in the conclusion of calculation.

b. Conclusion of calculation

The final score for Data exchange between Customs and main supervised sites of each port is:

Table 47 The score for Data exchange between Customs and main supervised sites

Scoring rules	Dalian	Guangzhou	Huangpu	Ningbo	Qingdao	Xiamen	Shanghai	Shenzhen	Tianjin	Zhuhai	Fuzhou	Lianyungang	
Can Customs release instructions be transmitted to terminals?	Yes: 1.50; Partially: 0.75; No: 0.00	1.50	1.50	0.75	1.50	1.50	1.50	1.50	1.50	1.50	0.75	1.50	1.50
Can Customs inspection instructions be transmitted to physical inspection sites?	Yes: 1.00; Partially: 0.50; No: 0.00	1.00	1.00	0.50	1.00	1.00	1.00	1.00	1.00	1.00	0.50	0.50	1.00
Can the information of targeted container lifting be transmitted to Customs so that Customs is able to assign orders based on the situation of container?	Yes: 0.50; Partially: 0.25; No: 0.00	0.25	0.50	0.25	0.50	0.50	0.25	0.50	0.50	0.50	0.25	0.25	0.25

Scoring rules	Dalian	Guangzhou	Huangpu	Ningbo	Qingdao	Xiamen	Shanghai	Shenzhen	Tianjin	Zhuhai	Fuzhou	Lianyungang
lifting?												
Total	2.75	2.75	3.00	1.50	3.00	3.00	2.75	3.00	3.00	3.00	1.50	2.25

3. Local function module of the International Trade Single Window

a. Data source and calculation method

The data for this indicator comes from a questionnaire survey. A total of 407 questionnaires gave answers to the satisfaction with the local function module of the International Trade Single Window” of each port. Different satisfaction levels correspond to different scores:

- Very satisfied: 3 points
- Relatively satisfied: 2 points
- Moderately: 1 point
- Dissatisfied: 0 points
- These are consistent with the 2023 survey conclusion: The same score as that of the indicator in 2023.

The final score is obtained by arithmetically averaging the scores corresponding to the answers.

b. Conclusion of calculation

The final score for the indicator of Local function module of the International Trade Single Window of each port is:

Table 48 Distribution of responses and the final score for Local function module of the International Trade Single Window

Port	2023 Survey Conclusion	Consistent with the 2023 survey conclusion	Very satisfied	Mid	Relatively satisfied	Mid	Moderately satisfied	Mid	Dissatisfied	Score
Dalian	1.93	47	1	5	7	1		1		1.97
Guangzhou	1.74	8		1	3					1.87
Huangpu	2.03	13	3	10						2.32
Ningbo	2.46	39	4	2			1			2.48
Qingdao	2.48	47	10	4	1			1		2.52
Xiamen	2.34	25	6	3						2.47
Shanghai	1.99	49	1	5	3					2.05
Shenzhen	1.73	18	1	2	2					1.87
Tianjin	2.32	35		3						2.33
Zhuhai	1.91	14	1	5						2.11
Fuzhou	-	-	6		9		1			2.31
Lianyungang	-	-	7		2					2.78

(vi) Specific calculation process of the scores for second-level indicators of Other supporting facilities

1. Traffic around the port

a. Data source and calculation method

The data for this indicator comes from a questionnaire survey. A total of 427 questionnaires gave answers to the satisfaction with traffic around the port. Different satisfaction levels correspond to different scores:

- Very satisfied: 3 points
- Relatively satisfied: 2 points
- Moderately: 1 point
- Dissatisfied: 0 points
- These are consistent with the 2023 survey conclusion: The same score as that of the indicator in 2023.

The final score is obtained by arithmetically averaging the scores corresponding to the answers.

b. Conclusion of calculation

The final scores for the indicator of Traffic around the port are as follows:

Table 49 Distribution of responses and the final score for Traffic around the port

Port	2023 Survey Conclusion	Consistent with the 2023 survey conclusion	Very satisfied	Relatively satisfied	Moderately satisfied	Dissatisfied	Score (before coefficient adjustment)	Score (after coefficient adjustment)
Dalian	1.76	65	2		2		1.77	1.68
Guangzhou	1.97	10	1	2			2.05	2.36
Huangpu	1.42	20	1	4	2		1.53	1.38
Ningbo	1.02	43		2	1		1.06	1.27
Qingdao	1.31	48	2	5	1	1	1.40	1.61
Xiamen	1.67	29	4	1			1.84	1.84
Shanghai	0.94	56	1	5	1	2	1.03	1.34
Shenzhen	1.00	16	2	5	2		1.36	1.57
Tianjin	1.41	39		3			1.45	1.60
Zhuhai	1.26	18		2			1.34	1.20
Fuzhou	-	-	6	8	4		2.11	1.90
Lianyungang	-	-	5	6			2.45	2.33

2. Business and living supporting facilities

There are four aspects involved in the indicator of Business and living supporting facilities, namely bank branches, mobile network signals within the port area, gas station density around the port area, and truck parking lot density around the port area.

1) Bank branches

a. Data source and calculation method

The data for this indicator comes from a questionnaire survey. A total of 401 questionnaires gave answers to the satisfaction with bank branches of each port. Different satisfaction levels correspond to different scores:

- Very convenient: 3 points
- Relative convenient: 2 points
- Moderately convenient: 1 point
- Inconvenient: 0 points
- These are consistent with the 2023 survey conclusion: The same score as that of the indicator in 2023.

The final score is obtained by arithmetically averaging the scores corresponding to the answers.

b. Conclusion of calculation

The final score for the indicator of bank branches satisfaction of each port is:

Table 50 Distribution of responses and the final score for the bank branches satisfaction

Port	2023 Survey Conclusion	Consistent with the 2023 survey conclusion	Very convenient	Relative convenient	Moderately convenient	Inconvenient	Score
Dalian	1.51	60		2	3	2	1.46
Guangzhou	1.13	10		2		1	1.18
Huangpu	1.48	23		1		1	1.44
Ningbo	2.07	44					2.07
Qingdao	2.06	48	5				2.14
Xiamen	2.20	29	4				2.30
Shanghai	1.55	55	2	3			1.62
Shenzhen	1.64	23	1				1.70
Tianjin	1.82	40					1.82
Zhuhai	0.98	13	1	1			1.18
Fuzhou	-	-	6	8	1	1	2.19
Lianyungang	-	-	4	6	1		2.27

2) Mobile network signals within the port area

a. Data source and calculation method

The data for this indicator comes from a questionnaire survey. A total of 424 questionnaires gave answers to the satisfaction with the mobile network signal within the port area. Different satisfaction levels correspond to different scores:

- Very satisfied: 3 points
- Relatively satisfied: 2 points

- Moderately: 1 point
- Dissatisfied: 0 points
- These are consistent with the 2023 survey conclusion: The same score as that of the indicator in 2023.

The final score is obtained by arithmetically averaging the scores corresponding to the answers.

b. Conclusion of calculation

The final score for the mobile network signals within the port area of each port is as follows:

Table 51 Distribution of responses and the final score for the mobile network signals within the port area

Port	2023 Survey Conclusion	Consistent with the 2023 survey conclusion	Very satisfied	Relatively satisfied	Moderately satisfied	Dissatisfied	Score
Dalian	1.75	67		2			1.76
Guangzhou	1.65	11		1	1		1.63
Huangpu	1.58	27					1.58
Ningbo	2.21	47					2.21
Qingdao	2.27	48	7		1		2.34
Xiamen	2.08	31	3				2.16
Shanghai	1.91	52	4	3	2	1	1.92
Shenzhen	1.97	23	2				2.05
Tianjin	2.16	41			1		2.13
Zhuhai	1.83	17		3			1.85
Fuzhou	-	-	9	7	1	1	2.33
Lianyungang	-	-	7	4			2.64

3) Gas station density around the port

a. Data source and calculation method

The data for this indicator comes from a questionnaire survey. A total of 409 questionnaires gave answers to the gas station density around the port. Different levels correspond to different scores:

- High: 3 points
- Relatively high: 2 points
- Medium: 1 point
- Low: 0 points
- These are consistent with the 2023 survey conclusion: The same score as that of the indicator in 2023.

The final score is obtained by arithmetically averaging the scores corresponding to the answers.

b. Conclusion of calculation

The final score for the indicator of gas station density around the port is as follows:

Table 52 Distribution of responses and the final score for the gas station density around the port

Port	2023 Survey Conclusion	Consistent with the 2023 survey conclusion	High	Relatively high	Medium	Low	Score (before coefficient adjustment)	Score (after coefficient adjustment)
Dalian	2.14	66	1				2.16	2.05
Guangzhou	1.88	12	1				1.96	2.26
Huangpu	1.89	23					1.89	1.70
Ningbo	2.32	45					2.32	2.79
Qingdao	2.26	52	4				2.31	2.66
Xiamen	2.15	32	2				2.20	2.20
Shanghai	1.78	56	1	2	1		1.79	2.33
Shenzhen	1.85	24	1				1.90	2.18
Tianjin	2.14	41					2.14	2.35
Zhuhai	1.72	17					1.72	1.55
Fuzhou	-	-	8	8	1		2.41	2.17
Lianyungang	-	-	3	8			2.27	2.16

- 4) Truck parking lot density around the port
- a. Data source and calculation method
 The data for this indicator comes from a questionnaire survey. A total of 405 questionnaires gave answers to the truck parking lot density around the port. Different levels correspond to different scores:
- High: 3 points
 - Relatively high: 2 points
 - Medium: 1 point
 - Low: 0 points
 - These are consistent with the 2023 survey conclusion: The same score as that of the indicator in 2023.
- The final score is obtained by arithmetically averaging the scores corresponding to the answers.
- b. Conclusion of calculation
 The final score for the indicator of truck parking lot density around the port is as follows:

Table 53 Distribution of responses and the final score for the truck parking lot density around the port

Port	2023 Survey Conclusion	Consistent with the 2023 survey conclusion	High	Relatively high	Medium	Low	Score (before coefficient adjustment)	Score (after coefficient adjustment)
Dalian	1.74	66				1	1.72	1.63
Guangzhou	1.55	12	1				1.66	1.91
Huangpu	1.17	22		1			1.20	1.08
Ningbo	1.95	44			1		1.93	2.32
Qingdao	1.51	51	3	1	1		1.59	1.83
Xiamen	1.62	31	2				1.70	1.70
Shanghai	1.52	58		2	1		1.53	1.99
Shenzhen	1.17	18	2	1		2	1.26	1.45
Tianjin	1.63	41					1.63	1.79
Zhuhai	1.69	17	1				1.76	1.58
Fuzhou	-	-	7	8	1		2.38	2.14
Lianyungang	-	-	3	5	1		2.22	2.11

Combining 1)-4) above, the final score for Business and living supporting facilities of each port is:

Table 54 The score for Business and living supporting facilities

Port	Bank branches satisfaction around the port	Mobile network signals within the port	Gas station density around the port	Truck parking lot density around the port	Score
	25%	25%	25%	25%	
Dalian	1.46	1.76	2.05	1.63	1.73
Guangzhou	1.18	1.63	2.26	1.91	1.74
Huangpu	1.44	1.58	1.70	1.08	1.45
Ningbo	2.07	2.21	2.79	2.32	2.35
Qingdao	2.14	2.34	2.66	1.83	2.24
Xiamen	2.30	2.16	2.20	1.70	2.09
Shanghai	1.62	1.92	2.33	1.99	1.96
Shenzhen	1.70	2.05	2.18	1.45	1.85
Tianjin	1.82	2.13	2.35	1.79	2.02
Zhuhai	1.18	1.85	1.55	1.58	1.54
Fuzhou	2.19	2.33	2.17	2.14	2.21
Lianyungang	2.27	2.64	2.16	2.11	2.29

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