CROSS-BORDER CARGO CLEARANCE OF TOP 10 SEAPORTS IN CHINA 2023

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China Customs Brokers Association (CCBA)

Beiling Re-code Trade Security and Facilitation Research Center

Cross-border Cargo Clearance

of Top 10 Seaports 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 entrusted by any other entity or individual.

The information and data validity of the indicators of this evaluation are as of October 30, 2023. If you think the information or data is incorrect, please contact us.

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Note: Since the translation from the Chinese version to the English version of the report involves a significant amount of professional terminology, it requires a considerable amount of time for translation. This English version is the first edition. Subsequently, we will revise it based on the translation suggestions from numerous experts and release more refined English versions of the report.

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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/terminals, and so on. These procedures and formalities can be collectively referred to as "Cross-border Cargo Clearance". After completing these procedures and formalities, importers can use the imported goods or sell them into the domestic market, while exported goods can be loaded onto transportation vehicles by the carrier and shipped abroad. Therefore, importers/exporters or their agents are highly concerned about the performance of the port in terms of Cross-border Cargo Clearance. For port city governments, improving the performance of Cross-border Cargo Clearance of the port will contribute to the economic development of the entire city.

Since 2019, Re-code and CCBA have continuously conducted the evaluation on the performance of China's top 10 seaports (Dalian, Tianjin, Qingdao, Shanghai, Ningbo, Xiamen, Guangzhou, Huangpu, Shenzhen, Zhuhai) in terms of "cross-border trade cost", "cross-border trade timeliness", "regulatory environment", "business services", "digitalization" and "other supporting facilities" through enterprise questionnaire surveys, data collection from public channels and special research, in order to more comprehensively reflect the Cross-border Cargo Clearance performance of major seaports, and help relevant governmental departments to make policies to improve the faciliation

The evaluation of 2023 combininganalysis of questionnaire data, public channel information and special research data shows the following results:

The Cross-border Cargo Clearance of the top 10 seaports is in excellent condition. Taking five-star rating as the evaluation tool, Qingdao has achieved 4.5 stars; Tianjin, Xiamen, Shanghai, Ningbo, Guangzhou, & Shen-zhen have achieved 4 stars; Dalian, Zhuhai, & Huangpu ha achieved 3.5 stars.

Half of the top 10 ports (Qingdao, Shanghai, Ningbo, Xiamen, and Shenzhen) have reached 5 stars in the indicator of Digitalization. This means that the development of digitalization is the main power to improve the performance of the Cross-border Cargo Clearance in this period of evaluation.

Methodology

(i)   Scope of the evaluation

1.   Range of goods
In order to unify the calculating caliber and the questionnaire survey caliber, this evaluation has made the setting of "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, temporary import goods, coastally transported goods, etc.), does not involve import license supervision and does not involve various special circumstances (such as smuggling, emergency disaster relief, etc.).

2.   Geographical range
This evaluation is only for the top 10 seaports of Dalian, Tianjin, Qingdao, Shanghai, Ningbo, 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 correspodnging directly subordinated customs. Taking "Shenzhen" as an example, it includes Yantian Port, Shekou Port, Chiwan Port and a series of port areas as well as related container yards and physical inspection sites within the jurisdiction of Shenzhen Customs.

3.   Scope of the evaluation period
The evaluation period is from October 1st, 2022 to October 1st, 2023. Beside that the respondents who participated in the questionnaire were required to answer according to the situation during this period, the validity of the public information was also as of October 1st, 2023. This evaluation also involves a number of special research, the validity of the information obtained through the special research is also as of October 1st, 2023.

(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 picking timeliness of terminal	10%
			2.4	Container collecting timeliness of terminal	10%
			2.5	Inspection and quarantine treatment timeliness	20%
3	Regulatory environment	15%	3.1	Regulatory environment satisfaction	80%
			3.2	Department contact information	20%

First-level indicator			Second-level indicator		
No.	Name	Weight	No.	Name	Weight
				disclosure and consulting service	
4	Business service	15%	4.1	Operation efficiency and service awareness satisfaction	45%
			4.2	Charge 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 supporting living facilities	50%

1. **Cross-border trade port cost**
   It is used to investigate the costs incurred by importers/exporters due to customs clearance and other necessary port commercial and operational procedures, including the following four aspects:
   1) Cross-border trade cost satisfaction: It 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: It 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 from terminal" to "returning empty container to container management yard" under normal circumstances. The "normal circumstances" here refer to the situations of timely declaration by the importer ot its agent after the cargo ship arrives at the port (or before it arrives), timely tax payment by the importer, with no involvement of customs physical inspection, and timely picking goods from the terminal by the importer or its agent. **In addition, it does not include any domestic transportation cost.**
   3) Actual export regular cost: It is used to investigate the cost directly borne by the exporter or its agent during the export process from "retrieving empty containers" to "packing goods into containers and carrying loaded containers to the terminal" and then to "completing loading of the goods on the ship" under normal circumstances. The "normal circumstances" here refer to the situations of timely arrangement for packing and container delivery to the terminal, timely declaration by the exporter or its agent after the goods arriving at the terminal (or before arrival), timely tax payment by the exporter, with no involvement of customs physical inspection, and successful loading of goods on the ship as planned. In addition, it does not include any domestic transportation costs.
   4) Reduction and exemption of operation fees for customs physical inspection: It is used to investigate reduction or exemption of operating costs incurred by importers/exporters due to customs inspection during the import and export process when no abnormalities are found in the inspection.
   Consideration of the weight of each second-level indicator: There are significant differences in the citizens' income level of the different cities where the investigated ports are located. It is not scientific and reasonable to only make simple comparison of the actual cost level. Therefore, the actual cost level and the satisfaction shall be considered at the same time. The weights of the subjective perception of the financial burden given to importers/exporters (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, and reduction and exemption of operation fees for customs physical inspection account for 20%.

2. **Cross-border trade timeliness**
   It is used to investigate the time spent by importers/exporters for customs clearance and other necessary port commercial and operational procedures, 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 "cargo ship arrival" to "customs release", without involving customs physical inspection and caused by importers/exporters.

3) Container picking timeliness of terminal: This indicator mainly investigates the time consumption between "empty trucks entering the terminal gate" and "trucks with loaded containers leaving the terminal gate" when the importer 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 picking process. The time from "customs release" to "empty truck entering the terminal gate" is contingent on the importer's own planning and shall not be the content of the port timeliness.

4) Container collecting timeliness of terminal: This indicator mainly investigates the time consumed from "trucks with loaded containers entering the terminal gate" to "empty trucks leaving the terminal gate", in order to reflect the container collecting efficiency.

5) Inspection and quarantine treatment timeliness: This indicator investigates the delay time consumed by three aspects: 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 importer/exporter'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 picking timeliness of terminal, Container collecting timeliness of terminal, Inspection and quarantine treatment timeliness).This evaluation believes 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 because most importers/exporters 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 increasing impact on the efficiency of the entire customs clearance, which becomes an important factor in reducing the release time.

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) Operation 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 operation efficiency and service awareness.
2) Charge 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 of charge transparency.
3) Complaint-handling mechanism: This indicator investigates the establishment and operation of a service hotlines/platform for collecting the complaints to business service entities and the resolution of feedback issues collected through the hotlines/platform.

5. **Digitalization**

Digitalization includes three indicators:
1) Paperless handling of cargo and container interchange: This indicator investigates the paperlessization of several significant import formalities in terms of Delivery Order (abbreviated as "D/O") exchange, container release, container picking, and empty container return, as well as of several significant export formalities in terms of container release, container picking, and container collection.

2) Data exchange between customs and main supervised sites: This indicator investigates whether the release instructions and inspection instructions by customs can be directly transmitted to the operators of the main customs supervised sites, so as to reduce the legwork of importers/exporters 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 related 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 supporting living facilities. This indicator investigates the completeness of business operations and personnel living facilities, 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 business convenience for enterprises.

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

(iii) Data sources

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

In terms of question setting of the questionnaire, two types of questions are set: satisfaction/perception surveys and specific numerical estimations. In addition, in order to ensure the quality of the responses, specific requirements for the professional background of the respondents to the questionnaire were set. For the 2023 evaluation a total of 343 valid questionnaires were collected.

The information on the public channels primarily originates from: the fees & charges information published on the International Trade Single Window at various ports, and the fees & charges information 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 numerical estimation)
	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 numerical estimation)
	Container picking timeliness of terminal	
	Container collecting timeliness of terminal	
	Inspection and quarantine	

First-level indicator	Second-level indicator	Data sources
	treatment timeliness	
Regulatory environment	Regulatory environment satisfaction	Questionnaire (satisfaction/perception)
	Department contact information disclosure and consulting service	Special research
Business service	Operation efficiency and service awareness satisfaction	Questionnaire (satisfaction/perception)
	Charge transparency satisfaction	
	Complaint-handling mechanism	Special research
Digitalization	Paperless handling of cargo and container interchange	
	Data exchange between customs and main supervised sites	
	Local function module of the International Trade Single Window	Questionnaire (satisfaction/perception)
Other supporting facilities	Traffic around the port	
	Business and supporting living facilities	

(iv) Scoring and star rating methods

The score calculation of each first-level indicator includes three steps:
1) Convert the basic orign 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 weighted and averaged to calculate the score for the Cross-border Cargo Clearance Index (CCCI) of each 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 Cross-border Cargo Clearance Index are calculated, they shall be converted into corresponding star ratings according to the star rating rules as follow:

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 citizens' 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 medical insurance base, which serves as an indirect indicator of the citizens' average income level.

Table 4   Port throughput coefficient

Port	2022 container throughput range (10,000 TEU)	Port throughput coefficient
Shanghai	4000-5000	1.30
Ningbo	3000-3500	1.20
Shenzhen	3000-3500	1.20
Qingdao	2500-3000	1.15
Guangzhou	2000-2500	1.10
Tianjin	2000-2500	1.10
Xiamen	1000-1500	1.00
Huangpu	Below 500	0.90
Dalian	Below 500	0.90
Zhuhai	Below 500	0.90

Table 5 Income level coefficient

Port	Medical insurance base (unit: RMB yuan)	Medical insurance base range (unit: RMB yuan)	Income level coefficient
Shanghai	7310	7000-7500	1.35
Shenzhen	6123	5500-6000	1.20
Guangzhou	5674	5500-6000	1.20
Huangpu	5674	5500-6000	1.20
Tianjin	4751	4500-5000	1.10
Zhuhai	3958	3500-4000	1.00
Ningbo	3957	3500-4000	1.00
Dalian	4374.6	4000-4500	1.05
Xiamen	4212	4000-4500	1.05
Qingdao	4242	4000-4500	1.05

Note: The medical insurance base in each city is the minimum lower limit of the medical insurance payment base for urban employees stipulated by the local government after July 1st, 2022.

Conclusion

(i)   Cross-border trade cost

The calculation results for the Cross-border trade cost (CBTC) and its second-level indicators of the top 10 seaports in 2023 are as follows:

Table 6   Calculation results for Cross-border trade cost

Ranking	Port	Second-level indicator				CBTC score
		CBTC satis-faction	Actual im-port regular cost	Actual ex-port regular cost	Reduction and exemp-tion of oper-ation fees for customs physical in-spection	
		Second-level indicator weight				
		50%	15%	15%	20%	
1	Tianjin	1.81	2.47	2.32	3.00	2.22
2	Qingdao	1.74	2.04	2.16	2.50	2.00
3	Guang-zhou	1.60	2.39	2.25	2.50	1.99
4	Ningbo	1.73	2.79	2.71	1.50	1.99
5	Shanghai	1.53	3.00	3.00	1.50	1.97
6	Dalian	1.56	1.86	2.31	2.50	1.91
7	Xiamen	1.64	2.67	2.46	1.50	1.89
8	Shenzhen	1.61	2.57	2.55	1.50	1.87
9	Huangpu	1.62	2.28	2.11	1.50	1.77
10	Zhuhai	1.29	1.96	1.58	1.50	1.47

Analysis of the calculation results:
1)   In terms of Cross-border trade cost: Tianjin and Qingdao have reached 4 stars; Guangzhou, Ningbo, Shanghai, Dalian, Xiamen, Shenzhen, Huangpu have reached 3.5 stars; Zhuhai has reached 2.5 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	Tianjin, Qingdao, Ningbo, Xiamen, Huangpu
Actual import regular cost	Tianjin, Ningbo, Shanghai, Xiamen, Shenzhen
Actual export regular cost	Ningbo, Shanghai, Xiamen, Shenzhen
Reduction and exemption of operation fees for customs physical inspection	Tianjin, Qingdao, Guangzhou, Dalian

(ii)   Cross-border trade timeliness

The calculation results for the Cross-border trade timeliness (CBTT) and its second-level indicators of the top 10 seaports in 2023 are as follows:

Table 7   Calculation results for Cross-border trade timeliness

Ranking	Port	Second-level indicator					CBTT score
		CBTT satisfaction	Overall import release timeliness	Container picking timeliness of terminal	Container collecting timeliness of terminal	Inspection and quarantine treatment timeliness	
		Second-level indicator weight					
		50%	10%	10%	10%	20%	
1	Qingdao	2.12	3.00	2.65	3.00	1.42	2.21
2	Xiamen	2.03	3.00	1.91	2.10	2.36	2.19
3	Tianjin	2.03	3.00	0.90	2.16	2.17	2.06
4	Zhuhai	1.80	2.70	2.70	2.70	1.71	2.05
5	Shanghai	1.80	3.00	2.22	2.22	1.73	1.99
6	Huangpu	1.91	2.70	1.88	1.88	1.42	1.89
7	Ningbo	1.70	3.00	2.10	3.00	1.08	1.88
8	Shenzhen	1.68	3.00	2.14	2.21	0.93	1.76
9	Dalian	1.64	2.51	1.71	1.74	1.25	1.67
10	Guangzhou	1.53	3.00	2.11	2.11	0.87	1.66

Analysis of the calculation results:
1) In terms of Cross-border trade timeliness: Qingdao, Xiamen, Zhuhai, Tianjin and Shanghai have reached 4 stars; Ningbo and Guangzhou have reached 3.5 stars; Huangpu, Dalian and Shenzhen have reached 3 stars.
2) The relatively well-performing ports on each indicator are as follows:

Second-level indicator	Relatively well-performing ports
Cross-border trade timeliness satisfaction	Xiamen, Tianjin, Qingdao, Huangpu
Overall import release timeliness	Xiamen, Tianjin, Shanghai, Qingdao, Ningbo
Container picking timeliness of terminal	Shenzhen, Guangzhou
Container collecting timeliness of terminal	Shanghai, Zhuhai, Qingdao, Ningbo, Shenzhen, Guangzhou
Inspection and quarantine treatment timeliness	Zhuhai, Qingdao, Ningbo

(iii) Regulatory environment

The calculation results for the Regulatory environment and its second-level indicators of the top 10 seaports in 2023 are as follows:

Table 8   Calculation results 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	2.86	2.13	2.72
2	Qingdao	2.69	2.17	2.59
3	Tianjin	2.46	2.14	2.40
4	Shenzhen	2.31	2.57	2.37
5	Ningbo	2.42	2.13	2.36
6	Guangzhou	2.24	2.66	2.32
7	Xiamen	2.24	2.29	2.25
8	Zhuhai	2.06	2.41	2.13
9	Huangpu	1.91	2.31	1.99
10	Dalian	1.61	2.32	1.75

Analysis of the calculation results:
1) In terms of Regulatory environment: Shanghai and Qingdao have reached 5 stars; Tianjin, Shenzhen, Ningbo, Guangzhou, and Xiamen have reached 4.5 stars; Zhuhai has reached 4 stars; Huangpu and Dalian have 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	Qingdao, Tianjin, Shanghai
Department contact information disclosure and consulting service	Tianjin, Zhuhai, Guangzhou

(iv) Business service

The calculation results for Business service and its second-level indicators of the top 10 seaports in 2023 are as follows:

Table 9　　　　Calculation results for Business service

Ranking	Port	Second-level indicator			Business service score
		Operation efficiency and service awareness satisfaction	Charge transparency satisfaction	Complaint-handling mechanism	
		Second-level indicator weight			
		45%	45%	10%	
1	Qingdao	2.03	1.85	2.00	1.95
2	Ningbo	2.03	1.84	2.00	1.94
3	Xiamen	1.86	1.89	2.00	1.89
4	Shenzhen	1.77	1.72	3.00	1.87
5	Guangzhou	1.85	1.84	2.00	1.86
6	Zhuhai	1.76	1.93	2.00	1.86
7	Tianjin	1.78	1.86	2.00	1.84
8	Shanghai	1.76	1.39	2.00	1.62
9	Dalian	1.42	1.58	2.00	1.55
10	Huangpu	1.48	1.51	2.00	1.54

Analysis of the calculation results:
1) In terms of Business service: Qingdao, Ningbo, Xiamen, Shenzhen, Guangzhou, Zhuhai, and Tianjin have reached 3.5 stars; Shanghai, 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
Operation efficiency and service awareness satisfaction	Qingdao, Ningbo, Xiamen, Guangzhou, Tianjin
Charge transparency satisfaction	Qingdao, Ningbo, Xiamen, Guangzhou, Tianjin, Zhuhai
Complaint-handling mechanism	Shenzhen

(v) Digitalization

The calculation results for the Digitalization and its second-level indicators of the top 10 seaports in 2023 are as follows:

Table 10　　　　Calculation results of digitalization index

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	2.48	2.87
2	Shanghai	2.75	3.00	1.99	2.77
3	Ningbo	2.65	3.00	2.46	2.77
4	Xiamen	2.85	2.75	2.34	2.76
5	Shenzhen	2.30	3.00	1.73	2.52
6	Guangzhou	2.20	3.00	1.74	2.47
7	Tianjin	2.05	3.00	2.32	2.46
8	Dalian	2.25	2.75	1.93	2.42
9	Huangpu	1.50	1.50	2.03	1.55
10	Zhuhai	1.50	1.50	1.91	1.54

Analysis of the calculation results:
1) In terms of Digitalization: Qingdao, Shanghai, Ningbo, Xiamen, and Shenzhen have reached 5 stars; Guangzhou, Tianjin, and Dalian have reached 4.5 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, Shanghai, Ningbo, Xiamen, Shenzhen
Data exchange between customs and main supervised sites	Qingdao, Shanghai, Ningbo, Xiamen, Shenzhen, Tianjin, Guangzhou, Dalian
Local function module of the International Trade Single Window	Qingdao, Ningbo, Xiamen, Tianjin

(vi) Other supporting facilities

The calculation results for Other supporting facilities and its second-level indicators of the top 10 seaports in 2023 are as follows:

Table 11   Calculation results for Other supporting facilities

Ranking	Port	Second-level indicator		Other supporting facility score
		Traffic around the port	Business and supporting living facilities	
		Second-level indicator weight		
		50%	50%	
1	Guangzhou	2.16	1.64	1.90
2	Xiamen	1.67	2.01	1.84
3	Qingdao	1.51	2.17	1.84
4	Tianjin	1.55	2.03	1.79
5	Ningbo	1.22	2.35	1.79
6	Dalian	1.58	1.69	1.64
7	Shanghai	1.23	1.93	1.58
8	Shenzhen	1.20	1.81	1.51
9	Huangpu	1.27	1.45	1.36
10	Zhuhai	1.14	1.47	1.30

Analysis of the calculation results:

1) In terms of Other supporting facilities: Guangzhou, Xiamen, Qingdao, Tianjin, and Ningbo have reached 3.5 stars; Dalian, Shanghai, and Shenzhen 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	Guangzhou, Xiamen, Tianjin, Qingdao, Dalian
Business and supporting living facilities	Xiamen, Tianjin, Ningbo, Qingdao, Shanghai

(vii) Comprehensive performance of Cross-border Cargo Clearance

The calculation results for the Cross-border Cargo Clearance Index (CCCI) of the top 10 seaports in 2023 are as follows:

Table 12   Cross-border Cargo Clearance Index score and star rating

Port	First-level indicator						CCCI score	CCCI star rating
	CPTC	CPTT	Regulatory environment	Business service	Digitaliza-tion	Other sup-porting facili-ties		
	First-level indicator weight							
	25%	25%	15%	15%	15%	5%		
Qingdao	2.00	2.21	2.59	1.95	2.87	1.84	2.26	★★★★☆
Tianjin	2.22	2.06	2.40	1.84	2.46	1.79	2.16	★★★★
Xiamen	1.89	2.19	2.25	1.89	2.76	1.84	2.14	★★★★
Shanghai	1.97	1.99	2.72	1.62	2.77	1.58	2.13	★★★★
Ningbo	1.99	1.88	2.36	1.94	2.77	1.79	2.12	★★★★
Guangzhou	1.99	1.66	2.32	1.86	2.47	1.90	2.01	★★★★
Shenzhen	1.87	1.76	2.37	1.87	2.52	1.51	2.00	★★★★
Dalian	1.91	1.67	1.75	1.55	2.42	1.64	1.83	★★★☆
Zhuhai	1.47	2.05	2.13	1.86	1.54	1.30	1.78	★★★☆
Huangpu	1.77	1.89	1.99	1.54	1.55	1.36	1.75	★★★☆

Analysis of the calculation results for the Cross-border Cargo Clearance Index and corresponding star rating:

The score for Cross-border Cargo Clearance 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 Cross-border Cargo Clearance, which implies that, within the same star rating, this report refrains from discriminating the nuances in the performance level of Cross-border cargo clearance across various ports.

All the top 10 seaports have reached 3.5 stars and above (1.75 points and above). Among them: Qingdao has achieved 4.5 stars; Tianjin, Xiamen, Shanghai, Ningbo, 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, and a total of 319 questionnaires gave answers on the rationality of the cross-border trade cost of each port. Different rationality corresponds to different scores:

·   Very reasonable: 3 points
·   Relatively reasonable: 2 points
·   Moderately reasonable: 1 point
·   Unreasonable: 0 points
·   Consistent with the 2022 survey conclusion: The same score as that of the indicator in 2022.

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

b.   Calculation conclusion

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	2022 Survey Conclusion	Consistent with the 2022 survey conclusion	Very reasonable	Relatively reasonable	Moderately reasonable	Unreasonable	Score
Dalian	1.48	60	3	2			1.56
Guangzhou	1.63	21			1		1.60
Huangpu	1.48	17	2	1	1		1.62
Ningbo	1.66	40	2				1.73
Qingdao	1.68	44	2	1			1.74
Xiamen	1.64	29					1.64
Shanghai	1.53	31					1.53
Shenzhen	1.44	15	1	3			1.61
Tianjin	1.76	23	1				1.81
Zhuha	1.29	19					1.29

2.   Actual import regular cost

a.   Data source and calculation method

The original data of this indicator comes from public channels, mainly including the charging standards announced by various entities in the Inter National 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 relevant data. The best performance was set at 1,500 yuan[1] and the worst performance at 2,500 yuan. The corresponding score is calculated by the "distance to frontier method"[2].

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 ports.

b.   Calculation conclusion

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

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[1] The billing unit is for general goods in a 20-foot standard container.

[2] 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)×3.00 (If it exceeds 3.00, it will be scored as 3.00)

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	1947.15	1.77	1.86
Guangzhou	1873.68	1.99	2.39
Huangpu	1905.27	1.90	2.28
Ningbo	1600.33	2.79	2.79
Qingdao	1889.47	1.94	2.04
Xiamen	1686.65	2.54	2.67
Shanghai	1789.68	2.24	3.00
Shenzhen	1820.74	2.14	2.57
Tianjin	1786.93	2.24	2.47
Zhuhai	1885.19	1.96	1.96

3.   Actual export regular cost
a.   Data source and calculation method

The original data of this indicator comes from public channels, mainly including the charging standards announced by various entities in the Inter National 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 relevant data. The best performance was set at 1,200 yuan and the worst performance at 2,200 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 ports.

b.   Calculation conclusion

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	1497.50	2.20	2.31
Guangzhou	1605.71	1.88	2.25
Huangpu	1647.46	1.75	2.11
Ningbo	1323.09	2.71	2.71
Qingdao	1543.85	2.06	2.16
Xiamen	1446.61	2.35	2.46
Shanghai	1477.48	2.25	3.00
Shenzhen	1521.15	2.13	2.55
Tianjin	1526.49	2.11	2.32
Zhuhai	1708.41	1.58	1.58

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. Conduct research on the ways of reducing or exempting customs physical inspection operation fees at each seaport when it is determined that there are no abnormalties after customs inspection and give scores according to certain rules for the results obtained from the survey.

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

If there are no abnormalties at customs inspection:

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

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

Operation fees are reduced or exempted when case ①, 1.5 points;

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

b.   Calculation conclusion

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 & quaranting 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	Not exempted	1.50
Shanghai	Exempted	Not exempted	Not exempted	1.50
Shenzhen	Exempted	Not exempted	Not exempted	1.50
Tianjin	Exempted	Exempted	Exempted	3.00
Zhuhai	Exempted	Not exempted	Not exempted	1.50

(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, and a total of 329 questionnaires gave answers concerning the satisfaction with the cross-border trade timeliness of each port. Different satisfaction levels correspond to different scores:

· Very reasonable: 3 points
· Relatively reasonable: 2 points
· Moderately reasonable: 1 point
· Unreasonable: 0 points
· Consistent with the 2022 survey conclusion: The same score as that of the indicator in 2022.

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

b.   Calculation conclusion

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	2022 Survey Conclusion	Consistent with the 2022 survey conclusion	Very reasonable	Relatively reasonable	Moderately reasonable	Unreasonable	Score
Dalian	1.49	54	4	8			1.64
Guangzhou	1.59	18			2		1.53
Huangpu	1.79	19	2	3			1.91
Ningbo	1.74	43				1	1.70
Qingdao	2.07	45	4	1	1		2.12
Xiamen	2.00	29	1				2.03
Shanghai	1.76	31	1				1.80
Shenzhen	1.51	15	2	2	1		1.68
Tianjin	2.03	24					2.03
Zhuhai	1.78	16	1		1		1.80

2.   Overall import release timeliness

a.   Data source and calculation method

The data for this indicator comes from a questionnaire survey, and a total of 259 questionnaires gave answers on the overall import customs clearance time of each port. Integrate relevant data to calculate the average estimate of overall import customs clearance time, set the best performance as 12 hours and the worst performance as 48 hours, and calculate the corresponding score for Overall import release timeliness 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. Calculation conclusion

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 2022 （hours）	Consistent with the choice of most respondents in 2022	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	14.85	45	4	2					1	14.58	2.79	2.51
Guangzhou	8.81	17	1							8.66	3.00	3.00
Huangpu	12.92	14	3	3						11.30	3.00	2.70
Ningbo	8.34	35	2							8.21	3.00	3.00
Qingdao	8.16	32	5							7.87	3.00	3.00
Xiamen	8.46	19	2							8.22	3.00	3.00
Shanghai	20.99	27	1		2					20.09	2.33	3.00
Shenzhen	15.31	12	3	1						13.17	2.90	3.00
Tianjin	8.72	16	1			1				9.25	3.00	3.00
Zhuhai	9.00	6	1		2	1				11.10	3.00	2.70

3. Container picking timeliness of terminal
a. Data source and calculation method

The data for this indicator comes from a questionnaire survey, and a total of 158 questionnaires gave answers on the Container picking timeliness of terminal of each port. Integrate the relevant data to estimate the terminal container picking time, set the best performance as 30 minutes and the worst performance as 90 minutes, and calculate the corresponding score for Container picking timeliness of terminal 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 picking time of the port, it is necessary to multiply the score by the Port throughput coefficient corresponding to each port.

b. Calculation conclusion

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

Table 19 Distribution of responses, terminal container picking time estimate and the corresponding score

Port	Time estimate in 2022 (minutes)	Consistent with the choice of most respondents in 2022	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	53.60	37			4				52.03	1.90	1.71
Guangzhou	51.67	7							51.67	1.92	2.11
Huangpu	52.50	10			4				48.21	2.09	1.88
Ningbo	55.00	11							55.00	1.75	2.10
Qingdao	48.23	23	2	2	2				43.94	2.30	2.65
Xiamen	51.88	11							51.88	1.91	1.91
Shanghai	57.11	15			1				55.89	1.71	2.22
Shenzhen	54.28	8							54.28	1.79	2.14
Tianjin	73.68	13							73.68	0.82	0.90
Zhuhai	23.33	8							23.33	3.00	2.70

4. Container collecting timeliness of terminal
a. Data source and calculation method

The data for this indicator comes from a questionnaire survey, and a total of 154 questionnaires gave answers on the Container collecting timeliness of terminal of each port. Integrate relevant data to estimate the terminal container picking time, set the best performance as 30 minutes and the worst performance as 90 minutes, and calculate the corresponding score for Container collecting timeliness of terminal 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 collecting time of the

port, it is necessary to multiply the score by the Port throughput coefficient corresponding to each port.

b.   Calculation conclusion

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

Table 20   Distribution of responses, terminal container collecting time estimate and the corresponding score

Port	Time estimate in 2022 (minutes)	Consistent with the choice of most respondents in 2022	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	52.50	37		1	1				51.41	1.93	1.74
Guangzhou	51.67	7							51.67	1.92	2.11
Huangpu	52.50	10			4				48.21	2.09	1.88
Ningbo	39.17	11							39.17	2.54	3.00
Qingdao	36.16	24	1	3					34.39	2.78	3.00
Xiamen	49.06	10			1				48.01	2.10	2.10
Shanghai	57.08	15			1				55.86	1.71	2.22
Shenzhen	53.11	8							53.11	1.84	2.21
Tianjin	50.80	13							50.80	1.96	2.16
Zhuhai	23.33	6			1				25.36	3.00	2.70

5.   Inspection and quarantine treatment timeliness

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

1)   Customs general inspection delay

a.   Data source and calculation method

The data for this indicator comes from a questionnaire survey, and a total of 270 questionnaires gave answers on the customs general inspection delay of each port. Integrate relevant data to estimate the customs examination delay, set the best performance as 12 hours and the worst performance as 48 hours, and calculate the corresponding score for customs general inspection delay through the "distance to frontier method".

b.   Calculation conclusion

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

Table 21   Distribution of responses, customs general inspection delay estimate and the corresponding score

Port	Time estimate in 2022 (minutes)	Consistent with the 2022 survey conclusion	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	32.96	48	1		2		1		1			1	33.45	1.21
Guangzhou	36.59	16						1	2				39.02	0.75
Huangpu	30.45	19	1	1					1				29.43	1.55
Ningbo	30.02	41						1					30.16	1.49
Qingdao	27.86	36				1							27.67	1.69
Xiamen	18.52	18		1	1	1							17.35	2.55
Shanghai	31.01	29							1				31.98	1.33
Shenzhen	44.47	13			1	1	1						39.01	0.75
Tianjin	24.06	17			1		1						23.16	2.07
Zhuhai	15.95	9			1								15.36	2.72

2)   Customs quarantine inspection delay

a.   Data source and calculation method

The data for this indicator comes from a questionnaire survey, and a total of 264 questionnaires gave answers on the customs quarantine inspection delay of each port. Integrate relevant data to estimate the customs quarantine inspection delay, set the best performance as 12 hours and the worst performance as 48 hours, and calculate the corresponding score for customs quarantine inspection delay through the "distance to frontier method".

b.   Calculation conclusion

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

Table 22   Distribution of responses, customs quarantine inspection delay estimate and the corresponding score

Port	Time estimate in 2022 (minutes)	Consistent with the 2022 survey conclusion	2-4 hours	4-8 hours	8-12 hours	12-18 hours	18-24 hours	1-2 days	2-3 days	3-4 days	Over 5 days	Time estimate (hours)	Distance to frontier score
Dalian	31.59	51			1				1	1			32.69
Guangzhou	37.36	16						1					37.28
Huangpu	30.69	18	1	1					1				29.59
Ningbo	38.60	40											38.60
Qingdao	31.50	34			1				1				31.69
Xiamen	23.68	19		1		1							22.42
Shanghai	30.63	30											30.63
Shenzhen	44.62	14				1	1						40.61
Tianjin	28.09	16				1	1						26.69
Zhuhai	26.72	11											26.72

3) Customs quarantine inspection and treatment delay
a.   Data source and calculation method

The data for this indicator comes from a questionnaire survey, and a total of 259 questionnaires gave answers on the customs quarantine inspection and treatment delay of each port. Integrate relevant data to estimate the customs quarantine inspection and treatment delay, set the best performance as 36 hours and the worst performance as 96 hours, and calculate the corresponding score for customs quarantine inspection and treatment delay through the "distance to frontier method".

b.   Calculation conclusion

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

Table 23   Distribution of responses, customs quarantine inspection and treatment delay estimate and the corresponding score

Port	Time estimate in 2022 (minutes)	Consistent with the 2022 survey conclusion	2-4 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	57.18	46					1		3	1	1		1	62.76	1.66
Guangzhou	79.27	14				1							1	81.17	0.74
Huangpu	63.30	17	1	1						1	1			63.29	1.64
Ningbo	87.94	37					2						1	87.34	0.43
Qingdao	85.14	34					1	1						83.07	0.65
Xiamen	48.49	20					1							47.89	2.41
Shanghai	68.15	28							1				1	72.00	1.20
Shenzhen	79.05	11				1				1				76.81	0.96
Tianjin	54.02	16					1		1					54.68	2.07
Zhuhai	72.18	11												72.18	1.19

Through the arithmetic average of the distance to frontier scores for customs general inspection delay, customs quarantine inspection delay and customs quarantine inspection and treatment delay, 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.

Port	Customs general inspection delay	Customs quarantine inspection delay	Customs quarantine inspection and treatment delay	Score (before coefficient adjustment)	Score (before coefficient adjustment)
	1/3	1/3	1/3		
Dalian	1.21	1.28	1.66	1.38	1.25
Guangzhou	0.75	0.89	0.74	0.79	0.87
Huangpu	1.55	1.53	1.64	1.57	1.42
Ningbo	1.49	0.78	0.43	0.90	1.08
Qingdao	1.69	1.36	0.65	1.23	1.42
Xiamen	2.55	2.13	2.41	2.36	2.36
Shanghai	1.33	1.45	1.20	1.33	1.73
Shenzhen	0.75	0.62	0.96	0.78	0.93
Tianjin	2.07	1.78	2.07	1.97	2.17
Zhuhai	2.72	1.77	1.19	1.89	1.71

(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, and a total of 330 questionnaires gave answers on the regulatory environment 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
·   Consistent with the 2022 survey conclusion: The same score as that of the indicator in 2022.

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

b.   Calculation conclusion

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	2022 survey conclusion	Consistent with the 2022 survey conclusion	Very satisfied	Relatively satisfied	Moderately satisfied	Dissatisfied	Score (before coefficient adjustment)	Score (before coefficient adjustment)
Dalian	1.79	56	1	6	3		1.79	1.61
Guangzhou	2.09	20		1	1		2.04	2.24
Huangpu	2.09	25	1				2.13	1.91
Ningbo	2.04	42			1		2.01	2.42
Qingdao	2.34	46	3	1	1		2.34	2.69
Xiamen	2.21	29	1				2.24	2.24
Shanghai	2.24	32			1		2.20	2.86
Shenzhen	1.58	13	4	4			1.93	2.31
Tianjin	2.29	21			1		2.24	2.46
Zhuhai	2.20	13	2	1			2.29	2.06

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, and the other is the consulting service. The data of both aspects are derived from relevant special research.

In terms of the disclosure of department contact informatio, the research team conducted an investigation on the disclosure of the contact telephone numbers of the internal organizations and their subordinate customs offices announced by the directly subordinated customs under each port on

their official websites, and gave different scores according to different situations:

Table 26   Scoring benchmark for the disclosure of department contact information

Internal organization	Subordinate customs offices
Directly give the phone number of the internal organization (1.5 points) Need switchboard transfer (1 point) Unpublished (0 point)	Directly give the telephone number of the internal section (1.5 points) Need switchboard transfer (1 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, and the other is the general survey of the online consulting service of the General Administration of China Customs.

For the simulated consultaition 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 were given:

Table 27   Scoring benchmark for the consulting service

Reply speed	Reply quality
Within 24 hours (1.5 points) Within 48 hours (1 point) Over 48 hours (0.5 point) No reply (0 point)	Reply to give clear answers/paths and give specific corresponding laws or regulations (1.5 points) Reply to give clear answers/paths (1 point) Reply, but not give clear answer/paths directly (0.5 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 Plus 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 directly surbodinated customs nationwide in terms of 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.   Calculation conclusion

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	Overall score
				Simulated consultation survey			General survey				
	Contact phone number of the internal organization of directly Surbordianted customs	Contact phone number of subordinate customs office	Score	Reply speed	Reply quality	Score	Reply speed	Reply quality	Score		Overall score
Dalian	Switchboard transfer	Give directly	2.50	Within 48 hours	③	1.50	Within 48 hours	1.40	2.40	2.13	2.32
Guangzhou	Give directly	Give directly	3.00	Within 48 hours	②	2.00	Within 48 hours	1.46	2.46	2.32	2.66

Port	Department contact information disclosure			Consulting service						Overall score	Overall score
				Simulated consultation survey			General survey				
	Contact phone number of the internal organization of directly Surbordianted customs	Contact phone number of subordinate customs office	Score	Reply speed	Reply quality	Score	Reply speed	Reply quality	Score		
Huangpu	Switchboard transfer	Give directly	2.00	Within 24 hours	②	2.50	Over 48 hours	1.46	1.96	2.12	2.31
Ningbo	Switchboard transfer	Switchboard transfer	2.00	Within 24 hours	③	2.00	Within 48 hours	1.37	2.37	2.26	2.13
Qingdao	Switchboard transfer	Switchboard transfer	2.00	Within 24 hours	③	2.00	Within 48 hours	1.49	2.49	2.34	2.17
Xiamen	Give directly	Switchboard transfer	2.50	Within 24 hours	②	2.50	Over 48 hours	1.39	1.89	2.07	2.29
Shanghai	Switchboard transfer	Switchboard transfer	2.00	Within 48 hours	②	2.00	Within 48 hours	1.38	2.38	2.27	2.13
Shenzhen	Give directly	Switchboard transfer	2.50	Within 24 hours	①	3.00	Within 48 hours	1.49	2.49	2.64	2.57
Tianjin	Give directly	Switchboard transfer	2.50	Over 48 hours	②	1.50	Over 48 hours	1.40	1.90	1.78	2.14
Zhuhai	Switchboard transfer	Give directly	3.00	Within 24 hours	③	2.00	Within 48 hours	1.46	2.46	2.32	2.41

Note: ①Reply to give clear answers/paths and give specific corresponding laws or regulations; ②Reply to give clear answers/paths; ③Reply, but not give clear answer/paths directly; ④No reply.

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

1. Operation efficiency and service awareness satisfaction

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

1) Terminal operation efficiency and service awareness satisfaction

a. Data source and calculation method

The data for this indicator comes from a questionnaire survey, and a total of 280 questionnaires gave answers on the terminal operation 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
· Consistent with the 2022 survey conclusion: The same score as that of the indicator in 2022.

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

b. Calculation conclusion

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 operation efficiency and service awareness satisfaction

Port	2022 Survey Conclusion	Consistent with the 2022 survey conclusion	Very satisfied	Relatively satisfied	Moderately Satisfied	Dissatisfied	Score (before coefficient adjustment)	Score (before coefficient adjustment)
Dalian	1.57	46	2		5		1.57	1.41
Guangzhou	1.88	16			2		1.78	1.96
Huangpu	1.75	18	1	3			1.84	1.65
Ningbo	2.02	43			1		1.99	2.39
Qingdao	2.29	31		5	3	2	2.05	2.36
Xiamen	1.76	23					1.76	1.76
Shanghai	1.58	29		1			1.59	2.07
Shenzhen	1.46	10	2	1	2		1.64	1.97
Tianjin	1.70	19			1		1.66	1.83
Zhuhai	2.00	13			1		1.93	1.74

2) Shipping agency operation efficiency and service awareness satisfaction

a. Data source and calculation method

The data for this indicator comes from a questionnaire survey, and a total of 260 questionnaires gave answers on the shipping agency operation 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
· Consistent with the 2022 survey conclusion: The same score as that of the indicator in 2022.

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

b. Calculation conclusion

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 operation efficiency and service awareness satisfaction

Port	2022 Survey Conclusion	Consistent with the 2022 survey conclusion	Very satisfied	Relatively satisfied	Moderately Satisfied	Dissatisfied	Score
Dalian	1.49	49		2			1.51
Guangzhou	1.67	17			1		1.63
Huangpu	1.24	17		3			1.35
Ningbo	1.19	36	1	1		2	1.20
Qingdao	1.57	37			2		1.54
Xiamen	1.73	20		1			1.74
Shanghai	1.06	23		2	1		1.13
Shenzhen	1.45	13		1	2		1.43
Tianjin	1.42	17		2			1.48
Zhuhai	1.80	9		1			1.82

3) Container yard operation efficiency and service awareness satisfaction

a. Data source and calculation method

The data for this indicator comes from a questionnaire survey, and a total of 155 questionnaires gave answers on the container yard operation 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
· Consistent with the 2022 survey conclusion: The same score as that of the indicator in 2022.

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

b. Calculation conclusion

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 operation efficiency and service awareness satisfaction**

Port	2022 Survey Conclusion	Consistent with the 2022 survey conclusion	Very satisfied	Relatively satisfied	Moderately Satisfied	Dissatisfied	Score (before coefficient adjustment)	Score (before coefficient adjustment)
Dalian	1.59	38			2		1.56	1.41
Guangzhou	1.75	6					1.75	1.93
Huangpu	1.17	12		1			1.23	1.11
Ningbo	1.54	8			2	1	1.30	1.56
Qingdao	1.79	23	1		3	2	1.63	1.87
Xiamen	2.25	10	1	1			2.29	2.29
Shanghai	0.83	11		2	1		1.01	1.31
Shenzhen	1.31	9					1.31	1.58
Tianjin	1.49	13		1			1.53	1.68
Zhuhai	2.00	5	1		1		2.00	1.80

4) Physical inspection site operation efficiency and service awareness satisfaction
a.   Data source and calculation method

    The data for this indicator comes from a questionnaire survey, and a total of 271 questionnaires gave answers on the physical inspection site operation 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
- Consistent with the 2022 survey conclusion: The same score as that of the indicator in 2022.

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

b.   Calculation conclusion

    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 operation efficiency and service awareness satisfaction**

Port	2022 Survey Conclusion	Consistent with the 2022 survey conclusion	Very satisfied	Relatively satisfied	Moderately Satisfied	Dissatisfied	Score (before coefficient adjustment)	Score (before coefficient adjustment)
Dalian	1.37	48		5			1.43	1.29
Guangzhou	1.82	17			1	1	1.68	1.85
Huangpu	1.49	18		2			1.54	1.39
Ningbo	1.94	40			3		1.87	2.25
Qingdao	1.60	26		1	6	6	1.27	1.47
Xiamen	1.87	22					1.87	1.87
Shanghai	1.53	28			1		1.51	1.96
Shenzhen	1.26	11	1	4			1.56	1.87
Tianjin	2.00	18		1			2.00	2.20
Zhuhai	2.00	10			1		1.91	1.72

5) Certification agency operation efficiency and service awareness satisfaction
a.   Data source and calculation method

    The data for this indicator comes from a questionnaire survey, and a total of 318 questionnaires gave answers on the certification agency operation 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
- Consistent with the 2022 survey conclusion: The same score as that of the indicator in 2022.

The final score is obtained by arithmetically averaging the scores corresponding to the answers.
b.   Calculation conclusion
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 opera-tion efficiency and service awareness satisfaction

Port	2022 Survey Conclusion	Consistent with the 2022 survey conclusion	Very sat-isfied	Relatively satisfied	Moderately Satisfied	Dissatisfied	Score
Dalian	1.49	60	1	2	1		1.52
Guangzhou	1.53	19				1	1.45
Huangpu	1.53	21		1	1	1	1.47
Ningbo	1.80	42					1.80
Qingdao	2.30	40	1	3	5		2.16
Xiamen	1.84	25			1		1.81
Shanghai	1.74	32			1		1.71
Shenzhen	1.50	19		1	1		1.50
Tianjin	1.61	22					1.61
Zhuhai	1.84	17					1.84

6)   Quarantine treatment agency operation efficiency and service awareness satisfaction
a.   Data source and calculation method
The data for this indicator comes from a questionnaire survey, and a total of 271 questionnaires gave answers on the quarantine treatment agency operation efficiency and service awareness sat-isfaction 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
·   Consistent with the 2022 survey conclusion: The same score as that of the indicator in 2022.
The final score is obtained by arithmetically averaging the scores corresponding to the answers.
b.   Calculation conclusion
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 operation efficiency and service awareness satisfaction

Port	2022 Survey Conclusion	Consistent with the 2022 survey conclusion	Very sat-isfied	Relatively satisfied	Moderately Satisfied	Dissatisfied	Score
Dalian	1.52	50			3		1.49
Guangzhou	1.67	15			1		1.63
Huangpu	1.37	19		2		1	1.36
Ningbo	2.14	41					2.14
Qingdao	1.87	33			2	4	1.64
Xiamen	1.97	23		1			1.98
Shanghai	1.49	27		2			1.52
Shenzhen	1.33	15		1			1.38
Tianjin	1.86	20					1.86
Zhuhai	1.70	11					1.70

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

Table 35   The score for Operation efficiency and service awareness satisfaction

Port	Terminal	Shipping agency	Container yard	Physical in-spection site	Certifica-tion agency	Quarantine treatment agency	Score
	50%	15%	15%	10%	5%	5%	
Dalian	1.41	1.51	1.41	1.29	1.52	1.49	1.42
Guangzhou	1.96	1.63	1.93	1.85	1.45	1.63	1.85
Huangpu	1.65	1.35	1.11	1.39	1.47	1.36	1.48
Ningbo	2.39	1.20	1.56	2.25	1.80	2.14	2.03

Port	Terminal	Shipping agency	Container yard	Physical inspection site	Certification agency	Quarantine treatment agency	Score
	50%	15%	15%	10%	5%	5%	
Qingdao	2.36	1.54	1.87	1.47	2.16	1.64	2.03
Xiamen	1.76	1.74	2.29	1.87	1.81	1.98	1.86
Shanghai	2.07	1.13	1.31	1.96	1.71	1.52	1.76
Shenzhen	1.97	1.43	1.58	1.87	1.50	1.38	1.77
Tianjin	1.83	1.48	1.68	2.20	1.61	1.86	1.78
Zhuhai	1.74	1.82	1.80	1.72	1.84	1.70	1.76

2.   Charge transparency satisfaction

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

1)   Terminal charge transparency satisfaction

a.   Data source and calculation method

The data for this indicator comes from a questionnaire survey, and a total of 274 questionnaires gave answers on the terminal charge 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 point
·   Consistent with the 2022 survey conclusion: The same score as that of the indicator in 2022.

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

b.   Calculation conclusion

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 charge transparency satisfaction

Port	2022 Survey Conclusion	Consistent with the 2022 survey conclusion	Very satisfied	Relatively satisfied	Moderately Satisfied	Dissatisfied	Score
Dalian	1.63	53			1		1.62
Guangzhou	2.00	18					2.00
Huangpu	1.65	15	2	2			1.83
Ningbo	2.10	42				1	2.05
Qingdao	2.19	31	1	4	2	2	2.02
Xiamen	1.92	21				1	1.83
Shanghai	1.58	28		1	1		1.57
Shenzhen	1.57	10	4	2			1.98
Tianjin	2.00	20					2.00
Zhuhai	2.00	12					2.00

2)   Shipping agency charge transparency satisfaction

a.   Data source and calculation method

The data for this indicator comes from a questionnaire survey, and a total of 257 questionnaires gave answers on the shipping agency charge 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 point
·   Consistent with the 2022 survey conclusion: The same score as that of the indicator in 2022.

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

b.   Calculation conclusion

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 charge transparency satisfaction

Port	2022 Survey Conclusion	Consistent with the 2022 survey conclusion	Very sat-isfied	Relatively satisfied	Moderately Satisfied	Dissatisfied	Score
Dalian	1.51	49			2		1.49
Guangzhou	1.94	18					1.94
Huangpu	1.31	19		1			1.35
Ningbo	1.20	36	1	1			1.27
Qingdao	1.57	36	1				1.61
Xiamen	1.78	20					1.78
Shanghai	1.13	26		1			1.17
Shenzhen	1.29	13	1		2		1.36
Tianjin	1.44	16		2	1		1.48
Zhuhai	2.00	11					2.00

3)   Container yard charge transparency satisfaction
a.   Data source and calculation method
    The data for this indicator comes from a questionnaire survey, and a total of 154 questionnaires gave answers on the container yard charge transparency satisfaction of each port. Different satis-faction levels correspond to different scores:
·   Very satisfied: 3 points
·   Relatively satisfied: 2 points
·   Moderately satisfied: 1 point
·   Dissatisfied: 0 point
·   Consistent with the 2022 survey conclusion: The same score as that of the indicator in 2022.
    The final score is obtained by arithmetically averaging the scores corresponding to the answers.
b.   Calculation conclusion
    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 charge trans-parency satisfaction

Port	2022 Survey Conclusion	Consistent with the 2022 survey conclusion	Very sat-isfied	Relatively satisfied	Moderately Satisfied	Dissatisfied	Score
Dalian	1.53	38			2		1.50
Guangzhou	1.42	5				1	1.18
Huangpu	0.63	11		1		1	0.68
Ningbo	1.73	8			2	1	1.44
Qingdao	1.59	25	1		2		1.60
Xiamen	2.20	10			1		2.09
Shanghai	0.81	14				1	0.76
Shenzhen	1.48	8			1		1.42
Tianjin	1.66	14					1.66
Zhuhai	2.00	6			1		1.86

4)   Physical inspection site charge transparency satisfaction
a.   Data source and calculation method
    The data for this indicator comes from a questionnaire survey, and a total of 267 questionnaires gave answers on the physical inspection site charge transparency satisfaction of each port. Differ-ent satisfaction levels correspond to different scores:
·   Very satisfied: 3 points
·   Relatively satisfied: 2 points
·   Moderately satisfied: 1 point
·   Dissatisfied: 0 point
·   Consistent with the 2022 survey conclusion: The same score as that of the indicator in 2022.
    The final score is obtained by arithmetically averaging the scores corresponding to the answers.
b.   Calculation conclusion
    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

charge transparency satisfaction

Port	2022 Survey Conclusion	Consistent with the 2022 survey conclusion	Very sat-isfied	Relatively satisfied	Moderately Satisfied	Dissatisfied	Score
Dalian	1.51	51	1		1		1.53
Guangzhou	2.00	16			1		1.94
Huangpu	1.28	16		3			1.40
Ningbo	2.03	41	1		1		2.03
Qingdao	1.78	30		2	5	1	1.64
Xiamen	2.05	21				1	1.95
Shanghai	1.47	27		3			1.52
Shenzhen	1.21	11	2	3			1.58
Tianjin	2.13	19					2.13
Zhuhai	2.00	9				1	1.80

5) Certification agency charge transparency satisfaction
a. Data source and calculation method
The data for this indicator comes from a questionnaire survey, and a total of 310 questionnaires gave answers on the certification agency charge 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 point
· Consistent with the 2022 survey conclusion: The same score as that of the indicator in 2022.
The final score is obtained by arithmetically averaging the scores corresponding to the answers.
b. Calculation conclusion
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 charge transparency satisfaction

Port	2022 Survey Conclusion	Consistent with the 2022 survey conclusion	Very sat-isfied	Relatively satisfied	Moderately Satisfied	Dissatisfied	Score
Dalian	1.66	62					1.66
Guangzhou	1.60	20					1.60
Huangpu	1.64	22		1	1		1.63
Ningbo	1.99	40	1				2.01
Qingdao	2.26	39	1	4	2		2.20
Xiamen	1.93	24		1			1.93
Shanghai	1.67	31		1			1.68
Shenzhen	1.57	20			2		1.52
Tianjin	1.70	22					1.70
Zhuhai	1.66	15	1				1.74

6) Quarantine treatment agency charge transparency satisfaction
a. Data source and calculation method
The data for this indicator comes from a questionnaire survey, and total of 313 questionnaires gave answers on the quarantine treatment agency charge 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 point
· Consistent with the 2022 survey conclusion: The same score as that of the indicator in 2022.
The final score is obtained by arithmetically averaging the scores corresponding to the answers.
b. Calculation conclusion
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 charge transparency satisfaction

Port	2022 Survey Conclusion	Consistent with the 2022 survey conclusion	Very satisfied	Relatively satisfied	Moderately Satisfied	Dissatisfied	Score
Dalian	1.78	50			2		1.75
Guangzhou	2.00	17					2.00
Huangpu	1.36	18	1	1			1.38
Ningbo	2.00	41					2.00
Qingdao	2.00	31			3	3	1.76
Xiamen	2.09	23				1	2.00
Shanghai	1.50	28	1				1.52
Shenzhen	1.46	16					1.46
Tianjin	1.87	20					1.87
Zhuhai	1.70	11					1.70

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

Table 42   The score for Charge 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	1.62	1.49	1.50	1.53	1.66	1.75	1.58
Guangzhou	2.00	1.94	1.18	1.94	1.60	2.00	1.84
Huangpu	1.83	1.35	0.68	1.40	1.63	1.38	1.51
Ningbo	2.05	1.27	1.44	2.03	2.01	2.00	1.84
Qingdao	2.02	1.61	1.60	1.64	2.20	1.76	1.85
Xiamen	1.83	1.78	2.09	1.95	1.93	2.00	1.89
Shanghai	1.57	1.17	0.76	1.52	1.68	1.52	1.39
Shenzhen	1.98	1.36	1.42	1.58	1.52	1.46	1.72
Tianjin	2.00	1.48	1.66	2.13	1.70	1.87	1.86
Zhuhai	2.00	2.00	1.86	1.80	1.74	1.70	1.93

3.   Complaint-handling mechanism

a.   Data source and calculation method

The data for this indicator comes from special research. The research team conducted special research on the service hotline/platform setting at each port and the solution of enterprises' complaints through the hotline/platform, and score the results obtained from the survey according to certain rules. Details are as follows:

·   The port management/service administration has set up a special service hotline/platform and can actively coordinate and solve the complaints reported by enterprises through the hotline/platform: 3 points for this indicator.

·   The port management/service administration has set up a special service hotline/platform and can solve a limited number of complaints through the hotline/platform: 2 points for this indicator.

·   The port management/service administration has set up a special service hotline/platform, but the hotline/platform has not functioned effectively: 1 point for this indicator.

·   The port management/service administration has not set up a special service hotline/platform: 0 point for this indicator.

b.   Calculation conclusion

The score for Complaint-handling mechanism of each port is as follows:

Table 43   The score for Complaint-handling mechanism

Port	Score	Port	Score
Dalian	2.00	Xiamen	2.00
Guangzhou	2.00	Shanghai	2.00
Huangpu	2.00	Shenzhen	3.00
Ningbo	2.00	Tianjin	2.00
Qingdao	2.00	Zhuhai	2.00

(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 handling form of D/O exchange and container Interchange procedures and the form of documents involved in the whole process from "terminal container picking" to "returning empty container to container yard" were investigated. The specific scoring rules can be found in the calculation conclusion.

In terms of handling export cargo and container interchange, the handling form of container Interchange procedures and the form of documents involved in the whole process from "handling the container release procedures" to "returning loaded container to terminal" were investigated. The specific scoring rules can be found in the calculation conclusion.

b. Calculation conclusion

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	Huangpu	Ningbo	Qingdao	Xiamen	Shanghai	Shenzhen	Tianjin	Zhuhai
D/O exchange	Handling form	Online handling: 0.4 / Partial online handling: 0.2 / On-site handling: 0.0	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
	B/L form	Electronic: 0.2 / Partial electronic: 0.1 / Paper: 0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.00	0.10	0.00
	Delivery order form	Electronic: 0.4 / Partial electronic: 0.2 / Paper: 0.0	0.40	0.20	0.20	0.40	0.40	0.40	0.40	0.20	0.40	0.20
Container release procedure	Handling form	Online handling: 0.4 / Partial online handling: 0.2 / On-site handling: 0.0	0.40	0.20	0.20	0.00	0.40	0.40	0.40	0.20	0.20	0.20
	Equipment interchange receipt form	Electronic: 0.4 / Partial electronic: 0.2 / Paper: 0.0	0.40	0.20	0.20	0.40	0.40	0.40	0.40	0.20	0.20	0.20
Container picking reservation	Handling form	Online handling: 0.6 / Partial online handling: 0.3 / On-site handling: 0.0	0.60	0.60	0.30	0.60	0.60	0.60	0.60	0.60	0.60	0.30
	Container picking information form	Electronic: 0.2 / Partial electronic: 0.1 / Paper: 0.0	0.20	0.20	0.10	0.20	0.20	0.20	0.10	0.20	0.20	0.10
Empty container return	Equipment interchange receipt form	Electronic: 0.4 / Partial electronic: 0.2 / Paper: 0.0	0.20	0.40	0.20	0.40	0.40	0.40	0.40	0.00	0.20	0.20
Total			2.40	2.00	1.40	2.30	2.70	2.70	2.60	1.60	2.10	1.40

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	Guang-zhou	Huangp u	Ningbo	Qing-dao	Xiamen	Shang-hai	Shen-zhen	Tianjin	Zhuhai
Container release	Handling form	Online handling: 0.6 / Partial online handling: 0.3 / On-site handling: 0.0	0.30	0.30	0.30	0.60	0.60	0.60	0.60	0.60	0.30	0.30
	Equipment interchange receipt form	Electronic: 0.6 / Partial electronic: 0.3 / Paper: 0.0	0.30	0.30	0.30	0.60	0.60	0.60	0.60	0.60	0.30	0.30
Empty container picking	Equipment interchange receipt form	Electronic: 0.6 / Partial electronic: 0.3 / Paper: 0.0	0.30	0.60	0.30	0.60	0.60	0.60	0.60	0.60	0.30	0.30
Container	Handling	Online handling:										

Procedure		Scoring rules	Dalian	Guang-zhou	Huangpu	Ningbo	Qing-dao	Xiamen	Shang-hai	Shen-zhen	Tianjin	Zhuhai
return reserva-tion	form	0.9	0.90	0.90	0.50	0.90	0.90	0.90	0.90	0.90	0.90	0.50
		Partial online handling: 0.5										
		On-site han-dling: 0.0										
	Container return in-formation form	Electronic: 0.3	0.30	0.30	0.20	0.30	0.30	0.30	0.20	0.30	0.20	0.20
		Partial elec-tronic: 0.2										
		Paper: 0.0										
Total			2.10	2.40	1.60	3.00	3.00	3.00	2.90	3.00	2.00	1.60

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
Import	2.40	2.00	1.40	2.30	2.70	2.70	2.60	1.60	2.10	1.40
Export	2.10	2.40	1.60	3.00	3.00	3.00	2.90	3.00	2.00	1.60
Overall	2.25	2.20	1.50	2.65	2.85	2.85	2.75	2.30	2.05	1.50

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). For specific scoring rules, please refer to the calculation conclusion.

b. Calculation conclusion

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	Guang-zhou	Huangpu	Ningbo	Qingdao	Xiamen	Shanghai	Shenzhen	Tianjin	Zhuhai
Can cus-toms re-lease in-structions be transmit-ted to termi-nals?	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
Can cus-toms in-spection in-structions be transmit-ted to physi-cal inspec-tion 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	0.00
Can the in-formation of targeted container lifting be transmitted to customs so that cus-toms is able to assign or-ders based on the situa-tion of con-tainer lift-ing?	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
Total		2.75	3.00	1.50	3.00	3.00	2.75	3.00	3.00	3.00	1.50

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, and a total of 318 questionnaires gave answers on 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 point

· Consistent with the 2022 survey conclusion: The same score as that of the indicator in 2022.
The final score is obtained by arithmetically averaging the scores corresponding to the answers.
b.   Calculation conclusion
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	2022 Survey Conclusion	Consistent with the 2022 survey conclusion	Very satisfied	Relatively satisfied	Moderately satisfied	Dissatisfied	Score
Dalian	1.98	55		1	3		1.93
Guangzhou	1.74	22					1.74
Huangpu	1.93	20	2	1			2.03
Ningbo	2.46	42					2.46
Qingdao	2.51	50			1		2.48
Xiamen	2.33	29	1	1			2.34
Shanghai	2.10	28			3		1.99
Shenzhen	1.56	17	2	1			1.73
Tianjin	2.32	20					2.32
Zhuhai	1.69	15	3	1			1.91

(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, and a total of 331 questionnaires gave answers on 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 point
· Consistent with the 2022 survey conclusion: The same score as that of the indicator in 2022.
The final score is obtained by arithmetically averaging the scores corresponding to the answers.
b.   Calculation conclusion
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	2022 Survey Conclusion	Consistent with the 2022 survey conclusion	Very satisfied	Relatively satisfied	Moderately satisfied	Dissatisfied	Score (before coefficient adjustment)	Score (before coefficient adjustment)
Dalian	1.72	63	2				1.76	1.58
Guangzhou	2.01	21			1		1.97	2.16
Huangpu	1.30	23	1	2			1.42	1.27
Ningbo	1.02	42		1		1	1.02	1.22
Qingdao	1.19	43	2	5		1	1.31	1.51
Xiamen	1.67	30					1.67	1.67
Shanghai	0.97	29			2	1	0.94	1.23
Shenzhen	0.89	17		2	3		1.00	1.20
Tianjin	1.34	18		2			1.41	1.55
Zhuhai	1.06	17	2				1.26	1.14

2.   Business and supporting living facilities
There are four aspects involved in the indicator of Business and supporting living facilities, namely bank branchs, 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 branchs
a. Data source and calculation method

The data for this indicator comes from a questionnaire survey, and a total of 317 questionnaires gave answers on the satisfaction with bank branchs of each port. Different satisfaction levels correspond to different scores:

· Very convenient: 3 points
· Relative convenient: 2 points
· Moderately convenient: 1 point
· Inconvenient: 0 point
· Consistent with the 2022 survey conclusion: The same score as that of the indicator in 2022.

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

b. Calculation conclusion

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

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

Port	2022 Survey Conclusion	Consistent with the 2022 survey conclusion	Very convenient	Relative convenient	Moderately convenient	Inconvenient	Score
Dalian	1.54	63				1	1.51
Guangzhou	1.10	19		1	1		1.13
Huangpu	1.46	24		1			1.48
Ningbo	2.07	40					2.07
Qingdao	2.06	49		1			2.06
Xiamen	2.15	29	2				2.20
Shanghai	1.56	31			1		1.55
Shenzhen	1.40	17	3				1.64
Tianjin	1.82	20					1.82
Zhuhai	0.97	13			1		0.98

2) Mobile network signals within the port area
a. Data source and calculation method

The data for this indicator comes from a questionnaire survey, and a total of 328 questionnaires gave answers on 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 point
· Consistent with the 2022 survey conclusion: The same score as that of the indicator in 2022.

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

b. Calculation conclusion

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	2022 Survey Conclusion	Consistent with the 2022 survey conclusion	Very satisfied	Relatively satisfied	Moderately satisfied	Dissatisfied	Score
Dalian	1.82	59			5		1.75
Guangzhou	1.65	22					1.65
Huangpu	1.58	25		1	1		1.58
Ningbo	2.24	41			1		2.21
Qingdao	2.35	48	1			2	2.27
Xiamen	2.12	30			1		2.08
Shanghai	1.90	30	1		1		1.91
Shenzhen	1.85	17	2	1			1.97
Tianjin	2.16	21					2.16
Zhuhai	1.76	17	1				1.83

3) Gas station density around the port
a. Data source and calculation method

The data for this indicator comes from a questionnaire survey, and a total of 324 questionnaires gave answers on 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
· Consistent with the 2022 survey conclusion: The same score as that of the indicator in 2022.

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

b. Calculation conclusion

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	2022 Survey Conclusion	Consistent with the 2022 survey conclusion	High	Relatively high	Medium	Low	Score (before coefficient adjustment)	Score (before coefficient adjustment)
Dalian	2.14	64					2.14	1.93
Guangzhou	1.88	22					1.88	2.06
Huangpu	1.84	22	1	1			1.89	1.70
Ningbo	2.32	40					2.32	2.79
Qingdao	2.25	49	1				2.26	2.60
Xiamen	2.15	30					2.15	2.15
Shanghai	1.78	33					1.78	2.31
Shenzhen	1.71	17	2	1			1.85	2.22
Tianjin	2.14	21					2.14	2.35
Zhuhai	1.69	18	1		1		1.72	1.55

4) Truck parking lot density around the port
a. Data source and calculation method

The data for this indicator comes from a questionnaire survey, and a total of 385 questionnaires gave answers on 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
· Consistent with the 2022 survey conclusion: The same score as that of the indicator in 2022.

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

b. Calculation conclusion

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	2022 Survey Conclusion	Consistent with the 2022 survey conclusion	High	Relatively high	Medium	Low	Score (before coefficient adjustment)	Score (before coefficient adjustment)
Dalian	1.78	56			3		1.74	1.57
Guangzhou	1.53	18		2	1		1.55	1.71
Huangpu	1.09	21		2			1.17	1.05
Ningbo	2.00	35			2		1.95	2.34
Qingdao	1.55	46			3		1.51	1.74
Xiamen	1.62	29					1.62	1.62
Shanghai	1.49	27		2			1.52	1.98

Shenzhen	1.03	18	1	1	1		1.17	1.40
Tianjin	1.63	21					1.63	1.79
Zhuhai	1.64	15	1		1		1.69	1.52

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

Table 54   The score for Business and supporting living facilities

Port	Bank branchs satisfaction around the port	Mobile network signals within the port	Gas station density around the port	Truck parking lot density aound the port	Score
	25%	25%	25%	25%	
Dalian	1.51	1.75	1.93	1.57	1.69
Guangzhou	1.13	1.65	2.06	1.71	1.64
Huangpu	1.48	1.58	1.70	1.05	1.45
Ningbo	2.07	2.21	2.79	2.34	2.35
Qingdao	2.06	2.27	2.60	1.74	2.17
Xiamen	2.20	2.08	2.15	1.62	2.01
Shanghai	1.55	1.91	2.31	1.98	1.93
Shenzhen	1.64	1.97	2.22	1.40	1.81
Tianjin	1.82	2.16	2.35	1.79	2.03
Zhuhai	0.98	1.83	1.55	1.52	1.47

Annex II   Evaluation table of each port

Dalian

Cross-border Cargo Clearance Star Rating		3.5 stars ★★★☆

Cross-border trade cost	1.91	Cross-border trade timeliness	1.67	Regulatory environment	1.75
Star rating	3.5 stars	Star rating	3.0 stars	Star rating	3.5 stars
Cross-border trade cost satisfaction	1.56	Cross-border trade timeliness satisfaction	1.64	Regulatory environment satisfaction	1.61
Actual import regular cost	1.86	Overall import release timeliness	2.51	Department contact information disclosure and consulting service	2.32
Actual export regular cost	2.31	Container picking timeliness of terminal	1.71		
Reduction and exemption of operation fees for Customs physical inspection	2.50	Container collecting timeliness of terminal	1.74		
		Inspection and quarantine treatment timeliness	1.25		

Business service	1.55	Digitalization	2.42	Other supporting facilities	1.64
Star rating	3.0 stars	Star rating	4.5 stars	Star rating	3.0 stars
Operation efficiency and service awareness satisfaction	1.42	Paperless handling of cargo and container interchange	2.25	Traffic around the port	1.58
Charge transparency satisfaction	1.58	Data exchange between Customs and main supervised sites	2.75	Business and supporting living facilities	1.69
Complaint-handling mechanism	2.00	Local function module of the International Trade Single Window	1.93		

Guangzhou

Cross-border Cargo Clearance Star		4.0 stars ★★★★

Cross-border trade cost	1.99	Cross-border trade timeliness	1.66	Regulatory environment	2.32
Star rating	3.5 stars	Star rating	3.0 stars	Star rating	4.5 stars
Cross-border trade cost satisfaction	1.60	Cross-border trade timeliness satisfaction	1.53	Regulatory environment satisfaction	2.24
Actual import regular cost	2.39	Overall import release timeliness	3.00	Department contact information disclosure and consulting service	2.66
Actual export regular cost	2.25	Container picking timeliness of terminal	2.11		
Reduction and exemption of operation fees for Customs physical inspection	2.50	Container collecting timeliness of terminal	2.11		
		Inspection and quarantine treatment timeliness	0.87		

Business service	1.86	Digitalization	2.47	Other supporting facilities	1.90
Star rating	3.5 stars	Star rating	4.5 stars	Star rating	3.5 stars
Operation efficiency and service awareness satisfaction	1.85	Paperless handling of cargo and container interchange	2.20	Traffic around the port	2.16
Charge transparency satisfaction	1.84	Data exchange between Customs and main supervised sites	3.00	Business and supporting living facilities	1.64
Complaint-handling mechanism	2.00	Local function module of the International Trade Single Window	1.74		

Huangpu

| Cross-border Cargo Clearance Star | | 3.5 stars | ★★★☆ |

Cross-border trade cost	1.77	Cross-border trade timeliness	1.89	Regulatory environment	1.99
Star rating	3.5 stars	Star rating	3.5 stars	Star rating	3.5 stars
Cross-border trade cost satisfaction	1.62	Cross-border trade timeliness satisfaction	1.91	Regulatory environment satisfaction	1.91
Actual import regular cost	2.28	Overall import release timeliness	2.70	Department contact information disclosure and consulting service	2.31
Actual export regular cost	2.11	Container picking timeliness of terminal	1.88		
Reduction and exemption of operation fees for Customs physical inspection	1.50	Container collecting timeliness of terminal	1.88		
		Inspection and quarantine treatment timeliness	1.42		

Business service	1.54	Digitalization	1.55	Other supporting facilities	1.36
Star rating	3.0 stars	Star rating	3.0 stars	Star rating	2.5 stars
Operation efficiency and service awareness satisfaction	1.48	Paperless handling of cargo and container interchange	1.50	Traffic around the port	1.27
Charge transparency satisfaction	1.51	Data exchange between Customs and main supervised sites	1.50	Business and supporting living facilities	1.45
Complaint-handling mechanism	2.00	Local function module of the International Trade Single Window	2.03		

Ningbo

| Cross-border Cargo Clearance Star | | 4.0 stars | ★★★★ |

Cross-border trade cost	1.99	Cross-border trade timeliness	1.88	Regulatory environment	2.36
Star rating	3.5 stars	Star rating	3.5 stars	Star rating	4.5 stars
Cross-border trade cost satisfaction	1.73	Cross-border trade timeliness satisfaction	1.70	Regulatory environment satisfaction	2.42
Actual import regular cost	2.79	Overall import release timeliness	3.00	Department contact information disclosure and consulting service	2.13
Actual export regular cost	2.71	Container picking timeliness of terminal	2.10		
Reduction and exemption of operation fees for Customs physical inspection	1.50	Container collecting timeliness of terminal	3.00		
		Inspection and quarantine treatment timeliness	1.08		

Business service	1.94	Digitalization	2.77	Other supporting facilities	1.79
Star rating	3.5 stars	Star rating	5.0 stars	Star rating	3.5 stars
Operation efficiency and service awareness satisfaction	2.03	Paperless handling of cargo and container interchange	2.65	Traffic around the port	1.22
Charge transparency satisfaction	1.84	Data exchange between Customs and main supervised sites	3.00	Business and supporting living facilities	2.35
Complaint-handling mechanism	2.00	Local function module of the International Trade Single Window	2.46		

Qingdao

Cross-border Cargo Clearance Star		4.5 stars ★★★★☆

Cross-border trade cost	2.00	Cross-border trade timeliness	2.21	Regulatory environment	2.59
Star rating	**4.0 stars**	**Star rating**	**4.0 stars**	**Star rating**	**5.0 stars**
Cross-border trade cost satisfaction	1.74	Cross-border trade timeliness satisfaction	2.12	Regulatory environment satisfaction	2.69
Actual import regular cost	2.04	Overall import release timeliness	3.00	Department contact information disclosure and consulting service	2.17
Actual export regular cost	2.16	Container picking timeliness of terminal	2.65		
Reduction and exemption of operation fees for Customs physical inspection	2.50	Container collecting timeliness of terminal	3.00		
		Inspection and quarantine treatment timeliness	1.42		

Business service	1.95	Digitalization	2.87	Other supporting facilities	1.84
Star rating	**3.5 stars**	**Star rating**	**5.0 stars**	**Star rating**	**3.5 stars**
Operation efficiency and service awareness satisfaction	2.03	Paperless handling of cargo and container interchange	2.85	Traffic around the port	1.51
Charge transparency satisfaction	1.85	Data exchange between Customs and main supervised sites	3.00	Business and supporting living facilities	2.17
Complaint-handling mechanism	2.00	Local function module of the International Trade Single Window	2.48		

Xiamen

Cross-border Cargo Clearance Star		4.0 stars ★★★★

Cross-border trade cost	1.89	Cross-border trade timeliness	2.19	Regulatory environment	2.25
Star rating	**3.5 stars**	**Star rating**	**4.0 stars**	**Star rating**	**4.5 stars**
Cross-border trade cost satisfaction	1.64	Cross-border trade timeliness satisfaction	2.03	Regulatory environment satisfaction	2.24
Actual import regular cost	2.67	Overall import release timeliness	3.00	Department contact information disclosure and consulting service	2.29
Actual export regular cost	2.46	Container picking timeliness of terminal	1.91		
Reduction and exemption of operation fees for Customs physical inspection	1.50	Container collecting timeliness of terminal	2.10		
		Inspection and quarantine treatment timeliness	2.36		

Business service	1.89	Digitalization	2.76	Other supporting facilities	1.84
Star rating	**3.5 stars**	**Star rating**	**5.0 stars**	**Star rating**	**3.5 stars**
Operation efficiency and service awareness satisfaction	1.86	Paperless handling of cargo and container interchange	2.85	Traffic around the port	1.67
Charge transparency satisfaction	1.89	Data exchange between Customs and main supervised sites	2.75	Business and supporting living facilities	2.01
Complaint-handling mechanism	2.00	Local function module of the International Trade Single Window	2.34		

Shanghai

Cross-border Cargo Clearance Star				4.0 stars	★★★★

Cross-border trade cost	1.97
Star rating	3.5 stars
Cross-border trade cost satisfaction	1.53
Actual import regular cost	3.00
Actual export regular cost	3.00
Reduction and exemption of operation fees for Customs physical inspection	1.50

Cross-border trade timeliness	1.99
Star rating	3.5 stars
Cross-border trade timeliness satisfaction	1.80
Overall import release timeliness	3.00
Container picking timeliness of terminal	2.22
Container collecting timeliness of terminal	2.22
Inspection and quarantine treatment timeliness	1.73

Regulatory environment	2.72
Star rating	5.0 stars
Regulatory environment satisfaction	2.86
Department contact information disclosure and consulting service	2.13

Business service	1.62
Star rating	3.0 stars
Operation efficiency and service awareness satisfaction	1.76
Charge transparency satisfaction	1.39
Complaint-handling mechanism	2.00

Digitalization	2.77
Star rating	5.0 stars
Paperless handling of cargo and container interchange	2.75
Data exchange between Customs and main supervised sites	3.00
Local function module of the International Trade Single Window	1.99

Other supporting facilities	1.58
Star rating	3.0 stars
Traffic around the port	1.23
Business and supporting living facilities	1.93

Shenzhen

Cross-border Cargo Clearance Star Rating				4.0 stars	★★★★

Cross-border trade cost	1.87
Star rating	3.5 stars
Cross-border trade cost satisfaction	1.61
Actual import regular cost	2.57
Actual export regular cost	2.55
Reduction and exemption of operation fees for Customs physical inspection	1.50

Cross-border trade timeliness	1.76
Star rating	3.5 stars
Cross-border trade timeliness satisfaction	1.68
Overall import release timeliness	3.00
Container picking timeliness of terminal	2.14
Container collecting timeliness of terminal	2.21
Inspection and quarantine treatment timeliness	0.93

Regulatory environment	2.37
Star rating	4.5 stars
Regulatory environment satisfaction	2.31
Department contact information disclosure and consulting service	2.57

Business service	1.87
Star rating	3.5 stars
Operation efficiency and service awareness satisfaction	1.77
Charge transparency satisfaction	1.72
Complaint-handling mechanism	3.00

Digitalization	2.52
Star rating	5.0 stars
Paperless handling of cargo and container interchange	2.30
Data exchange between Customs and main supervised sites	3.00
Local function module of the International Trade Single Window	1.73

Other supporting facilities	1.51
Star rating	3.0 stars
Traffic around the port	1.20
Business and supporting living facilities	1.81

Tianjin

Cross-border Cargo Clearance Star		4.0 stars	★★★★

Cross-border trade cost	2.22
Star rating	4.0 stars
Cross-border trade cost satisfaction	1.81
Actual import regular cost	2.47
Actual export regular cost	2.32
Reduction and exemption of operation fees for Customs physical inspection	3.00

Cross-border trade timeliness	2.06
Star rating	4.0 stars
Cross-border trade timeliness satisfaction	2.03
Overall import release timeliness	3.00
Container picking timeliness of terminal	0.90
Container collecting timeliness of terminal	2.16
Inspection and quarantine treatment timeliness	2.17

Regulatory environment	2.40
Star rating	4.5 stars
Regulatory environment satisfaction	2.46
Department contact information disclosure and consulting service	2.14

Business service	1.84
Star rating	3.5 stars
Operation efficiency and service awareness satisfaction	1.78
Charge transparency satisfaction	1.86
Complaint-handling mechanism	2.00

Digitalization	2.46
Star rating	4.5 stars
Paperless handling of cargo and container interchange	2.05
Data exchange between Customs and main supervised sites	3.00
Local function module of the International Trade Single Window	2.32

Other supporting facilities	1.79
Star rating	3.5 stars
Traffic around the port	1.55
Business and supporting living facilities	2.03

Zhuhai

Cross-border Cargo Clearance Star		3.5 stars	★★★☆

Cross-border trade cost	1.47
Star rating	2.5 stars
Cross-border trade cost satisfaction	1.29
Actual import regular cost	1.96
Actual export regular cost	1.58
Reduction and exemption of operation fees for Customs physical inspection	1.50

Cross-border trade timeliness	2.05
Star rating	4.0 stars
Cross-border trade timeliness satisfaction	1.80
Overall import release timeliness	2.70
Container picking timeliness of terminal	2.70
Container collecting timeliness of terminal	2.70
Inspection and quarantine treatment timeliness	1.71

Regulatory environment	2.13
Star rating	4.0 stars
Regulatory environment satisfaction	2.06
Department contact information disclosure and consulting service	2.41

Business service	1.86
Star rating	3.5 stars
Operation efficiency and service awareness satisfaction	1.76
Charge transparency satisfaction	1.93
Complaint-handling mechanism	2.00

Digitalization	1.54
Star rating	3.0 stars
Paperless handling of cargo and container interchange	1.50
Data exchange between Customs and main supervised sites	1.50
Local function module of the International Trade Single Window	1.91

Other supporting facilities	1.30
Star rating	2.5 stars
Traffic around the port	1.14
Business and supporting living facilities	1.47

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