PART I MARKET REVIEW

>>> Section I Overview of China's Futures Market

I. Macroeconomic Overview

Despite emerging strongly from the deep recession in 2021, the world economy was not able to carry that momentum into 2022. Short-term factors such as tightening macro policies, resurging pandemic, and escalating geopolitical conflicts have combined to create surging inflation in developed countries, rising geopolitical and economic tensions and financial market volatilities, and a dramatic rise in the U. S. Dollar index and equally dramatic changes in commodity prices. As a result, the world economy slowed precipitously. The International Monetary Fund reports that the global GDP growth rate shed 2. 9 percentage points from a year ago, to 3. 4 percent in 2022. Between this testing international landscape and China's own challenging reform, development, and stability goals, the Chinese economy was able to set new records, with overall stable employment rate and consumer prices, improving standards of living, new progress on high-quality development, and a stable economic and social environment. Preliminary data indicate that China's GDP hit RMB 121, 020. 7 billion in 2022, a year-on-year growth of 3. 0 percent on constant-price terms.

II. Futures Market Overview

China's derivatives markets listed 103 products as of the end of 2022, consisting of 72 futures products and 31 options products①, a gain of 2 futures products② and 10 options products③ from the year before. During the year, 6.768 billion contracts④(consisting of 6.342 billion futures contracts and 0.426 billion options contracts) were traded at RMB 534.93 trillion (RMB 534.30 trillion for futures and RMB 0.63 trillion for options), a decrease of 746 million lots (−9.93%) and RMB 46.26 trillion (−7.96%) compared with 2021.

>>> Section II SHFE Market

In 2022, the Shanghai Futures Exchange (SHFE) recorded a trading volume of 1.943 billion lots (−20.54% YoY) and a turnover of RMB 181.30 trillion (−15.51% YoY), accounting for 28.72% and 33.89% of the total domestic futures market, respectively. Products accessible by overseas investors—currently bonded copper, low sulfur fuel oil, TSR 20, and crude oil futures and crude oil options—are traded at the Shanghai International Energy Exchange (INE), a wholly owned subsidiary. The SHFE market boasts 150 futures firm members, 11 non-futures firm members (including 3 Overseas Special Participants), as well as 78 approved Overseas Intermediaries from 10 countries (regions). SHFE's most-active products are pulp, zinc, tin, copper, bonded copper, natural rubber, bitumen, hot-rolled coil, fuel oil, lead, nickel, steel rebar, aluminum, gold, stainless steel, silver, crude oil, low sulfur fuel oil, TSR 20 (here and hereinafter all referring to futures products, unless otherwise noted), zinc options, copper options, aluminum options, and crude oil options. The less-active markets are wire rod, natural rubber options, and gold options, with each representing less than 0.1% of the nationwide trading volume. In 2022, SHFE added steel rebar options and silver options to its list of products.

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① Product count, trading volume, and open interest data in this section only cover the Shanghai Futures Exchange, Zhengzhou Commodity Exchange, Dalian Commodity Exchange, China Financial Futures Exchange, and Guangzhou Futures Exchange. Options products listed on the Shanghai Stock Exchange and Shenzhen Stock Exchange are excluded.

② The new listings were silicon metal and CSI 100 Index futures.

③ The new listings were No. 1 soybean, No. 2 soybean, soybean oil, peanut kernel, rapeseed oil, silicon metal, steel rebar, silver, CSI 1000 Index, and SSE 50 Index options.

④ The figure is provided by the China Futures Association and excludes EFPs.

I. Copper Futures and Options

(I) Trading (Table 1-2-1—Table 1-2-6)

Table 1-2-1 Monthly Trading Data of Copper Futures, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	328.24	-36.88	11,564.67	-24.41	32.10	13.90
FEB	265.32	-53.80	9,461.25	-48.85	32.12	-15.12
MAR	391.83	-49.78	14,269.55	-45.10	35.60	2.61
APR	253.25	-58.47	9,350.03	-55.41	33.41	-10.08
MAY	268.57	-59.17	9,608.02	-60.68	32.44	-2.60
JUN	380.63	-26.06	12,898.16	-28.49	34.67	18.88
JUL	658.34	48.00	18,990.74	22.70	41.94	36.13
AUG	531.68	14.48	16,363.78	1.79	42.11	30.31
SEP	449.30	6.85	13,751.30	-5.75	42.12	50.25
OCT	326.24	-35.49	10,182.85	-44.25	46.14	34.07
NOV	481.73	-7.20	15,743.94	-13.66	42.89	11.14
DEC	314.53	-21.25	10,370.55	-25.10	39.71	19.55
Total	4,649.66	-27.47	152,554.84	-30.57	—	—

Source: SHFE

Table 1-2-2 Annual Trading Data of Copper Futures, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
2021	6,410.72	12.15	21.97	55.46	33.22	5.51
2022	4,649.66	-27.47	15.26	-30.57	39.71	19.55

Source: SHFE

Table 1-2-3 Annual Trading Data of Domestic and Intl' Copper Futures, 2021-2022

Year	Volume (10,000 lots)		Year-End OI (10,000 lots)	
	SHFE	LME	SHFE	LME
2021	6,410.72	2,969.14	33.22	29.77
2022	4,649.66	2,937.72	39.71	29.25

Note: SHFE copper futures is 5 MT/lot; LME copper futures is 25 MT/lot.

Source: SHFE; LME

Table 1-2-4 Monthly Trading Data of Copper Options, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Put/Call Ratio	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	84.06	72.99	0.918	16.79	18.00	3.68	10.07
FEB	67.00	22.78	0.859	15.16	-40.91	3.36	-19.81
MAR	73.69	-1.83	0.747	22.36	-22.24	3.52	-15.91
APR	62.79	-18.06	0.869	13.97	-41.81	3.71	10.21
MAY	72.67	1.81	1.601	16.78	-46.85	3.55	-13.32
JUN	111.20	35.84	1.656	33.84	11.03	4.50	30.42
JUL	118.15	62.37	1.040	52.49	126.83	4.61	20.69
AUG	128.97	35.34	1.319	37.87	48.62	5.81	27.26
SEP	144.38	88.65	1.853	37.11	67.51	6.80	102.20
OCT	98.75	35.61	1.623	22.19	-23.64	6.60	91.91
NOV	142.97	68.42	1.264	37.56	52.08	4.99	42.04
DEC	106.75	28.36	1.353	21.20	29.58	3.93	25.21
Total	1,211.45	35.57	1.261	327.38	10.73	—	—

Source: SHFE

Table 1-2-5 Annual Trading Data of Copper Options, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Put/Call Ratio	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	893.62	94.15	1.029	295.67	139.67	3.14	20.39
2022	1,211.45	35.57	1.261	327.38	10.73	3.93	25.21

Source: SHFE

Table 1-2-6 Annual Trading Data of Domestic and Intl' Copper Options, 2021-2022

Year	Volume (10,000 lots)			Year-End OI (10,000 lots)		
	SHFE	LME	CME Group	SHFE	LME	CME Group
2021	893.62	163.82	74.87	3.14	9.83	2.70
2022	1,211.45	154.24	105.89	3.93	7.85	8.26

Note: SHFE copper options is 5 MT/lot; LME copper options is 25 MT/lot; CME copper options is 25,000 lbs/lot.
Source: SHFE; LME; FIA

(II) Delivery and Exercise (Table 1-2-7—Table 1-2-10)

Table 1-2-7 Monthly Delivery Data of Copper Futures, 2022

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
JAN	1,970	-19.43	6.95	-4.21
FEB	9,090	182.74	32.14	246.00

Continued

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
MAR	4,960	-64.23	17.77	-61.98
APR	6,400	-32.70	24.03	-24.61
MAY	3,650	-64.37	13.01	-65.86
JUN	2,160	-81.94	7.68	-81.65
JUL	1,265	-80.61	3.45	-84.55
AUG	795	-81.62	2.48	-83.70
SEP	950	-48.79	3.01	-53.51
OCT	9,550	2,590.14	30.77	2,246.09
NOV	8,240	370.86	27.71	343.12
DEC	4,740	441.71	15.70	421.64
Total	53,770	-19.66	184.70	-19.59

Source: SHFE

Table 1-2-8 Annual Delivery Data of Copper Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
2021	66,925	-29.74	229.69	4.51
2022	53,770	-19.66	184.70	-19.59

Source: SHFE

Table 1-2-9 Monthly Exercise Data of Copper Options, 2022

Month	Exercise Volume (lot)
JAN	2,596
FEB	3,552
MAR	3,873
APR	4,215
MAY	5,345
JUN	8,699
JUL	12,287
AUG	6,097
SEP	5,042
OCT	4,257
NOV	7,757
DEC	5,399
Total	69,119

Source: SHFE

Table 1-2-10 Annual Exercise Data of Copper Options, 2021-2022

Year	Exercise Volume (lot)	YoY Change (%)
2021	50,085	37.87
2022	69,119	38.00

Source: SHFE

(III) Price Trend (Figure 1-2-1, Table 1-2-11—Table 1-2-12)

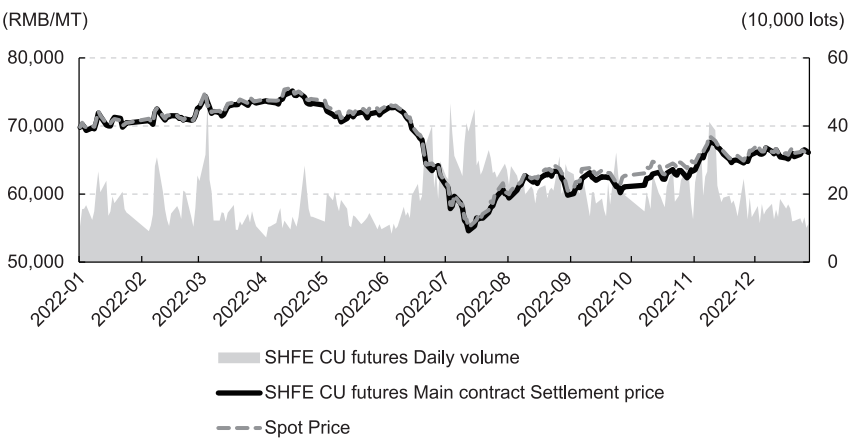


Figure 1-2-1 Copper Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: SHFE; SMM

Table 1-2-11 Copper Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
SHFE main futures contract (RMB/MT)	70,380	78,270	53,400	66,260	-4,120	67,633.24	4,770.71	24,870
LME copper futures contract (USD/MT)	9,755	10,600	7,104	8,374	-1,381	8,785.73	1,037.13	3,496
SMM #1 copper cathode spot (RMB/MT)	69,920	75,550	55,080	66,185	-3,735	67,387.67	5,044.63	20,470

Source: SHFE; LME; SMM

Table 1-2-12 Price Correlation of SHFE Copper Futures, 2022

Prices	Correlation
SHFE main contract settlement vs. LME copper futures contract	0.94
SHFE main contract settlement vs. Copper spot	0.99

Source: SHFE; LME; SMM

II. Bonded Copper Futures

(I) Trading (Table 1-2-13—Table 1-2-15)

Table 1-2-13 Monthly Trading Data of Bonded Copper Futures, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	30.13	-13.36	946.27	3.89	1.50	-34.40
FEB	30.54	-23.06	970.58	-12.87	1.82	-17.06
MAR	53.15	28.48	1,737.25	41.74	2.46	53.82
APR	37.46	-8.84	1,236.02	-1.77	2.15	-0.38
MAY	53.46	29.2	1,698.25	23.67	1.81	-15.07
JUN	59.45	48.43	1,800.82	44.22	2.40	41.76
JUL	74.52	75.72	1,912.32	45.28	2.63	111.60
AUG	64.44	59.3	1,755.64	40.95	1.75	85.32
SEP	38.64	7.17	1,047.86	-5.65	1.77	100.65
OCT	35.33	-31.26	981.07	-40.90	2.23	66.41
NOV	41.29	0.91	1,202.25	-5.80	2.08	101.14
DEC	36.73	8.86	1,081.77	4.06	2.31	105.92
Total	555.13	14.86	16,370.11	10.77	—	—

Source: INE

Table 1-2-14 Annual Trading Data of Bonded Copper Futures, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥tn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	483.33	769.29	1.48	936.62	1.12	-46.14
2022	555.13	14.86	1.64	10.77	2.31	105.92

Source: INE

Table 1-2-15 Annual Trading Data of Domestic and Intl' Copper Futures, 2021-2022

Year	Volume (10,000 lots)		Year-End OI (10,000 lots)	
	INE	LME	INE	LME
2021	483.33	2,969.14	1.12	29.77
2022	555.13	2,937.72	2.31	29.25

Note: SHFE copper options is 5 MT/lot; LME copper futures is 25 MT/lot.

Source: INE; LME

(II) Delivery (Table 1-2-16—Table 1-2-17)

Table 1-2-16 Monthly Delivery Data of Bonded Copper Futures, 2022

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
JAN	380	—	1.18	—
FEB	1,035	—	3.27	—
MAR	2,245	80.32	6.96	87.60
APR	4,245	117.14	14.3	152.20
MAY	2,545	-16.14	8.1	-19.96
JUN	785	-84.76	2.55	-84.26
JUL	615	-88.02	1.63	-89.44
AUG	1,255	-67.06	3.48	-70.56
SEP	2,720	94.98	7.41	73.54
OCT	2,335	391.58	6.53	350.34
NOV	1,660	472.41	4.8	427.47
DEC	1,095	447.50	3.22	419.35
Total	20,915	-7.82	63.43	-9.64

Source: INE

Table 1-2-17 Annual Delivery Data of Bonded Copper Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
2021	22,690	—	70.20	—
2022	20,915	-7.82	63.43	-9.64

Source: INE

(III) Price Trend (Figure 1-2-2, Table 1-2-18—Table 1-2-19)

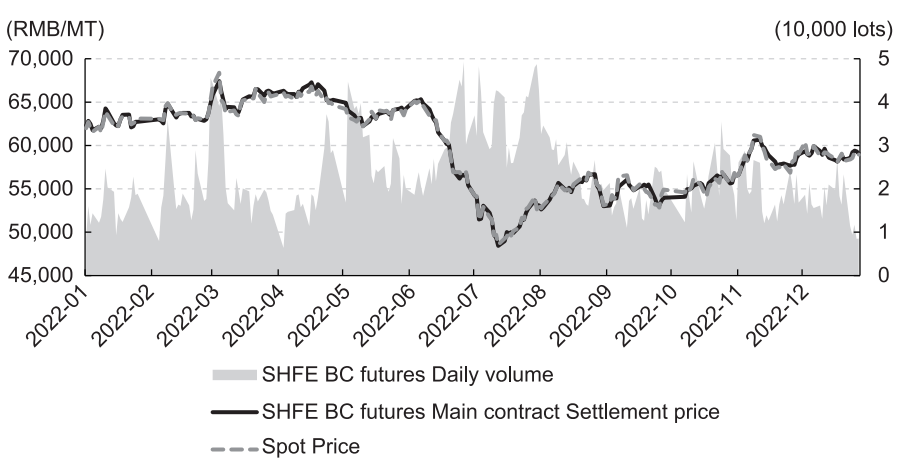


Figure 1-2-2 Bonded Copper Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: INE; SMM

Table 1-2-18 Bonded Copper Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
INE main futures contract (RMB/MT)	62,880	71,000	47,290	59,210	-3,670	59,560	4,841.39	23,710
LME copper futures contract (USD/MT)	9,755	10,600	7,104	8,374	-1,381	8,785.73	1,037.13	3,496
SMM bonded copper spot (RMB/MT)	62,160	68,395	48,565	58,955	-3,205	59,508	4,725.34	19,830

Source: INE; LME; SMM

Table 1-2-19 Price Correlation of SHFE Bonded Copper Futures, 2022

Prices	Correlation
INE main futures contract settlement vs. LME copper futures contract	0.95
INE main futures contract settlement vs. Bonded copper spot	0.99

Source: INE; LME; SMM

III. Aluminum Futures and Options

(I) Futures and Options Trading (Table 1-2-20—Table 1-2-25)

Table 1-2-20 Monthly Trading Data of Aluminum Futures, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	905.06	50.65	9,608.39	113.12	45.93	19.86
FEB	847.12	31.90	9,623.00	84.33	46.99	-6.37
MAR	1,179.47	-5.20	13,405.27	24.48	42.66	-6.08
APR	763.12	-23.59	8,188.17	-9.09	42.30	-23.08
MAY	771.27	-34.24	7,855.72	-30.39	40.13	-13.18
JUN	910.64	4.62	9,033.68	11.45	40.52	-8.43
JUL	988.13	20.95	8,926.09	13.72	40.37	-23.50
AUG	867.73	-8.92	8,018.46	-17.21	35.76	-44.52
SEP	823.93	-43.30	7,582.82	-53.68	40.07	-14.96
OCT	553.56	-67.72	5,088.20	-73.47	43.27	-19.56
NOV	797.30	-47.97	7,422.22	-49.67	42.44	-14.81
DEC	590.17	-48.52	5,573.44	-49.90	34.45	-30.84
Total	9,997.51	-23.95	100,325.45	-21.53	—	—

Source: SHFE

Table 1-2-21 Annual Trading Data of Aluminum Futures, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥tn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	13,145.79	148.67	12.79	243.62	49.81	54.79
2022	9,997.51	-23.95	10.03	-21.53	34.45	-30.84

Source: SHFE

Table 1-2-22 Annual Trading Data of Domestic and Intl' Aluminum Futures, 2021-2022

Year	Volume (10,000 lots)		Year-End OI (10,000 lots)	
	SHFE	LME	SHFE	LME
2021	13,145.79	5,767.03	49.81	73.06
2022	9,997.51	5,204.77	34.45	62.85

Note: SHFE aluminum futures is 5 MT/lot; LME aluminum futures is 25 MT/lot.

Source: SHFE; LME

Table 1-2-23 Monthly Trading Data of Aluminum Options, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Put/Call Ratio	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	84.29	163.65	0.872	9.07	315.70	3.55	106.74
FEB	70.08	150.63	0.960	7.48	126.96	4.15	68.95
MAR	77.91	70.31	0.790	11.17	93.58	4.13	38.78
APR	78.89	33.12	1.020	8.24	39.72	3.83	-29.41
MAY	90.41	52.96	0.984	8.65	8.93	4.21	16.62
JUN	118.96	150.91	1.226	11.49	122.06	3.84	52.10
JUL	98.76	93.92	1.055	10.60	124.03	4.05	41.59
AUG	110.01	28.39	0.873	10.54	29.05	3.49	-41.18
SEP	113.49	-9.00	0.984	9.76	-44.09	3.81	-32.01
OCT	74.79	-13.27	0.898	4.78	-72.13	3.84	-28.79
NOV	125.31	84.98	0.927	9.20	-8.87	5.30	43.06
DEC	96.69	30.45	0.868	6.99	-1.47	3.91	28.55
Total	1,139.65	49.77	0.956	108.04	13.69	—	—

Source: SHFE

Table 1-2-24 Annual Trading Data of Aluminum Options, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Put/Call Ratio	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	760.93	799.07	0.837	95.03	1,353.01	3.04	111.62
2022	1,139.65	49.77	0.956	108.04	13.69	3.91	28.55

Source: SHFE

Table 1-2-25 Annual Trading Data of Domestic and Intl' Aluminum Options, 2021-2022

Year	Volume (10,000 lots)		Year-End OI (10,000 lots)	
	SHFE	LME	SHFE	LME
2021	760.93	313.68	3.04	22.24
2022	1,139.65	366.84	3.91	13.54

Note: SHFE aluminum options is 5 MT/lot; LME aluminum options is 25 MT/lot.

Source: SHFE; LME

(II) Delivery and Exercise (Table 1-2-26—Table 1-2-29)

Table 1-2-26 Monthly Delivery Data of Aluminum Futures, 2022

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
JAN	14,945	372.20	15.82	571.12
FEB	17,250	314.17	19.51	501.95
MAR	10,410	-24.67	11.35	-6.41
APR	9,750	48.18	10.59	78.53
MAY	4,045	-71.99	4.17	-70.63
JUN	6,195	90.62	6.12	98.13
JUL	5,375	36.08	4.65	21.82
AUG	13,535	442.48	12.47	394.08
SEP	7,990	143.97	7.46	104.20
OCT	15,200	210.2	14.15	144.07
NOV	3,715	-73.50	3.50	-74.17
DEC	3,820	-63.89	3.67	-63.64
Total	112,230		113.45	

Source: SHFE

Table 1-2-27 Annual Delivery Data of Aluminum Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
2021	84,640	-38.80	80.36	-15.59
2022	112,230	32.60	113.45	41.18

Source: SHFE

Table 1-2-28 Monthly Exercise Data of Aluminum Options, 2022

Month	Exercise Volume (lot)
JAN	9,212
FEB	5,876

Continued

Month	Exercise Volume (lot)
MAR	5,614
APR	12,897
MAY	9,691
JUN	12,627
JUL	9,522
AUG	14,535
SEP	9,054
OCT	6,980
NOV	12,810
DEC	9,404
Total	118,222

Source: SHFE

Table 1-2-29 Annual Exercise Data of Aluminum Options, 2021-2022

Year	Exercise Volume (lot)	YoY Change (%)
2021	113,631	894.15
2022	118,222	4.04

Source: SHFE

(III) Price Trend (Figure 1-2-3, Table 1-2-30—Table 1-2-31)

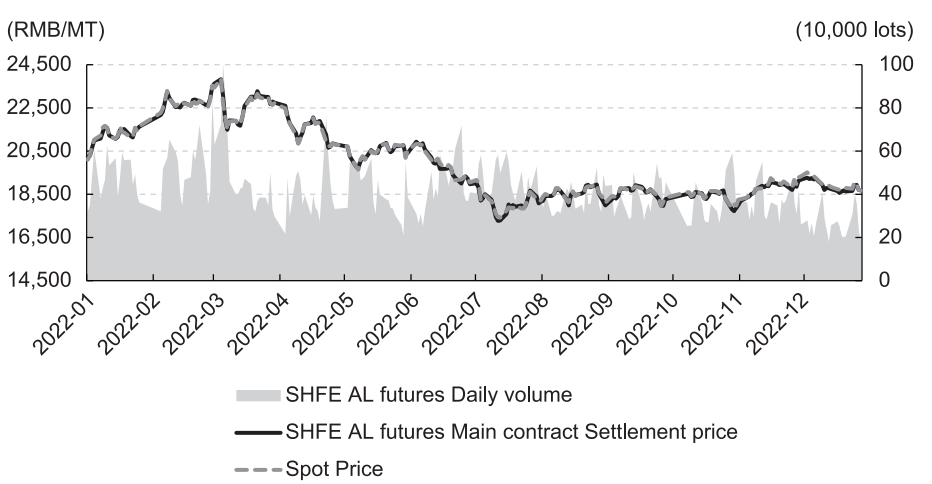


Figure 1-2-3 Aluminum Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: SHFE; SMM

Table 1-2-30 Aluminum Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
SHFE main futures contract (RMB/MT)	20,380	24,255	17,025	18,700	-1,680	19,914.11	1,687.06	3,875
LME aluminum futures contract (USD/MT)	2,807.5	3,740	2,114	2,378	-429.5	2,710.92	431.47	932.5
SMM A00 aluminum spot (RMB/MT)	20,350	23,560	17,400	18,680	-1,670	19,938.72	1,653.58	3,210

Source: SHFE; LME; SMM

Table 1-2-31 Price Correlation of SHFE Aluminum Futures, 2022

Prices	Correlation
SHFE main futures contract settlement vs. LME aluminum futures contract	0.96
SHFE main futures contract settlement vs. Aluminum spot	1.00

Source: SHFE; LME; SMM

IV. Zinc Futures and Options

(I) Futures and Options Trading (Table 1-2-32—Table 1-2-37)

Table 1-2-32 Monthly Trading Data of Zinc Futures, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	524.80	14.21	6,490.94	37.66	23.78	30.69
FEB	402.28	5.63	5,058.45	27.46	24.66	71.64
MAR	598.18	-7.87	7,775.32	11.02	20.27	39.35
APR	553.96	0.59	7,740.71	29.12	21.00	38.73
MAY	516.61	-13.78	6,673.38	-0.92	19.88	21.21
JUN	604.72	1.51	7,601.13	14.67	19.59	31.92
JUL	731.84	31.75	8,316.27	34.62	22.77	44.40
AUG	689.72	22.43	8,513.03	34.76	25.32	73.83
SEP	605.48	12.02	7,317.24	19.34	19.42	35.16
OCT	483.68	-41.79	5,856.63	-43.67	23.49	58.34
NOV	679.34	8.90	7,978.31	9.82	20.73	25.75
DEC	442.42	-24.34	5,342.55	-22.73	16.57	-21.19
Total	6,833.04	-1.46	84,663.96	8.20	—	—

Source: SHFE

Table 1-2-33 Annual Trading Data of Zinc Futures, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥tn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	6,934.13	14.94	7.82	40.92	21.03	13.82
2022	6,833.04	-1.46	8.47	8.20	16.57	-21.19

Source: SHFE

Table 1-2-34 Annual Trading Data of Domestic and Intl' Zinc Futures, 2021-2022

Year	Volume (10,000 lots)		Year-End OI (10,000 lots)	
	SHFE	LME	SHFE	LME
2021	6,934.13	2,204.08	21.03	28.39
2022	6,833.04	2,133.19	16.57	21.43

Note: SHFE zinc futures is 5 MT/lot; LME zinc futures is 25 MT/lot.

Source: SHFE; LME

Table 1-2-35 Monthly Trading Data of Zinc Futures, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Put/Call Ratio	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	42.64	47.06	0.774	5.68	95.64	2.03	85.14
FEB	34.17	45.74	0.973	3.81	14.67	1.96	79.96
MAR	44.42	46.45	0.620	6.05	37.04	1.73	69.25
APR	70.07	119.05	0.852	9.09	145.67	2.55	24.72
MAY	57.99	41.05	0.954	7.11	26.82	1.92	19.11
JUN	76.20	94.47	1.521	10.43	114.16	2.34	53.43
JUL	73.28	133.22	1.241	10.24	201.08	1.92	59.19
AUG	83.17	133.57	1.050	10.67	217.62	2.25	32.92
SEP	96.06	128.97	1.347	10.31	144.08	2.21	22.64
OCT	67.38	39.15	1.252	7.05	-33.52	2.57	13.97
NOV	106.46	164.02	1.238	11.12	97.90	2.19	22.60
DEC	79.53	70.34	1.151	8.25	43.39	1.82	-11.26
Total	831.44	89.17	1.104	99.86	72.74	—	—

Source: SHFE

Table 1-2-36 Annual Trading Data of Zinc Options, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Put/Call Ratio	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	439.52	271.25	0.794	57.81	340.07	2.05	86.32
2022	831.44	89.17	1.104	99.86	72.74	1.82	-11.26

Source: SHFE

Table 1-2-37 Annual Trading Data of Domestic and Intl' Zinc Options, 2021-2022

Year	Volume (10,000 lots)		Year-End OI (10,000 lots)	
	SHFE	LME	SHFE	LME
2021	439.52	105.58	2.05	6.17
2022	831.44	111.21	1.82	1.57

Source: SHFE; LME

(II) Delivery (Table 1-2-38—Table 1-2-41)

Table 1-2-38 Monthly Delivery Data of Zinc Futures, 2022

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
JAN	4,790	96.71	5.87	129.94
FEB	7,660	285.89	9.60	381.74
MAR	9,990	147.28	12.59	186.49
APR	7,595	62.11	10.69	111.66
MAY	4,455	96.26	5.67	125.29
JUN	8,705	745.15	11.26	877.55
JUL	9,355	1,978.89	10.42	2,019.33
AUG	5,145	478.09	6.41	541.69
SEP	2,860	572.94	3.59	653.11
OCT	7,060	388.58	9.34	404.51
NOV	360	-84.45	0.44	-83.37
DEC	640	-83.09	0.80	-81.70
Total	68,615	166.41	86.67	204.09

Source: SHFE

Table 1-2-39 Annual Delivery Data of Zinc Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
2021	25,755	-46.70	28.50	-32.49
2022	68,615	166.41	86.67	204.09

Source: SHFE

Table 1-2-40 Monthly Exercise Data of Zinc Options, 2022

Month	Exercise Volume (lot)
JAN	2,725
FEB	3,258
MAR	3,056

Continued

Month	Exercise Volume (lot)
APR	3,493
MAY	3,653
JUN	5,496
JUL	3,908
AUG	6,256
SEP	4,348
OCT	3,578
NOV	4,249
DEC	5,494
Total	49,514

Source: SHFE

Table 1-2-41 Annual Exercise Data of Zinc Options, 2021-2022

Year	Exercise Volume (lot)	YoY Change (%)
2021	39,980	384.37
2022	49,514	23.85

Source: SHFE

(III) Price Trend (Figure 1-2-4, Table 1-2-42—Table 1-2-43)

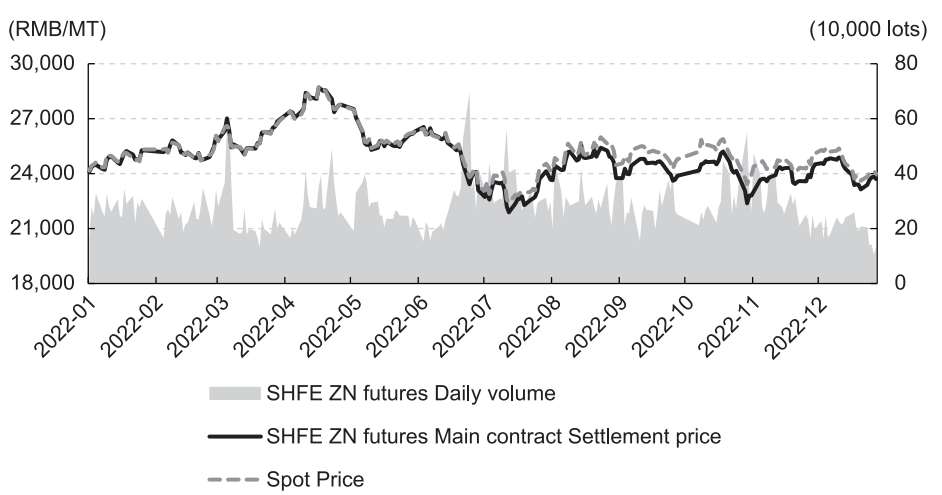


Figure 1-2-4 Zinc Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: SHFE; SMM

Table 1-2-42 Zinc Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
SHFE main futures contract (RMB/MT)	24,125	29,000	21,625	23,765	-360	24,892	1,340	7,375
LME zinc futures contract (USD/MT)	3,534	4,460	2,664	2,973	-561	3,484	436	1,796
SMM # 0 zinc ingot spot (RMB/MT)	23,940	28,780	22,410	23,990	50	25,175	1,133	6,370

Source: SHFE; LME; SMM

Table 1-2-43 Price Correlation of SHFE Zinc Futures, 2022

Prices	Correlation
SHFE main futures contract settlement vs. LME zinc futures contract	0.88
SHFE main futures contract settlement vs. Zinc spot	0.96

Source: SHFE; LME; SMM

V. Lead Futures

(I) Trading (Table 1-2-44—Table 1-2-46)

Table 1-2-44 Monthly Trading Data of Lead Futures, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	192.52	9.57	1,488.67	12.51	9.66	39.54
FEB	150.38	-0.41	1,150.88	-1.60	10.12	15.96
MAR	217.80	-10.01	1,684.87	-7.47	9.30	26.44
APR	141.11	-24.48	1,098.00	-22.32	7.38	-8.53
MAY	186.30	-5.08	1,407.93	-7.40	8.83	-10.32
JUN	186.68	-15.93	1,407.27	-17.73	9.58	-23.50
JUL	179.59	-27.22	1,347.37	-31.31	9.02	-27.52
AUG	146.31	-36.61	1,105.58	-38.28	8.90	-37.61
SEP	135.25	-38.97	1,011.41	-37.83	7.17	-39.76
OCT	116.07	-52.87	886.31	-53.90	9.18	-3.32
NOV	183.23	-14.03	1,427.28	-12.93	13.68	59.54
DEC	170.56	-12.33	1,343.97	-10.27	14.63	90.30
Total	2,005.78	-20.63	15,359.54	-20.82	—	—

Source: SHFE

Table 1-2-45 Annual Trading Data of Lead Futures, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥tn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	2,526.98	125.36	1.94	134.60	7.69	17.46
2022	2,005.78	-20.63	1.54	-20.82	14.63	90.30

Source: SHFE

Table 1-2-46 Annual Trading Data of Domestic and Intl' Lead Futures, 2021-2022

Year	Volume (10,000 lots)		Year-End OI (10,000 lots)	
	SHFE	LME	SHFE	LME
2021	2,526.98	1,045.98	7.69	11.70
2022	2,005.78	1,027.72	14.63	11.92

Note: SHFE lead futures is 5 MT/lot; LME lead futures is 25 MT/lot.

Source: SHFE; LME

(II) Delivery (Table 1-2-47—Table 1-2-48)

Table 1-2-47 Monthly Delivery Data of Lead Futures, 2022

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
JAN	3,460	-17.72	2.70	-13.97
FEB	6,715	261.99	5.14	265.37
MAR	7,520	8.83	5.62	9.26
APR	4,435	-44.53	3.43	-42.21
MAY	4,245	-36.12	3.16	-36.95
JUN	5,005	-38.51	3.73	-39.91
JUL	7,045	-24.73	5.14	-30.41
AUG	5,560	-38.73	4.20	-39.71
SEP	4,295	-51.03	3.23	-49.77
OCT	6,405	-18.77	4.90	-18.69
NOV	4,875	-48.44	3.85	-46.85
DEC	6,945	-30.03	5.37	-28.86
Total	66,505	-26.29	50.43	-26.30

Source: SHFE

Table 1-2-48 Annual Delivery Data of Lead Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
2021	90,220	189.21	68.42	193.82
2022	66,505	-26.29	50.43	-26.30

Source: SHFE

(III) Price Trend (Figure 1-2-5, Table 1-2-49—Table 1-2-50)

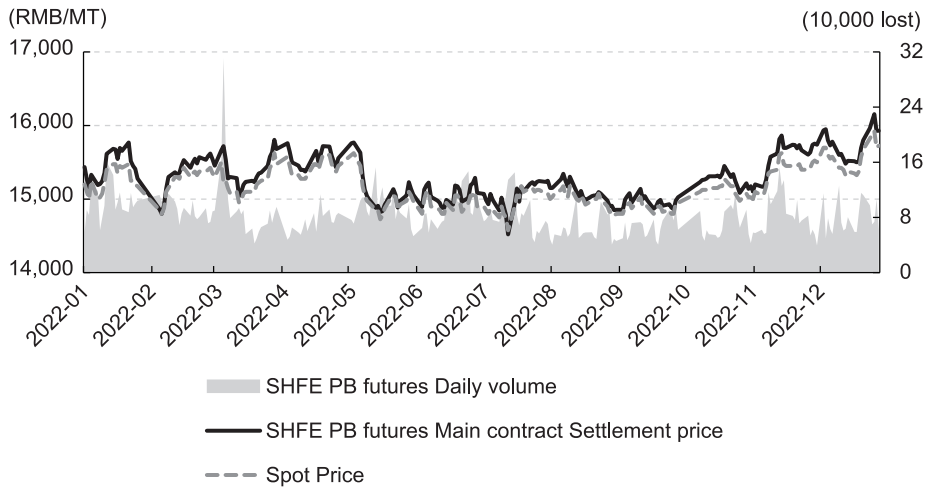


Figure 1-2-5 Lead Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: SHFE; SMM

Table 1-2-49 Lead Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
SHFE main futures contract (RMB/MT)	15,300	16,465	14,345	15,925	625	15,299	302.50	2,120
LME lead futures contract (USD/MT)	2,304	2,535	1,767	2,293	-11	2,150	175.26	768
SMM #1 lead spot (RMB/MT)	15,175	15,925	14,575	15,725	550	15,161	250.16	1,350

Source: SHFE; LME; SMM

Table 1-2-50 Price Correlation of SHFE Lead Futures, 2022

Prices	Correlation
SHFE main futures contract settlement vs. LME lead futures contract	0.66
SHFE main futures contract settlement vs. Lead spot	0.98

Source: SHFE; LME; SMM

VI. Nickel Futures

(I) Trading (Table 1-2-51—Table 1-2-53)

Table 1-2-51 Monthly Trading Data of Nickel Futures, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥tn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	983.99	-49.59	1.62	-37.34	25.06	-6.17

Continued

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥tn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
FEB	639.38	-46.45	1.11	-32.16	27.70	11.94
MAR	598.33	-72.06	1.25	-52.83	8.96	-62.00
APR	238.80	-85.66	0.54	-73.95	7.89	-68.85
MAY	239.40	-83.48	0.49	-73.89	9.31	-57.10
JUN	279.05	-78.94	0.54	-69.20	9.59	-57.88
JUL	369.06	-72.64	0.60	-68.13	12.15	-47.87
AUG	413.51	-73.58	0.71	-68.34	9.36	-66.54
SEP	419.97	-72.53	0.76	-65.80	11.22	-39.51
OCT	237.28	-81.00	0.43	-76.59	11.23	-41.18
NOV	366.58	-63.25	0.72	-50.64	14.91	-47.13
DEC	423.54	-47.12	0.92	-22.04	14.02	-52.69
Total	5,208.89	-69.74	9.70	-58.61	—	—

Source: SHFE

Table 1-2-52 Annual Trading Data of Nickel Futures, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥tn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	17,216.56	-4.23	23.43	17.27	29.63	-5.00
2022	5,208.89	-69.74	9.70	-58.61	14.02	-52.69

Source: SHFE

Table 1-2-53 Annual Trading Data of Domestic and Intl' Nickel Futures, 2021-2022

Year	Volume (10,000 lots)		Year-End OI (10,000 lots)	
	SHFE	LME	SHFE	LME
2021	17,216.56	1,677.46	29.63	24.46
2022	5,208.89	1,210.56	14.02	15.17

Note: SHFE nickel futures is 1 MT/lot; LME nickel futures is 6 MT/lot.

Source: SHFE; LME

(II) Delivery (Table 1-2-54—Table 1-2-55)

Table 1-2-54 Monthly Delivery Data of Nickel Futures, 2022

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
JAN	1,218	-82.96	1.99	-79.50
FEB	2,214	-14.98	3.85	11.98
MAR	3,174	-7.19	7.03	71.51
APR	1,410	-42.12	3.23	8.68

Continued

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
MAY	1,158	-4.93	2.45	54.30
JUN	1,434	-2.05	2.93	52.02
JUL	618	-74.44	1.03	-69.21
AUG	1,872	0.65	3.37	22.40
SEP	1,152	-60.41	2.25	-47.66
OCT	1,842	0.00	3.44	27.17
NOV	1,386	-50.54	2.90	-29.34
DEC	1,380	-22.82	3.09	20.82
Total	18,858	-40.90	37.56	-13.69

Source: SHFE

Table 1-2-55 Annual Delivery Data of Nickel Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
2021	31,908	-69.17	43.52	-61.81
2022	18,858	-40.90	37.56	-13.69

Source: SHFE

(III) Price Trend (Figure 1-2-6, Table 1-2-56—Table 1-2-57)

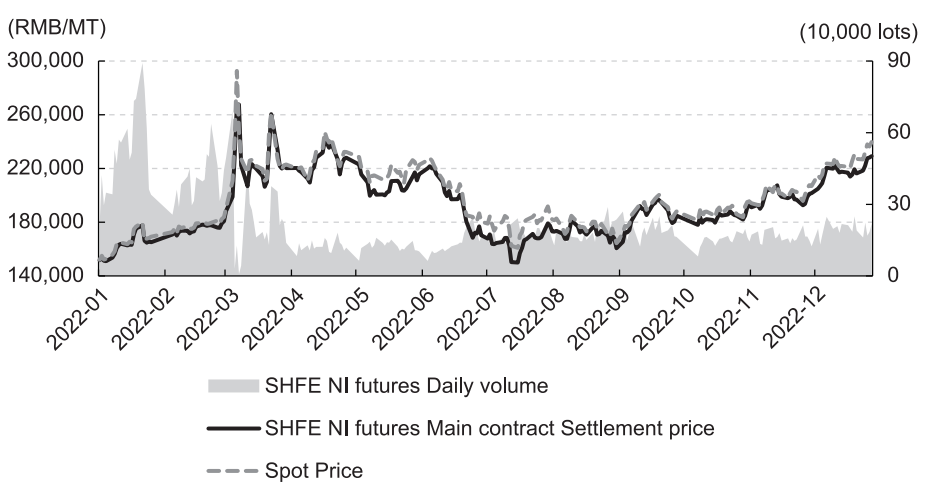


Figure 1-2-6 Nickel Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: SHFE; SMM

Table 1-2-56 Nickel Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
SHFE main futures contract (RMB/MT)	152,080	276,910	142,500	232,000	79,920	192,627	23,443	134,410
LME nickel futures contract (USD/MT)	20,757	48,078	19,385	30,048	9,291	25,618	4,507	28,693
SMM #1 imported nickel spot (RMB/MT)	152,800	292,700	152,000	239,750	86,950	198,020	23,511	140,700

Source: SHFE; LME; SMM

Table 1-2-57 Price Correlation of SHFE Nickel Futures, 2022

Prices	Correlation
SHFE main futures contract settlement vs. LME nickel futures contract	0.86
SHFE main futures contract settlement vs. Nickel spot	0.98

Source: SHFE; LME; SMM

Ⅶ. Tin Futures

(Ⅰ) Trading (Table 1-2-58—Table 1-2-60)

Table 1-2-58 Monthly Trading Data of Tin Futures, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	260.26	14.60	8,138.14	119.69	6.05	-25.01
FEB	137.56	-49.71	4,572.58	-6.98	5.94	-7.91
MAR	173.03	-38.72	5,968.45	19.81	4.97	-8.61
APR	81.16	-61.49	2,705.76	-30.13	4.18	-19.17
MAY	155.41	-22.07	4,334.20	9.78	5.07	-26.51
JUN	300.30	26.86	6,967.01	43.05	7.56	14.92
JUL	306.10	33.65	5,851.42	14.29	11.75	114.84
AUG	277.37	23.08	5,469.23	2.84	8.20	45.65
SEP	365.44	61.27	6,473.99	8.90	8.62	112.83
OCT	218.49	10.48	3,658.61	-33.53	9.52	50.33
NOV	398.11	86.75	6,936.80	17.44	9.07	19.69
DEC	297.61	65.89	5,835.10	14.53	9.23	19.59
Total	2,970.83	9.98	66,911.28	13.06	—	—

Source: SHFE

Table 1-2-59 Annual Trading Data of Tin Futures, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	2,701.24	102.88	59,180.89	220.04	7.72	47.05
2022	2,970.83	9.98	66,911.28	13.06	9.23	19.59

Source: SHFE

Table 1-2-60 Annual Trading Data of Domestic and Intl' Tin Futures, 2021-2022

Year	Volume (10,000 lots)		Year-End OI (10,000 lots)	
	SHFE	LME	SHFE	LME
2021	2,701.24	103.01	7.72	1.53
2022	2,970.83	100.92	9.23	1.52

Note: SHFE tin futures is 1 MT/lot; LME tin futures is 5 MT/lot.

Source: SHFE; LME

(II) Delivery (Table 1-2-61—Table 1-2-62)

Table 1-2-61 Monthly Delivery Data of Tin Futures, 2022

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
JAN	2,100	11.11	6.67	129.30
FEB	1,200	-59.95	3.99	-18.11
MAR	1,458	-24.77	4.87	43.79
APR	1,458	-15.53	5.00	62.42
MAY	1,778	-18.66	5.28	22.77
JUN	1,546	-13.92	3.77	1.85
JUL	1,602	-24.36	2.96	-37.09
AUG	1,174	15.55	2.33	-3.94
SEP	1,096	12.99	2.03	-19.28
OCT	854	-3.39	1.54	-38.50
NOV	1,302	-20.61	2.39	-50.39
DEC	2,510	86.76	4.86	23.55
Total	18,078	-11.8	45.69	5.90

Source: SHFE

Table 1-2-62 Annual Delivery Data of Tin Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
2021	20,504	58.63	43.15	139.72
2022	18,078	-11.83	45.69	5.90

Source: SHFE

(III) Price Trend (Figure 1-2-7, Table 1-2-63—Table 1-2-64)

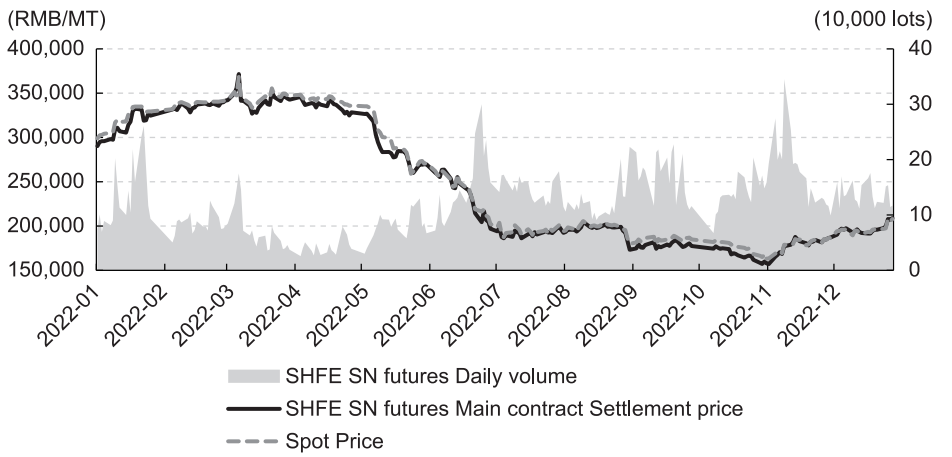


Figure 1-2-7 Tin Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: SHFE; SMM

Table 1-2-63 Tin Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
SHFE main futures contract (RMB/MT)	296,110	395,000	154,160	211,890	-84,220	222,987	67,953.9	240,840
LME 3-month tin futures contract (USD/MT)	38,985	51,000	17,355	24,900	-14,085	30,822	9,342.185	33,645
SMM # 1 tin ingot spot (RMB/MT)	299,500	370,000	161,500	208,000	-91,500	248,969	68,311.49	208,500

Source: SHFE; LME; SMM

Table 1-2-64 Price Correlation of SHFE Tin Futures, 2022

Prices	Correlation
SHFE main futures contract settlement vs. LME tin futures contract	0.99
SHFE main futures contract settlement vs. Tin spot	1.00

Source: SHFE; LME; SMM

VIII. Gold Futures and Options

(I) Futures and Options Trading (Table 1-2-65—Table 1-2-70)

Table 1-2-65 Monthly Trading Data of Gold Futures, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	293.63	-26.09	10,979.47	-29.43	17.74	-10.22

Continued

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
FEB	279.52	-11.71	10,757.84	-10.74	22.66	20.85
MAR	506.66	5.35	20,239.43	15.75	22.46	8.82
APR	297.60	-19.34	11,972.62	-12.64	23.92	18.01
MAY	318.85	-21.41	12,763.25	-18.90	21.61	-16.08
JUN	327.97	-16.07	13,031.52	-12.21	22.26	-14.61
JUL	403.38	16.50	15,283.14	16.89	27.82	23.53
AUG	276.32	-23.16	10,749.08	-20.02	27.54	24.00
SEP	266.09	-18.25	10,282.81	-15.15	27.84	35.08
OCT	208.58	-26.11	8,172.87	-21.80	29.07	56.04
NOV	366.62	-20.48	14,764.23	-14.95	30.98	85.84
DEC	356.46	-12.25	14,485.28	-3.52	26.31	48.20
Total	3,901.68	-14.08	153,481.54	-10.16	—	—

Source: SHFE

Table 1-2-66 Annual Trading Data of Gold Futures, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥tn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	4,541.22	-13.34	17.08	-17.54	17.75	-5.54
2022	3,901.68	-14.08	15.35	-10.16	26.31	48.20

Source: SHFE

Table 1-2-67 Annual Trading Data of Domestic and Intl' Gold Futures, 2021-2022

Year	Volume (10,000 lots)		Year-End OI (10,000 lots)	
	SHFE	COMEX	SHFE	COMEX
2021	4,541.22	5,846.50	17.75	51.26
2022	3,901.68	5,860.34	26.31	44.24

Note: SHFE gold futures is 1,000 g/lot; COMEX gold futures is 100 ozt/lot.

Source: SHFE; COMEX

Table 1-2-68 Monthly Trading Data of Gold Options, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Put/Call Ratio	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	28.42	-8.30	0.802	11.10	-25.85	2.14	-1.50
FEB	29.82	48.71	0.713	12.60	11.75	3.18	-18.32
MAR	34.47	7.42	0.535	18.28	33.77	2.75	-11.72
APR	25.40	-9.74	0.698	11.20	1.31	3.83	-14.17
MAY	34.01	1.16	0.957	11.91	-0.79	2.45	-5.86
JUN	42.27	79.71	0.986	13.82	24.92	3.91	6.32
JUL	49.01	88.81	1.459	14.07	71.17	2.98	25.92

Continued

Month	Volume (10,000 lots)	YoY Change (%)	Put/Call Ratio	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
AUG	26.68	9.81	0.911	8.92	-12.57	4.33	23.86
SEP	39.66	80.00	1.195	11.70	50.11	3.75	55.65
OCT	21.41	16.87	1.087	6.23	-6.12	4.57	42.14
NOV	45.48	38.36	0.670	11.84	0.45	2.70	51.24
DEC	38.01	75.39	0.670	11.13	14.33	4.01	48.72
Total	414.71	32.23	0.872	142.85	11.21	—	—

Source: SHFE

Table 1-2-69 Annual Trading Data of Gold Options, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Put/Call Ratio	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	313.62	33.60	0.686	128.46	-17.79	2.69	-32.75
2022	414.71	32.23	0.872	142.85	11.21	4.01	48.72

Source: SHFE

Table 1-2-70 Annual Trading Data of Domestic and Intl' Gold Options, 2021-2022

Year	Volume (10,000 lots)		Year-End OI (10,000 lots)	
	SHFE	CME Group	SHFE	CME Group
2021	313.62	831.02	2.69	68.82
2022	414.71	983.54	4.01	56.66

Note: SHFE gold options is 1,000/lot; CME Group gold options is 100 ozt/lot.

Source: SHFE; FIA

(II) Delivery and Exercise (Table 1-2-71—Table 1-2-74)

Table 1-2-71 Monthly Delivery Data of Gold Futures, 2022

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
JAN	63	—	0.23	—
FEB	261	-78.25	0.98	-78.78
MAR	36	71.43	0.15	87.47
APR	36	93.51	0.14	-92.97
MAY	3	93.75	0.01	-93.25
JUN	1,053	105.26	4.17	110.82
JUL	—	—	—	—
AUG	777	215.85	3.02	236.38

Continued

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
SEP	—	—	—	—
OCT	399	7.26	1.56	14.89
NOV	6	-83.33	0.02	-82.40
DEC	2,499	20.20	10.08	32.81
Total	5,133	-0.70	20.37	5.93

Source: SHFE

Table 1-2-72 Annual Delivery Data of Gold Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
2021	5,169	88.10	19.22	81.85
2022	5,133	-0.70	20.37	5.93

Source: SHFE

Table 1-2-73 Monthly Exercise Data of Gold Options, 2022

Month	Exercise Volume (lot)
JAN	1,564
FEB	8
MAR	2,429
APR	1
MAY	1,860
JUN	0
JUL	2,420
AUG	8
SEP	2,114
OCT	16
NOV	4,812
DEC	28
Total	15,260

Source: SHFE

Table 1-2-74 Annual Exercise Data of Gold Options, 2021-2022

Year	Exercise Volume (lot)	YoY Change (%)
2021	15,460	20.84
2022	15,260	-1.29

Source: SHFE

(III) Price Trend (Figure 1-2-8, Table 1-2-75—Table 1-2-76)

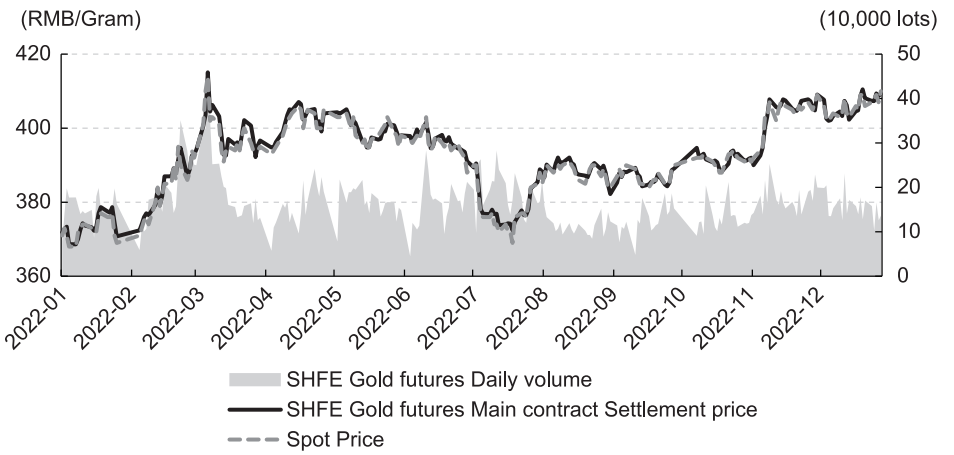


Figure 1-2-8 Gold Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: SHFE; Wind

Table 1-2-75 Gold Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
SHFE main futures contract (RMB/g)	397.6	406.94	354.58	376.42	-21.18	375.87	9.21	52.36
COMEX main gold futures contract (USD/ozt)	1,830.5	2,078.8	1,618.3	1,830.1	-0.4	1,805.4	90.65	460.5
Gold spot (RMB/g)	373.35	438.87	367.01	409.76	36.41	391.96	10.72	71.86

Source: SHFE; Wind

Table 1-2-76 Price Correlation of SHFE Gold Futures, 2022

Prices	Correlation
SHFE main futures contract settlement vs. COMEX main gold futures contract closing	0.34
SHFE main futures contract settlement vs. Gold spot T + D settlement	0.99

Source: SHFE; Wind

IX. Silver Futures and Options

Silver option was listed on SHFE on December 26, 2022 for trading.

(I) Futures and Options Trading (Table 1-2-77—Table 1-2-81)

Table 1-2-77 Monthly Trading Data of Silver Futures, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	1,250.76	-60.56	9,037.87	-64.69	63.34	-5.42
FEB	974.94	-60.60	7,173.38	-66.01	63.76	6.56
MAR	1,729.03	-37.76	13,302.22	-40.31	64.80	6.59
APR	1,028.32	-45.76	7,864.71	-48.32	69.84	27.20
MAY	1,096.98	-51.28	7,834.01	-59.55	74.78	32.99
JUN	1,251.84	-22.70	8,765.09	-35.44	81.82	41.03
JUL	1,718.98	13.79	10,903.50	-10.87	85.32	54.56
AUG	1,617.13	7.96	10,652.71	-7.86	86.66	47.48
SEP	1,537.96	14.00	10,012.04	-0.92	70.09	13.67
OCT	1,311.95	5.80	8,829.93	-4.03	90.47	40.96
NOV	2,479.86	42.33	18,072.49	38.29	93.98	34.42
DEC	2,879.38	78.31	22,722.75	97.43	96.26	44.45
Total	18,877.15	-18.44	135,170.70	-26.87	—	—

Source: SHFE

Table 1-2-78 Annual Trading Data of Silver Futures, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	23,145.76	-35.21	184,827.68	-33.49	66.64	-7.79
2022	18,877.15	-18.44	135,170.70	-26.87	96.26	44.45

Source: SHFE

Table 1-2-79 Annual Trading Data of Domestic and Intl' Silver Futures, 2021-2022

Year	Volume (10,000 lots)		Year-End OI (10,000 lots)	
	SHFE	COMEX	SHFE	COMEX
2021	23,145.76	1,966.95	66.64	14.02
2022	18,877.15	1,707.67	96.26	12.98

Note: SHFE silver futures is 15 kg/lot; COMEX silver futures is 5,000 ozt/lot.

Source: SHFE; Reuters

Table 1-2-80 Annual Trading Data of Silver Options, 2022

Year	Volume (10,000 lots)	YoY Change (%)	Put/Call Ratio	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2022	7.79	—	1.10	1.24	—	1.93	—

Source: SHFE

Table 1-2-81 Annual Trading Data of Domestic and Intl' Silver Options, 2022

Year	Volume (10,000 lots)		Year-End OI (10,000 lots)	
	SHFE	COMEX	SHFE	COMEX
2022	7.79	145.16	1.93	8.33

Note: SHFE silver options is 15 kg/lot; COMEX silver options is 5,000 ozt/lot.

Source: SHFE; COMEX

(II) Delivery and Exercise (Table 1-2-82—Table 1-2-83)

Table 1-2-82 Monthly Delivery Data of Silver Futures, 2022

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
JAN	7,822	-37.41	5.47	-44.76
FEB	12,516	-74.67	9.20	-76.91
MAR	5,622	-49.84	4.20	-53.03
APR	7,270	19.57	5.67	17.31
MAY	3,042	-35.50	2.16	-46.51
JUN	18,688	-3.14	12.94	-20.32
JUL	3,916	-18.11	2.37	-39.04
AUG	6,512	60.24	4.45	44.38
SEP	6,514	8.28	4.30	-5.33
OCT	7,014	77.84	4.56	56.23
NOV	10,816	210.63	8.06	214.94
DEC	43,476	72.48	34.56	99.00
Total	133,208	-11.61	97.89	-17.23

Source: SHFE

Table 1-2-83 Annual Delivery Data of Silver Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
2021	150,704	-10.24	118.27	-3.57
2022	133,208	-11.61	97.89	-17.23

Source: SHFE

No SHFE silver options contracts were exercised in 2022.

(III) Price Trend (Figure 1-2-9, Table 1-2-84—Table 1-2-85)

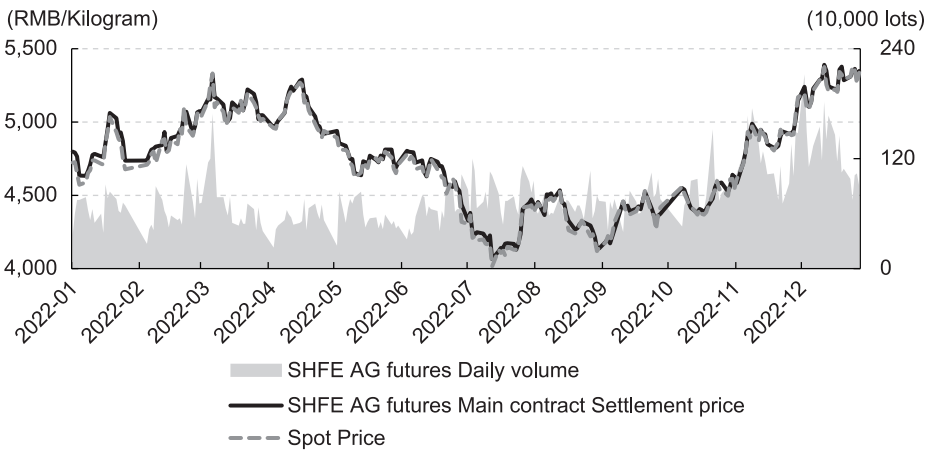


Figure 1-2-9 Silver Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: SHFE; Reuters

Table 1-2-84 Silver Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
SHFE main futures contract (RMB/kg)	4,880	5,443	4,018	5,363	483	4,741	336	1,425
COMEX silver futures contract (USD/ozt)	23.355	27.495	17.400	24.180	0.825	21.79	2.301	10.095
SGE Ag(T+D) (RMB/kg)	4,806	5,419	3,997	5,337	531	4,718	337	1,422

Table 1-2-85 Price Correlation of SHFE Silver Futures, 2022

Prices	Correlation
SHFE main futures contract settlement vs. COMEX silver futures contract	0.90
SHFE main silver futures contract settlement vs. Silver spot	1.00

Source: SHFE; CME; Reuters

X. Steel Rebar Futures and Options

Steel rebar option was listed on SHFE on December 26, 2022 for trading.

(I) Futures and Options Trading (Table 1-2-86—Table 1-2-88)

Table 1-2-86 Monthly Trading Data of Steel Rebar Futures, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	2,764.08	-34.61	12,695.50	-30.77	209.31	30.00
FEB	3,042.31	19.02	14,465.79	27.81	299.26	64.21
MAR	4,497.30	-32.03	21,968.78	-30.22	244.23	38.18
APR	3,726.93	-34.61	18,567.90	-37.01	221.26	27.48
MAY	3,823.81	-35.12	17,654.57	-44.39	257.87	90.31
JUN	4,420.33	-12.58	19,653.84	-23.06	277.64	72.89
JUL	5,748.52	30.27	22,712.90	-6.19	299.51	40.77
AUG	5,778.20	-0.52	23,112.61	-24.89	304.04	86.73
SEP	3,990.54	-24.81	14,930.02	-48.94	243.58	60.01
OCT	3,629.38	-34.76	13,189.88	-53.64	296.32	24.95
NOV	5,627.32	-38.99	20,336.03	-47.74	295.90	0.21
DEC	5,469.10	4.48	21,512.38	-6.38	275.92	8.07
Total	52,517.82	-19.94	220,800.22	-31.53	—	—

Source: SHFE

Table 1-2-87 Annual Trading Data of Steel Rebar Futures, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥tn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	65,598.67	79.21	32.25	141.49	255.33	62.07
2022	52,517.82	-19.94	22.08	-31.53	275.92	8.07

Source: SHFE

Table 1-2-88 Annual Trading Data of Steel Rebar Options, 2022

Year	Volume (10,000 lots)	YoY Change (%)	Put/Call Ratio	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2022	24.57	—	1.19	2.07	—	6.52	—

Source: SHFE

(II) Delivery and Exercise (Table 1-2-89—Table 1-2-90)

Table 1-2-89 Monthly Delivery Data of Steel Rebar Futures, 2022

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥10,000)	YoY Change (%)
JAN	3,240	-47.57	14,774.40	-43.16
FEB	2,610	-11.22	12,353.13	0.86

Continued

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥10,000)	YoY Change (%)
MAR	690	-87.43	3,373.41	-86.57
APR	840	-15.15	4,170.60	-16.10
MAY	900	-36.17	4,545.00	-42.23
JUN	120	-80.00	559.20	-80.81
JUL	870	3.57	3,419.10	-19.40
AUG	180	-96.32	745.56	-97.12
SEP	1,500	-47.37	5,880.00	-62.25
OCT	9,780	-6.05	36,733.68	-37.95
NOV	390	-74.00	1,425.84	-78.27
DEC	510	30.77	1,886.49	12.41
Total	21,630	-43.80	89,866.41	-53.26

Source: SHFE

Table 1-2-90 Annual Delivery Data of Steel Rebar Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
2021	38,490	111.37	19.23	320.23
2022	21,630	-43.80	8.99	-53.26

Source: SHFE

No SHFE steel rebar options contracts were exercised in 2022.

(III) Price Trend (Figure 1-2-10, Table 1-2-91—Table 1-2-92)

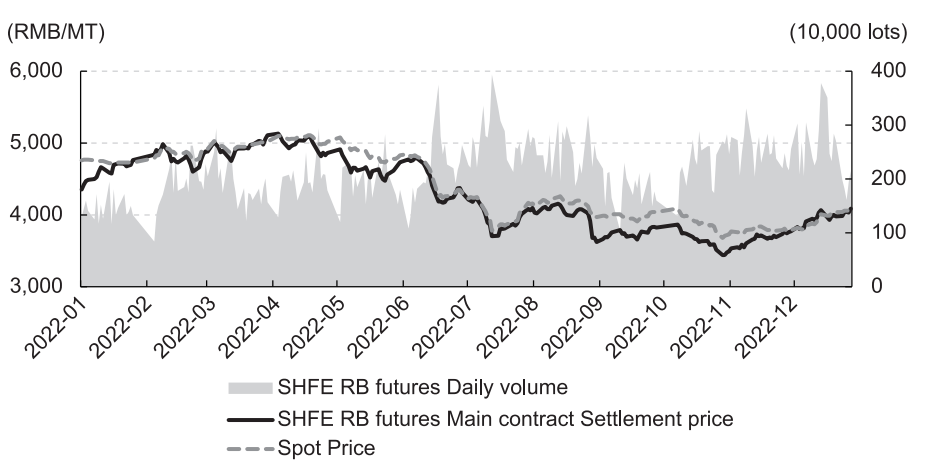


Figure 1-2-10 Steel Rebar Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: SHFE; Wind

Table 1-2-91 Steel Rebar Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
SHFE main futures contract (RMB/MT)	4,388	5,190	3,389	4,105	-283	4,271	498	1,801
Steel rebar spot at Shanghai (RMB/MT)	4,480	5,110	3,680	4,100	-380	4,389	466	1,430
Steel rebar spot at Tianjin (RMB/MT)	4,100	5,200	3,570	4,000	-100	4,353	488	1,630

Source: SHFE; Wind

Table 1-2-92 Price Correlation of SHFE Steel Rebar Futures, 2022

Prices	Correlation
SHFE main futures contract settlement vs. Shanghai steel rebar spot	0.98
SHFE main futures contract settlement vs. Tianjin steel rebar spot	0.98

Source: SHFE; Wind

XI. Wire Rod Futures

(I) Trading (Table 1-2-93)

Table 1-2-93 Annual Trading Data of Wire Rod Futures, 2021-2022

Year	Volume (lot)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Year-End OI (lot)	YoY Change (%)
2021	19,537	384.67	10.45	551.31	85	117.95
2022	16,162	-17.27	7.88	-24.59	12	-85.88

Source: SHFE

(II) Delivery

No SHFE wire rod futures contracts were delivered in 2022.

(III) Price Trend (Figure 1-2-11, Table 1-2-94—Table 1-2-95)

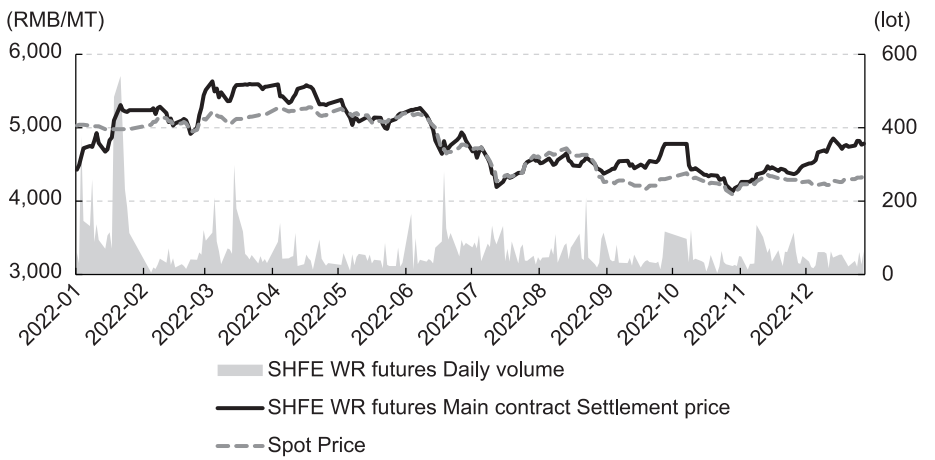


Figure 1-2-11 Wire Rod Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: SHFE; Wind

Table 1-2-94 Wire Rod Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
SHFE main futures contract (RMB/MT)	4,393	5,888	4,086	4,810	417	4,824.98	415.82	1,802
Wire rod spot at Shanghai (RMB/MT)	5,030	5,280	4,090	4,360	-670	4,715	392.55	1,190
Wire rod spot at Tianjin (RMB/MT)	4,700	5,260	3,680	4,150	-550	4,456	464.18	1,580

Source: SHFE; Wind

Table 1-2-95 Price Correlation of SHFE Wire Rod Futures, 2022

Prices	Correlation
SHFE main futures contract settlement vs. Shanghai wire rod spot	0.87
SHFE main futures contract settlement vs. Tianjin wire rod spot	0.93

Source: SHFE; Wind

XII. Hot-Rolled Coil Futures

(I) Trading (Table 1-2-96—Table 1-2-97)

Table 1-2-96 Monthly Trading Data of Hot-Rolled Coil Futures, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	865.06	-41.91	4,083.71	-38.61	91.69	29.38
FEB	838.86	-1.72	4,116.69	4.80	91.58	27.35

Continued

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
MAR	1,608.52	-29.66	8,255.60	-28.31	99.75	0.82
APR	1,129.14	-51.17	5,776.73	-54.54	87.24	3.20
MAY	1,115.79	-52.04	5,288.24	-60.91	93.52	30.26
JUN	1,252.77	-27.09	5,676.83	-37.99	102.83	57.21
JUL	1,590.56	-0.25	6,286.39	-32.40	118.41	20.98
AUG	1,401.65	-23.17	5,555.18	-46.22	113.30	73.31
SEP	1,144.89	-28.90	4,356.53	-52.53	106.79	114.87
OCT	888.71	-47.16	3,264.12	-64.04	124.36	57.46
NOV	1,177.06	-57.00	4,362.17	-64.43	114.68	-2.58
DEC	1,193.10	-27.13	4,789.63	-36.03	106.45	4.79
Total	14,206.11	-35.64	61,811.81	-46.31	—	—

Source: SHFE

Table 1-2-97 Annual Trading Data of Hot-Rolled Coil Futures, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥tn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	22,071.59	168.03	11.51	269.44	101.58	52.61
2022	14,206.11	-35.64	6.18	-46.31	106.45	4.79

Source: SHFE

(II) Delivery (Table 1-2-98—Table 1-2-99)

Table 1-2-98 Monthly Delivery Data of Hot-Rolled Coil Futures, 2022

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥10,000)	YoY Change (%)
JAN	6,300	-71.89	30,466.80	-70.06
FEB	5,220	41.46	25,953.84	55.71
MAR	9,810	21.56	49,236.39	21.05
APR	6,690	112.38	35,028.84	102.89
MAY	7,470	42.63	36,020.34	-54.04
JUN	870	-81.41	4,142.07	-84.03
JUL	990	-47.62	3,623.40	-67.54
AUG	1,290	-34.85	5,211.60	-54.30
SEP	8,100	462.5	31,889.70	278.56
OCT	16,170	132.33	61,607.70	53.12
NOV	1,110	640.00	4,246.86	499.84
DEC	210	75.00	858.90	44.60
Total	64,230	-4.93	288,286.44	-18.38

Source: SHFE

Table 1-2-99 Annual Delivery Data of Hot-Rolled Coil Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
2021	67,560	90.85	35.32	178.16
2022	64,230	-4.93	28.83	-18.38

Source: SHFE

(III) Price Trend (Figure 1-2-12, Table 1-2-100—Table 1-2-101)

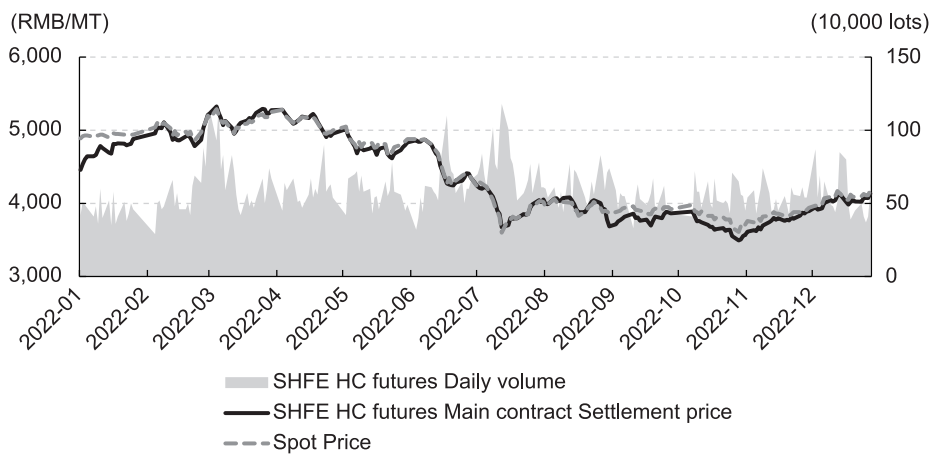


Figure 1-2-12 Hot-Rolled Coil Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: SHFE; Wind

Table 1-2-100 Hot-Rolled Coil Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
SHFE main futures contract (RMB/MT)	4,411	5,405	3,450	4,143	-268	4,357.01	548.86	1,955
Hot-rolled coil spot at Shanghai (RMB/MT)	4,860	5,290	3,600	4,180	-680	4,412	532.88	1,690
Hot-rolled coil spot at Tianjin (RMB/MT)	4,660	5,300	3,610	4,040	-620	4,382	536.22	1,690

Source: SHFE; Wind

Table 1-2-101 Price Correlation of SHFE Hot-Rolled Coil Futures, 2022

Prices	Correlation
SHFE main futures contract settlement vs. Shanghai hot-rolled coil spot	0.99
SHFE main futures contract settlement vs. Tianjin hot-rolled coil spot	0.99

Source: SHFE; Wind

XIII. Stainless Steel Futures

(I) Trading (Table 1-2-102—Table 1-2-103)

Table 1-2-102 Monthly Trading Data of Stainless Steel Futures, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	312.21	-8.50	2,754.61	13.65	10.56	-52.20
FEB	211.80	-11.72	1,949.85	9.39	9.85	-48.17
MAR	503.73	35.04	5,162.47	93.81	10.85	-29.95
APR	197.66	-25.05	1,954.31	4.61	9.49	-22.81
MAY	185.50	-40.27	1,735.50	-26.39	8.40	-33.37
JUN	237.70	-33.71	2,089.75	-27.60	8.43	-10.43
JUL	294.92	-42.51	2,389.10	-49.10	9.17	2.47
AUG	308.74	-19.21	2,405.07	-31.64	9.47	30.65
SEP	356.25	-19.47	2,960.01	-32.82	11.40	72.95
OCT	277.45	5.02	2,368.25	-9.66	11.83	49.70
NOV	378.14	17.58	3,142.82	10.67	10.81	-8.18
DEC	345.89	46.27	2,936.37	51.93	11.37	0.27
Total	3,609.98	-10.79	31,848.11	-6.31	—	—

Source: SHFE

Table 1-2-103 Annual Trading Data of Stainless Steel Futures, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥tn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	4,046.81	273.63	3.40	360.44	11.34	-33.89
2022	3,609.98	-10.79	3.18	-6.31	11.37	0.27

Source: SHFE

(II) Delivery (Table 1-2-104—Table 1-2-105)

Table 1-2-104 Monthly Delivery Data of Stainless Steel Futures, 2022

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥10,000)	YoY Change (%)
JAN	4,428	-46.52	38,490.39	-32.82
FEB	9,912	-14.14	91,239.96	11.63
MAR	4,908	-48.16	51,411.30	-21.98
APR	8,580	59.24	84,062.55	118.31

Continued

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥10,000)	YoY Change (%)
MAY	4,416	-0.81	42,040.32	23.20
JUN	1,320	-76.60	12,091.20	-73.56
JUL	684	-89.64	5,754.15	-90.10
AUG	504	-87.65	4,025.70	-89.45
SEP	1,320	48.65	10,893.30	25.50
OCT	636	-76.86	5,391.69	-80.88
NOV	2,616	890.91	22,981.56	810.82
DEC	5,064	2,244.44	44,044.14	2,174.49
Total	44,388	-25.48	412,426.26	-10.52

Source: SHFE

Table 1-2-105 Annual Delivery Data of Stainless Steel Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
2021	59,568	865.76	46.09	965.59
2022	44,388	-25.48	41.24	-10.52

Source: SHFE

(III) Price Trend (Figure 1-2-13, Table 1-2-106—Table 1-2-107)

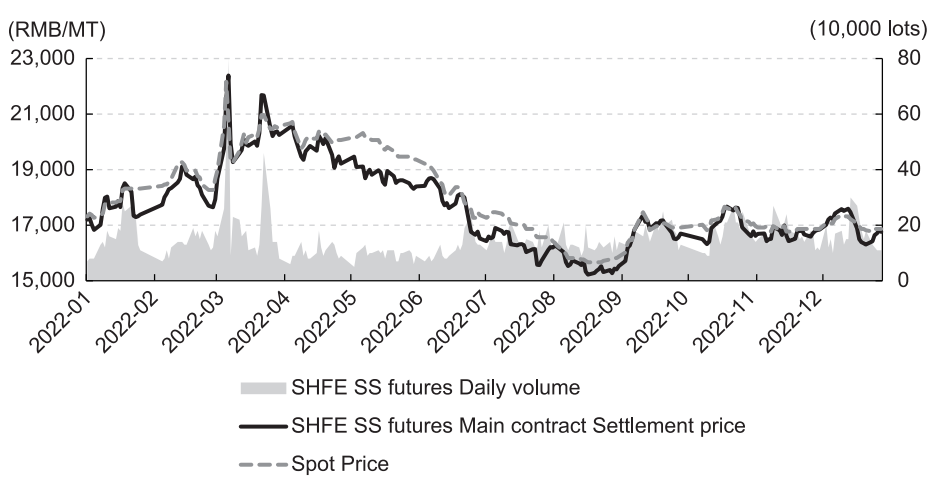


Figure 1-2-13 Stainless Steel Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: SHFE; Wind

Table 1-2-106 Stainless Steel Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
SHFE main futures contract (RMB/MT)	17,125	24,785	14,825	16,820	-305	17,580	1,461	9,960
Stainless steel spot at Wuxi (RMB/MT)	17,220	22,170	15,670	16,870	-350	17,968	1,461	6,500

Source: SHFE; Wind

Table 1-2-107 Price Correlation of SHFE Stainless Steel Futures, 2022

Prices	Correlation
SHFE main futures contract settlement vs. Wuxi stainless steel spot	0.96

Source: SHFE; Wind

XIV. Crude Oil Futures and Options

(I) Futures and Options Trading (Table 1-2-108—Table 1-2-113)

Table 1-2-108 Monthly Trading Data of Crude Oil Futures, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	330.42	-10.41	17,394.63	41.16	6.16	-26.18
FEB	347.64	42.56	20,059.25	116.02	7.51	-17.77
MAR	660.71	24.24	45,481.65	111.24	5.52	-27.96
APR	446.70	16.21	29,349.62	90.89	5.12	-31.87
MAY	467.47	59.54	32,656.39	163.99	7.09	-7.33
JUN	563.15	70.42	40,983.80	174.12	6.74	-13.07
JUL	664.03	79.41	44,087.70	167.09	8.20	6.99
AUG	482.25	35.64	33,061.39	117.99	7.73	13.55
SEP	380.35	42.00	24,787.18	98.95	5.55	13.85
OCT	228.99	-2.80	15,457.56	24.45	5.87	2.96
NOV	357.09	-7.99	22,596.63	15.26	7.52	22.68
DEC	429.29	-13.28	23,184.09	0.95	5.65	-16.31
Total	5,358.08	25.64	349,099.89	88.74	—	—

Source: INE

Table 1-2-109 Annual Trading Data of Crude Oil Futures, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥tn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	4,264.52	2.55	18.50	54.68	6.75	-20.31
2022	5,358.08	25.64	34.91	88.74	5.65	-16.31

Source: INE

Table 1-2-110 Annual Trading Data of Domestic and Intl' Crude Oil Futures, 2021-2022

Year	Volume (10,000 lots)			Year-End OI (10,000 lots)		
	INE SC	CME Group WTI	ICE Brent	INE SC	CME Group WTI	ICE Brent
2021	4,264.52	24,830.98	22,915.78	6.75	186.69	211.34
2022	5,358.08	20,598.99	22,036.77	5.65	144.07	185.47

Note: INE SC, CME WTI, and ICE Brent futures are all 1,000 bbl/lot.

Source: INE; CME Group; ICE

Table 1-2-111 Monthly Trading Data of Crude Oil Options, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Put/Call Ratio	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	25.22	—	1.374	20.58	—	1.87	—
FEB	27.21	—	1.353	27.07	—	2.02	—
MAR	37.97	—	1.133	54.75	—	1.80	—
APR	29.39	—	0.835	32.30	—	1.66	—
MAY	43.43	—	1.134	43.59	—	2.22	—
JUN	75.02	2,055.86	1.217	77.14	1,718.17	2.70	329.23
JUL	66.83	215.52	1.490	90.54	449.72	3.14	65.69
AUG	79.46	171.25	1.349	74.24	401.62	3.13	69.73
SEP	58.75	193.20	1.004	55.63	314.91	2.53	61.56
OCT	35.92	142.57	1.036	32.72	187.88	2.13	38.63
NOV	81.47	175.77	1.004	57.08	172.90	3.75	134.74
DEC	99.35	162.16	0.934	70.21	192.50	1.08	-46.68
Total	660.08	322.45	1.130	635.91	504.40	—	—

Source: INE

Table 1-2-112 Annual Trading Data of Crude Oil Options, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Put/Call Ratio	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	156.25	—	1.177	105.21	—	2.02	—
2022	660.08	322.45	1.130	635.91	504.40	1.08	-46.68

Source: INE

Table 1-2-113 Annual Trading Data of Domestic and Intl' Crude Oil Options, 2021-2022

Year	Volume (10,000 lots)			Year-End OI (10,000 lots)		
	INE	CME Group WTI	ICE Brent	INE	CME Group WTI	ICE Brent
2021	156.25	3,000.61	2,901.77	2.02	197.75	221.12
2022	660.08	2,893.18	3,148.08	1.07	230.56	203.54

Note: INE SC, CME WTI, and ICE Brent options are all 1,000 bbl/lot.

Source: INE; CME Group; ICE

(II) Delivery and Exercise (Table 1-2-114—Table 1-2-117)

Table 1-2-114 Monthly Delivery Data of Crude Oil Futures, 2022

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
JAN	0	-100.00	0	-100.00
FEB	0	-100.00	0	-100.00
MAR	1,730	98.62	10.27	199.42
APR	1,956	12.22	13.65	106.82
MAY	4,498	199.67	29.53	387.29
JUN	2,774	-44.58	20.09	-4.83
JUL	52	-96.35	0.37	-94.30
AUG	145	-89.79	1.01	-83.52
SEP	39	-99.21	0.3	-98.56
OCT	4,149	997.62	28.31	1,490.45
NOV	4,162	208,000.00	28.12	281,100.00
DEC	4,566	293.28	26.25	354.15
Total	24,071	-7.71	157.91	55.70

Source: INE

Table 1-2-115 Annual Delivery Data of Crude Oil Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
2021	26,081	-71.18	101.42	-59.33
2022	24,071	-7.71	157.91	55.70

Source: INE

Table 1-2-116 Monthly Exercise Data of Crude Oil Options, 2022

Month	Exercise Volume (lot)
JAN	1,736
FEB	2,869

Continued

Month	Exercise Volume (lot)
MAR	2,615
APR	1,396
MAY	1,340
JUN	1,893
JUL	2,437
AUG	2,418
SEP	2,452
OCT	1,984
NOV	2,599
DEC	8,662
Total	32,401

Source: INE

Table 1-2-117 Annual Exercise Data of Crude Oil Options, 2021-2022

Year	Exercise Volume (lot)	YoY Change (%)
2021	10,108	—
2022	32,401	220.55

Source: INE

(III) Price Trend (Figure 1-2-14, Table 1-2-118—Table 1-2-119)

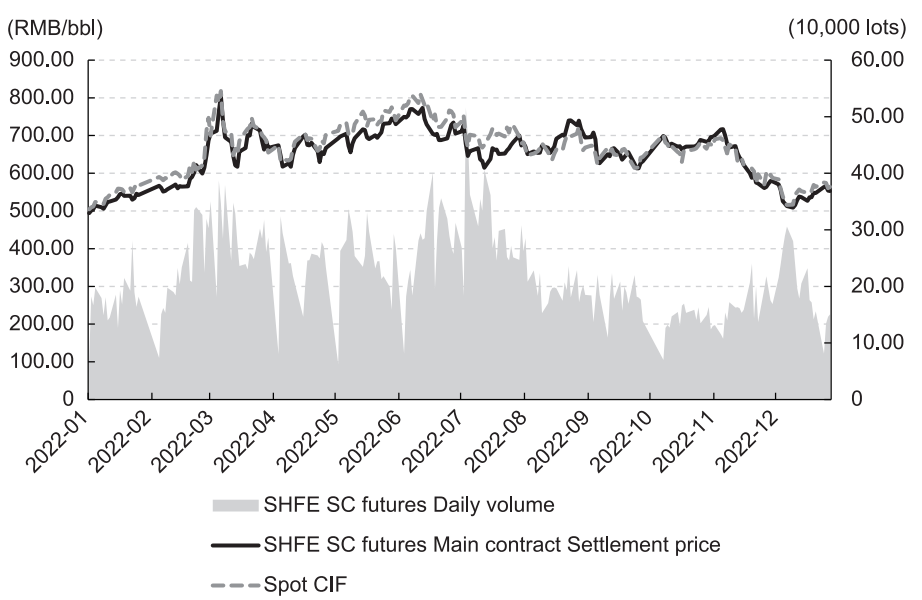


Figure 1-2-14 Crude Oil Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: INE; Reuters

Table 1-2-118 Crude Oil Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
INE main futures contract (RMB/bbl)	499.0	823.6	491.0	562.8	63.80	647.39	68.50	332.6
CME Group WTI (USD/bbl)	75.45	130.50	70.08	80.51	5.06	94.33	12.37	60.42
ICE Brent (USD/bbl)	77.94	139.13	75.11	85.99	8.05	99.04	11.79	64.02
Crude oil spot (RMB/bbl)	499.94	818.01	504.40	560.28	60.34	661.86	70.94	313.61

Source: INE; Reuters; CME Group; ICE

Table 1-2-119 Price Correlation of SHFE Crude Oil Futures, 2022

Prices	Correlation
SHFE main futures contract settlement vs. CME WTI	0.89
SHFE main futures contract settlement vs. ICE Brent	0.83
SHFE main futures contract settlement vs. Crude oil spot	0.95

Source: INE; CME Group; ICE

XV. Low Sulfur Fuel Oil Futures

(I) Trading (Table 1-2-120—Table 1-2-121)

Table 1-2-120 Monthly Trading Data of LSFO Futures, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	143.77	-14.56	560.77	19.03	8.39	-41.59
FEB	157.64	41.74	675.72	95.55	8.54	-2.14
MAR	288.80	80.37	1,444.21	179.54	5.99	-28.47
APR	197.98	35.55	995.95	114.40	7.31	-18.01
MAY	282.27	82.35	1,607.55	225.14	10.74	59.42
JUN	400.38	153.97	2,428.90	352.28	12.02	68.38
JUL	630.19	338.06	3,290.44	565.93	12.60	90.86
AUG	431.88	243.00	2,132.21	414.29	12.24	70.39
SEP	393.64	150.63	1,787.44	219.64	9.84	18.99
OCT	286.91	74.17	1,367.25	111.92	11.38	81.55
NOV	408.10	108.82	1,840.47	154.01	10.78	35.99
DEC	462.60	165.27	1,842.55	205.50	9.68	27.82
Total	4,084.16	119.64	19,973.45	218.55	—	—

Source: INE

Table 1-2-121 Annual Trading Data of LSFO Futures, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	1,859.48	90.47	6,270.03	163.74	7.57	-46.14
2022	4,084.16	119.64	19,973.45	218.55	9.68	27.82

Source: INE

(II) Delivery (Table 1-2-122—Table 1-2-123)

Table 1-2-122 Monthly Delivery Data of LSFO Futures, 2022

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥10,000)	YoY Change (%)
JAN	5,562	19.38	18,777.31	161.73
FEB	3,440	337.66	14,654.40	671.62
MAR	2,280	10.36	10,198.44	152.21
APR	1,800	-71.06	9,185.40	49.81
MAY	1,858	-68.66	9,221.25	48.67
JUN	42	-97.11	298.96	6.82
JUL	37	-82.04	243.05	35.28
AUG	1,700	-58.70	9,062.70	65.49
SEP	7,333	228.83	41,174.80	576.82
OCT	1,271	-70.61	5,891.09	38.71
NOV	1,635	-61.10	7,688.41	45.16
DEC	807.00	-83.53	3,594.38	20.16
Total	27,765.00	-32.43	129,990.19	-3.00

Source: INE

Table 1-2-123 Annual Delivery Data of LSFO Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥10,000)	YoY Change (%)
2021	41,089	—	134,005.35	—
2022	27,765	-32.43	129,990.19	-3.00

Source: INE

(III) Price Trend (Figure 1-2-15, Table 1-2-124—Table 1-2-125)

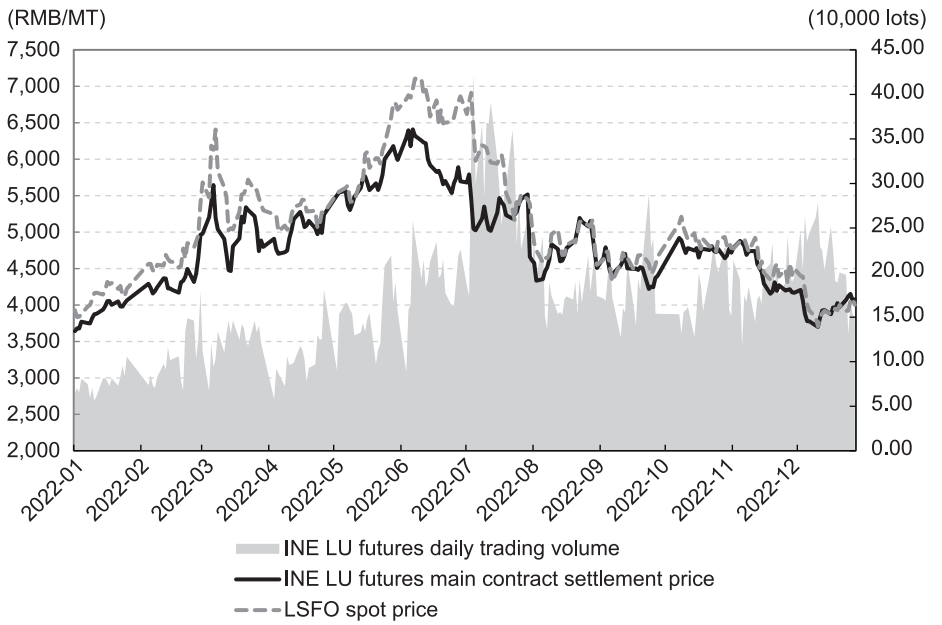


Figure 1-2-15 LSFO Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: INE; JLC

Table 1-2-124 LSFO Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
INE main futures contract (RMB/MT)	3,691	6,528	3,588	4,134	443	4,813.32	646.29	2,940
LSFO spot in eastern China (RMB/MT)	3,956	7,106	3,707	4,003	47	5,114.12	828.69	3,399

Source: INE; JLC

Table 1-2-125 Price Correlation of SHFE LSFO Futures, 2022

Prices	Correlation
SHFE main futures contract settlement vs. LSFO spot	0.95

Source: INE; JLC

XVI. Fuel Oil Futures

(I) Trading (Table 1-2-126—Table 1-2-127)

Table 1-2-126 Monthly Trading Data of Fuel Oil Futures, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	794.22	-74.43	2,397.38	-64.34	43.20	-3.76
FEB	770.86	-55.91	2,514.31	-38.04	48.33	26.02
MAR	1,871.28	-42.77	7,272.47	-9.33	38.31	20.50
APR	1,686.31	-39.39	6,756.23	-0.21	48.54	46.68
MAY	1,363.02	-46.90	5,686.45	-9.43	51.21	41.85
JUN	1,744.58	-26.30	6,938.45	10.96	48.61	20.76
JUL	2,237.52	-12.31	7,052.71	6.43	57.29	94.39
AUG	2,439.95	6.96	7,865.43	38.35	48.26	38.31
SEP	2,524.29	5.73	7,130.76	7.95	58.91	38.76
OCT	1,301.23	-37.28	3,540.94	-44.82	73.56	186.81
NOV	1,740.19	28.20	4,825.11	25.61	67.10	71.01
DEC	2,572.05	113.24	6,653.74	109.41	43.95	-10.94
Total	21,045.51	-24.02	68,633.99	-2.59	—	—

Source: SHFE

Table 1-2-127 Annual Trading Data of Fuel Oil Futures, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	27,699.38	-41.95	70,455.63	-16.92	49.35	11.84
2022	21,045.51	-24.02	68,633.99	-2.59	43.95	-10.94

Source: SHFE

(II) Delivery (Table 1-2-128—Table 1-2-129)

Table 1-2-128 Monthly Delivery Data of Fuel Oil Futures, 2022

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥10,000)	YoY Change (%)
JAN	4,495	-65.51	11,761.90	-52.89
FEB	196	-89.01	612.70	-82.82
MAR	20	-99.47	64.80	-99.28
APR	35	-98.19	139.65	-96.88

Continued

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥10,000)	YoY Change (%)
MAY	197	-96.18	939.49	-92.37
JUN	1	-99.08	4.36	-98.23
JUL	1	-99.38	3.77	-99.10
AUG	3	-97.14	10.08	-96.21
SEP	2,876	-80.01	9,985.47	-73.60
OCT	209	-37.80	613.21	-41.51
NOV	249	223.38	709.15	206.07
DEC	8	-88.57	21.40	-88.76
Total	8,290	-79.75	24,865.98	-73.70

Source: SHFE

Table 1-2-129 Annual Delivery Data of Fuel Oil Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥10,000)	YoY Change (%)
2021	40,935	-41.90	94,529.59	-22.93
2022	8,290	-79.75	24,865.98	-73.70

Source: SHFE

(III) Price Trend (Figure 1-2-16, Table 1-2-130—Table 1-2-131)

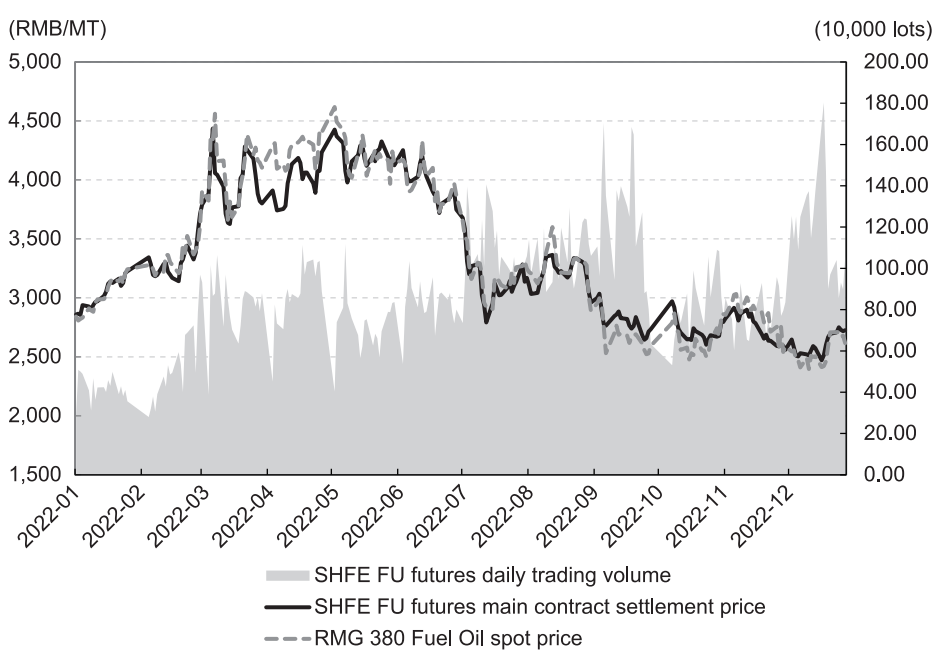


Figure 1-2-16 Fuel Oil Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: SHFE; JLC

Table 1-2-130 Fuel Oil Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
INE main futures contract (RMB/MT)	2,892	4,556	2,417	2,749	-143	3,309.65	566.37	2,139
RMG 380 fuel oil spot in eastern China (RMB/MT)	2,835	4,618	2,397	2,615	-220	3,340.14	623.78	2,221

Source: SHFE; JLC

Table 1-2-131 Price Correlation of SHFE Fuel Oil Futures, 2022

Prices	Correlation
SHFE main futures contract settlement vs. Fuel oil spot	0.98

Source: SHFE; JLC

XVII. Bitumen Futures

(I) Trading (Table 1-2-132—Table 1-2-133)

Table 1-2-132 Monthly Trading Data of Bitumen Futures, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	1,017.56	-22.99	3,528.57	-0.16	70.65	21.04
FEB	868.33	8.21	3,120.53	30.16	71.53	48.94
MAR	1,879.64	43.31	7,217.88	82.49	58.62	19.12
APR	1,307.84	-2.50	5,149.72	32.56	78.49	66.77
MAY	1,495.05	27.22	6,531.98	75.96	102.95	152.94
JUN	1,511.31	35.11	6,949.18	86.54	90.42	83.01
JUL	1,854.08	33.26	7,486.62	62.03	94.49	94.82
AUG	1,571.28	25.05	6,379.17	60.61	89.87	87.94
SEP	1,074.07	5.47	3,988.71	21.53	73.95	82.79
OCT	965.71	5.71	3,705.93	25.15	81.72	75.91
NOV	1,369.39	11.59	4,927.91	30.99	72.77	33.32
DEC	1,343.57	14.93	4,765.51	34.45	73.28	7.96
Total	16,257.83	15.74	63,751.51	47.06	—	—

Source: SHFE

Table 1-2-133 Annual Trading Data of Bitumen Futures, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥tn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	14,046.32	-31.40	4.34	-12.94	67.88	2.58
2022	16,257.83	15.74	6.38	47.06	73.28	7.96

Source: SHFE

(II) Delivery (Table 1-2-134—Table 1-2-135)

Table 1-2-134 Monthly Delivery Data of Bitumen Futures, 2022

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
JAN	2,834	-71.05	0.92	-62.75
FEB	3,750	-0.12	1.36	16.24
MAR	8,414	0.23	3.33	58.57
APR	2,457	1.22	0.91	193.55
MAY	3,163	22.96	1.33	3,225.00
JUN	12,992	0.01	6.18	54.89
JUL	2,073	-0.47	0.91	-30.53
AUG	1,449	-0.17	0.64	16.36
SEP	2,260	-0.77	0.96	-67.24
OCT	1,276	-0.88	0.54	-82.35
NOV	927	-0.84	0.41	-75.74
DEC	439	-0.98	0.15	-97.36
Total	42,034	-0.52	17.64	-30.28

Source: SHFE

Table 1-2-135 Annual Delivery Data of Bitumen Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
2021	86,773	73.41	25.30	107.53
2022	42,034	-51.56	17.64	-30.28

Source: SHFE

(III) Price Trend (Figure 1-2-17, Table 1-2-136—Table 1-2-137)

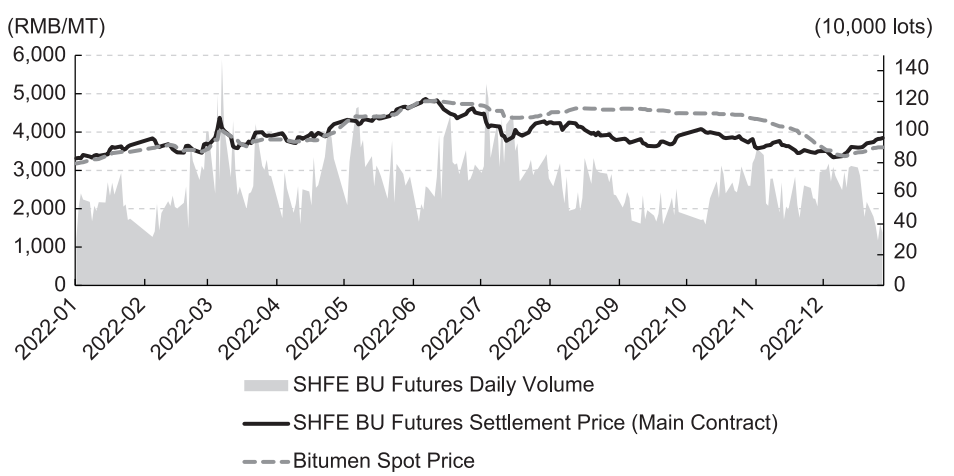


Figure 1-2-17 Bitumen Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: SHFE; BAIINFO

Table 1-2-136 Bitumen Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
SHFE main futures contract (RMB/MT)	3,344	4,912	3,278	3,865	521	3,911.36	366.44	1,634
Domestic highway bitumen spot in eastern China (RMB/MT)	3,129	4,813	3,179	3,602	473	4,126.66	477.57	1,634

Source: SHFE; BAIINFO

Table 1-2-137 Price Correlation of SHFE Bitumen Futures, 2022

Prices	Correlation
SHFE main futures contract settlement vs. Bitumen spot	0.73

Source: SHFE; BAIINFO

XVIII. Natural Rubber Futures and Options

(I) Futures and Options Trading (Table 1-2-138—Table 1-2-142)

Table 1-2-138 Monthly Trading Data of Natural Rubber Futures, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	597.08	-47.54	8,827.23	-46.38	34.00	24.13
FEB	430.92	-55.45	6,175.14	-58.95	37.47	26.01
MAR	794.92	-51.36	10,908.95	-55.59	33.21	9.52
APR	585.65	-40.68	7,759.50	-43.30	30.81	18.16
MAY	671.31	-30.06	8,733.95	-39.70	29.93	-6.62
JUN	791.93	-18.01	10,314.97	-18.02	29.41	-9.07
JUL	892.16	-16.56	11,126.74	-22.07	25.93	-18.96
AUG	625.74	-38.04	7,873.70	-45.36	27.13	-1.95
SEP	650.90	1.10	8,327.75	-5.22	22.56	5.64
OCT	443.36	-59.00	5,546.09	-65.64	31.80	23.80
NOV	831.54	-10.33	10,423.26	-24.11	30.89	12.58
DEC	648.42	-5.41	8,365.67	-16.61	30.80	-1.55
Total	7,963.94	-34.51	104,382.94	-40.08	—	—

Source: SHFE

Table 1-2-139 Annual Trading Data of Natural Rubber Futures, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥tn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	12,160.09	20.47	17.42	33.01	31.28	11.67
2022	7,963.94	-34.51	10.44	-40.08	30.80	-1.55

Source: SHFE

Table 1-2-140 Annual Trading Data of Domestic and Intl' Natural Rubber Futures, 2021-2022

Year	Volume (10,000 lots)		Year-End OI (10,000 lots)	
	SHFE	JPX	SHFE	JPX
2021	12,160.09	66.53	31.28	0.85
2022	7,963.94	39.63	30.80	1.22

Note: SHFE natural rubber futures is 10 MT/lot; JPX RSS3 rubber futures is 5 MT/lot.

Source: SHFE; JPX

Table 1-2-141 Monthly Trading Data of Natural Rubber Options, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Put/Call Ratio	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	27.37	-13.57	0.442	11.64	-34.71	5.75	18.69
FEB	28.99	-28.19	0.398	90.16	-68.25	6.20	31.58
MAR	50.08	-0.31	0.301	12.58	-44.08	7.83	46.62
APR	41.99	-22.36	0.381	7.10	-53.86	5.06	24.81
MAY	36.29	27.90	0.365	7.73	-49.78	6.00	2.99
JUN	47.55	33.75	0.341	10.40	-22.35	7.81	5.22
JUL	69.33	47.88	0.476	14.22	7.36	8.84	25.30
AUG	56.99	11.13	0.487	8.63	-24.38	4.40	22.14
SEP	44.63	116.20	0.446	8.91	23.90	4.87	24.40
OCT	30.03	-23.64	0.442	5.37	-72.51	5.95	39.03
NOV	54.01	39.89	0.453	8.92	-39.43	5.89	22.05
DEC	47.74	19.48	0.534	6.74	-29.30	3.56	0.16
Total	535.04	12.16	0.423	111.30	-40.99	—	—

Source: SHFE

Table 1-2-142 Annual Trading Data of Natural Rubber Options, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Put/Call Ratio	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	477.02	88.28	0.436	188.63	111.37	3.56	-9.17
2022	535.04	12.16	0.423	111.30	-40.99	3.56	0.16

Source: SHFE

(II) Delivery and Exercise (Table 1-2-143—Table 1-2-146)

Table 1-2-143 Monthly Delivery Data of Natural Rubber Futures, 2022

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
JAN	2,036	69.95	2.99	76.12
MAR	1,103	474.48	1.50	417.34

Continued

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
APR	227	249.23	0.30	235.98
MAY	2,799	28.04	3.47	14.90
JUN	851	777.32	1.11	802.19
JUL	687	308.93	0.84	283.90
AUG	507	668.18	0.61	589.37
SEP	4,027	-10.89	4.63	-17.96
OCT	730	69.37	0.86	47.50
NOV	1,647	-32.58	1.91	-40.31
Total	14,614	28.59	18.23	21.92

Source: SHFE

Table 1-2-144 Annual Delivery Data of Natural Rubber Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
2021	11,365	-26.4	14.95	-17.01
2022	14,614	28.59	18.23	21.92

Source: SHFE

Table 1-2-145 Monthly Exercise Data of Natural Rubber Options, 2022

Month	Exercise Volume (lot)
JAN	15
FEB	1,499
MAR	1,198
APR	8,262
MAY	1,586
JUN	318
JUL	2,434
AUG	5,261
SEP	1,769
OCT	1,726
NOV	330
DEC	2,534
Total	26,932

Source: SHFE

Table 1-2-146 Annual Exercise Data of Natural Rubber Options, 2021-2022

Year	Exercise Volume (lot)	YoY Change (%)
2021	22,877	56.60
2022	26,932	17.73

Source: SHFE

(III) Price Trend (Figure 1-2-18, Table 1-2-147—Table 1-2-148)

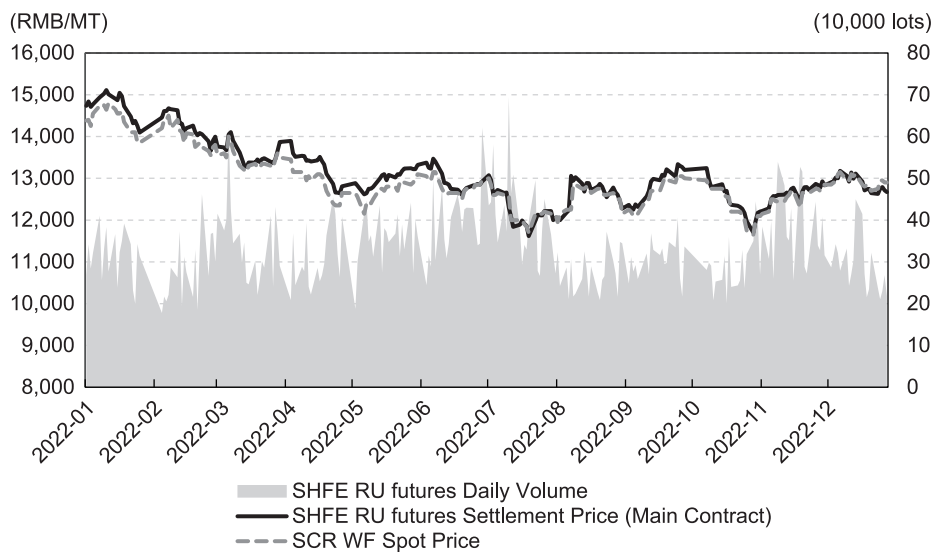


Figure 1-2-18 Natural Rubber Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: SHFE; JLC

Table 1-2-147 Natural Rubber Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
SHFE main futures contract (RMB/MT)	14,855	15,240	11,490	12,695	-2,160	1,3103	756.53	3,750
JPX RSS3 rubber futures (JPY/kg)	234	272.5	205.8	217.5	-16.5	239	15.09	66.7
Domestic SCR WF spot price (RMB/MT)	14,500	14,800	11,650	12,900	-1,600	12,948	680.38	3,150

Source: SHFE; JPX; JLC

Table 1-2-148 Price Correlation of SHFE Natural Rubber Futures, 2022

Prices	Correlation
SHFE main futures contract settlement vs. JPX RSS3 rubber futures	0.45
SHFE main futures contract settlement vs. Natural rubber spot	0.98

Source: SHFE; JPX; JLC

XIX. TSR 20 Futures

(I) Trading (Table 1-2-149—Table 1-2-151)

Table 1-2-149 Monthly Trading Data of TSR 20 Futures, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	77.86	45.96	922.07	60.72	5.88	18.94
FEB	82.57	15.58	978.45	18.33	7.43	40.78
MAR	117.68	22.26	1,343.66	18.57	6.52	23.33
APR	81.00	38.28	898.67	39.51	7.23	53.27
MAY	91.37	52.20	1,012.46	50.89	6.82	56.73
JUN	119.08	109.26	1,342.45	121.85	7.74	137.12
JUL	156.76	243.80	1,698.65	248.42	8.42	169.75
AUG	113.00	165.89	1,159.98	141.57	8.84	136.44
SEP	116.96	149.40	1,131.70	121.14	8.38	129.12
OCT	93.29	41.22	886.92	13.51	10.02	139.89
NOV	155.67	100.53	1,480.51	63.17	7.82	47.43
DEC	153.93	82.17	1,509.91	56.30	8.71	56.33
Total	1,359.17	78.90	14,365.44	67.27	—	—

Source: INE

Table 1-2-150 Annual Trading Data of TSR 20 Futures, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥tn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	759.74	71.58	8,588.35	93.52	5.57	26.51
2022	1,359.17	78.90	14,365.44	67.27	8.71	56.33

Source: INE

Table 1-2-151 Annual Trading Data of Domestic and Intl' TSR 20 Futures, 2021-2022

Year	Volume (10,000 lots)		Year-End OI (10,000 lots)	
	INE	SGX	INE	SGX
2021	759.74	169.43	5.57	4.21
2022	1,359.17	186.75	8.71	4.65

Note: INE TSR 20 futures is 10 MT/lot; SGX TSR 20 futures is 5 MT/lot.

Source: INE; SGX

(II) Delivery (Table 1-2-152—Table 1-2-153)

Table 1-2-152 Monthly Delivery Data of TSR 20 Futures, 2022

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
JAN	1,474	107.61	1.71	139.63

Continued

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
FEB	1,185	317.25	1.37	366.33
MAR	824	23.91	0.93	18.34
APR	590	-32.65	0.66	-28.92
MAY	1,413	342.95	1.52	326.91
JUN	1,770	225.97	2.02	257.08
JUL	1,386	273.58	1.56	303.55
AUG	1,571	143.57	1.68	140.37
SEP	660	9.09	0.61	-5.96
OCT	1,924	13.44	1.97	-2.44
NOV	2,066	3.61	1.94	-11.03
DEC	896	10.07	0.87	-4.28
Total	15,759	65.50	16.85	60.57

Source: INE

Table 1-2-153 Annual Delivery Data of TSR 20 Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
2021	9,522	-17.70	10.49	1.98
2022	15,759	65.50	16.85	60.57

Source: INE

(III) Price Trend (Figure 1-2-19, Table 1-2-154—Table 1-2-155)

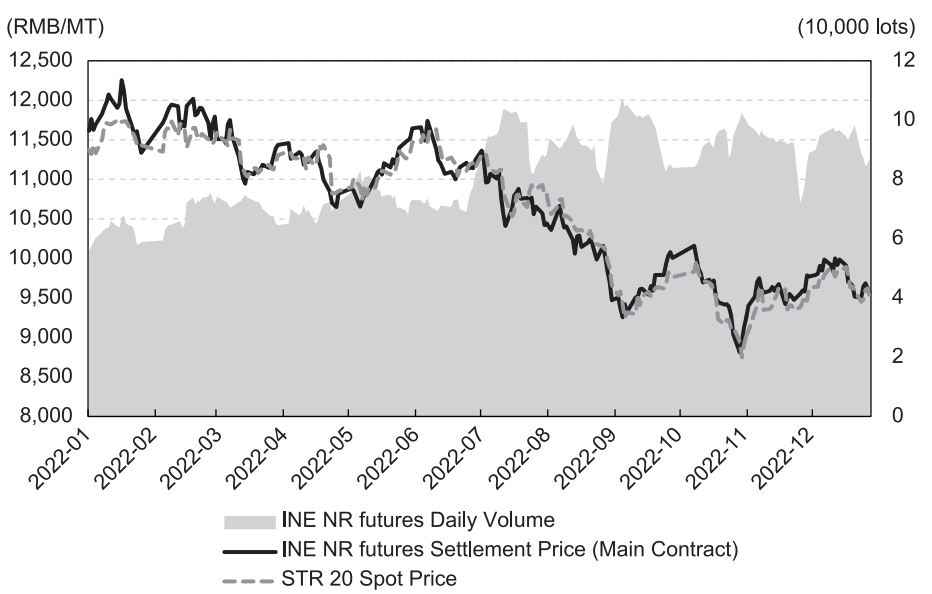


Figure 1-2-19 TSR 20 Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: INE; JLC

Table 1-2-154 TSR 20 Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
INE main futures contract (RMB/MT)	11,715	12,380	8,695	9,575	-2,140	10,649	856	3,685
SGX TSR 20 futures (USD cent/kg)	175.1	185.5	115.0	132.3	-42.8	153.7	19.3	70.5
TSR 20 spot (RMB/MT)	11,371	11,745	8,746	9,472	-1,899	10,601	848.74	2,999

Source: INE; SGX; JLC

Table 1-2-155 Price Correlation of SHFE TSR 20 Futures, 2022

Prices	Correlation
INE main futures contract settlement vs. SGX TSR 20 futures	0.98
INE main futures contract settlement vs. TSR 20 spot	0.99

Source: INE; SGX; JLC

XX. Pulp Futures

(I) Trading (Table 1-2-156—Table 1-2-157)

Table 1-2-156 Monthly Trading Data of Pulp Futures, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	712.56	-43.45	4,377.36	-44.57	32.60	-24.32
FEB	456.25	-53.81	2,956.55	-56.32	38.02	1.74
MAR	721.46	-64.03	5,009.28	-65.26	29.01	-36.15
APR	686.38	-45.34	4,820.62	-45.82	26.89	-22.21
MAY	772.41	-22.91	5,610.08	-17.23	30.93	12.40
JUN	889.30	-7.27	6,124.88	5.58	37.76	54.58
JUL	973.86	25.58	6,467.52	32.97	40.39	73.49
AUG	658.70	-0.13	4,468.91	8.86	34.28	20.19
SEP	652.97	27.09	4,425.43	43.04	33.86	47.90
OCT	463.87	-19.01	3,124.75	3.95	34.06	51.66
NOV	582.40	-19.08	3,951.54	7.36	33.91	29.50
DEC	545.69	-54.93	3,764.12	-46.13	22.92	-40.25
Total	8,115.84	-31.93	55,101.04	-27.78	—	—

Source: SHFE

Table 1-2-157 Annual Trading Data of Pulp Futures, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	11,922.26	246.95	76,297.55	365.57	38.35	32.74
2022	8,115.84	-31.93	55,101.04	-27.78	22.92	-40.25

Source: SHFE

(II) Delivery (Table 1-2-158—Table 1-2-159)

Table 1-2-158 Monthly Delivery Data of Pulp Futures, 2022

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
JAN	5,244	17.58	3.30	23.87
FEB	2,758	-41.74	1.75	-43.49
MAR	5,048	0.60	3.58	-1.70
APR	3,314	-38.10	2.28	-41.35
MAY	6,360	-6.85	4.61	-8.84
JUN	5,462	-3.77	3.90	11.16
JUL	7,510	22.71	5.14	30.73
AUG	5,640	-18.40	4.01	-9.68
SEP	7,616	-20.95	6.03	-3.22
OCT	4,652	-52.63	3.35	-43.53
NOV	5,002	-10.68	3.50	26.57
DEC	3,472	64.86	2.55	107.66
Total	62,078	-14.09	44.01	-5.12

Source: SHFE

Table 1-2-159 Annual Delivery Data of Pulp Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
2021	72,262	218.50	46.39	349.21
2022	62,078	-14.09	44.01	-5.12

Source: SHFE

(III) Price Trend (Figure 1-2-20, Table 1-2-160—Table 1-2-161)

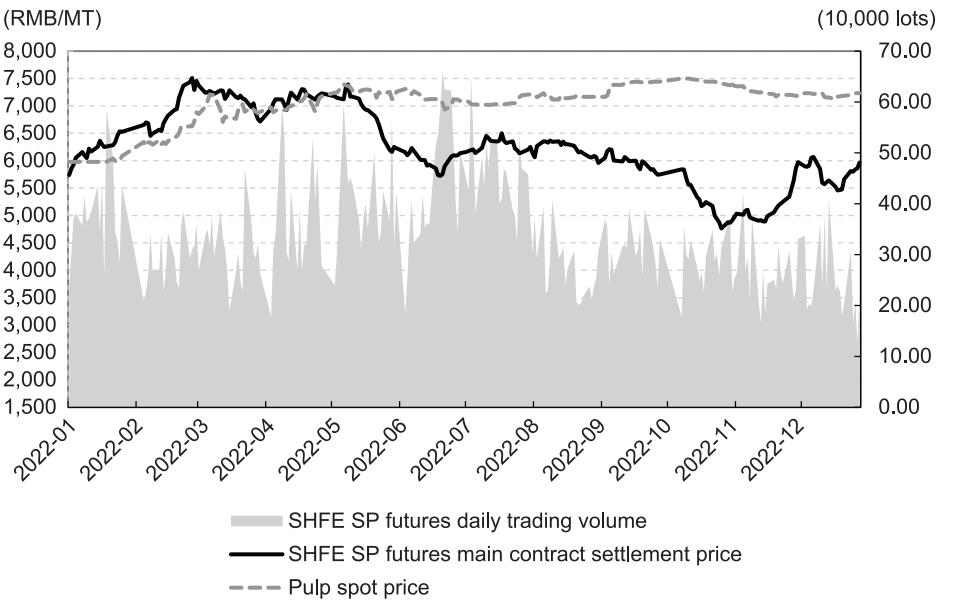


Figure 1-2-20 Pulp Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: SHFE; SCI

Table 1-2-160 Pulp Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
SHFE main futures contract (RMB/MT)	6,056	7,490	5,906	6,726	670	6,795	322	1,584
Pulp spot (RMB/MT)	5,978	7,500	5,978	7,233	1,255	7,039	391	1,522

Source: SHFE; SCI

Table 1-2-161 Price Correlation of SHFE Pulp Futures, 2022

Prices	Correlation
SHFE main futures contract settlement vs. Pulp spot	0.65

Source: SHFE; SCI

>>> Section III ZCE Market

In 2022, Zhengzhou Commodity Exchange (ZCE) recorded a futures and options trading volume of 2.398 billion lots and a turnover of RMB 96.85 trillion, down 7.14% and 10.33% YoY and representing 35.42% and 18.1% of the national market, respectively. Among its

listed products, the PTA future is accessible to overseas investors. ZCE has approved 52 overseas brokers from 20 countries or regions, and 32 domestic futures firms and 52 overseas brokers have completed 69 brokerage filings. Twenty products had a highly active market in 2022, namely PTA, methanol, soda ash, flat glass, rapeseed meal, cotton, rapeseed oil, white sugar, PTA options, ferrosilicon, polyester staple fiber, fresh apple, silicon manganese, methanol options, peanut kernel, urea, white sugar options, cotton options, rapeseed meal options, and dried jujube (here and hereinafter all referring to futures products, unless otherwise noted). The trading of 9 products was relatively muted: cotton yarn, thermal coal, thermal coal options, strong gluten wheat, rapeseed, medium to short-grain nonglutinous paddy, early long-grain nonglutinous paddy, common wheat, and late long-grain nonglutinous paddy, each of which contributed to less than 0.1% of the national total trading volume of the year. New listings in 2022 were the rapeseed oil options and peanut kernel options.

I. Cotton Futures and Options

(I) Futures and Options Trading (Table 1-3-1—Table 1-3-6)

Table 1-3-1 Monthly Trading Data of Cotton Futures, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	493.16	-39.84	5,272.55	-15.44	50.55	-16.33
FEB	422.12	-32.48	4,500.11	-9.74	53.38	-28.54
MAR	643.39	-48.81	6,817.95	-30.47	51.61	-26.58
APR	508.56	-49.42	5,438.09	-29.36	48.53	-27.44
MAY	489.55	-45.57	5,139.17	-27.71	48.82	-21.78
JUN	839.99	15.99	7,784.09	35.55	51.05	-14.16
JUL	1,690.26	51.51	12,851.65	36.46	75.25	10.81
AUG	1,703.58	54.92	12,630.70	29.94	87.45	66.04
SEP	1,439.10	45.29	10,192.21	14.20	92.50	60.14
OCT	1,196.84	3.78	7,999.92	-35.02	108.29	61.16
NOV	1,792.17	116.43	11,764.46	33.90	110.75	51.26
DEC	1,611.71	93.14	11,168.75	34.26	115.12	100.70
Total	12,830.43	13.02	101,559.65	2.53	—	—

Source: ZCE

Table 1-3-2 Annual Trading Data of Cotton Futures, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	11,352.36	4.79	99,055.86	42.06	57.36	-9.77
2022	12,830.43	13.02	101,559.65	2.53	115.12	100.70

Source: ZCE

Table 1-3-3 Annual Trading Data of Domestic and Intl' Cotton Futures, 2021-2022

Year	Volume (10,000 lots)		Year-End OI (10,000 lots)	
	ZCE	ICE	ZCE	ICE
2021	11,352.36	850.17	57.36	23.99
2022	12,830.43	838.50	115.12	19.59

Note: ZCE cotton futures is 5 MT/lot; ICE cotton futures is 50,000 lb/lot.

Source: ZCE; ICE

Table 1-3-4 Monthly Trading Data of Cotton Options, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Put/Call Ratio	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	59.60	12.61	1.03	8.83	0.46	17.54	28.82
FEB	61.10	23.71	1.37	9.13	-3.28	17.26	13.86
MAR	121.97	35.08	0.85	12.12	12.12	21.55	17.31
APR	77.95	39.72	0.99	10.26	17.53	17.76	37.96
MAY	125.56	150.40	1.25	14.30	77.20	21.91	38.55
JUN	131.20	215.30	0.89	26.32	381.17	20.53	34.66
JUL	205.04	89.73	0.68	39.79	228.84	32.29	94.15
AUG	167.90	207.19	0.61	26.06	167.28	22.20	132.56
SEP	174.04	154.03	0.69	21.79	38.26	30.19	148.22
OCT	139.32	93.50	0.59	14.53	-51.95	31.96	86.79
NOV	297.07	178.82	0.64	18.80	12.24	35.87	54.03
DEC	206.06	201.78	0.65	16.44	30.06	21.03	60.19
Total	1,766.83	115.93	0.75	218.37	47.00	—	—

Source: ZCE

Table 1-3-5 Annual Trading Data of Cotton Options, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Put/Call Ratio	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	818.23	64.23	0.73	148.55	168.38	13.13	24.06
2022	1,766.83	115.93	0.75	218.37	47.00	21.03	60.19

Source: ZCE

Table 1-3-6 Annual Trading Data of Domestic and Intl' Cotton Options, 2021-2022

Year	Volume (10,000 lots)		Year-End OI (10,000 lots)	
	ZCE	ICE	ZCE	ICE
2021	818.23	153.52	13.13	13.30
2022	1,766.83	233.09	21.03	22.10

Note: ZCE cotton options is 5 MT/lot; ICE cotton options is 50,000 lb/lot.

Source: ZCE; ICE

(II) Delivery and Exercise (Table 1-3-7—Table 1-3-10)

Table 1-3-7 Monthly Delivery Data of Cotton Futures, 2022

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
JAN	14,536	5.95	16.12	54.41
MAR	2,072	-23.15	2.25	4.10
MAY	4,296	-64.53	4.60	-51.45
JUL	2,152	-50.19	1.77	-49.25
SEP	12,048	-8.89	9.17	-22.18
NOV	640	-52.38	0.44	-68.84
Total	35,744	-24.62	34.35	-11.40

Source: ZCE

Table 1-3-8 Annual Delivery Data of Cotton Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
2021	47,416	-52.11	38.77	-34.15
2022	35,744	-24.62	34.35	-11.40

Source: ZCE

Table 1-3-9 Monthly Exercise Data of Cotton Options, 2022

Month	Exercise Volume (lot)
JAN	53
FEB	8,084
MAR	1,784
APR	26,582
MAY	91
JUN	10,002
JUL	10,616
AUG	58,941
SEP	972
OCT	11,202
NOV	4,085
DEC	31,294
Total	163,706

Source: ZCE

Table 1-3-10 Annual Exercise Data of Cotton Options, 2021-2022

Year	Exercise Volume (lot)	YoY Change (%)
2021	145,859	131.13
2022	163,706	12.24

Source: ZCE

(III) Price Trend (Figure 1-3-1, Table 1-3-11—Table 1-3-12)

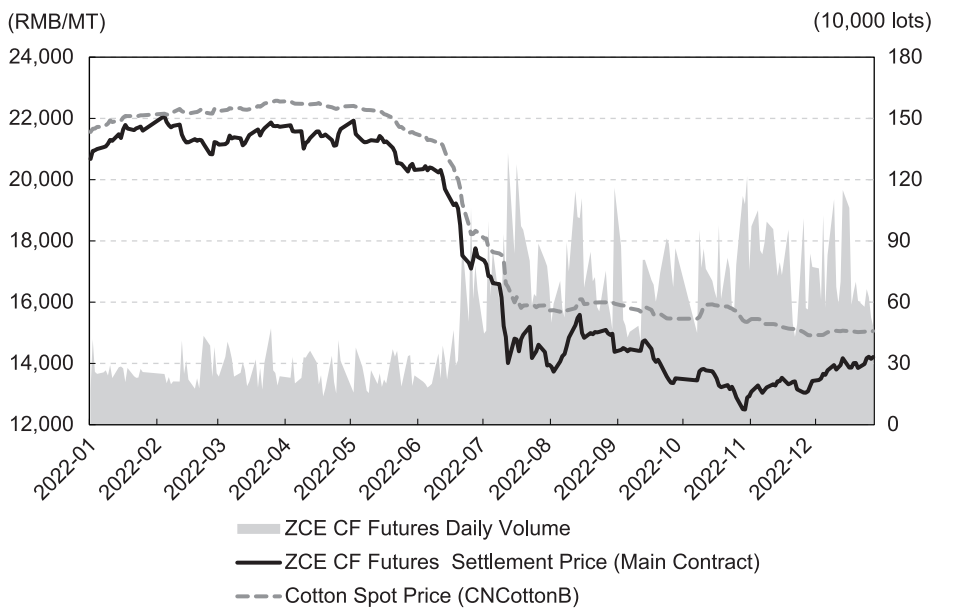


Figure 1-3-1 Cotton Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: ZCE; CNCotton

Table 1-3-11 Cotton Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
ZCE main futures contract (RMB/MT)	20,715	22,210	12,270	14,260	-6,455	17,461	3,545.28	9,940
ICE cotton futures contract (USD cent/lb)	112.60	156.64	70.21	83.37	-29.23	112.62	22.53	86.43
CNCotton B (RMB/MT)	21,502	22,579	14,920	15,058	-6,444	18,697	3,175.81	7,659

Source: ZCE; ICE; CNCotton

Table 1-3-12 Price Correlation of ZCE Cotton Futures, 2022

Prices	Correlation
ZCE main futures contract settlement vs. ICE cotton futures	0.87
ZCE main futures contract settlement vs. Cotton spot	0.99

Source: ZCE; ICE; CNCotton

II. White Sugar Futures and Options

(I) Futures and Options Trading (Table 1-3-13—Table 1-3-18)

Table 1-3-13 Monthly Trading Data of White Sugar Futures, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	777.25	-30.84	4,485.66	-24.83	54.39	-16.33
FEB	669.68	-14.16	3,838.28	-8.62	64.46	-2.93
MAR	1,037.50	-10.99	6,055.25	-3.96	60.46	-12.12
APR	748.34	-3.75	4,461.89	6.03	61.30	-0.07
MAY	620.58	-34.28	3,678.99	-30.85	62.34	-0.59
JUN	661.51	-17.63	3,957.92	-10.68	73.64	17.04
JUL	848.64	-17.16	4,900.32	-14.86	79.48	33.39
AUG	760.77	-23.67	4,250.66	-26.57	78.15	43.50
SEP	675.60	-15.56	3,743.93	-19.44	66.79	39.92
OCT	526.24	-46.53	2,942.26	-49.84	76.29	47.14
NOV	878.23	-27.61	4,941.41	-32.66	93.33	76.81
DEC	931.58	-9.78	5,287.89	-11.67	89.51	66.14
Total	9,135.92	-21.55	52,544.45	-20.16	—	—

Source: ZCE

Table 1-3-14 Annual Trading Data of White Sugar Futures, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	11,645.80	-6.50	65,815.21	0.97	53.88	-3.62
2022	9,135.92	-21.55	52,544.45	-20.16	89.51	66.14

Source: ZCE

Table 1-3-15 Annual Trading Data of Domestic and Intl' White Sugar Futures, 2021-2022

Year	Volume (10,000 lots)		Year-End OI (10,000 lots)	
	ZCE	ICE	ZCE	ICE
2021	11,645.80	3,100.28	53.88	86.73
2022	9,135.92	3,275.01	89.51	94.57

Note: ZCE white sugar futures is 10 MT/lot; ICE sugar No. 11 futures is 112,000 lb/lot.

Source: ZCE; ICE

Table 1-3-16 Monthly Trading Data of White Sugar Options, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Put/Call Ratio	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	120.61	64.19	0.60	6.48	5.54	19.22	30.63
FEB	127.53	107.66	0.52	6.59	28.71	25.01	42.09
MAR	225.08	118.67	0.39	11.47	96.40	28.04	35.30
APR	132.22	107.05	0.55	8.52	104.32	17.28	22.82
MAY	169.81	71.69	0.53	9.42	32.86	22.44	19.14
JUN	205.44	174.36	0.73	11.68	152.81	26.05	47.65
JUL	262.80	150.15	0.87	13.73	133.90	27.71	53.11
AUG	128.39	57.32	0.64	7.89	33.73	17.91	71.03
SEP	147.52	103.71	0.63	6.73	30.43	21.89	43.96
OCT	115.10	0.70	0.65	5.18	-48.66	20.17	19.07
NOV	223.98	57.55	0.67	9.07	-3.10	25.30	42.60
DEC	192.41	96.79	0.70	10.05	63.41	18.45	29.98
Total	2,050.87	88.37	0.62	106.81	41.45	—	—

Source: ZCE

Table 1-3-17 Annual Trading Data of White Sugar Options, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Put/Call Ratio	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	1,088.76	74.08	0.48	75.51	59.07	14.19	32.47
2022	2,050.87	88.37	0.62	106.81	41.45	18.45	29.98

Source: ZCE

Table 1-3-18 Annual Trading Data of Domestic and Intl' White Sugar Options, 2021-2022

Year	Volume (10,000 lots)		Year-End OI (10,000 lots)	
	ZCE	ICE	ZCE	ICE
2021	1,088.76	580.64	14.19	59.10
2022	2,050.87	587.38	18.45	53.68

Note: ZCE white sugar options is 10 MT/lot; ICE sugar No. 11 options is 112,000 lb/lot.

Source: ZCE; ICE

(II) Delivery and Exercise (Table 1-3-19—Table 1-3-22)

Table 1-3-19 Monthly Delivery Data of White Sugar Futures, 2022

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
JAN	7,527	59.27	4.29	74.17

Continued

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
MAR	4,288	70.36	2.48	82.26
MAY	12,978	39.14	7.52	44.74
JUL	2,227	-15.90	1.28	-12.23
SEP	5,659	-4.70	3.11	-6.18
NOV	683	-61.52	0.38	-62.05
Total	33,362	23.88	19.06	28.88

Source: ZCE

Table 1-3-20 Annual Delivery Data of White Sugar Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
2021	26,931	386.82	14.79	392.75
2022	33,362	23.88	19.06	28.88

Source: ZCE

Table 1-3-21 Monthly Exercise Data of White Sugar Options, 2022

Month	Exercise Volume (lot)
JAN	0
FEB	6,360
MAR	48
APR	16,461
MAY	157
JUN	5,704
JUL	489
AUG	31,123
SEP	330
OCT	6,091
NOV	238
DEC	15,383
Total	82,384

Source: ZCE

Table 1-3-22 Annual Exercise Data of White Sugar Options, 2021-2022

Year	Exercise Volume (lot)	YoY Change (%)
2021	42,244	-14.60
2022	82,384	95.02

Source: ZCE

(III) Price Trend (Figure 1-3-2, Table 1-3-23—Table 1-3-24)

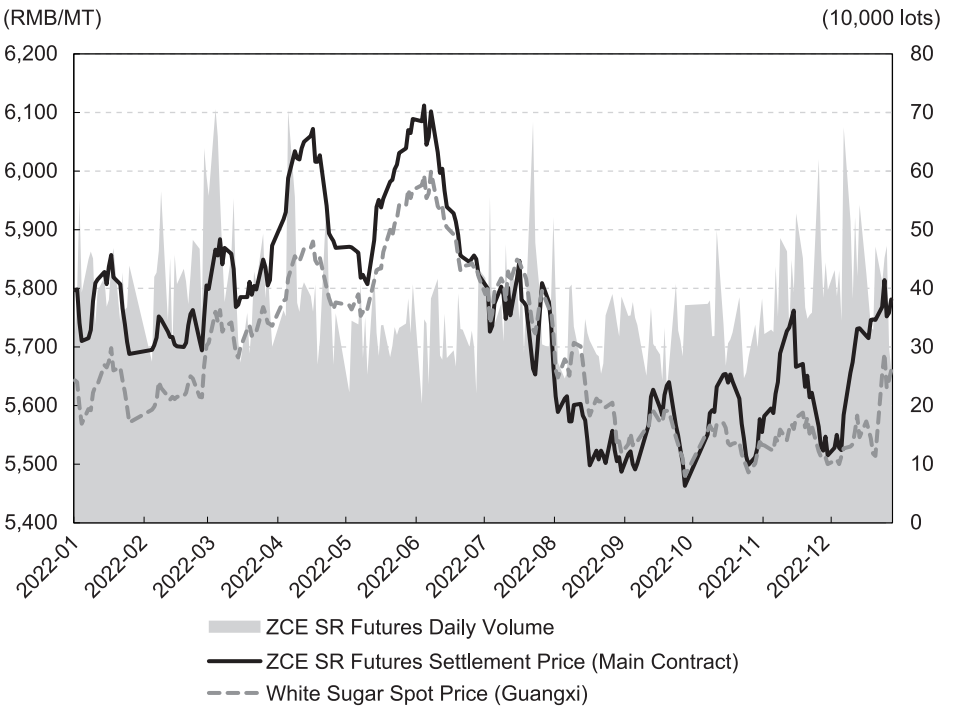


Figure 1-3-2 White Sugar Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: ZCE; Hi Sugar Tech

Table 1-3-23 White Sugar Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
ZCE main futures contract (RMB/MT)	5,777	6,129	5,440	5,783	6	5,746	159.50	689
Ice sugar No.11 futures contract (USD cent/lb)	18.88	21.18	17.20	20.04	1.16	18.82	0.76	3.98
White sugar spot in Guangxi (RMB/MT)	5,615	5,999	5,480	5,660	45	5,683	133.00	519

Source: ZCE; ICE; Hi Sugar Tech

Table 1-3-24 Price Correlation of ZCE White Sugar Futures, 2022

Prices	Correlation
ZCE main futures contract settlement vs. Ice sugar No.11 futures	0.43
ZCE main futures contract settlement vs. White sugar spot	0.88

Source: ZCE; ICE; Hi Sugar Tech

III. Rapeseed Oil Futures and Options

Rapeseed oil options were listed on ZCE for trading on August 26, 2022.

(I) Futures and Options Trading (Table 1-3-25—Table 1-3-27)

Table 1-3-25 Monthly Trading Data of Rapeseed Oil Futures, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	769.63	3.72	9,242.02	25.19	22.10	19.53
FEB	661.28	49.52	8,153.54	85.65	21.29	13.75
MAR	762.79	-23.62	9,780.41	-7.12	22.98	2.83
APR	518.56	-40.73	6,860.84	-25.28	25.42	41.31
MAY	357.92	-51.45	4,857.53	-37.89	26.24	43.27
JUN	541.57	-41.77	7,090.84	-24.74	22.67	10.25
JUL	997.09	-7.67	10,832.78	-2.88	27.67	11.99
AUG	887.25	-28.23	10,124.22	-22.15	28.36	10.59
SEP	844.50	-14.02	8,955.04	-16.26	27.17	4.22
OCT	745.66	-26.16	8,271.16	-33.78	29.91	2.37
NOV	1,341.09	12.15	15,139.26	1.37	32.92	19.90
DEC	1,017.39	-2.79	10,796.18	-15.82	32.17	24.62
Total	9,444.73	-16.24	110,103.82	-11.09	—	—

Source: ZCE

Table 1-3-26 Annual Trading Data of Rapeseed Oil Futures, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	11,275.52	6.93	123,831.61	37.64	25.81	59.94
2022	9,444.73	-16.24	110,103.82	-11.09	32.17	24.62

Source: ZCE

Table 1-3-27 Annual Trading Data of Rapeseed Oil Options, 2022

Year	Volume (10,000 lots)	YoY Change (%)	Put/Call Ratio	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2022	259.42	—	0.90	21.81	—	2.38	—

Source: ZCE

(II) Delivery and Exercise (Table 1-3-28—Table 1-3-30)

Table 1-3-28 Monthly Delivery Data of Rapeseed Oil Futures, 2022

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
JAN	885	-33.31	1.08	-21.19

Continued

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
MAR	620	-48.97	0.84	-35.98
MAY	1,141	-82.77	1.57	-79.19
JUL	168	-79.36	0.20	-76.36
SEP	2,629	-45.17	3.24	-38.00
NOV	1,633	-18.35	2.15	-14.03
Total	7,076	-57.82	9.08	-51.72

Source: ZCE

Table 1-3-29 Annual Delivery Data of Rapeseed Oil Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
2021	16,775	111.65	18.81	180.47
2022	7,076	-57.82	9.08	-51.72

Source: ZCE

Table 1-3-30 Annual Exercise Data of Rapeseed Oil Options, 2022

Year	Exercise Volume (lot)
2022	6,202

Source: ZCE

(III) Price Trend (Figure 1-3-3, Table 1-3-31—Table 1-3-32)

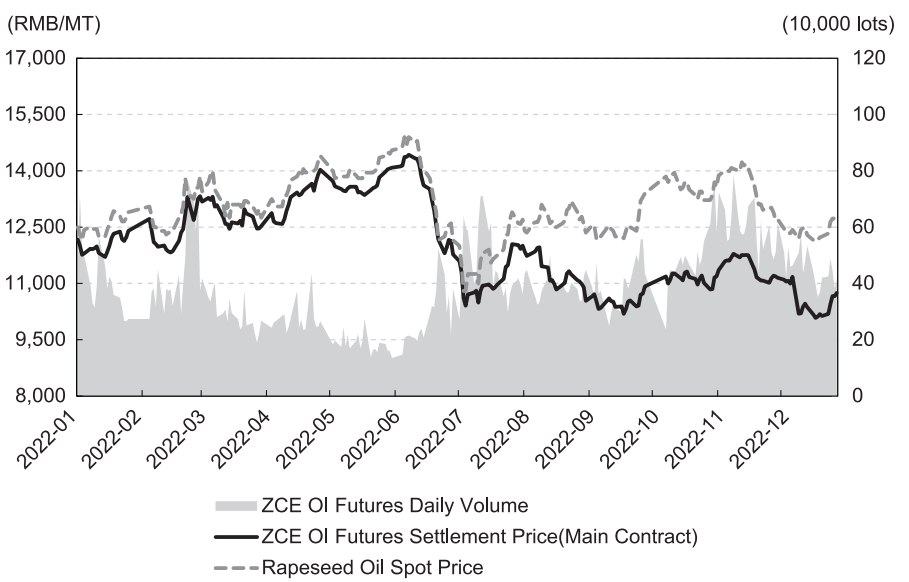


Figure 1-3-3 Rapeseed Oil Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: ZCE; CNGOIC

Table 1-3-31 Rapeseed Oil Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
ZCE main futures contract (RMB/MT)	12,298	14,538	9,986	10,739	-1,559	11,944.45	1,139.85	4,552
Grade-3 rapeseed oil spot at Zhanjiang, Guangdong (RMB/MT)	12,700	14,900	10,800	12,760	60	13,037.69	805.36	4,100

Source: ZCE; CNGOIC

Table 1-3-32 Price Correlation of ZCE Rapeseed Oil Futures, 2022

Prices	Correlation
ZCE main futures contract settlement vs. Rapeseed oil spot	0.70

Source: ZCE; CNGOIC

IV. Rapeseed Meal Futures and Options

(I) Futures and Options Trading (Table 1-3-33—Table 1-3-36)

Table 1-3-33 Monthly Trading Data of Rapeseed Meal Futures, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	1,280.17	-40.08	3,787.53	-39.86	73.27	47.17
FEB	1,543.57	-9.76	5,336.39	6.85	78.23	40.51
MAR	1,620.63	-45.25	6,104.77	-27.25	71.21	28.58
APR	888.89	-64.31	3,167.60	-56.94	55.18	0.26
MAY	497.11	-76.13	1,709.38	-72.74	38.05	-28.63
JUN	638.06	-72.44	2,093.10	-68.82	37.06	-34.68
JUL	1,101.93	-48.83	3,094.15	-51.83	41.52	-37.74
AUG	1,160.77	-56.66	3,323.21	-57.65	42.13	-20.92
SEP	1,317.02	-34.62	4,023.81	-30.20	61.09	16.64
OCT	1,172.45	-36.34	3,583.64	-26.21	68.15	14.10
NOV	1,920.43	-15.81	5,866.00	-2.90	77.14	41.15
DEC	1,346.84	-39.55	4,125.02	-34.60	72.50	21.46
Total	14,487.87	-46.13	46,214.60	-40.19	—	—

Source: ZCE

Table 1-3-34 Annual Trading Data of Rapeseed Meal Futures, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	26,892.72	68.19	77,267.62	100.09	59.69	24.62
2022	14,487.87	-46.13	46,214.60	-40.19	72.50	21.46

Source: ZCE

Table 1-3-35 Monthly Trading Data of Rapeseed Meal Options, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Put/Call Ratio	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	52.00	-9.83	1.06	2.79	-13.89	7.60	3.45
FEB	67.68	110.83	1.54	6.36	257.30	10.15	45.29
MAR	96.05	26.95	1.80	8.64	221.19	12.16	43.33
APR	40.18	-2.89	1.32	4.02	100.00	7.30	73.83
MAY	42.90	10.62	1.25	3.06	52.24	8.11	36.05
JUN	60.26	101.31	1.52	2.94	90.91	7.09	40.88
JUL	61.23	54.43	1.44	3.30	95.27	5.93	16.71
AUG	34.77	52.02	0.84	2.40	116.22	5.30	93.66
SEP	66.02	206.76	1.04	4.55	405.56	7.18	82.62
OCT	46.75	88.63	1.35	2.38	96.69	7.13	29.37
NOV	148.87	171.96	1.28	4.47	120.20	9.99	47.52
DEC	82.28	103.79	1.01	3.05	36.16	5.79	13.45
Total	798.99	66.64	1.29	47.96	113.63	—	—

Source: ZCE

Table 1-3-36 Annual Trading Data of Rapeseed Meal Options, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Put/Call Ratio	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	479.46	41.71	0.85	22.45	65.07	5.11	0.05
2022	798.99	66.64	1.29	47.96	113.63	5.79	13.45

Source: ZCE

(II) Delivery and Exercise (Table 1-3-37—Table 1-3-40)

Table 1-3-37 Monthly Delivery Data of Rapeseed Meal Futures, 2022

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥10,000)	YoY Change (%)
JAN	2,495	-26.36	7,744.48	-18.33
MAR	1,006	-55.29	3,889.20	-36.66
MAY	3,303	32.33	12,657.10	70.85

Continued

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥10,000)	YoY Change (%)
JUL	369	-77.49	1,256.81	-73.80
AUG	955	-13.18	3,333.91	2.05
SEP	775	-73.47	3,014.75	-66.85
NOV	0	-100.00	0.00	-100.00
Total	8,903	-46.13	31,896.24	-32.18

Source: ZCE

Table 1-3-38 Annual Delivery Data of Rapeseed Meal Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥10,000)	YoY Change (%)
2021	16,526	169.99	47,030.94	237.14
2022	8,903	-46.13	31,896.24	-32.18

Source: ZCE

Table 1-3-39 Monthly Exercise Data of Rapeseed Meal Options, 2022

Month	Exercise Volume (lot)
JAN	1,352
FEB	6,298
MAR	516
APR	13,285
MAY	2,549
JUN	3,953
JUL	3,071
AUG	5,187
SEP	1,023
OCT	3,586
NOV	1,271
DEC	6,373
Total	48,464

Source: ZCE

Table 1-3-40 Annual Exercise Data of Rapeseed Meal Options, 2021-2022

Year	Exercise Volume (lot)	YoY Change (%)
2021	36,569	57.23
2022	48,464	32.53

Source: ZCE

(III) Price Trend (Figure 1-3-4, Table 1-3-41—Table 1-3-42)

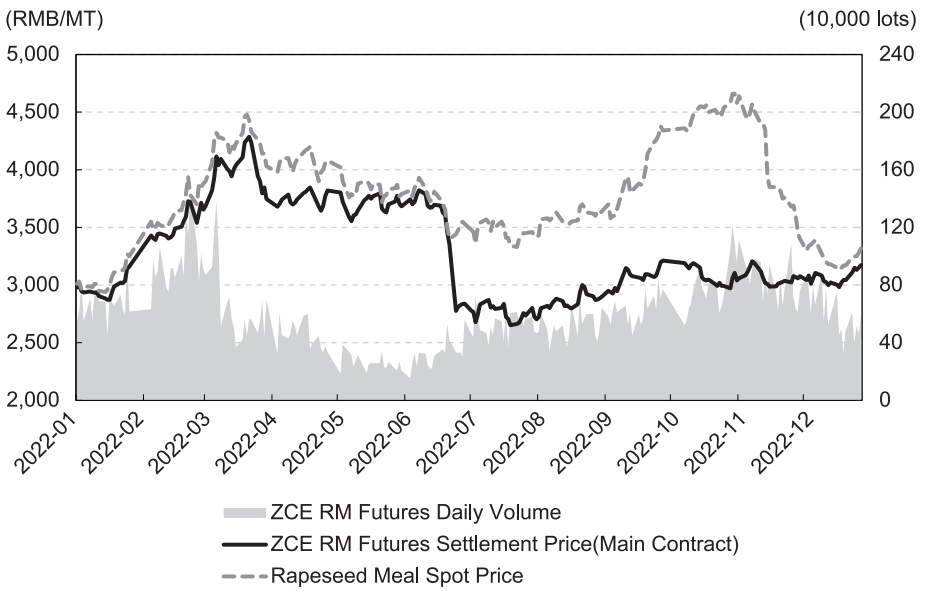


Figure 1-3-4 Rapeseed Meal Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: ZCE; CNGOIC

Table 1-3-41 Rapeseed Meal Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
ZCE main futures contract (RMB/MT)	2,912	4,364	2,596	3,223	311	3,265.58	408.39	1,768
Rapeseed meal spot at Zhanjiang, Guangdong (RMB/MT)	2,940	4,660	2,940	3,320	380	3,772.19	427.06	1,720

Source: ZCE; CNGOIC

Table 1-3-42 Price Correlation of ZCE Rapeseed Meal Futures, 2022

Prices	Correlation
ZCE main futures contract settlement vs. Rapeseed meal spot	0.46

Source: ZCE; CNGOIC

V. Peanut Kernel Futures and Options

Peanut kernel options were listed on ZCE for trading on August 26, 2022.

(I) Futures and Options Trading (Table 1-3-43—Table 1-3-45)

Table 1-3-43 Monthly Trading Data of Peanut Kernel Futures, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	242.97	—	971.58	—	19.29	—
FEB	241.75	5.89	985.98	-17.22	18.35	651.12
MAR	304.47	583.91	1,342.99	455.46	7.75	500.50
APR	136.64	766.49	637.34	672.88	8.97	605.14
MAY	314.16	1,045.94	1,619.62	1,050.39	13.14	611.53
JUN	393.97	430.02	1,991.28	477.71	15.49	364.22
JUL	256.40	64.67	1,217.62	67.32	13.72	29.17
AUG	186.60	11.76	905.29	19.70	16.54	51.76
SEP	301.34	98.75	1,580.38	143.42	16.26	107.55
OCT	270.32	-27.84	1,467.84	-11.18	19.49	18.81
NOV	295.45	26.76	1,587.50	56.84	18.96	8.13
DEC	217.54	2.41	1,110.74	27.96	12.36	-29.69
Total	3,161.61	87.67	15,418.17	101.10	—	—

Source: ZCE

Table 1-3-44 Annual Trading Data of Peanut Kernel Futures, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	1,684.71	—	7,666.78	—	17.58	—
2022	3,161.61	87.67	15,418.17	101.10	12.36	-29.69

Source: ZCE

Table 1-3-45 Annual Trading Data of Peanut Kernel Options, 2022

Year	Volume (10,000 lots)	YoY Change (%)	Put/Call Ratio	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2022	223.94	—	0.83	12.16	—	3.82	—

Source: ZCE

(II) Delivery and Exercise (Table 1-3-46—Table 1-3-48)

Table 1-3-46 Monthly Delivery Data of Peanut Kernel Futures, 2022

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥10,000)	YoY Change (%)
JAN	2,463	—	9,662.58	—
MAR	147	—	568.70	—
APR	3,300	—	14,201.20	—

Continued

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥10,000)	YoY Change (%)
OCT	1,149	26.13	5,787.24	56.91
NOV	74	-37.82	373.95	-23.31
DEC	85	13.33	441.18	49.44
Total	7,218	553.21	31,034.84	594.14

Source: ZCE

Table 1-3-47 Annual Delivery Data of Peanut Kernel Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥10,000)	YoY Change (%)
2021	1,105	—	4,470.99	—
2022	7,218	553.21	31,034.84	594.14

Source: ZCE

Table 1-3-48 Annual Exercise Data of Peanut Kernel Options, 2022

Year	Exercise Volume (lot)
2022	5,253

Source: ZCE

(III) Price Trend (Figure 1-3-5, Table 1-3-49—Table 1-3-50)

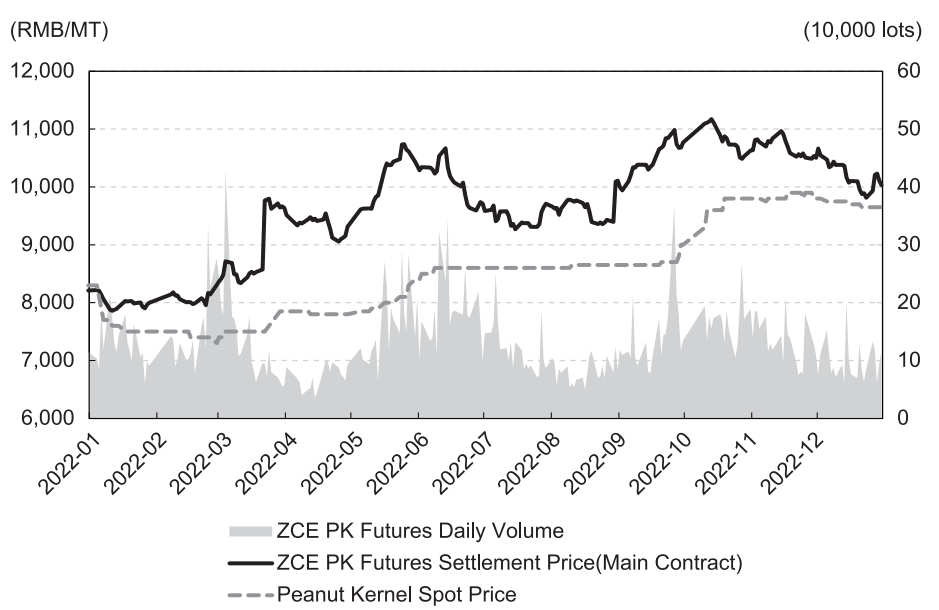


Figure 1-3-5 Peanut Kernel Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: ZCE; CNGOIC

Table 1-3-49 Peanut Kernel Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
ZCE main futures contract (RMB/MT)	8,252	11,256	7,794	9,986	1,734	9,679.99	915.20	3,462
Oilseed peanut kernel spot in eastern Shandong (RMB/MT)	8,300	9,900	7,300	9,650	1,350	8,537.81	822.27	2,600

Source: ZCE; CNGOIC

Table 1-3-50 Price Correlation of ZCE Peanut Kernel Futures, 2022

Prices	Correlation
ZCE main futures contract settlement vs. Peanut kernel spot	0.78

Source: ZCE; CNGOIC

VI. Purified Terephthalic Acid (PTA) Futures and Options

(I) Futures and Options Trading (Table 1-3-51—Table 1-3-54)

Table 1-3-51 Monthly Trading Data of PTA Futures, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	3,318.73	-22.19	8,759.10	3.19	188.19	-41.50
FEB	2,872.27	-24.61	8,059.89	-4.49	197.76	-33.59
MAR	5,070.99	-12.40	15,335.07	16.05	190.35	-33.49
APR	3,572.16	-13.91	10,891.82	13.61	198.35	-20.95
MAY	4,215.29	2.51	13,923.64	42.81	259.92	1.61
JUN	4,974.47	7.68	17,390.75	53.80	246.80	-14.54
JUL	5,215.68	-10.85	15,078.21	-0.71	284.80	7.62
AUG	5,163.74	-7.35	14,520.72	0.44	296.22	14.05
SEP	5,545.41	28.15	15,448.42	43.95	254.45	18.50
OCT	3,669.54	-22.16	9,851.34	-22.83	317.16	44.28
NOV	5,331.88	29.15	13,927.87	35.89	316.30	30.23
DEC	4,632.38	16.60	12,146.57	30.48	311.60	59.48
Total	53,582.55	-3.13	155,333.39	16.37	—	—

Source: ZCE

Table 1-3-52 Annual Trading Data of PTA Futures, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥tn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	55,311.71	71.73	13.35	125.70	195.38	-37.08
2022	53,582.55	-3.13	15.53	16.37	311.60	59.48

Source: ZCE

Table 1-3-53 Monthly Trading Data of PTA Options, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Put/Call Ratio	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	292.46	83.87	0.99	11.21	48.85	24.11	-21.42
FEB	269.49	50.70	1.02	12.64	4.52	20.29	-23.06
MAR	339.49	33.46	0.94	20.28	91.29	20.86	-34.86
APR	313.23	92.18	0.86	10.67	44.76	17.76	-18.19
MAY	458.09	176.31	1.07	18.16	140.88	23.28	-18.40
JUN	704.25	198.95	1.16	34.79	198.14	35.22	-0.44
JUL	747.00	81.52	1.03	35.82	109.22	36.14	-6.94
AUG	655.91	94.63	0.90	19.02	48.61	31.97	-14.41
SEP	749.42	142.84	0.94	21.37	78.84	26.19	-24.88
OCT	547.00	72.88	0.89	12.29	-34.75	38.40	-0.70
NOV	906.93	191.09	0.90	19.41	86.83	40.13	8.79
DEC	906.47	330.29	0.92	20.35	181.07	38.42	51.89
Total	6,889.74	125.72	0.96	236.01	74.64	—	—

Source: ZCE

Table 1-3-54 Annual Trading Data of PTA Options, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Put/Call Ratio	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	3,052.38	158.93	0.59	135.14	232.50	25.30	-20.97
2022	6,889.74	125.72	0.96	236.01	74.64	38.42	51.89

Source: ZCE

(II) Delivery and Exercise (Table 1-3-55—Table 1-3-58)

Table 1-3-55 Monthly Delivery Data of PTA Futures, 2022

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
JAN	17,020	-76.43	4.38	-68.60
FEB	5,625	10.10	1.57	50.44
MAR	21,641	-22.57	6.63	3.97
APR	8,413	72.72	2.57	145.19
MAY	15,911	-67.18	5.26	-53.94
JUN	8,171	-16.54	3.00	31.13
JUL	20,910	-22.24	6.69	-3.25
AUG	3,910	-48.73	1.17	-42.64

Continued

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
SEP	33,832	2.83	10.97	40.71
OCT	12,097	-65.26	3.63	-61.46
NOV	16,119	-53.46	4.48	-48.58
DEC	9,962	-54.94	2.58	-48.70
Total	173,611	-46.97	52.91	-30.39

Source: ZCE

Table 1-3-56 Annual Delivery Data of PTA Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
2021	327,392	21.86	76.01	51.15
2022	173,611	-46.97	52.91	-30.39

Source: ZCE

Table 1-3-57 Monthly Exercise Data of PTA Options, 2022

Month	Exercise Volume (lot)
JAN	18,696
FEB	53,644
MAR	18,606
APR	21,300
MAY	17,101
JUN	28,114
JUL	23,347
AUG	30,770
SEP	27,698
OCT	11,458
NOV	17,596
DEC	20,321
Total	288,651

Source: ZCE

Table 1-3-58 Annual Exercise Data of PTA Options, 2021-2022

Year	Exercise Volume (lot)	YoY Change (%)
2021	328,734	199.61
2022	288,651	-12.19

Source: ZCE

(III) Price Trend (Figure 1-3-6, Table 1-3-59—Table 1-3-60)

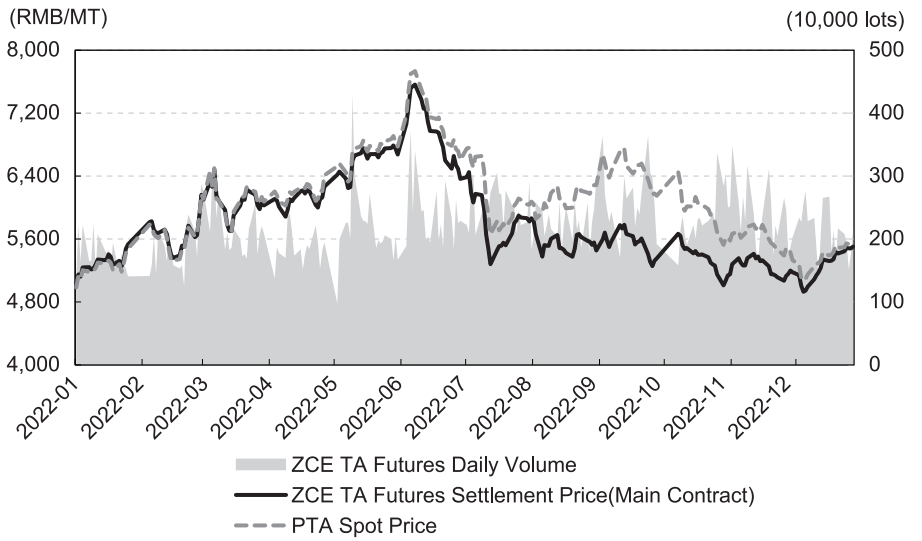


Figure 1-3-6 PTA Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: ZCE; CCF

Table 1-3-59 PTA Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
ZCE main futures contract (RMB/MT)	5,018	7,728	4,872	5,540	522	5,794.40	569.53	2,856
Domestic PTA spot (RMB/MT)	4,945	7,735	4,985	5,540	595	6,059.19	570.16	2,750

Source: ZCE; CCF

Table 1-3-60 Price Correlation of ZCE PTA Futures, 2022

Prices	Correlation
ZCE continuous futures contract settlement vs. PTA spot	0.98

Source: ZCE; CCF

VII. Polyester Staple Fiber Futures

(I) Trading (Table 1-3-61—Table 1-3-62)

Table 1-3-61 Monthly Trading Data of Polyester Staple Fiber Futures, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	350.34	25.17	1,293.56	39.24	20.40	90.14

Continued

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
FEB	285.39	-10.09	1,084.41	-10.79	23.08	48.27
MAR	506.89	-40.04	1,994.42	-36.84	25.32	17.84
APR	387.49	-35.75	1,510.91	-29.03	24.37	21.96
MAY	502.28	15.41	2,077.41	34.72	32.81	77.84
JUN	614.82	84.95	2,620.61	122.90	28.97	38.36
JUL	669.96	59.72	2,441.31	59.25	60.53	187.18
AUG	733.77	99.73	2,646.10	101.69	85.17	326.80
SEP	757.21	85.28	2,770.72	92.64	57.69	226.19
OCT	511.13	-4.20	1,803.08	-15.22	56.75	256.79
NOV	585.89	46.35	1,997.87	41.99	56.52	196.88
DEC	744.86	86.55	2,581.67	90.05	68.51	292.10
Total	6,650.02	24.48	24,822.07	28.45	—	—

Source: ZCE

Table 1-3-62 Annual Trading Data of Polyester Staple Fiber Futures, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥tn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	5,342.13	225.46	1.93	276.46	17.47	53.11
2022	6,650.02	24.48	2.48	28.45	68.51	292.10

Source: ZCE

(II) Delivery (Table 1-3-63—Table 1-3-64)

Table 1-3-63 Monthly Delivery Data of Polyester Staple Fiber Futures, 2022

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
JAN	5,041	—	1.79	—
FEB	2,621	—	1.00	—
MAR	314	—	0.13	—
APR	434	—	0.17	—
MAY	2,257	-53.90	0.94	-42.78
JUN	181	352.50	0.08	479.33
JUL	9	-99.87	0.00	-99.86
AUG	234	265.63	0.09	283.88
SEP	0	-100	0	-100
OCT	0	-100	0	-100
NOV	4,471	-14.45	1.66	-10.23
DEC	1,000	116.45	0.33	116.13
Total	16,562	—	6.19	—

Source: ZCE

Table 1-3-64 Annual Delivery Data of Polyester Staple Fiber Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
2021	22,381	—	7.86	—
2022	16,562	—	6.19	—

Source: ZCE

(III) Price Trend (Figure 1-3-7, Table 1-3-65—Table 1-3-66)

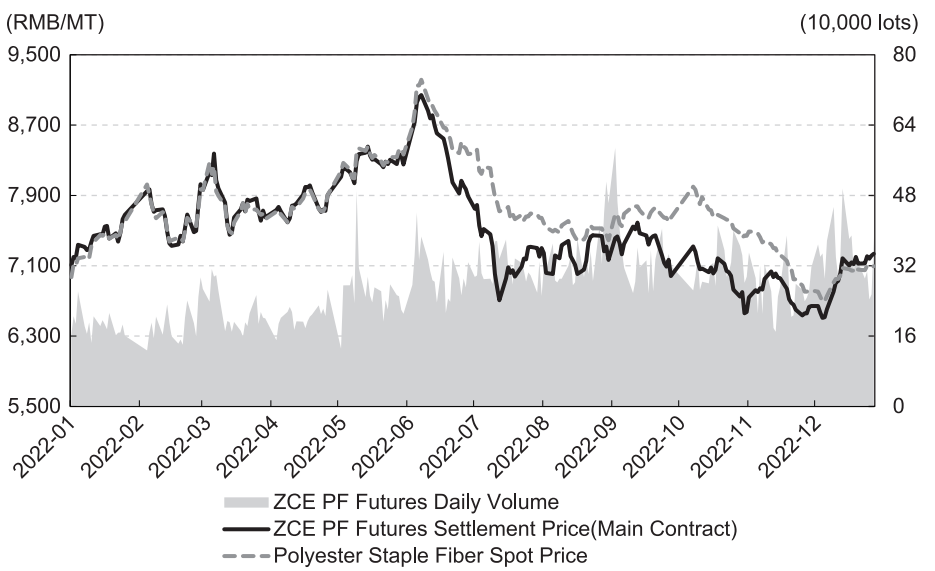


Figure 1-3-7 Polyester Staple Fiber Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: ZCE; CCF

Table 1-3-65 Polyester Staple Fiber Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
ZCE main futures contract (RMB/MT)	7,070	9,168	6,440	7,266	196	7,491.88	545.22	2,728
Domestic polyester staple fiber spot (RMB/MT)	6,940	9,215	6,695	7,095	155	7,703.55	491.69	2,520

Source: ZCE; CCF

Table 1-3-66 Price Correlation of ZCE Polyester Staple Fiber Futures, 2022

Prices	Correlation
ZCE main futures contract settlement vs. Polyester staple fiber spot	0.87

Source: ZCE; CCF

Ⅷ. Methanol Futures and Options

(Ⅰ) Futures and Options Trading (Table 1-3-67—Table 1-3-70)

Table 1-3-67 Monthly Trading Data of Methanol Futures, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	2,432.31	-18.91	6,570.19	-5.98	142.03	19.72
FEB	1,873.94	-5.70	5,247.39	11.16	156.88	26.82
MAR	2,975.97	-13.22	9,138.27	8.35	144.86	21.24
APR	2,321.67	-17.55	6,627.68	-2.76	153.52	16.01
MAY	3,153.54	-4.10	8,656.50	0.17	178.21	26.83
JUN	3,681.07	24.70	10,206.69	37.54	192.26	29.17
JUL	4,157.60	48.02	10,192.59	36.65	228.73	42.55
AUG	4,108.42	50.86	10,320.35	37.57	217.63	64.75
SEP	3,800.39	5.48	10,219.33	-10.17	196.40	42.09
OCT	2,729.05	-52.31	7,243.16	-63.25	244.75	46.26
NOV	4,512.63	-18.73	11,519.16	-23.52	243.87	76.19
DEC	3,808.25	4.39	9,696.59	2.43	190.57	41.25
Total	39,554.85	-4.76	105,637.92	-7.00	—	—

Source: ZCE

Table 1-3-68 Annual Trading Data of Methanol Futures, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	41,530.48	20.42	113,593.02	66.19	134.92	29.31
2022	39,554.85	-4.76	105,637.92	-7.00	190.57	41.25

Source: ZCE

Table 1-3-69 Monthly Trading Data of Methanol Options, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Put/Call Ratio	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	245.17	127.76	0.64	10.61	114.58	11.39	-22.30
FEB	176.87	58.19	0.68	8.22	47.35	13.48	-18.13
MAR	279.07	47.52	0.84	15.32	92.21	17.51	22.03
APR	197.62	99.93	0.81	7.61	95.97	11.74	13.83
MAY	226.44	41.29	0.72	8.07	-20.24	13.65	8.65
JUN	285.85	141.31	0.86	11.23	92.21	16.65	16.70
JUL	304.49	108.81	0.87	11.42	88.39	18.81	63.23
AUG	318.46	111.94	0.93	9.70	55.72	12.94	62.14
SEP	371.47	73.88	0.90	12.66	-20.43	17.59	30.82

Continued

Month	Volume (10,000 lots)	YoY Change (%)	Put/Call Ratio	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
OCT	406.52	99.70	0.91	10.74	-56.77	23.80	12.85
NOV	669.19	163.79	0.85	17.58	22.48	26.84	18.00
DEC	542.17	126.69	0.90	13.18	40.69	16.99	-15.21
Total	4,023.32	101.94	0.84	136.32	18.45	—	—

Source: ZCE

Table 1-3-70 Annual Trading Data of Methanol Options, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Put/Call Ratio	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	1,992.33	96.02	0.71	115.09	149.22	20.04	53.27
2022	4,023.32	101.94	0.84	136.32	18.45	16.99	-15.21

Source: ZCE

(II) Delivery and Exercise (Table 1-3-71—Table 1-3-74)

Table 1-3-71 Monthly Delivery Data of Methanol Futures, 2022

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥10,000)	YoY Change (%)
JAN	665	-72.21	1,680.46	-70.82
FEB	3,691	254.22	9,932.48	308.23
MAR	1,789	-8.49	5,295.44	8.78
APR	512	-5.54	1,459.20	14.08
MAY	971	-37.92	2,645.98	-36.68
JUN	313	4,371.43	875.77	4,730.52
JUL	585	-31.98	1,411.61	-34.81
AUG	2,177	21.55	5,507.81	21.94
SEP	2,516	19.92	6,554.18	10.23
OCT	725	-58.50	2,039.43	-68.90
NOV	1,274	46.27	3,457.64	39.63
DEC	1,369	-51.91	3,547.08	-52.90
Total	16,587	-6.38	44,407.06	-6.96

Source: ZCE

Table 1-3-72 Annual Delivery Data of Methanol Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥10,000)	YoY Change (%)
2021	17,717	-61.07	47,728.35	-41.20
2022	16,587	-6.38	44,407.06	-6.96

Source: ZCE

Table 1-3-73 Monthly Exercise Data of Methanol Options, 2022

Month	Exercise Volume (lot)
JAN	18,941
FEB	11,874
MAR	9,366
APR	31,382
MAY	9,901
JUN	13,690
JUL	17,083
AUG	14,846
SEP	8,472
OCT	12,026
NOV	9,516
DEC	16,576
Total	173,673

Source: ZCE

Table 1-3-74 Annual Exercise Data of Methanol Options, 2022

Year	Exercise Volume (lot)	YoY Change (%)
2021	169,587	63.44
2022	173,673	2.41

Source: ZCE

(III) Price Trend (Figure 1-3-8, Table 1-3-75—Table 1-3-76)

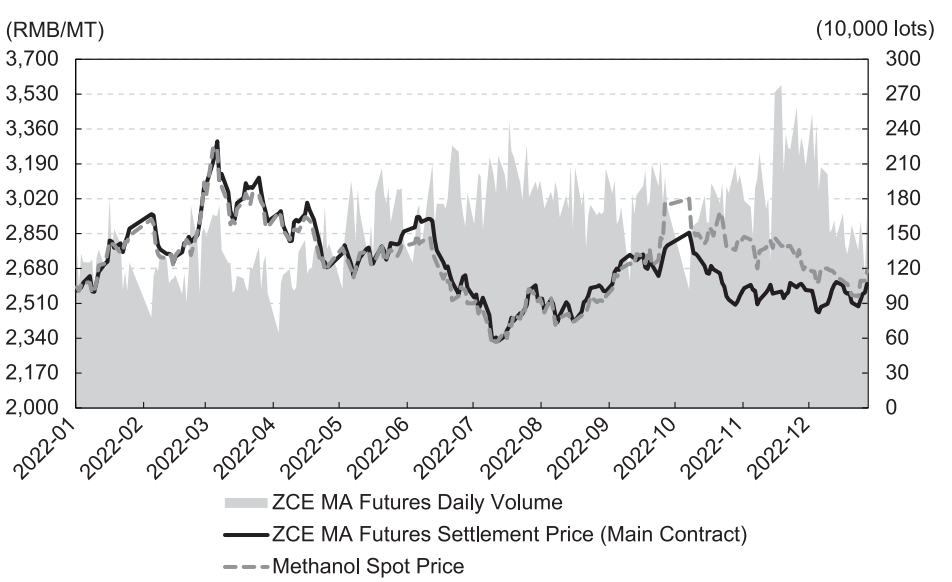


Figure 1-3-8 Methanol Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: ZCE; JLC

Table 1-3-75 Methanol Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
ZCE main futures contract (RMB/MT)	2,478	3,370	2,276	2,653	175	2,696.62	186.42	1,094
Methanol spot in eastern China (RMB/MT)	2,520	3,265	2,315	2,670	150	2,720.48	177.87	950

Source: ZCE; JLC

Table 1-3-76 Price Correlation of ZCE Methanol Futures, 2022

Prices	Correlation
ZCE main futures contract settlement vs. Methanol spot	0.86

Source: ZCE; JLC

IX. Urea Futures

(I) Trading (Table 1-3-77—Table 1-3-78)

Table 1-3-77 Monthly Trading Data of Urea Futures, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	148.25	-37.37	749.86	-19.07	12.18	-13.51
FEB	135.07	-52.07	675.48	-40.51	13.28	-7.79
MAR	209.42	-57.89	1,138.74	-40.52	14.60	4.52
APR	185.95	-43.35	1,041.40	-21.16	15.39	17.25
MAY	156.69	-63.89	904.00	-53.35	14.06	2.37
JUN	141.78	-57.69	787.49	-49.00	13.80	26.48
JUL	199.01	-19.75	885.56	-26.31	14.67	21.24
AUG	241.68	-4.27	1,084.00	-8.94	14.12	43.67
SEP	275.56	-36.07	1,327.03	-42.56	18.31	61.19
OCT	229.53	-52.94	1,065.07	-62.33	24.97	176.71
NOV	419.21	16.26	2,061.18	22.96	29.70	196.66
DEC	369.21	60.22	1,887.43	74.78	25.24	132.56
Total	2,711.36	-34.24	13,607.23	-28.63	—	—

Source: ZCE

Table 1-3-78 Annual Trading Data of Urea Futures, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥tn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	4,123.20	147.70	1.91	239.70	10.85	94.79
2022	2,711.36	-34.24	1.36	-28.63	25.24	132.56

Source: ZCE

(II) Delivery (Table 1-3-79—Table 1-3-80)

Table 1-3-79 Monthly Delivery Data of Urea Futures, 2022

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
JAN	2,596	-19.28	1.33	14.24
FEB	348	2,385.71	0.18	3,150.64
MAR	730	779.52	0.41	1,139.26
APR	26	—	0.02	—
MAY	1,361	-19.56	0.85	15.33
JUN	39	3,800.00	0.02	4,919.23
JUL	443	-78.66	0.24	-77.73
AUG	135	321.88	0.06	271.06
SEP	1,119	-7.83	0.55	-10.61
OCT	87	-65.48	0.04	-72.65
NOV	96	14.29	0.05	18.95
DEC	364	727.27	0.20	823.42
Total	7,344	-15.66	3.95	2.38

Source: ZCE

Table 1-3-80 Annual Delivery Data of Urea Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
2021	8,708	126.30	3.86	209.84
2022	7,344	-15.66	3.95	2.38

Source: ZCE

(III) Price Trend (Figure 1-3-9, Table 1-3-81—Table 1-3-82)

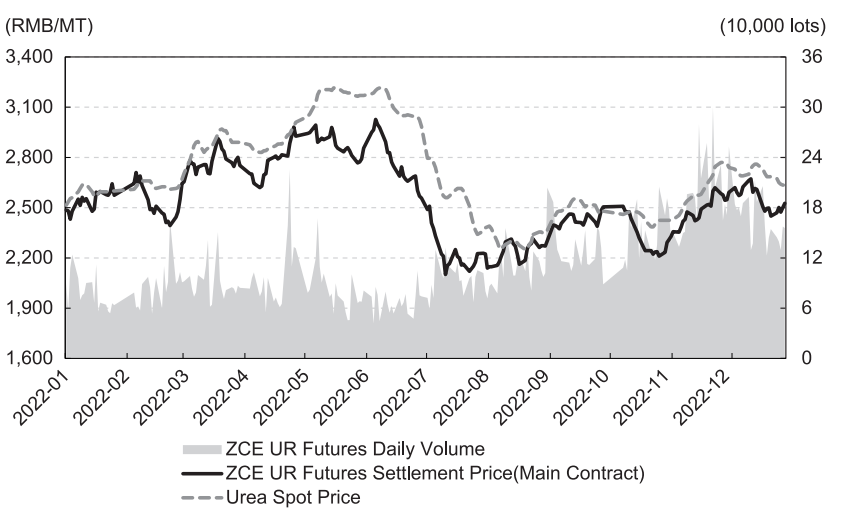


Figure 1-3-9 Urea Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: ZCE; JLC

Table 1-3-81 Urea Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
ZCE main futures contract (RMB/MT)	2,428	3,064	2,044	2,544	116	2,540.91	229.91	1,020
Urea spot in Shandong (RMB/MT)	2,515	3,215	2,250	2,635	120	2,698.57	263.66	965

Source: ZCE; JLC

Table 1-3-82 Price Correlation of ZCE Urea Futures, 2022

Prices	Correlation
ZCE main futures contract settlement vs. Urea spot	0.89

Source: ZCE; JLC

X. Flat Glass Futures

(I) Trading (Table 1-3-83—Table 1-3-84)

Table 1-3-83 Monthly Trading Data of Flat Glass Futures, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	900.61	-57.85	3,656.15	-51.67	39.03	-33.19
FEB	1,091.30	-14.54	4,623.78	-4.51	53.85	-10.94
MAR	1,994.47	-37.56	7,876.79	-40.12	75.16	4.33
APR	1,977.71	-19.20	7,861.03	-27.49	76.29	-9.40
MAY	1,872.21	-42.53	6,713.77	-61.38	118.65	62.99
JUN	2,576.33	76.42	8,879.12	13.87	129.44	81.08
JUL	2,201.99	49.33	6,740.72	-21.87	111.43	93.73
AUG	2,460.55	152.88	7,475.65	40.38	119.07	177.08
SEP	1,800.29	63.46	5,366.44	1.40	98.42	224.95
OCT	1,184.50	16.75	3,477.58	-22.57	121.70	225.50
NOV	2,079.67	60.01	5,800.39	28.94	133.91	208.86
DEC	2,310.75	108.82	7,128.31	76.18	109.85	168.28
Total	22,450.41	8.23	75,599.75	-19.46	—	—

Source: ZCE

Table 1-3-84 Annual Trading Data of Flat Glass Futures, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	20,743.55	11.97	93,864.12	47.65	40.95	-14.57
2022	22,450.41	8.23	75,599.75	-19.46	109.85	168.28

Source: ZCE

(II) Delivery (Table 1-3-85—Table 1-3-86)

Table 1-3-85 Monthly Delivery Data of Flat Glass Futures, 2022

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥10,000)	YoY Change (%)
JAN	43	-90.61	150.16	-90.76
FEB	1,038	1,976.00	4,683.46	2,345.67
MAR	312	-22.77	1,298.54	-20.48
APR	808	-0.12	3,067.17	-10.50
MAY	563	431.13	1,989.64	265.00
JUN	220	175.00	758.12	78.87
JUL	89	-25.21	262.19	-60.14
AUG	471	-3.29	1,460.10	-48.68
SEP	352	27.54	1,022.91	-40.63
OCT	506	-62.15	1,581.76	-73.92
NOV	62	-72.20	176.70	-78.41
DEC	928	98.72	2,683.78	50.84
Total	5,392	11.96	19,134.52	-11.96

Source: ZCE

Table 1-3-86 Annual Delivery Data of Flat Glass Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥10,000)	YoY Change (%)
2021	4,816	-25.71	21,734.37	23.89
2022	5,392	11.96	19,134.52	-11.96

Source: ZCE

(III) Price Trend (Figure 1-3-10, Table 1-3-87—Table 1-3-88)

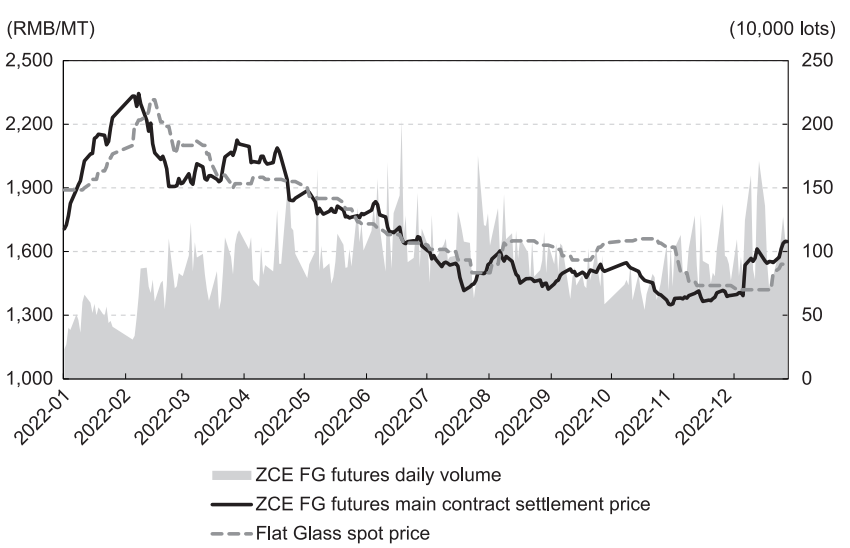


Figure 1-3-10 Flat Glass Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: ZCE; SCI

Table 1-3-87 Flat Glass Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
ZCE main futures contract (RMB/MT)	1,705	2,430	1,332	1,660	-45	1,701.13	258.41	1,098
Flat glass spot (RMB/MT)	1,910	2,315	1,420	1,540	-370	1,737.71	229.42	895

Source: ZCE; SCI

Table 1-3-88 Price Correlation of ZCE Flat Glass Futures, 2022

Prices	Correlation
ZCE continuous futures contract settlement vs. Flat glass spot	0.95

Source: ZCE; SCI

XI. Soda Ash Futures

(I) Trading (Table 1-3-89—Table 1-3-90)

Table 1-3-89 Monthly Trading Data of Soda Ash Futures, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	1,685.90	89.82	8,636.96	208.80	58.32	130.35
FEB	2,224.01	242.21	12,825.95	477.11	74.57	159.98
MAR	3,296.70	28.46	17,786.31	78.20	79.03	71.95
APR	2,577.10	49.15	15,614.35	132.87	76.07	87.08
MAY	2,550.20	2.10	14,756.98	35.45	93.77	77.25
JUN	2,623.63	132.21	15,053.15	196.90	93.54	76.94
JUL	3,181.51	194.94	15,772.53	206.99	87.87	64.88
AUG	3,042.92	94.00	14,424.94	72.01	80.30	53.34
SEP	2,852.11	31.25	13,375.45	2.14	77.11	73.45
OCT	1,837.91	-15.27	8,904.68	-34.54	87.41	158.14
NOV	3,144.31	29.41	15,569.40	26.51	128.54	204.86
DEC	4,054.99	108.15	21,257.11	129.88	106.66	109.48
Total	33,071.28	58.79	173,977.81	74.95	—	—

Source: ZCE

Table 1-3-90 Annual Trading Data of Soda Ash Futures, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	20,827.05	204.46	99,445.51	358.24	50.92	149.95
2022	33,071.28	58.79	173,977.81	74.95	106.66	109.48

Source: ZCE

(II) Delivery (Table 1-3-91—Table 1-3-92)

Table 1-3-91 Monthly Delivery Data of Soda Ash Futures, 2022

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥10,000)	YoY Change (%)
JAN	1,375	3.54	6,289.58	73.37
FEB	845	-54.20	4,769.18	-12.38
MAR	835	-62.27	4,416.39	-41.34
APR	2,590	15.99	14,885.11	81.39
MAY	1,856	-23.78	10,654.11	16.51
JUN	6,505	80.19	39,240.66	169.99
JUL	2,988	522.50	16,234.39	741.46
AUG	2,696	-47.56	14,238.09	-40.59
SEP	3,936	11.91	20,797.91	12.59
OCT	2,988	-24.94	15,651.14	-40.44
NOV	473	-79.16	2,508.43	-80.51
DEC	1,132	-43.29	6,255.28	-41.45
Total	28,219	-9.11	155,940.28	9.29

Source: ZCE

Table 1-3-92 Annual Delivery Data of Soda Ash Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥10,000)	YoY Change (%)
2021	31,049	144.67	142,681.18	281.75
2022	28,219	-9.11	155,940.28	9.29

Source: ZCE

(III) Price Trend (Figure 1-3-11, Table 1-3-93—Table 1-3-94)

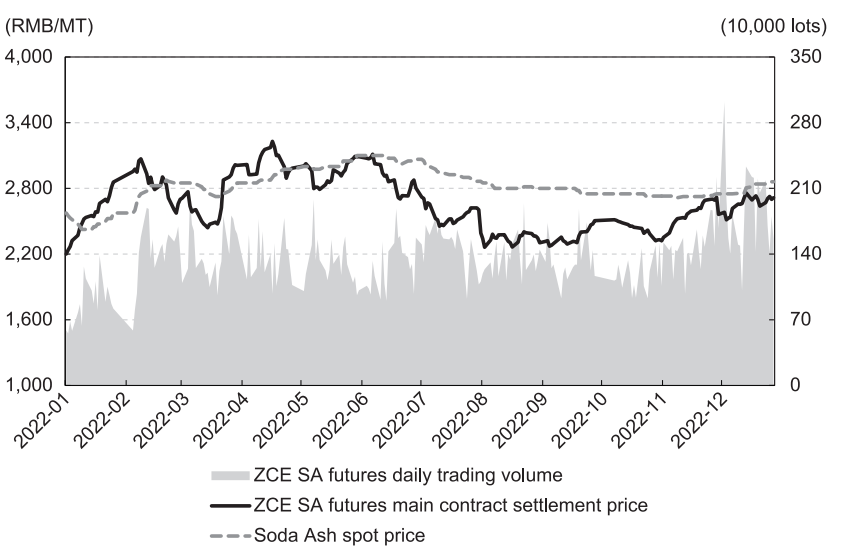


Figure 1-3-11 Soda Ash Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: ZCE; SCI

Table 1-3-93 Soda Ash Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
ZCE main futures contract (RMB/MT)	2,183	3,269	2,160	2,987	804	2,649.16	248.22	1,109
Soda ash spot (RMB/MT)	2,600	3,100	2,425	2,860	260	2,826.01	149.92	675

Source: ZCE; SCI

Table 1-3-94 Price Correlation of ZCE Soda Ash Futures, 2022

Prices	Correlation
ZCE continuous futures contract settlement vs. Soda ash spot	0.70

Source: ZCE; SCI

XII. Ferrosilicon Futures

(I) Trading (Table 1-3-95—Table 1-3-96)

Table 1-3-95 Monthly Trading Data of Ferrosilicon Futures, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	529.27	-40.99	2,349.07	-29.21	16.65	-0.64
FEB	468.81	0.43	2,160.58	28.97	20.52	3.34
MAR	641.05	-27.23	3,095.49	-6.43	25.53	20.51
APR	632.88	-11.64	3,338.25	29.79	24.22	31.80
MAY	500.09	-52.71	2,243.11	-46.54	28.07	18.72
JUN	518.57	-43.92	2,311.65	-40.31	30.58	37.52
JUL	521.26	-17.56	2,012.21	-24.81	37.21	23.91
AUG	581.37	-37.40	2,280.78	-48.13	36.16	4.45
SEP	726.40	-49.39	2,939.65	-66.51	38.80	163.41
OCT	474.80	-26.08	1,948.11	-58.55	43.07	209.95
NOV	627.99	40.02	2,599.00	22.97	45.76	264.82
DEC	667.44	35.12	2,775.20	31.82	39.59	208.31
Total	6,889.93	-27.66	30,053.10	-31.25	—	—

Source: ZCE

Table 1-3-96 Annual Trading Data of Ferrosilicon Futures, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	9,524.12	203.86	43,710.93	368.34	12.84	27.59
2022	6,889.93	-27.66	30,053.10	-31.25	39.59	208.31

Source: ZCE

(II) Delivery (Table 1-3-97—Table 1-3-98)

Table 1-3-97 Monthly Delivery Data of Ferrosilicon Futures, 2022

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥10,000)	YoY Change (%)
JAN	978	-44.08	4,167.06	-33.78
FEB	524	336.67	2,352.24	489.71
MAR	4,270	505.67	20,538.70	641.67
APR	1,144	17.09	5,975.02	78.98
MAY	1,755	-33.22	7,769.82	-21.18
JUN	2,400	0.50	11,059.90	12.20
JUL	2,126	-62.19	8,378.57	-64.17
AUG	1,945	149.04	7,730.42	120.35
SEP	3,661	-14.50	14,493.90	-37.73
OCT	1,773	91.47	7,356.39	-2.38
NOV	1,167	16.24	4,928.24	-8.02
DEC	2,453	49.48	10,547.90	50.74
Total	24,196	6.01	105,298.15	2.66

Source: ZCE

Table 1-3-98 Annual Delivery Data of Ferrosilicon Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥10,000)	YoY Change (%)
2021	22,824	-36.53	102,572.55	-3.49
2022	24,196	6.01	105,298.15	2.66

Source: ZCE

(III) Price Trend (Figure 1-3-12, Table 1-3-99—Table 1-3-100)

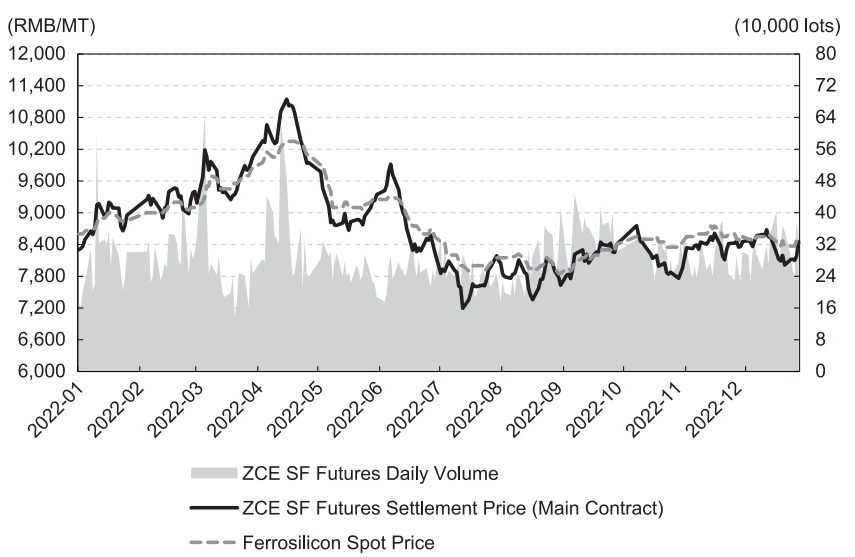


Figure 1-3-12 Ferrosilicon Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: ZCE; Mysteel.com

Table 1-3-99 Ferrosilicon Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
ZCE main futures contract (RMB/MT)	8,312	11,340	7,070	8,486	174	8,697.55	815.72	4,270
Ferrosilicon #72 spot in Hebei (RMB/MT)	8,650	10,350	7,850	8,570	-80	8,783.72	625.50	2,500

Source: ZCE; Mysteel.com

Table 1-3-100 Price Correlation of ZCE Ferrosilicon Futures, 2022

Prices	Correlation
ZCE continuous futures contract settlement vs. Ferrosilicon spot	0.96

Source: ZCE; Mysteel.com

XIII. Manganese Silicon Futures

(I) Trading (Table 1-3-101—Table 1-3-102)

Table 1-3-101 Monthly Trading Data of Manganese Silicon Futures, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	252.02	-69.33	1,043.43	-65.30	22.98	48.41
FEB	204.71	-51.33	848.04	-44.17	24.57	49.37
MAR	355.93	-48.93	1,550.36	-38.90	26.34	15.41
APR	395.81	-43.42	1,734.86	-29.49	24.80	24.71
MAY	325.22	-61.62	1,354.28	-56.89	26.00	15.30
JUN	366.79	-55.11	1,498.87	-51.70	29.13	48.13
JUL	405.62	-39.62	1,501.31	-41.26	31.34	29.61
AUG	449.11	-42.84	1,624.41	-47.92	30.29	22.32
SEP	420.35	-63.16	1,515.06	-73.36	34.13	126.16
OCT	320.35	-45.73	1,145.53	-64.87	41.11	234.74
NOV	438.96	59.84	1,580.31	32.96	31.18	118.88
DEC	479.24	69.40	1,796.18	54.69	34.58	113.56
Total	4,414.11	-45.16	17,192.64	-47.49	—	—

Source: ZCE

Table 1-3-102 Annual Trading Data of Manganese Silicon Futures, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	8,049.61	77.73	32,740.18	119.59	16.19	7.67
2022	4,414.11	-45.16	17,192.64	-47.49	34.58	113.56

Source: ZCE

(II) Delivery (Table 1-3-103—Table 1-3-104)

Table 1-3-103 Monthly Delivery Data of Manganese Silicon Futures, 2022

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥10,000)	YoY Change (%)
JAN	6,550	53.40	27,086.43	75.28
FEB	1,501	3,390.70	6,143.83	3,911.23
MAR	6,293	115.07	27,154.30	139.74
APR	2,535	50.09	11,017.11	91.43
MAY	6,840	-5.47	28,201.32	7.77
JUN	4,800	-3.61	20,188.80	6.63
JUL	3,737	89.89	14,444.89	100.76
AUG	5,884	158.52	21,453.06	141.93
SEP	11,123	27.57	39,896.15	4.95
OCT	3,352	136.06	12,382.13	45.89
NOV	481	-71.92	1,757.57	-78.05
DEC	2,724	17.26	10,449.26	10.14
Total	55,820	41.09	220,174.85	39.49

Source: ZCE

Table 1-3-104 Annual Delivery Data of Manganese Silicon Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥10,000)	YoY Change (%)
2021	39,563	77.50	157,846.50	114.36
2022	55,820	41.09	220,174.85	39.49

Source: ZCE

(III) Price Trend (Figure 1-3-13, Table 1-3-105—Table 1-3-106)

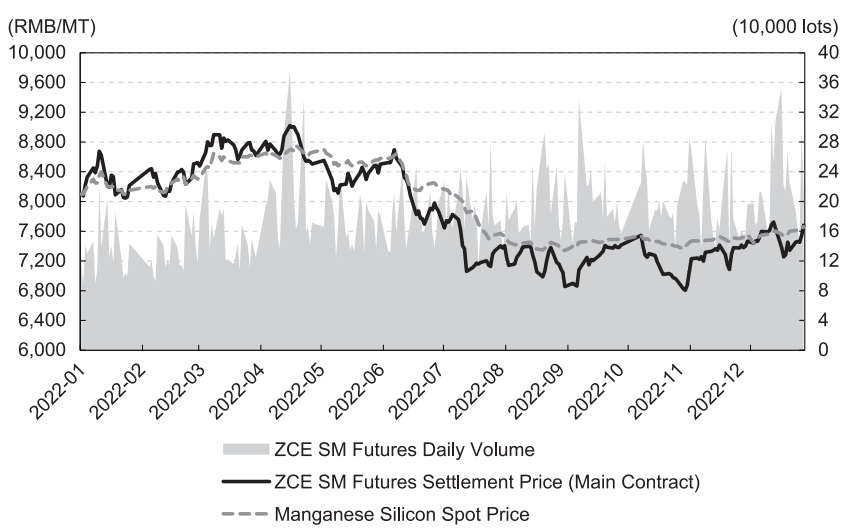


Figure 1-3-13 Manganese Silicon Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: ZCE; Mysteel.com

Table 1-3-105 Manganese Silicon Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
ZCE main manganese futures contract (RMB/MT)	8,178	9,170	6,750	7,684	-494	7,842.48	623.51	2,420
FeMn65Si17 spot in Jiangsu (RMB/MT)	8,100	8,750	7,340	7,660	-440	7,966.57	478.54	1,410

Source: ZCE; Mysteel.com

Table1-3-106 Price Correlation of ZCE Manganese Silicon Futures, 2022

Prices	Correlation
ZCE continuous futures contract settlement vs. Manganese silicon spot	0.95

Source: ZCE; Mysteel.com

XIV. Fresh Apple Futures

(I) Trading (Table 1-3-107—Table 1-3-108)

Table 1-3-107 Monthly Trading Data of Fresh Apple Futures, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	394.32	-52.71	3,349.03	-35.26	20.35	-54.46
FEB	261.86	-58.39	2,385.31	-39.50	22.24	-57.24
MAR	384.75	-69.51	3,542.12	-51.94	21.31	-64.14
APR	611.06	-52.66	5,523.07	-25.88	26.12	-47.71
MAY	460.08	-62.17	4,247.40	-42.11	29.24	-36.27
JUN	417.21	-56.64	3,707.72	-38.39	27.36	-34.46
JUL	403.95	-36.47	3,559.14	-7.86	27.63	-35.34
AUG	330.72	-40.15	2,946.98	-11.29	31.30	-26.87
SEP	384.71	-47.17	3,299.01	-22.87	28.49	0.76
OCT	360.48	-62.26	2,980.00	-59.01	27.93	0.80
NOV	392.12	-55.55	3,193.91	-54.98	30.14	14.78
DEC	352.60	-41.29	2,822.79	-43.03	26.49	13.82
Total	4,753.86	-54.94	41,556.47	-38.96	—	—

Source: ZCE

Table 1-3-108 Annual Trading Data of Fresh Apple Futures, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	10,549.27	67.42	68,075.41	45.58	23.27	-29.31
2022	4,753.86	-54.94	41,556.47	-38.96	26.49	13.82

Source: ZCE

(II) Delivery (Table 1-3-109—Table 1-3-110)

Table 1-3-109 Monthly Delivery Data of Fresh Apple Futures, 2022

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥10,000)	YoY Change (%)
JAN	170	-19.81	1,464.64	17.85
FEB	23	—	199.80	—
MAR	51	-37.80	443.38	4.61
APR	149	—	1,452.97	—
MAY	108	-1.82	1,076.14	68.84
JUN	24	300	234.02	571.74
JUL	0	—	0	—
AUG	0	—	0	—
SEP	0	—	0	—
OCT	223	-44.11	1,914.83	-34.15
NOV	162	852.94	1,442.09	1,022.16
DEC	561	312.50	4,873.90	339.38
Total	1,471	52.91	13,101.78	102.04

Source: ZCE

Table 1-3-110 Annual Delivery Data of Fresh Apple Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥10,000)	YoY Change (%)
2021	962	29.30	6,484.68	27.94
2022	1,471	52.91	13,101.78	102.04

Source: ZCE

(III) Price Trend (Figure 1-3-14, Table 1-3-111—Table 1-3-112)

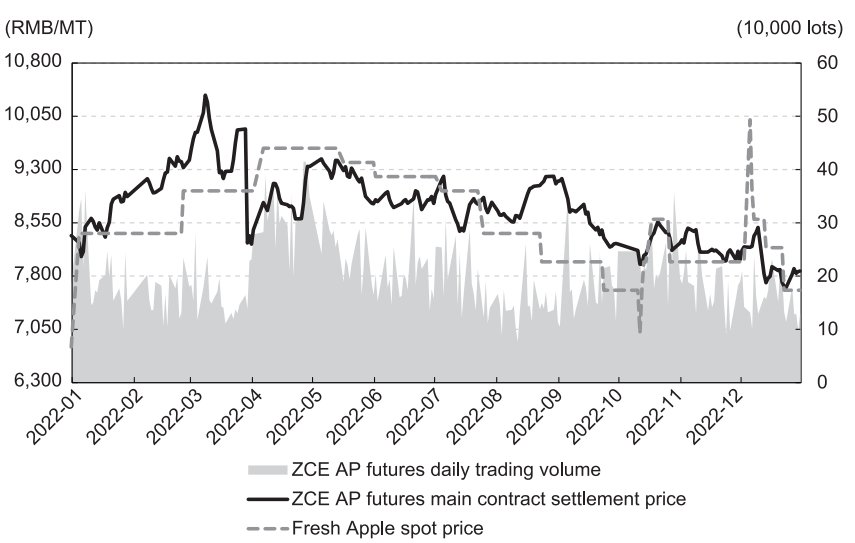


Figure 1-3-14 Fresh Apple Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: ZCE; SCI

Table 1-3-111 Fresh Apple Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
ZCE main futures contract (RMB/MT)	8,394	10,666	7,571	7,880	-514	8,747.93	517.18	3,095
#80 Red Fuji apple in paper bags in Qixia, Shandong (RMB/MT)	6,800	10,000	7,000	7,600	800	8,619.01	605.60	3,000

Source: ZCE; SCI

Table 1-3-112 Price Correlation of ZCE Fresh Apple Futures, 2022

Prices	Correlation
ZCE continuous futures contract settlement vs. Fresh apple spot	0.55

Source: ZCE; SCI

XV. Dried Jujube Futures

(I) Trading (Table 1-3-113—Table 1-3-114)

Table 1-3-113 Monthly Trading Data of Dried Jujube Futures, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	50.43	7.93	332.08	38.43	6.26	117.24
FEB	27.00	-36.34	186.74	-15.90	5.87	55.14
MAR	38.62	-30.48	238.60	-16.02	5.20	67.42
APR	43.74	-1.19	258.74	17.64	4.46	9.86
MAY	34.91	-74.14	216.97	-64.68	4.75	20.49
JUN	42.43	-72.97	240.47	-64.87	5.59	-1.29
JUL	54.98	-87.97	317.79	-87.09	4.77	-67.94
AUG	37.76	-91.50	224.86	-92.54	4.23	-71.29
SEP	26.56	-91.53	161.56	-92.75	3.20	-77.27
OCT	20.45	-94.34	117.51	-95.67	3.45	-75.29
NOV	31.07	-88.57	171.53	-92.04	3.67	-71.21
DEC	50.16	-51.83	263.33	-67.38	5.03	-41.25
Total	458.10	-81.17	2,730.18	-82.55	—	—

Source: ZCE

Table 1-3-114 Annual Trading Data of Dried Jujube Futures, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	2,432.82	272.78	15,649.86	377.14	8.57	218.76
2022	458.10	-81.17	2,730.18	-82.55	5.03	-41.25

Source: ZCE

(II) Delivery (Table 1-3-115—Table 1-3-116)

Table 1-3-115 Monthly Delivery Data of Dried Jujube Futures, 2022

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥10,000)	YoY Change (%)
JAN	1,705	1,408.85	10,941.07	1,882.98
FEB	0	—	0	—
MAR	1,227	373.75	8,013.90	510.51
APR	0	—	0	—
MAY	2,403	516.15	13,792.18	658.16
JUN	0	—	0	—
JUL	2,277	921.08	12,117.01	1,205.49
AUG	0	—	0	—
SEP	4,746	2,847.83	24,961.42	2,935.60
OCT	0	—	0	—
NOV	0	—	0	—
DEC	202	-88.43	1,091.36	-91.66
Total	12,560	334.30	70,916.93	282.90

Source: ZCE

Table 1-3-116 Annual Delivery Data of Dried Jujube Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥10,000)	YoY Change (%)
2021	2,892	278.04	18,520.83	401.56
2022	12,560	334.30	70,916.93	282.90

Source: ZCE

(III) Price Trend (Figure 1-3-15, Table 1-3-117—Table 1-3-118)

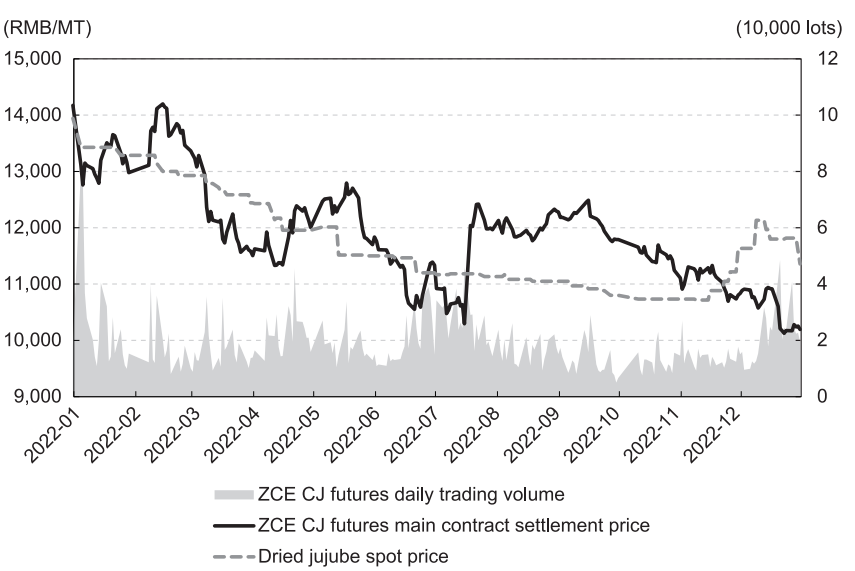


Figure 1-3-15 Dried Jujube Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: ZCE; Xinhua Finance

Table 1-3-117 Dried Jujube Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
ZCE main futures contract (RMB/MT)	14,180	14,430	9,925	10,190	-3,990	11,871	913.69	4,505
Dried jujube spot (RMB/MT)	12,200	12,700	10,400	10,400	-1,800	11,789	551.60	2,300

Source: ZCE; Xinhua Finance

Table 1-3-118 Price Correlation of ZCE Dried Jujube Futures, 2022

Prices	Correlation
ZCE continuous futures contract settlement vs. Dried jujube spot	0.66

Source: ZCE; Xinhua Finance

XVI. Cotton Yarn Futures

(I) Trading (Table 1-3-119)

Table 1-3-119 Annual Trading Data of Cotton Yarn Futures, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Year-End OI (lot)	YoY Change (%)
2021	293.97	22.45	3,739.75	53.25	2,928	-64.73
2022	84.01	-71.42	976.92	-73.88	3,338	14.00

Source: ZCE

(II) Delivery (Table 1-3-120)

Table 1-3-120 Annual Delivery Data of Cotton Yarn Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥10,000)	YoY Change (%)
2021	1,532	219.17	17,534.07	305.06
2022	1,616	5.48	20,451.46	16.64

Source: ZCE

(III) Price Trend (Figure 1-3-16, Table 1-3-121—Table 1-3-122)

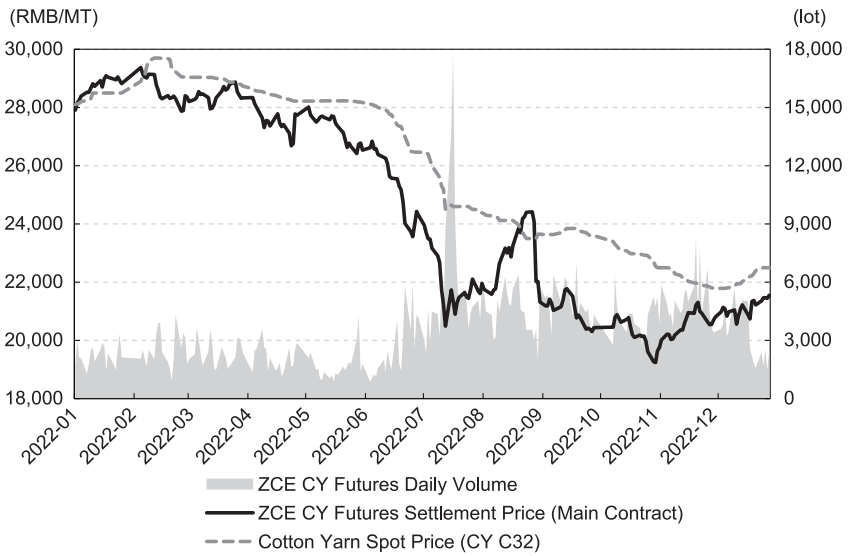


Figure 1-3-16 Cotton Yarn Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: ZCE; TTEB

Table 1-3-121 Cotton Yarn Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
ZCE main futures contract (RMB/MT)	27,840	29,570	19,000	21,680	-6,160	24,419	3,362.96	10,570
CYC32 spot (RMB/MT)	28,080	29,700	21,790	22,500	-5,580	25,847	2,716.58	7,910

Source: ZCE; TTEB

Table 1-3-122 Price Correlation of ZCE Cotton Yarn Futures, 2022

Prices	Correlation
ZCE main futures contract settlement vs. Cotton yarn spot	0.96

Source: ZCE; TTEB

XVII. Rapeseed Futures

(I) Trading (Table 1-3-123—Table 1-3-124)

Table 1-3-123 Annual Trading Data of Rapeseed Futures, 2021-2022

Year	Volume (lot)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Year-End OI (lot)	YoY Change (%)
2021	8,173	243.69	4.90	305.86	12	—
2022	6,936	-15.14	4.44	-9.39	7	-41.67

Source: ZCE

Table 1-3-124 Annual Trading Data of Domestic and Intl' Rapeseed Futures, 2021-2022

Year	Volume (lot)		Year-End OI (lot)	
	ZCE	ICE	ZCE	ICE
2021	8,173	5,915,237	12	176,502
2022	6,936	6,149,845	7	223,369

Note: ZCE rapeseed futures is 10 MT/lot; ICE rapeseed futures is 20 MT/lot.

Source: ZCE; ICE

(II) Delivery

No ZCE rapeseed futures contracts were delivered in 2022.

(III) Price Trend (Figure 1-3-17, Table 1-3-125—Table 1-3-126)

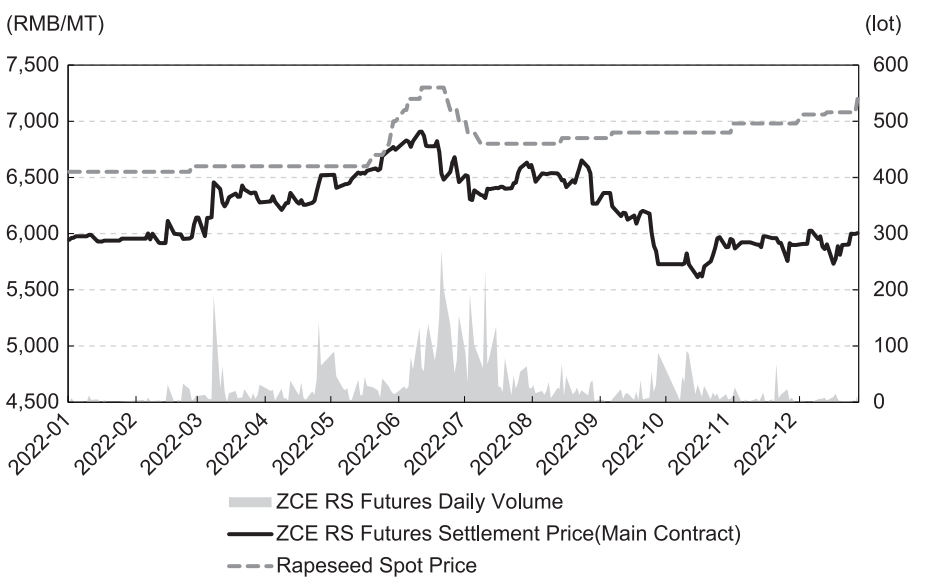


Figure 1-3-17 Rapeseed Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: ZCE; CNGOIC

Table 1-3-125 Rapeseed Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
ZCE main futures contract (RMB/MT)	5,945	6,975	5,565	5,982	37	6,219.03	307.70	1,410
ICE rapeseed futures contract (CAD/MT)	1,012.8	1,220.9	766	858.4	-154.4	970.74	133.69	454.9
Rapeseed spot at Chengdu, Sichuan (RMB/MT)	6,550	7,300	6,550	7,200	650	6,811.57	209.71	750

Source: ZCE; ICE; CNGOIC

Table 1-3-126 Price Correlation of ZCE Rapeseed Futures, 2022

Prices	Correlation
ZCE main futures contract settlement vs. ICE rapeseed futures	0.30
ZCE main futures contract settlement vs. Rapeseed spot	0.12

Source: ZCE; ICE; CNGOIC

XVIII. Strong Gluten Wheat Futures

(I) Trading (Table 1-3-127—Table 1-3-128)

Table 1-3-127 Annual Trading Data of Strong Gluten Wheat Futures, 2021-2022

Year	Volume (lot)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Year-End OI (lot)	YoY Change (%)
2021	13,421	-58.18	7.51	-55.06	97	-82.71
2022	46,987	250.10	32.75	336.09	48	-50.52

Source: ZCE

Table 1-3-128 Annual Trading Data of Domestic and Intl' Strong Gluten Wheat Futures, 2021-2022

Year	Volume (lot)		Year-End OI (lot)	
	ZCE	CME Group	ZCE	CME Group
2021	13,421	29,977,000	97	353,764
2022	46,987	25,955,569	48	333,740

Note: ZCE strong gluten wheat futures is 20 MT/lot; CME Group SRW wheat futures is 5,000 bushel/lot.
Source: ZCE; CME Group

(II) Delivery (Table 1-3-129)

Table 1-3-129 Annual Delivery Data of Strong Gluten Wheat Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥10,000)	YoY Change (%)
2021	224	1,217.65	1,181.38	1,311.28
2022	0	-100	0	-100

Source: ZCE

(III) Price Trend (Figure 1-3-18, Table 1-3-130—Table 1-3-131)

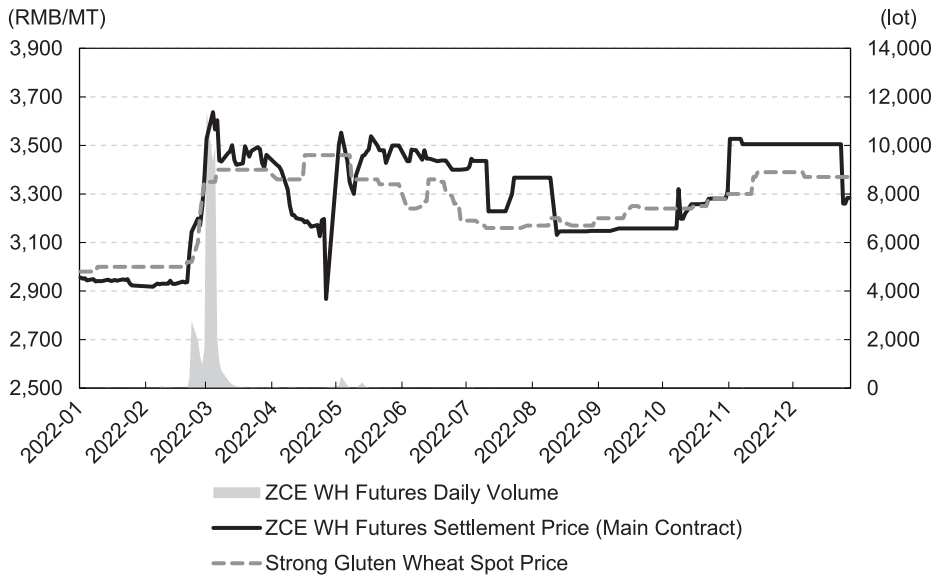


Figure 1-3-18 Strong Gluten Wheat Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: ZCE; CNGOIC

Table 1-3-130 Strong Gluten Wheat Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
ZCE main futures contract (RMB/MT)	2,946	3,761	2,907	3,284	338	3,297.53	194.03	854
CME Group SRW wheat futures (USD cent/bushel)	771	1,350	702.50	791	20	901.67	148.41	647.50
Factory purchase price of Zhengmai 366 at Zhengzhou, Henan (RMB/MT)	2,980	3,460	2,980	3,370	390	3,256.24	135.62	480

Source: ZCE; CME Group; CNGOIC

Table 1-3-131 Price Correlation of ZCE Strong Gluten Wheat Futures, 2022

Prices	Correlation
ZCE main futures contract settlement vs. CME Group SRW wheat futures	0.35
ZCE main futures contract settlement vs. Strong gluten wheat spot	0.75

Source: ZCE; CME Group; CNGOIC

XIX. Common Wheat Futures

(I) Trading (Table 1-3-132—Table 1-3-133)

Table 1-3-132 Annual Trading Data of Common Wheat Futures, 2021-2022

Year	Volume (lot)	YoY Change (%)	Turnover (¥10,000)	YoY Change (%)	Year-End OI (lot)	YoY Change (%)
2021	389	-48.61	4,906	-44.02	0	-100
2022	471	21.08	6,951	41.68	0	—

Source: ZCE

Table 1-3-133 Annual Trading Data of Domestic and Intl' Common Wheat Futures, 2021-2022

Year	Volume (lot)		Year-End OI (lot)	
	ZCE	CME Group	ZCE	CME Group
2021	389	29,977,000	0	353,764
2022	471	25,955,569	0	333,740

Note: ZCE common wheat futures is 50 MT/lot; CME Group SRW wheat futures is 5,000 bushel/lot.
Source: ZCE; CME Group

(II) Delivery (Table 1-3-134)

Table 1-3-134 Annual Delivery Data of Common Wheat Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥10,000)	YoY Change (%)
2021	2	—	24.51	—
2022	0	-100	0	-100

Source: ZCE

(III) Price Trend (Figure 1-3-19, Table 1-3-135—Table 1-3-136)

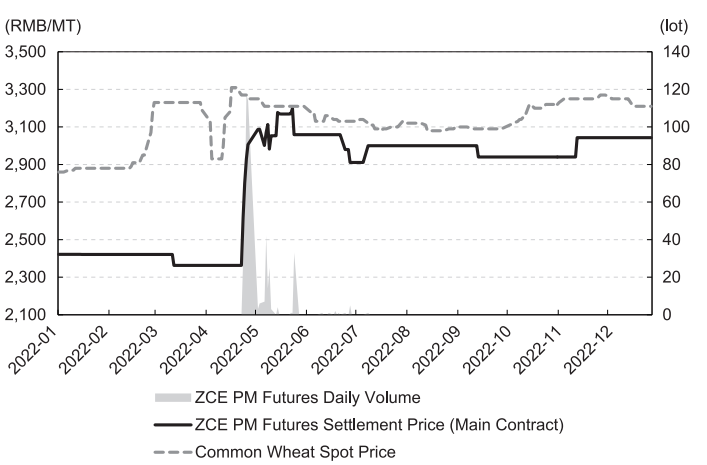


Figure 1-3-19 Common Wheat Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: ZCE; CNGOIC

Table 1-3-135 Common Wheat Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
ZCE main futures contract (RMB/MT)	2,422	3,381	2,359	3,043	621	2,822.52	284.65	1,022
CME Group SRW wheat futures (USD cent/bushel)	771	1,350	702.50	791	20	901.67	148.41	647.50
Factory purchase price at Zhengzhou, Henan (RMB/MT)	2,860	3,310	2,860	3,210	350	3,130.17	121.84	450

Source: ZCE; CME Group; CNGOIC

Table 1-3-136 Price Correlation of ZCE Common Wheat Futures, 2022

Prices	Correlation
ZCE main futures contract settlement vs. CME Group SRW wheat futures	-0.21
ZCE main futures contract settlement vs. Common wheat spot	0.46

Source: ZCE; CME Group; CNGOIC

XX. Early Long-Grain Nonglutinous Paddy Futures

(I) Trading (Table 1-3-137—Table 1-3-138)

Table 1-3-137 Annual Trading Data of Early Long-Grain Nonglutinous Paddy Futures, 2021-2022

Year	Volume (lot)	YoY Change (%)	Turnover (¥10,000)	YoY Change (%)	Year-End OI (lot)	YoY Change (%)
2021	311	-84.07	1,701	-83.52	1	—
2022	403	29.58	2,366	39.09	0	-100

Source: ZCE

Table 1-3-138 Annual Trading Data of Domestic and Intl' Early Long-Grain Nonglutinous Paddy Futures, 2021-2022

Year	Volume (lot)		Year-End OI (lot)	
	ZCE	CME Group	ZCE	CME Group
2021	311	221,775	1	7,469
2022	403	245,747	0	7,325

Note: ZCE early long-grain nonglutinous paddy futures is 20 MT/lot; CME Group rough rice futures is 2,000 cwt/lot.

Source: ZCE; CME Group

(II) Delivery

No ZCE early long-grain nonglutinous paddy futures contracts were delivered in 2022.

(III) Price Trend (Figure 1-3-20, Table 1-3-139—Table 1-3-140)

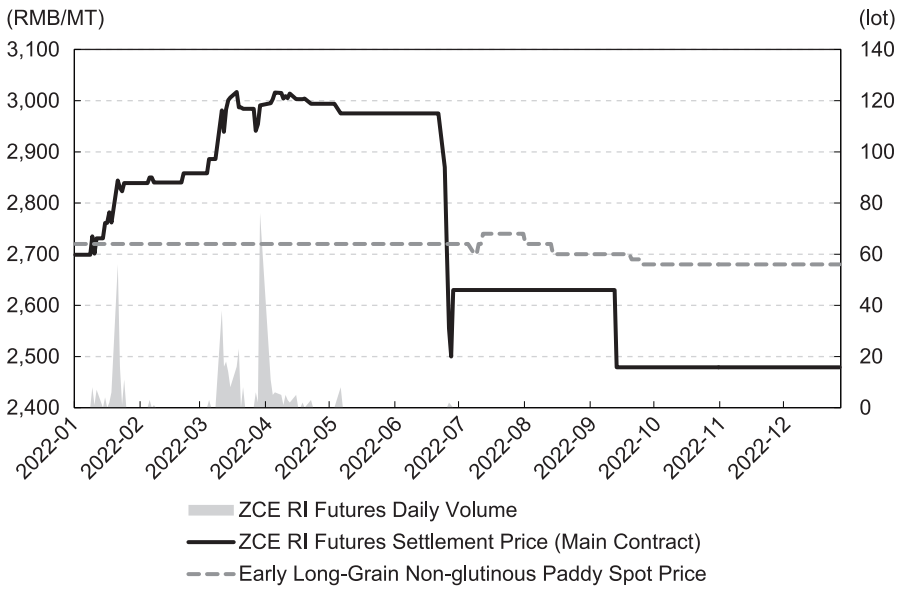


Figure 1-3-20 Early Long-Grain Nonglutinous Paddy Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: ZCE; CNGOIC

Table 1-3-139 Early Long-Grain Nonglutinous Paddy Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
ZCE main futures contract (RMB/MT)	2,718	3,161	2,500	2,479	-239	2,714.68	207.51	661
CME Group rough rice futures (USD/cwt)	14.86	18.20	14.10	18.05	3.19	16.52	0.92	4.10
Purchase price of early long-grain nonglutinous paddy at Changsha, Hunan (RMB/MT)	2,720	2,740	2,680	2,680	-40	2,708.06	18.83	60

Source: ZCE; CME Group; CNGOIC

Table 1-3-140 Price Correlation of ZCE Early Long-Grain Nonglutinous Paddy Futures, 2022

Prices	Correlation
ZCE main futures contract settlement vs. CME Group rough rice futures	-0.44
ZCE main futures contract settlement vs. Early long-grain nonglutinous paddy spot	0.70

Source: ZCE; CME Group; CNGOIC

XXI. Late Long-Grain Nonglutinous Paddy Futures

(I) Trading (Table 1-3-141—Table 1-3-142)

Table 1-3-141 Annual Trading Data of Late Long-Grain Nonglutinous Paddy Futures, 2021-2022

Year	Volume (lot)	YoY Change (%)	Turnover (¥10,000)	YoY Change (%)	Year-End OI (lot)	YoY Change (%)
2021	0	-100	0	-100	0	—
2022	566	—	3,352	—	0	—

Source: ZCE

Table 1-3-142 Annual Trading Data of Domestic and Intl' Late Long-Grain Nonglutinous Paddy Futures, 2021-2022

Year	Volume (lot)		Year-End OI (lot)	
	ZCE	CME Group	ZCE	CME Group
2021	0	221,775	0	7,469
2022	566	245,747	0	7,325

Note: ZCE late long-grain nonglutinous paddy futures is 20 MT/lot; CME Group rough rice futures is 2,000 cwt/lot.
Source: ZCE; CME Group

(II) Delivery

No ZCE late long-grain nonglutinous paddy futures contracts were delivered in 2022.

(III) Price Trend (Figure 1-3-21, Table 1-3-143—Table 1-3-144)

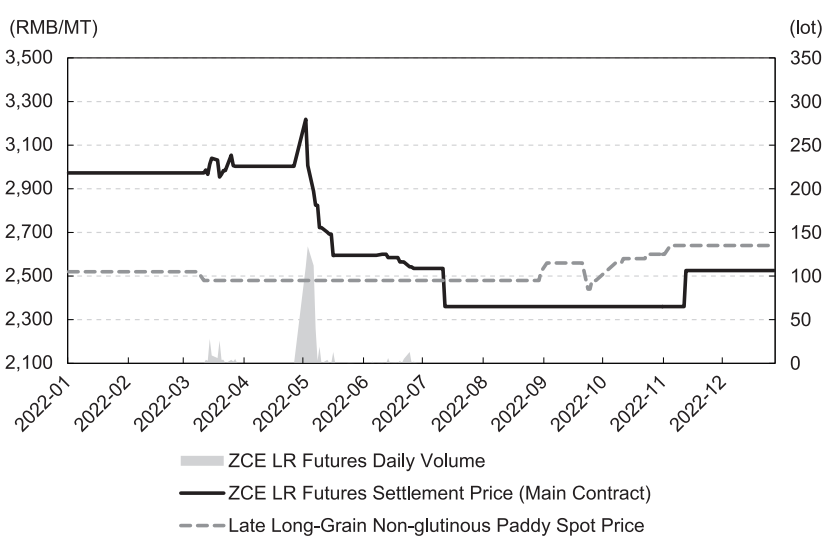


Figure 1-3-21 Late Long-Grain Nonglutinous Paddy Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: ZCE; CNGOIC

Table 1-3-143 Late Long-Grain Nonglutinous Paddy Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
ZCE main futures contract (RMB/MT)	2,973	3,422	2,535	2,525	-448	2,636.34	263.64	887
CME Group rough rice futures (USD/cwt)	14.86	18.20	14.10	18.05	3.19	16.52	0.92	4.10
Load-out price of late long-grain nonglutinous paddy at Jiujiang, Jiangxi (RMB/MT)	2,520	2,640	2,440	2,640	120	2,526.78	60.31	200

Source: ZCE; CME Group; CNGOIC

Table 1-3-144 Price Correlation of ZCE Late Long-Grain Nonglutinous Paddy Futures, 2022

Prices	Correlation
ZCE main futures contract settlement vs. CME Group rough rice futures	-0.72
ZCE main futures contract settlement vs. Late long-grain nonglutinous paddy spot	-0.30

Source: ZCE; CME Group; CNGOIC

XXII. Medium to Short-Grain Nonglutinous Paddy Futures

(I) Trading (Table 1-3-145)

Table 1-3-145 Annual Trading Data of Medium to Short-Grain Nonglutinous Paddy Futures, 2021-2022

Year	Volume (lot)	YoY Change (%)	Turnover (¥10,000)	YoY Change (%)	Year-End OI (lot)	YoY Change (%)
2021	2,564	-78.28	14,456	-78.65	5	25.00
2022	986	-61.54	5,819	-59.75	0	-100

Source: ZCE

(II) Delivery

No ZCE medium to short-grain nonglutinous paddy futures contracts were delivered in 2022.

(III) Price Trend (Figure 1-3-22, Table 1-3-146—Table 1-3-147)

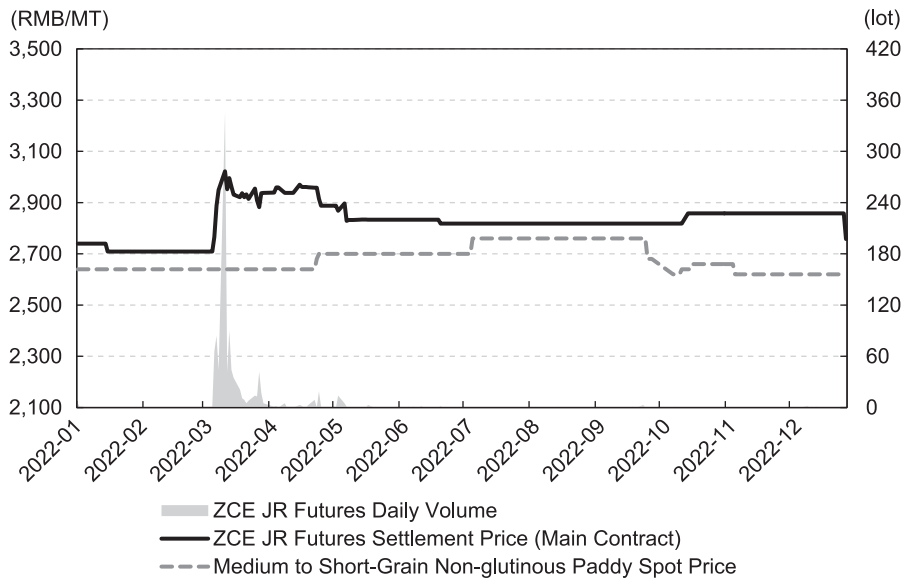


Figure 1-3-22 Medium to Short-Grain Nonglutinous Paddy Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: ZCE; CNGOIC

Table 1-3-146 Medium to Short-Grain Nonglutinous Paddy Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
ZCE main futures contract (RMB/MT)	2,702	3,139	2,400	2,758	56	2,829.70	66.27	739
Load-out price of medium to short-grain nonglutinous paddy at Jiamusi, Heilongjiang (RMB/MT)	2,640	2,760	2,620	2,620	-20	2,678.43	52.44	140

Source: ZCE; CNGOIC

Table 1-3-147 Price Correlation of ZCE Medium to Short-Grain Nonglutinous Paddy Futures, 2022

Prices	Correlation
ZCE continuous futures contract settlement vs. Medium to short-grain nonglutinous paddy rice spot	0.40

Source: ZCE; CNGOIC

XXIII. Thermal Coal Futures and Options

(I) Futures and Options Trading (Table 1-3-148—Table 1-3-150)

Table 1-3-148 Annual Trading Data of Thermal Coal Futures, 2021-2022

Year	Volume (lot)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Year-End OI (lot)	YoY Change (%)
2021	84,236,073	37.70	63,165.99	70.18	33,534	-85.39
2022	479,453	-99.43	373.58	-99.41	0	-100

Source: ZCE

Table 1-3-149 Annual Trading Data of Domestic and Intl' Thermal Coal Futures, 2021-2022

Year	Volume (lot)		Year-End OI (lot)	
	ZCE	CME Group	ZCE	CME Group
2021	84,236,073	153,051	33,534	16,846
2022	479,453	56,889	0	7,567

Note: ZCE thermal coal futures is 100 MT/lot; CME Group API2 futures is 1,000 MT/lot.
Source: ZCE; CME Group

Table 1-3-150 Annual Trading Data of Thermal Coal Options, 2021-2022

Year	Volume (lot)	YoY Change (%)	Put/Call Ratio	Turnover (¥100mn)	YoY Change (%)	Year-End OI (lot)	YoY Change (%)
2021	7,864,306	120.54	1.36	168.78	411.45	11,766	-86.87
2022	123,517	-98.43	0.53	3.86	-97.71	2	-99.98

Source: ZCE

(II) Delivery and Exercise (Table 1-3-151—Table 1-3-152)

Table 1-3-151 Annual Delivery Data of Thermal Coal Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥10,000)	YoY Change (%)
2021	12,801	-78.88	97,346.17	-70.60
2022	25	-99.80	207.15	-99.79

Source: ZCE

Table 1-3-152 Annual Exercise Data of Thermal Coal Options, 2021-2022

Year	Exercise Volume (lot)	YoY Change (%)
2021	62,215	71.67
2022	1,426	-97.71

Source: ZCE

(III) Price Trend (Figure 1-3-23, Table 1-3-153—Table 1-3-154)

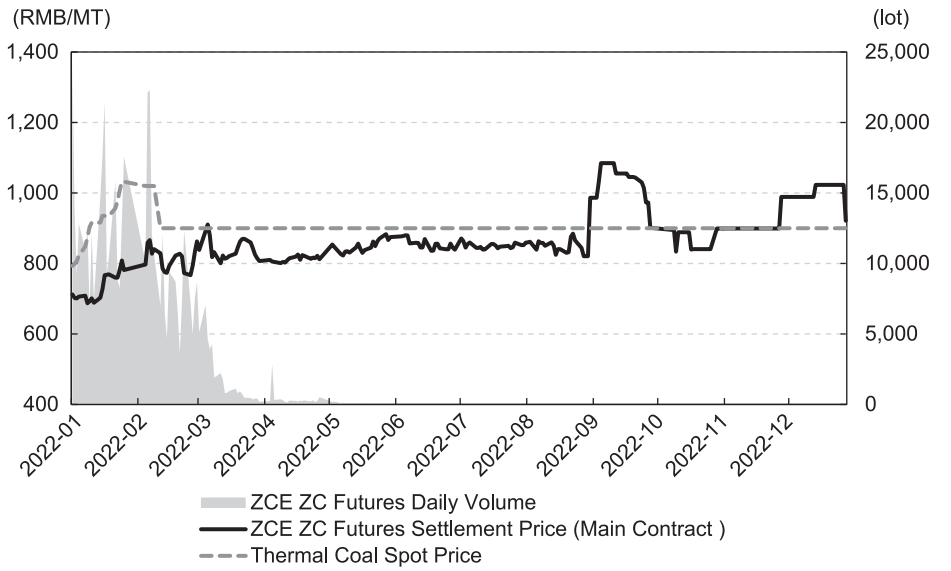


Figure 1-3-23 Thermal Coal Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: ZCE; CCTD

Table 1-3-153 Thermal Coal Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
ZCE main futures contract (RMB/MT)	672.2	1,150	680	921	248.8	869.14	81.53	470
CME coal futures lead month contract settlement (USD/MT)	136.75	438.35	135	227.9	91.15	290.39	73.58	303.35
5,500 kcal/kg thermal coal at Qinhuangdao Port (mid sulfur content) (RMB/MT)	793	1,032	793	900	107	903.46	26.50	239

Source: ZCE; CME Group; CCTD

Table 1-3-154 Price Correlation of ZCE Thermal Coal Futures, 2022

Prices	Correlation
ZCE continuous futures contract settlement vs. CME coal futures	0.16
ZCE continuous futures contract settlement vs. Thermal coal spot	0.16

Source: ZCE; CME Group; CCTD

>>> Section IV DCE Market

In 2022, the Dalian Commodity Exchange (DCE) recorded a futures and options trading volume of 2.275 billion lots and a turnover of RMB 123.73 trillion, down 3.77% and 11.91% YoY and representing 33.62% and 23.13% of the national market, respectively. Among its products, iron ore futures and options, RBD palm olein futures and options, LLDPE futures and options, No. 1 soybean futures and options, No. 2 soybean futures and options, soybean meal futures and options, and soybean oil futures and options are accessible to overseas investors. By the end of 2022, 74 overseas brokers from 11 countries and regions have completed filings with DCE for trading Specified Domestic Products. The most-active products on DCE in 2022 were soybean meal, PVC, RBD palm olein, iron ore, soybean oil, PP, LLDPE, corn, ethylene glycol, ethenylbenzene, corn starch, LPG, No. 1 soybean, egg, No. 2 soybean, coking coal, coke, and live hog. Products with little activity were polished round-grain rice, fiberboard, and blockboard, each of which contributed to less than 0.1% of the national trading volume during the year. New listings in 2022 were No. 1 soybean options, No. 2 soybean options, and soybean oil options.

I. No. 1 Soybean Futures and Options

No. 1 soybean option was listed on DCE on August 8, 2022 for trading.

(I) Futures and Options Trading (Table 1-4-1—Table 1-4-5)

Table 1-4-1 Monthly Trading Data of No. 1 Soybean Futures, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	361.58	0.05	2,144.32	3.19	16.43	73.04
FEB	330.14	33.07	2,037.65	42.12	16.90	59.89
MAR	343.14	-27.85	2,127.45	-24.61	19.76	58.41
APR	217.09	-51.66	1,333.84	-48.67	16.34	24.28
MAY	214.29	-40.96	1,331.89	-38.88	20.28	16.10
JUN	262.39	-38.55	1,600.19	-34.23	19.01	-17.63
JUL	295.38	-40.42	1,710.31	-40.55	15.49	-34.86
AUG	312.51	-35.44	1,875.13	-33.01	13.25	-36
SEP	286.58	-29.19	1,679.11	-29.59	18.86	0.31
OCT	241.75	-22.02	1,381.96	-27.34	22.95	4.72
NOV	295.07	-35.23	1,646.61	-42.72	18	-15.53
DEC	325.9	-32.34	1,748.15	-39.33	25.80	4.15
Total	3,485.82	-29.66	20,616.61	-29.55	—	—

Source: DCE

Table 1-4-2 Annual Trading Data of No. 1 Soybean Futures, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	4,955.84	-16.63	29,263.77	4.63	24.77	130.43
2022	3,485.82	-29.66	20,616.61	-29.55	25.8	4.15

Source: DCE

Table 1-4-3 Annual Trading Data of Domestic and Intl' No. 1 Soybean Futures, 2021-2022

Year	Volume (10,000 lots)		Year-End OI (10,000 lots)	
	DCE	CME Group	DCE	CME Group
2021	4,955.84	5,332.45	24.77	63.16
2022	3,485.82	5,172.08	25.8	59.04

Note: DCE No. 1 soybean futures is 10 MT/lot; CME Group soybean futures is 5,000 bushel/lot.

Source: DCE; CME Group

Table 1-4-4 Annual Trading Data of No. 1 Soybean Options, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Put/Call Ratio	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2022	182.65	—	1.47	6.15	—	5.12	—

Source: DCE

Table 1-4-5 Annual Trading Data of Domestic and Intl' No. 1 Soybean Options, 2022

Year	Volume (10,000 lots)		Year-End OI (10,000 lots)	
	DCE	CME Group	DCE	CME Group
2022	182.65	1,672.77	5.12	37.89

Note: DCE No. 1 soybean options is for one No. 1 soybean futures contract at 10 MT/lot; CME Group soybean options is for one futures contact at 5,000 bushel/lot.

Source: DCE; CME Group

(II) Delivery and Exercise (Table 1-4-6—Table 1-4-8)

Table 1-4-6 Monthly Delivery Data of No. 1 Soybean Futures, 2022

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
JAN	2,520	-52.39	1.49	-50.68
MAR	7,294	423.24	4.44	440.42
MAY	6,718	-33.75	4.09	-33.1
JUL	7,427	601.32	4.38	617.66

Continued

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
SEP	4,378	36.26	2.58	39.77
NOV	1,778	-65.1	1.02	-67.89
Total	30,115	14.96	18.00	15.41

Source: DCE

Table 1-4-7 Annual Delivery Data of No. 1 Soybean Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
2021	26,195	125.06	15.61	246.82
2022	30,115	14.96	18.00	15.41

Source: DCE

Table 1-4-8 Annual Exercise Data of No. 1 Soybean Options, 2022

Year	Exercise Volume (lot)	YoY Change (%)
2022	7,972	—

Source: DCE

(III) Price Trend (Figure 1-4-1, Table 1-4-9—Table 1-4-10)

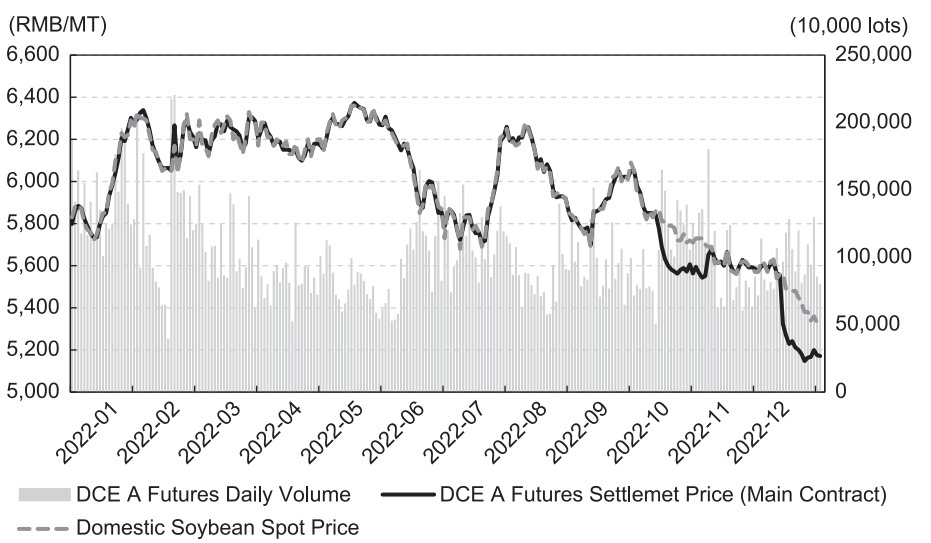


Figure 1-4-1 No. 1 Soybean Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: DCE; Wind; Dadoutianxia. com

Table 1-4-9 No. 1 Soybean Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
DCE main futures contract (RMB/MT)	5,878	6,443	5,120	5,179	-699	5,950.33	298.71	1323
CME Group soybean futures contract (USD cent/bushel)	1,339.75	1,784	1,288.5	1,524.25	184.5	1,513.49	126.71	495.5
Domestic soybean spot price (RMB/MT)	6,000	6,360	5,310	5,310	-690	5,972.23	261.81	1,050

Source: DCE; Wind; Dadoutianxia.com

Table 1-4-10 Price Correlation of DCE No. 1 Soybean Futures, 2022

Prices	Correlation
DCE main futures contract settlement vs. CME Group soybean futures	0.6
DCE main futures contract settlement vs. No. 1 soybean spot	0.98

Source: DCE; Wind; Dadoutianxia.com

II. No. 2 Soybean Futures and Options

No. 2 soybean option was listed on DCE on August 8, 2022 for trading.

(I) Futures and Options Trading (Table 1-4-11—Table 1-4-15)

Table 1-4-11 Monthly Trading Data of No. 2 Soybean Futures, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	93.22	-50.1	404.59	-49.34	3.61	-13.48
FEB	143.14	35.52	712.11	58.76	4.18	19.43
MAR	165.46	-23.43	857.95	-4.43	3.82	-25.26
APR	83.81	-53.88	432.17	-42.92	3.01	-50.57
MAY	91.37	-35.73	484.61	-20.89	4.44	-16.79
JUN	122.16	-21.47	638.44	-1.97	2.8	-48.62
JUL	167.18	-2.08	779.9	4.24	4.72	-3.67
AUG	139.05	-8.71	698.2	3.99	4.77	-5.12
SEP	144.94	10.72	759.64	27.33	5.21	22.3
OCT	178.09	77.06	972.82	120.75	5.24	20.38
NOV	183.66	59.69	946.25	100.62	5.39	-1.9
DEC	136.15	27.3	679.46	52.77	4.96	28.5
Total	1,648.23	-6.59	8,366.14	10.97	—	—

Source: DCE

Table 1-4-12 Annual Trading Data of No. 2 Soybean Futures, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	1,764.44	-3.9	7,539.23	19.71	3.86	-24.05
2022	1,648.23	-6.59	8,366.14	10.97	4.96	28.5

Source: DCE

Table 1-4-13 Annual Trading Data of Domestic and Intl' No. 2 Soybean Futures, 2021-2022

Year	Volume (10,000 lots)		Year-End OI (10,000 lots)	
	DCE	CME Group	DCE	CME Group
2021	1,764.44	5,332.45	3.86	63.16
2022	1,648.23	5,172.08	4.96	59.04

Note: DCE No. 2 soybean futures is 10 MT/lot; CME Group soybean futures is 5,000 bushel/lot.

Source: DCE; CME Group; FIA

Table 1-4-14 Annual Trading Data of No. 2 Soybean Options, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Put/Call Ratio	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2022	135.55	—	1.15	4.06	—	1.96	—

Source: DCE

Table 1-4-15 Annual Trading Data of Domestic and Intl' No. 2 Soybean Options, 2022

Year	Volume (10,000 lots)		Year-End OI (10,000 lots)	
	DCE	CME Group	DCE	CME Group
2022	135.55	1,672.77	1.96	37.89

Note: DCE No. 2 soybean options is for one No. 2 soybean futures contract at 10 MT/lot; CME Group soybean options is for one futures contact at 5,000 bushel/lot.

Source: DCE; CME Group

(II) Delivery and Exercise (Table 1-4-16—Table 1-4-18)

Table 1-4-16 Monthly Delivery Data of No. 2 Soybean Futures, 2022

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
JAN	500	—	0.21	—
FEB	0	-100	0	-100
MAR	0	—	0	—
APR	700	—	0.35	—
MAY	0	-100	0	-100

Continued

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
JUN	200	-81.82	0.11	-75.69
JUL	300	-50	0.14	-40.12
AUG	0	—	0	—
SEP	0	-100	0	-100
OCT	1,000	-33.33	0.58	-14.83
NOV	0	-100	0	-100
DEC	0	—	0	—
Total	2,700	-56.45	1.39	-47.69

Source: DCE

Table 1-4-17 Annual Delivery Data of No. 2 Soybean Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
2021	6,200	-7.46	2.67	24.77
2022	2,700	-56.45	1.39	-47.69

Source: DCE

Table 1-4-18 Annual Exercise Data of No. 2 Soybean Options, 2022

Year	Exercise Volume (lot)	YoY Change (%)
2022	5,209	—

Source: DCE

(III) Price Trend (Figure 1-4-2, Table 1-4-19—Table 1-4-20)

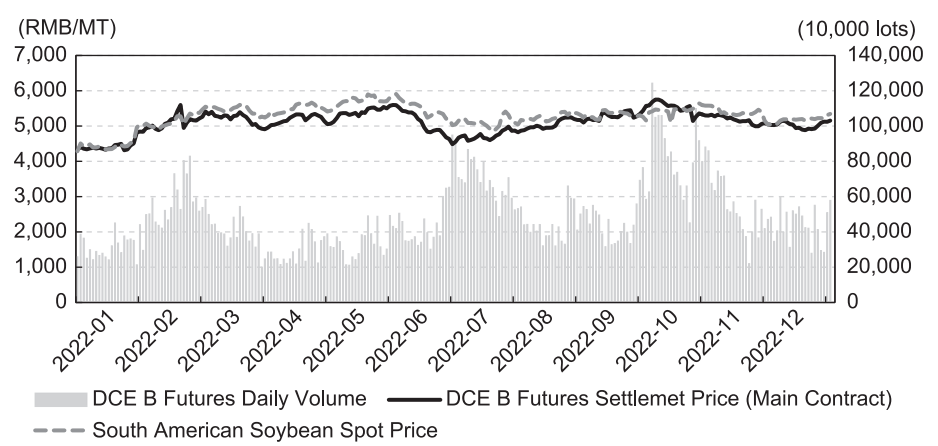


Figure 1-4-2 No. 2 Soybean Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: DCE; Wind

Table 1-4-19 No. 2 Soybean Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
DCE main futures contract (RMB/MT)	4,247	5,798	4,229	5,181	934	5,096.51	320.56	1,569
CME Group soybean futures contract (USD cent/bushel)	1,339.75	1,784	1,288.5	1,524.25	184.5	1,513.49	126.71	495.5
No. 2 soybean spot price (RMB/MT)	4,251.3	5,909	4,286	5,347	1,095.7	5,284.09	327.76	1,623

Source: DCE; Wind

Table 1-4-20 Price Correlation of DCE No. 2 Soybean Futures, 2022

Prices	Correlation
DCE main futures contract settlement vs. CME Group soybean futures	0.44
DCE main futures contract settlement vs. No. 2 soybean spot	0.84

Source: DCE; Wind

III. Soybean Meal Futures and Options

(I) Futures and Options Trading (Table 1-4-21—Table 1-4-26)

Table 1-4-21 Monthly Trading Data of Soybean Meal Futures, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	2,123.58	-50.07	6,913.2	-54.48	211	-10.07
FEB	3,209.92	12.32	12,183.94	21.89	254.17	4.26
MAR	5,535.34	29.29	22,775.57	59.83	258.97	14.22
APR	2,510.27	-23.4	9,943.56	-13.72	198.25	-3.75
MAY	1,806.15	-28.63	7,310.19	-19.72	225.26	13.31
JUN	2,369.59	-23.4	9,467.68	-12.35	196.2	-1.66
JUL	2,808.92	-9.46	10,674.06	-4.4	203.34	-2.59
AUG	2,174.22	-28.49	8,308.93	-22.84	178.31	-18.22
SEP	2,113.48	-14.01	8,435.75	-1.41	209.94	1.47
OCT	2,218.68	4.2	8,988.04	30.9	254.97	1.76
NOV	2,956.08	23.38	12,126.78	62.71	247.65	7.73
DEC	2,683.2	2.41	10,737.87	28.79	201.76	-8.89
Total	32,509.43	-9.79	127,865.57	3.11	—	—

Source: DCE

Table 1-4-22 Annual Trading Data of Soybean Meal Futures, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	36,038.82	0.26	124,013.83	16.76	221.45	-3.92
2022	32,509.43	-9.79	127,865.57	3.11	201.76	-8.89

Source: DCE

Table 1-4-23 Annual Trading Data of Domestic and Intl' Soybean Meal Futures, 2021-2022

Year	Volume (10,000 lots)		Year-End OI (10,000 lots)	
	DCE	CME Group	DCE	CME Group
2021	36,038.82	2,677.62	221.45	38.45
2022	32,509.43	2,809.17	201.76	40.06

Note: DCE soybean meal futures is 10 MT/lot; CME Group soybean meal futures is 100 short ton/lot.
Source: DCE; CME Group

Table 1-4-24 Monthly Trading Data of Soybean Meal Options, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Put/Call Ratio	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	406.36	32.67	0.78	23.17	-25.26	48.69	-10.09
FEB	478.02	85.72	1.25	42.18	114.84	52.4	-21.53
MAR	633.85	32.68	1.16	49.76	69.38	75.24	1.8
APR	323.19	24.37	0.96	23.88	14.84	49.32	6.06
MAY	308.77	24.6	0.92	17.72	-18.74	59.17	-7.59
JUN	552.18	59.34	1.3	32.73	14.1	74.35	30.47
JUL	767.28	96.99	1.97	48.42	86.01	72.53	44.1
AUG	311.13	45.1	1.27	20.25	31.61	46.91	29.86
SEP	398.36	67.08	1.3	27.59	80.09	68.03	51.29
OCT	379.36	27.79	1.35	21.37	-1.67	68.54	17.37
NOV	517.94	45.11	1.35	25.92	26.61	65.12	13.74
DEC	264.36	-35.13	1.33	14.81	-41.46	30.93	-31.69
Total	5,340.8	40.57	1.26	347.8	26.22	—	—

Source: DCE

Table 1-4-25 Annual Trading Data of Soybean Meal Options, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Put/Call Ratio	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	3,799.3	26.1	275.6	57	45.3	17.5	0.8
2022	5,340.8	40.57	1.26	347.8	26.22	30.93	-31.69

Source: DCE

Table 1-4-26 Annual Trading Data of Domestic and Intl' Soybean Meal Options, 2021-2022

Year	Volume (10,000 lots)		Year-End OI (10,000 lots)	
	DCE	CME Group	DCE	CME Group
2021	3,799.3	289.7	45.3	11.4
2022	5,340.8	282.25	30.93	12.39

Note: DCE soybean meal options is for one futures contract at 10 MT/lot; CME Group soybean meal options is for one futures contact at 100 short ton/lot.

Source: DCE; CME Group

(II) Delivery and Exercise (Table 1-4-27—Table 1-4-30)

Table 1-4-27 Monthly Delivery Data of Soybean Meal Futures, 2022

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
JAN	1,062	-78.69	0.37	-78.58
MAR	905	-71.08	0.41	-63.57
MAY	2,534	-61.41	1.06	-54.29
JUL	3,292	-35.7	1.33	-26.34
AUG	719	20.44	0.30	36.56
SEP	2,000	-9.84	0.91	-20.33
NOV	4,895	13.02	2.45	73.28
DEC	6,502	38.4	3.06	100.5
Total	21,909	-47.53	9.89	-32.92

Source: DCE

Table 1-4-28 Annual Delivery Data of Soybean Meal Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
2021	41,755	103.57	14.72	147.91
2022	21,909	-47.53	9.89	-32.92

Source: DCE

Table 1-4-29 Monthly Exercise Data of Soybean Meal Options, 2022

Month	Exercise Volume (lot)
JAN	2,532
FEB	26,112
MAR	11,842
APR	85,809

Continued

Month	Exercise Volume (lot)
MAY	727
JUN	14,659
JUL	18,125
AUG	54,900
SEP	1,340
OCT	25,217
NOV	9,630
DEC	65,625
Total	316,518

Source: DCE

Table 1-4-30 Annual Exercise Data of Soybean Meal Options, 2021-2022

Year	Exercise Volume (lot)	YoY Change (%)
2021	268,154	44.7
2022	316,518	18.04

Source: DCE

(III) Price Trend (Figure 1-4-3, Table 1-4-31—Table 1-4-32)

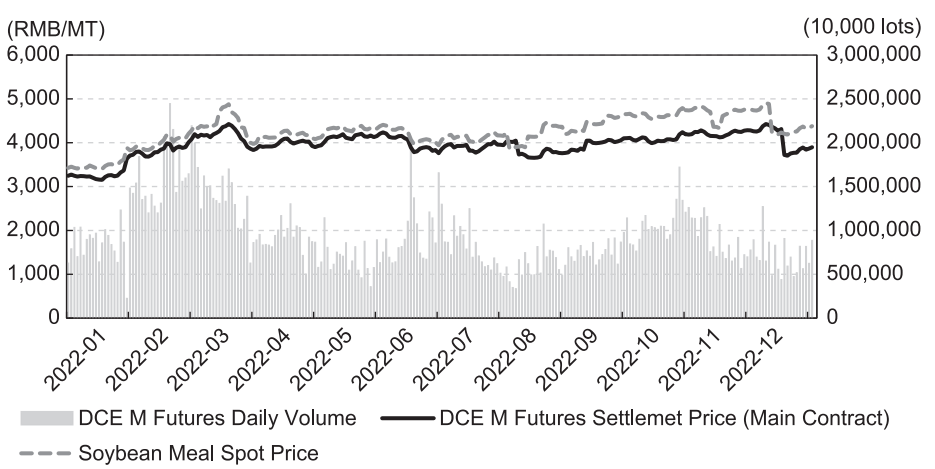


Figure 1-4-3 Soybean Meal Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: DCE; Wind

Table 1-4-31 Soybean Meal Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
DCE main futures contract (RMB/MT)	3,189	4,495	3,121	3,936	747	3,951.68	272.14	1,374
CME Group soybean meal futures contract (USD/ST)	399.9	494.7	375.3	471.4	71.5	426.54	25.72	119.4
Soybean meal spot price (RMB/MT)	3,520	4,906	3,403	4,378	858	4,254.43	343.44	1,503

Source: DCE; Wind

Table 1-4-32 Price Correlation of DCE Soybean Meal Futures, 2022

Prices	Correlation
DCE main futures contract settlement vs. CME Group soybean meal futures	0.3
DCE main futures contract settlement vs. Soybean meal spot	0.87

Source: DCE; Wind

IV. Soybean Oil Futures and Options

Soybean oil option was listed on DCE on August 8, 2022 for trading.

(I) Futures and Options Trading (Table 1-4-33—Table 1-4-37)

Table 1-4-33 Monthly Trading Data of Soybean Oil Futures, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	1,389.08	-8.03	12,785.64	8.51	75.48	19.27
FEB	1,528.61	64.89	15,433.41	108.35	76.65	9.31
MAR	1,877.72	-20.88	19,762.28	-6.12	73.97	14.65
APR	1,161.13	-42.56	12,642.96	-25.53	63.17	3.38
MAY	1,114.96	-41.39	12,603.1	-24.53	70.6	5.9
JUN	1,543.24	-32.59	17,025.28	-10.99	62.46	-7.43
JUL	2,096.16	-5	19,300.88	0.14	58.88	-15.27
AUG	1,717.76	-18.96	16,843.15	-11.3	61.48	-24.78
SEP	1,540.46	-17.65	14,145.1	-16.44	66.34	-15.13
OCT	1,243.26	-23.93	11,668.81	-26.86	70.42	-11.51
NOV	1,694.53	-22.8	15,601.37	-24.21	72.56	-11.98
DEC	1,443.72	-23.55	12,771.85	-21.96	63.55	-20.78
Total	18,350.63	-20	180,583.83	-10.22	—	—

Source: DCE

Table 1-4-34 Annual Trading Data of Soybean Oil Futures, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	22,938.35	32.5	201,138.98	76.13	80.22	36.55
2022	18,350.63	-20	180,583.83	-10.22	63.55	-20.78

Source: DCE

Table 1-4-35 Annual Trading Data of Domestic and Intl' Soybean Oil Futures, 2021-2022

Year	Volume (10,000 lots)		Year-End OI (10,000 lots)	
	DCE	CME Group	DCE	CME Group
2021	22,938.35	3,267.54	80.22	37.26
2022	18,350.63	3,005.21	63.55	37.52

Note: DCE soybean oil futures is 10 MT/lot; CME Group soybean oil futures is 60,000 lb/lot.

Source: DCE; CME Group

Table 1-4-36 Annual Trading Data of Soybean Oil Options, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Put/Call Ratio	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2022	340.77	—	1.25	30.08	—	5.84	—

Source: DCE

Table 1-4-37 Annual Trading Data of Domestic and Intl' Soybean Oil Options, 2022

Year	Volume (10,000 lots)		Year-End OI (10,000 lots)	
	DCE	CME Group	DCE	CME Group
2022	340.77	308	5.84	10.28

Note: DCE soybean oil options is for one futures contract at 10 MT/lot; CME Group soybean oil options is for one futures contract at 10 MT/lot.

Source: DCE; CME Group

(II) Delivery and Exercise (Table 1-4-38—Table 1-4-40)

Table 1-4-38 Monthly Delivery Data of Soybean Oil Futures, 2022

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
JAN	896	-82.18	0.83	-81.33
MAR	404	-14.23	0.45	2.7
MAY	1,905	90.5	2.17	130.05
JUL	808	57.2	0.76	64.66
AUG	910	3,400	0.9	3,757.08

Continued

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
SEP	2,336	-66.49	2.41	-63.31
NOV	1,926	92.6	1.93	89.02
DEC	806	3,930	0.79	4,103.66
Total	9,991	-33.53	10.24	-26.39

Source: DCE

Table 1-4-39 Annual Delivery Data of Soybean Oil Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
2021	15,031	-27.39	13.9	8.54
2022	9,991	-33.53	10.24	-26.39

Source: DCE

Table 1-4-40 Annual Exercise Data of Soybean Oil Options, 2022

Year	Exercise Volume (lot)	YoY Change (%)
2022	16,639	—

Source: DCE

(III) Price Trend (Figure 1-4-4, Table 1-4-41—Table 1-4-42)

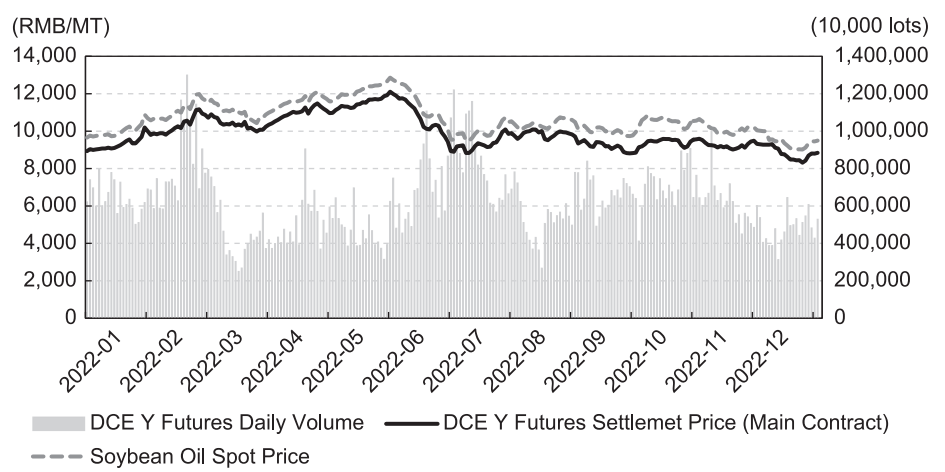


Figure 1-4-4 Soybean Oil Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: DCE; Wind

Table 1-4-41 Soybean Oil Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
DCE main futures contract (RMB/MT)	8,880	12,280	8,248	8,900	20	9,916.6	885.72	4,032
CME Group soybean oil futures contract (USD/MT)	56.57	87.65	54.42	64.12	7.55	69.23	7.31	33.23
Soybean oil spot price (RMB/MT)	9,710	12,862	9,014	9,494	-216	10,641.17	876.91	3,848

Source: DCE; Wind

Table 1-4-42 Price Correlation of DCE Soybean Oil Futures, 2022

Prices	Correlation
DCE main futures contract settlement vs. CME Group soybean oil futures	0.78
DCE main futures contract settlement vs. Soybean oil spot	0.98

Source: DCE; Wind

V. Corn Futures and Options

(I) Futures and Options Trading (Table 1-4-43—Table 1-4-48)

Table 1-4-43 Monthly Trading Data of Corn Futures, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	1,074.27	-40.58	2,922.35	-42.54	155.83	-0.88
FEB	1,078.16	-21.85	3,011.94	-21.48	180.49	33.22
MAR	1,588.43	-18.05	4,602.36	-12.49	179.84	51.41
APR	1,202.15	-25.12	3,543.6	-17.89	200.06	107.53
MAY	1,022.28	-27.91	3,034.79	-22.49	179.67	73.31
JUN	1,088.24	-23.24	3,114.99	-17.2	162.09	53.94
JUL	1,123.52	-33.33	3,011.99	-30.57	151.39	36.61
AUG	1,145.97	-31.07	3,123.03	-26.66	144.2	10.53
SEP	916.14	-38.68	2,574.49	-30.38	133.55	8.33
OCT	803.73	-43.94	2,297.68	-37.7	139.03	15.52
NOV	1,241.92	-21.76	3,577.36	-15.75	146.15	5.79
DEC	1,150.93	-23.22	3,240.25	-19.71	151.74	3.64
Total	13,435.74	-29.02	38,054.83	-24.55	—	—

Source: DCE

Table 1-4-44 Annual Trading Data of Corn Futures, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	18,928.71	6.51	50,439.37	22.56	146.42	-5.92
2022	13,435.74	-29.02	38,054.83	-24.55	151.74	3.64

Source: DCE

Table 1-4-45 Annual Trading Data of Domestic and Intl' Corn Futures, 2021-2022

Year	Volume (10,000 lots)		Year-End OI (10,000 lots)	
	DCE	CME Group	DCE	CME Group
2021	18,928.71	8,690.2	146.42	151.28
2022	13,435.74	7,788.11	151.74	121.55

Note: DCE corn futures is 10 MT/lot; CME Group corn futures is 5,000 bushel/lot.

Source: DCE; CME Group

Table 1-4-46 Monthly Trading Data of Corn Options, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Put/Call Ratio	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	257.11	118.45	0.94	8.01	37.26	63.01	95.75
FEB	244.13	188.57	0.71	6.27	105.12	61.74	71.64
MAR	432.14	115.5	0.64	10.99	138.24	74.92	63.47
APR	226.75	129.79	0.76	6.59	94.04	45.67	194.82
MAY	264.97	161.7	0.95	7.11	72.01	66.38	151.73
JUN	367.86	183.73	1.05	9.88	121.51	68.4	93.27
JUL	375.22	78.13	1.21	11.59	87.69	63.23	54.12
AUG	161.89	0.9	1.09	5.89	-13.42	29.58	-0.59
SEP	142.9	-16.2	1	4.79	-24.14	31.72	-19.9
OCT	133.13	-31.11	1.03	3.81	-44.3	32.9	-20.85
NOV	268.47	-12.72	1.17	5.72	-43.35	42.29	-16.09
DEC	168.37	-40.96	1.05	4.61	-46.22	32.28	-36.73
Total	3,042.94	47.71	0.93	85.26	21.28	—	—

Source: DCE

Table 1-4-47 Annual Trading Data of Corn Options, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Put/Call Ratio	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	2,060	97.2	1.06	70.3	116.5	51	123.1
2022	3,042.94	47.71	0.93	85.26	21.28	32.28	-36.73

Source: DCE

Table 1-4-48 Annual Trading Data of Domestic and Intl' Corn Options, 2021-2022

Year	Volume (10,000 lots)		Year-End OI (10,000 lots)	
	DCE	CME Group	DCE	CME Group
2021	2060	3,164.8	51	104.6
2022	3,042.94	3,004.69	32.28	87.75

Note: DCE corn options is for one futures contract at 10 MT/lot; CME Group corn options is for one futures contact at 5,000 bushel/lot.

Source: DCE; CME Group

(II) Delivery and Exercise (Table 1-4-49—Table 1-4-52)

Table 1-4-49 Monthly Delivery Data of Corn Futures, 2022

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
JAN	34,987	-22.87	9.11	-22.87
MAR	32,633	-5.88	8.92	-9.06
MAY	121,146	701.81	35.00	727.81
JUL	48,219	1,106.38	12.95	1,147.12
SEP	75,680	758.54	20.67	821.45
NOV	30,950	-14.71	8.76	-7.5
Total	343,615	138.22	95.41	144.34

Source: DCE

Table 1-4-50 Annual Delivery Data of Corn Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
2021	144,240	12	39.05	41.94
2022	343,615	138.22	95.41	144.34

Source: DCE

Table 1-4-51 Monthly Exercise Data of Corn Options, 2022

Month	Exercise Volume (lot)
JAN	1,436
FEB	17,293
MAR	18,123
APR	71,588
MAY	188
JUN	69,230
JUL	29,977
AUG	112,478

Continued

Month	Exercise Volume (lot)
SEP	662
OCT	11,655
NOV	509
DEC	24,685
Total	357,824

Source: DCE

Table 1-4-52 Annual Exercise Data of Corn Options, 2021-2022

Year	Exercise Volume (lot)	YoY Change (%)
2021	149,124	-35.6
2022	357,824	139.95

Source: DCE

(III) Price Trend (Figure 1-4-5, Table 1-4-53—Table 1-4-54)

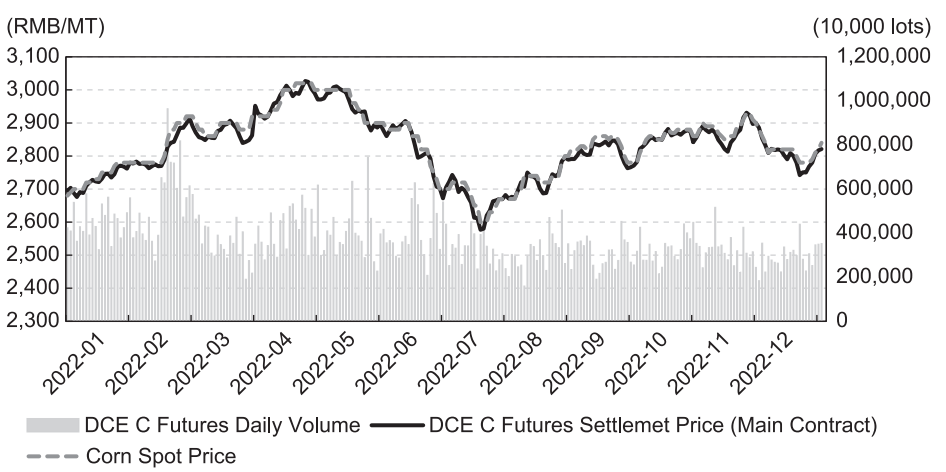


Figure 1-4-5 Corn Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: DCE; Wind

Table 1-4-53 Corn Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
DCE main futures contract (RMB/MT)	2,672	3,046	2,548	2,824	152	2,824.62	95.13	498
CME Group corn futures contract (USD cent/bushel)	592.5	824.5	561.75	678.5	86	684.67	63.55	262.75
Corn spot price (RMB/MT)	2,640	3,020	2,600	2,840	200	2,834.34	95.16	420

Source: DCE; Wind

Table 1-4-54 Price Correlation of DCE Corn Futures, 2022

Prices	Correlation
DCE main futures contract settlement vs. CME Group corn futures	0. 89
DCE main futures contract settlement vs. Corn spot	0. 99

Source: DCE; Wind

Ⅵ. Corn Starch Futures

(Ⅰ) Trading (Table 1-4-55—Table 1-4-56)

Table 1-4-55 Monthly Trading Data of Corn Starch Futures, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	345. 11	-19. 01	1,072. 86	-21. 75	27. 89	35. 8
FEB	387. 55	15. 86	1,246. 56	16. 17	39. 32	109. 17
MAR	573. 86	6. 4	1,955. 7	12. 03	36	65. 46
APR	344. 5	-29. 8	1,170. 21	-26. 28	34. 78	80. 07
MAY	342. 23	-22. 42	1,145. 66	-19. 98	35. 81	74. 06
JUN	337	-28. 1	1,081. 38	-25. 09	24. 95	37. 14
JUL	326. 3	-39. 61	998. 04	-37. 34	20. 8	4. 14
AUG	368. 25	-19. 03	1,119. 59	-16. 49	25. 02	32. 6
SEP	351. 29	-18. 99	1,067. 71	-14. 48	33. 43	95. 62
OCT	372. 03	-37. 87	1,104. 74	-40. 47	38. 07	158. 44
NOV	429. 96	-5. 64	1,305. 3	-10	23. 76	20. 83
DEC	441. 68	-7. 74	1,308. 29	-11. 32	25. 56	4. 57
Total	4,619. 76	-18. 41	14,576. 04	-17. 26	—	—

Source: DCE

Table 1-4-56 Annual Trading Data of Corn Starch Futures, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	5,662. 51	100. 09	17,615. 78	133. 75	24. 44	40. 1
2022	4,619. 76	-18. 41	14,576. 04	-17. 26	25. 56	4. 57

Source: DCE

(II) Delivery (Table 1-4-57—Table 1-4-58)

Table 1-4-57 Monthly Delivery Data of Corn Starch Futures, 2022

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
JAN	3,107	25.99	0.92	15.22
MAR	7,088	320.65	2.28	278.62
MAY	21,799	628.82	7.30	641.28
JUL	8,593	260.14	2.57	265.11
SEP	19,650	773.33	6.00	767.37
NOV	7,307	1,827.97	2.01	1,599.83
Total	67,544	455.6	21.08	440.51

Source: DCE

Table 1-4-58 Annual Delivery Data of Corn Starch Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
2021	12,157	67.57	3.9	123.82
2022	67,544	455.6	21.08	440.51

Source: DCE

(III) Price Trend (Figure 1-4-6, Table 1-4-59—Table 1-4-60)

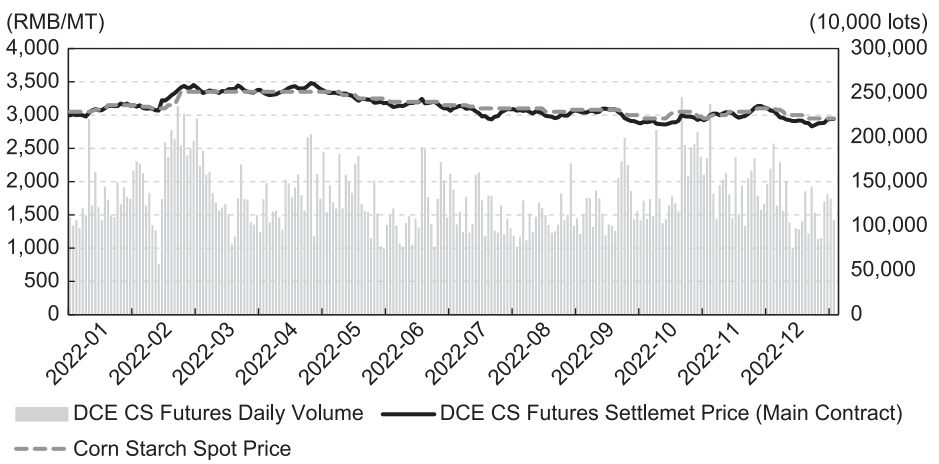


Figure 1-4-6 Corn Starch Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: DCE; Wind

Table 1-4-59 Corn Starch Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
DCE main futures contract (RMB/MT)	2,981	3,543	2,798	2,939	-42	3,122.89	166.61	745
Corn starch spot price (RMB/MT)	3,250	3,350	2,950	2,950	-300	3,145.45	130.63	400

Source: DCE; Wind

Table 1-4-60 Price Correlation of DCE Corn Starch Futures, 2022

Prices	Correlation
DCE main futures contract settlement vs. Corn starch spot	0.96

Source: DCE; Wind

VII. RBD Palm Olein Futures and Options

(I) Futures and Options Trading (Table 1-4-61—Table 1-4-66)

Table 1-4-61 Monthly Trading Data of RBD Palm Olein Futures, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	1,452.67	-3.12	13,310.3	29.83	68.27	41.97
FEB	1,616.58	70.49	16,969.18	158.52	69.89	46.99
MAR	2,598.54	38.05	29,671.26	107.92	59.79	34.37
APR	1,646.32	1.39	18,472.2	55.64	48.12	8.49
MAY	1,594.35	-6.7	18,668.83	38.64	55.33	8.06
JUN	1,930.28	-11.33	20,374.76	29.12	54.87	-10.14
JUL	2,709.85	18.33	21,909.42	21.21	63.05	-10.2
AUG	2,408.11	-2.97	20,234.63	-2.2	56.89	-15.25
SEP	1,946.43	-2.48	15,025.65	-10.37	71.54	9.74
OCT	1,609.14	-8.22	12,773.01	-23.18	76.41	25.02
NOV	2,427.55	4.64	20,052.95	-7.81	78.15	25.35
DEC	2,218.45	11.99	17,712.03	5.36	68.78	13.09
Total	24,158.27	6.61	225,174.22	23.1	—	—

Source: DCE

Table 1-4-62 Annual Trading Data of RBD Palm Olein Futures, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	22,661.4	-28.1	182,921.88	1.94	60.82	46.05
2022	24,158.27	6.61	225,174.22	23.1	68.78	13.09

Source: DCE

Table 1-4-63 Annual Trading Data of Domestic and Intl' RBD Palm Olein Futures, 2021-2022

Year	Volume (10,000 lots)		Year-End OI (10,000 lots)	
	DCE	BMD	DCE	BMD
2021	22,661.4	1,560.81	60.82	20.87
2022	24,158.27	1,620.69	68.78	20.02

Note: DCE RBD palm olein futures is 10 MT/lot; BMD RBD palm olein futures is 25 MT/lot.

Source: DCE; FIA

Table 1-4-64 Monthly Trading Data of RBD Palm Olein Options, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Put/Call Ratio	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	181.94	—	2.56	26.9	—	26.83	—
FEB	178.83	—	2.3	32.99	—	34.39	—
MAR	329.66	—	2.1	64.43	—	30.31	—
APR	161.8	—	1.7	24.97	—	11.53	—
MAY	180.87	—	1.55	22.02	—	14.44	—
JUN	253.82	680.08	1.31	37.14	490.23	16.47	269.68
JUL	323.52	134.21	1.04	44.33	158.35	16.39	30.99
AUG	209.64	36.05	0.98	20.63	6.73	9.6	-18.46
SEP	182.34	107.16	0.99	19.44	27.86	10.88	-6.41
OCT	150.39	77.6	1.42	12.22	-45.18	15.2	12.48
NOV	280.13	14.44	1.37	22.14	-36.16	15.73	-21.68
DEC	237.94	16.72	0.93	17.1	-21.34	9.5	-51.17
Total	2,670.88	—	1.4	344.31	—	—	—

Source: DCE

Table 1-4-65 Annual Trading Data of RBD Palm Olein Options, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Put/Call Ratio	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	946.1	—	1.5	136.7	—	19.5	—
2022	2,670.88	—	1.4	344.31	—	9.5	-51.17

Source: DCE

Table 1-4-66 Annual Trading Data of Domestic and Intl' RBD Palm Olein Options, 2021-2022

Year	Volume (10,000 lots)		Year-End OI (10,000 lots)	
	DCE	BMD	DCE	BMD
2021	946.1	9.5	19.5	1.6
2022	2,670.88	3.65	9.5	1.02

Note: DCE RBD palm olein options is for one futures contract at 10 MT/lot; BMD RBD palm olein options is for one futures contact at 25 MT/lot.

Source: DCE; FIA

(II) Delivery and Exercise (Table 1-4-67—Table 1-4-70)

Table 1-4-67 Monthly Delivery Data of RBD Palm Olein Futures, 2022

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
JAN	2,348	500.51	2.30	686.7
FEB	2,200	-61.38	2.44	-41.69
MAR	1,484	147.33	2.04	325.52
APR	1,062	—	1.42	—
MAY	1,296	45.62	1.98	149.53
JUN	190	—	0.30	—
JUL	1,429	23,716.67	1.37	27,578.69
AUG	612	—	0.58	—
SEP	801	5.39	0.69	0.25
OCT	516	15.7	0.42	-7.96
NOV	3,000	64.74	2.53	28.16
DEC	348	-78.57	0.30	-81.49
Total	15,286	24.94	16.37	56.42

Source: DCE

Table 1-4-68 Annual Delivery Data of RBD Palm Olein Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
2021	12,235	39.43	10.47	113.22
2022	15,286	24.94	16.37	56.42

Source: DCE

Table 1-4-69 Monthly Exercise Data of RBD Palm Olein Options, 2022

Month	Exercise Volume (lot)
JAN	9,577
FEB	5,364
MAR	19,535
APR	35,367
MAY	5,064
JUN	3,976
JUL	18,374
AUG	21,091
SEP	6,597

Continued

Month	Exercise Volume (lot)
OCT	4,964
NOV	4,878
DEC	10,625
Total	145,412

Source: DCE

Table 1-4-70 Annual Exercise Data of RBD Palm Olein Options, 2021-2022

Year	Exercise Volume (lot)	YoY Change (%)
2021	52,985	—
2022	145,412	—

Source: DCE

(III) Price Trend (Figure 1-4-7, Table 1-4-71—Table 1-4-72)

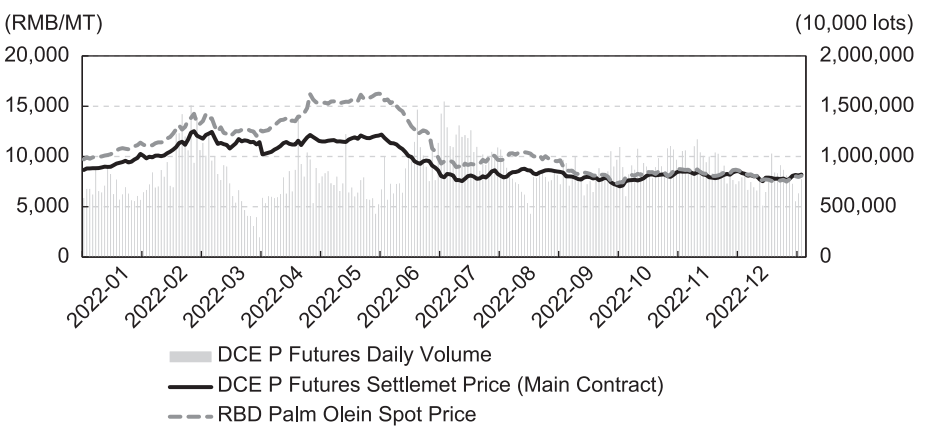


Figure 1-4-7 RBD Palm Olein Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: DCE; Wind

Table 1-4-71 RBD Palm Olein Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
DCE main futures contract (RMB/MT)	8,550	12,796	6,882	8,338	-212	9,419.83	1,578.27	5,914
BMD RBD palm olein futures contract (MYR/MT)	5,159	7,104	3,226	4,174	-985	4,916.23	1,068.98	3,878
Palm olein spot at Huangpu port (RMB/MT)	9,570	16,250	7,330	8,080	-1490	10,866.94	2,624.84	8,920

Source: DCE; Wind

Table 1-4-72 Price Correlation of DCE RBD Palm Olein Futures, 2022

Prices	Correlation
DCE main futures contract settlement vs. BMD RBD palm olein futures	0.97
DCE main futures contract settlement vs. Palm olein spot	0.95

Source: DCE; Wind

Ⅷ. Egg Futures

(Ⅰ) Trading (Table 1-4-73—Table 1-4-74)

Table 1-4-73 Monthly Trading Data of Egg Futures, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	235.2	-74.58	962.49	-75.95	20.37	-43.76
FEB	160.71	-70.48	687.96	-71.84	22.39	-32.2
MAR	245.67	-71.14	1,085.96	-71.35	16.92	-46.58
APR	169.13	-70.8	798.82	-70.28	12.36	-53.84
MAY	144.99	-70.27	686.9	-70.48	14.14	-52.12
JUN	164.56	-64.5	767.68	-65.06	19.33	-37.77
JUL	177.07	-63.64	771.37	-65.72	17.8	-40.44
AUG	277.1	-31.91	1,146.65	-36.12	16.25	-39.16
SEP	198.55	-27.85	852.65	-28.72	20.49	-5.6
OCT	205	-37.17	922.89	-37.47	22.15	-11.31
NOV	271.17	-14.39	1,177.16	-17.3	22.33	-7.6
DEC	257.86	-6.59	1,100.43	-4.01	18.97	-20.56
Total	2,507.01	-57.79	10,960.96	-59	—	—

Source: DCE

Table 1-4-74 Annual Trading Data of Egg Futures, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	5,939.8	-55.02	26,734.19	-43.06	23.88	-28.38
2022	2,507.01	-57.79	10,960.96	-59	18.97	-20.56

Source: DCE

(Ⅱ) Delivery (Table 1-4-75—Table 1-4-76)

Table 1-4-75 Monthly Delivery Data of Egg Futures, 2022

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
JAN	134	-34.63	0.06	-44.21

Continued

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
FEB	95	-83.70	0.04	-82.35
MAR	105	-69.03	0.04	-65.78
APR	1	-98.51	0.00	-98.20
MAY	46	-42.50	0.02	-38.25
JUN	143	57.14	0.06	65.23
JUL	119	-36.36	0.05	-36.56
AUG	100	-50.25	0.05	-53.51
SEP	150	97.37	0.07	102.65
OCT	87	27.94	0.05	45.38
NOV	148	-18.23	0.08	-10.04
DEC	122	-20.26	0.06	-20.01
Total	1,250	-43.97	0.60	-39.43

Source: DCE

Table 1-4-76 Annual Delivery Data of Egg Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
2021	2,231	48.24	0.99	109.84
2022	1,250	-43.97	0.60	-39.43

Source: DCE

(III) Price Trend (Figure 1-4-8, Table 1-4-77—Table 1-4-78)

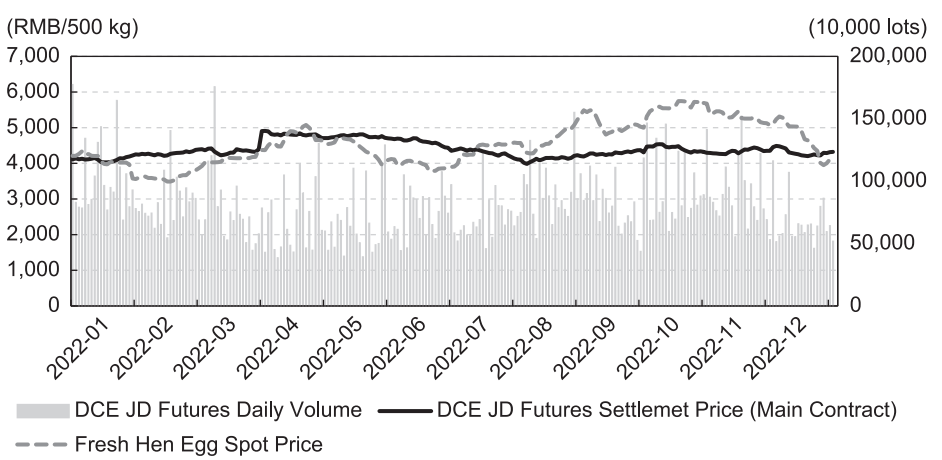


Figure 1-4-8 Fresh Hen Egg Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: DCE; Wind

Table 1-4-77 Egg Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
DCE main futures contract (RMB/500 kg)	4,138	4,969	3,957	4,326	188	4,391.62	224.16	1,012
Average spot wholesale egg price (RMB/500 kg)	4,940	5,747	3,491	4,206	-734	4,558.46	597.28	2,256

Source: DCE; Wind

Table 1-4-78 Price Correlation of DCE Egg Futures, 2022

Prices	Correlation
DCE main futures contract settlement vs. Egg spot	0.5

Source: DCE; Wind

IX. Linear Low Density Polyethylene (LLDPE) Futures and Options

(I) Futures and Options Trading (Table 1-4-79—Table 1-4-82)

Table 1-4-79 Monthly Trading Data of LLDPE Futures, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	1,044.21	33.42	4,605.72	52.99	53.69	51.46
FEB	1,001.7	29.54	4,476.75	36.3	62.3	63.49
MAR	1,441.68	-4.14	6,600.48	-0.48	60.85	38.73
APR	967.6	-10.67	4,304.59	-4.52	54.62	19.16
MAY	1,032.25	-3.56	4,483.34	4.48	61.12	18.44
JUN	1,288.87	16.97	5,661.71	31.18	65.9	19.48
JUL	1,343.7	15.77	5,380.06	12.18	64.01	15.28
AUG	1,247.53	11.91	4,843.78	6	64.37	0.27
SEP	1,061.18	-17.19	4,259.55	-24.35	59.07	-0.62
OCT	799.97	-29.02	3,138.02	-40.77	74.42	45.11
NOV	1,208.88	-22.71	4,732.93	-31.2	69.11	17.01
DEC	1,209.84	-8.51	4,906.9	-12.37	67.27	19.11
Total	13,647.41	-1.72	57,393.83	-2.42	—	—

Source: DCE

Table 1-4-80 Annual Trading Data of LLDPE Futures, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	13,885.89	44.94	58,816.1	76.57	56.48	113.26
2022	13,647.41	-1.72	57,393.83	-2.42	67.27	19.11

Source: DCE

Table 1-4-81 Monthly Trading Data of LLDPE Options, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Put/Call Ratio	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	38.26	225.45	1.69	3.06	184.57	2.68	-1.48
FEB	39.1	125.4	1.01	2.73	22.28	3.78	7.53
MAR	42.75	62.45	0.62	2.51	-14.89	3.67	-19.73
APR	24.65	31.93	0.73	1.26	-36.19	1.62	-56.04
MAY	38.46	74.95	1	2.03	-19.97	2.8	-46.86
JUN	104.23	137.16	1.03	3.82	-4.15	4.55	-30.9
JUL	66.23	-5.35	1.24	2.49	-53.16	4.54	-35.57
AUG	17.57	-67.7	1.48	1.01	-67.11	1.55	-63.44
SEP	20.78	-62.51	1.45	1.3	-75	2.11	-58.71
OCT	22.83	11.26	1.24	0.83	-73.77	3.08	-21.85
NOV	49.54	19.96	0.72	1.15	-37.75	2.91	-37.29
DEC	20.53	-31.94	1.08	0.71	-69.36	1.13	-25.49
Total	484.93	17.75	1.03	22.9	-35.82	—	—

Source: DCE

Table 1-4-82 Annual Trading Data of LLDPE Options, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Put/Call Ratio	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	411.8	—	0.88	35.7	—	1.5	-45.4
2022	484.93	17.75	1.03	22.9	-35.82	1.13	-25.49

Source: DCE

(II) Delivery and Exercise (Table 1-4-83—Table 1-4-86)

Table 1-4-83 Monthly Delivery Data of LLDPE Futures, 2022

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
JAN	368	-60.17	0.16	-55.11
FEB	1,747	186.86	0.79	224.33
MAR	711	-34.47	0.32	-32.42
APR	673	-16.91	0.3	-11.95
MAY	1,061	-79.04	0.46	-78.35
JUN	547	2,504.76	0.24	2,981.47
JUL	1,828	2,998.31	0.74	3,004.43
AUG	494	3700	0.2	3,611.99

Continued

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
SEP	1,542	-16.29	0.61	-19.59
OCT	1,380	55.06	0.58	35.32
NOV	1,388	17.03	0.55	5.32
DEC	467	17.93	0.19	14.58
Total	12,206	-5.36	5.14	-6.01

Source: DCE

Table 1-4-84 Annual Delivery Data of LLDPE Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
2021	12,897	86.59	5.48	118.84
2022	12,206	-5.36	5.14	-6.01

Source: DCE

Table 1-4-85 Monthly Exercise Data of LLDPE Options, 2022

Month	Exercise Volume (lot)
JAN	248
FEB	154
MAR	230
APR	6,035
MAY	113
JUN	46
JUL	779
AUG	8,118
SEP	88
OCT	68
NOV	18
DEC	5,050
Total	20,947

Source: DCE

Table 1-4-86 Annual Exercise Data of LLDPE Options, 2021-2022

Year	Exercise Volume (lot)	YoY Change (%)
2021	56,200	—
2022	20,947	-62.73

Source: DCE

(III) Price Trend (Figure 1-4-9, Table 1-4-87—Table 1-4-88)

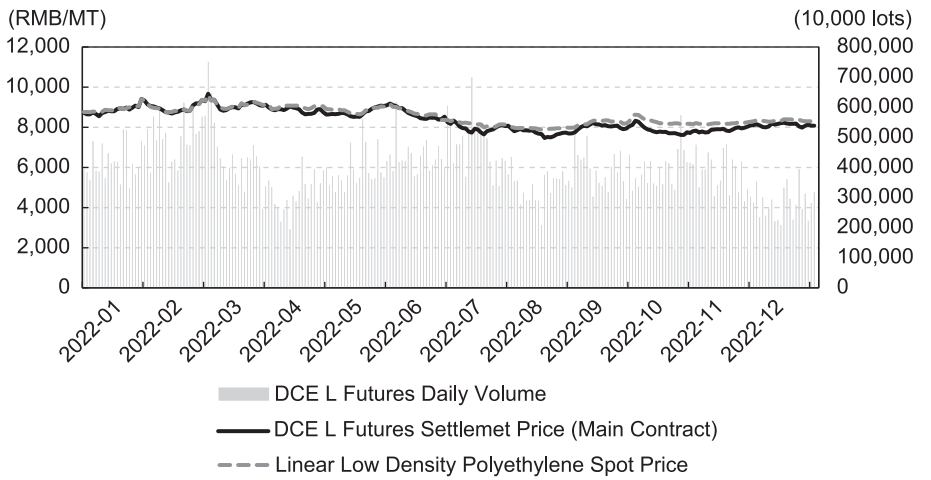


Figure 1-4-9 LLDPE Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: DCE; Sci99. com

Table 1-4-87 LLDPE Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
DCE main futures contract (RMB/MT)	8,522	9,886	7,411	8,159	-363	8,398.43	519.69	2,475
LLDPE spot price at CNPC Jilin (RMB/MT)	8,850	9,600	7,880	8,300	-550	8,565.64	412.24	1,720

Source: DCE; Sci99. com

Table 1-4-88 Price Correlation of DCE LLDPE Futures, 2022

Prices	Correlation
DCE main futures contract settlement vs. LLDPE spot	0.97

Source: DCE; Sci99. com

X. Polypropylene (PP) Futures and Options

(I) Futures and Options Trading (Table 1-4-89—Table 1-4-92)

Table 1-4-89 Monthly Trading Data of PP Futures, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	1,314.28	0.89	5,527.62	5.67	56.93	49.5

Continued

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
FEB	1,185.97	10.61	5,066.01	7.72	68.5	74
MAR	1,955.08	9.44	8,829.42	8.3	61.45	51.81
APR	1,329.83	-13.99	5,812.07	-12.7	56.01	37.16
MAY	1,285.86	-4.16	5,551.88	-3.74	68.29	33.75
JUN	1,447.38	-3.9	6,285.24	0.18	72.5	16.56
JUL	1,584.43	-10.79	6,353.08	-16.03	69.86	11.77
AUG	1,646.42	-6.23	6,440.08	-12.31	70.77	-11.28
SEP	1,315.19	-41.32	5,221.48	-48.22	70.66	-6.11
OCT	1,009.67	-53.68	3,878.03	-62.28	92.88	50.04
NOV	1,504.61	-34.46	5,744.29	-40.78	74.94	-1.72
DEC	1,535.94	-25.68	5,981.86	-28.22	79.19	28.87
Total	17,114.66	-18	70,691.06	-21.54	—	—

Source: DCE

Table 1-4-90 Annual Trading Data of PP Futures, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	20,870.64	20.38	90,094.6	39.15	61.45	104.64
2022	17,114.66	-18	70,691.06	-21.54	79.19	28.87

Source: DCE

Table 1-4-91 Monthly Trading Data of PP Options, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Put/Call Ratio	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	35.12	71.28	0.68	2.29	48.6	2.94	-4.39
FEB	28.35	23.46	0.96	1.84	-20.54	3.52	-16.28
MAR	31.74	-33.91	0.65	2.53	-37.19	3.59	-28.92
APR	15.53	-39.59	0.8	0.88	-63.45	1.63	-51.42
MAY	27.75	-15.42	0.98	1.31	-65.89	2.24	-47.5
JUN	65.98	-13.65	1.23	2	-65.13	3.98	-31.7
JUL	49.79	-34.48	1.7	2.1	-56.24	4.31	-41.52
AUG	12.14	-77.71	1.24	0.57	-78.94	1.15	-71.45
SEP	11.22	-81.32	0.9	0.66	-87.58	1.89	-61.61
OCT	17.79	-31.15	1.41	0.7	-80.52	2.96	-22.25
NOV	42.59	10.84	0.91	1.03	-43.82	3.6	-23.11
DEC	16.56	-43.34	0.85	0.69	-65.46	1.32	-36.2
Total	354.56	-30.54	1.02	16.6	-58.61	—	—

Source: DCE

Table 1-4-92 Annual Trading Data of PP Options, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Put/Call Ratio	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	510.5	—	0.88	40.1	—	2.1	-35.8
2022	354.56	-30.54	1.02	16.6	-58.61	1.32	-36.2

Source: DCE

(II) Delivery and Exercise (Table 1-4-93—Table 1-4-96)

Table 1-4-93 Monthly Delivery Data of PP Futures, 2022

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
JAN	1,027	112.19	0.42	117.56
FEB	1,083	2,827.03	0.46	2,791.2
MAR	1,527	20.33	0.66	10.6
APR	222	-81.39	0.1	-81.32
MAY	3,039	43.69	1.32	41.56
JUN	879	691.89	0.39	747.28
JUL	323	3,488.89	0.13	3,208.06
AUG	825	9,066.67	0.33	8,705.09
SEP	1,666	6.11	0.67	0.57
OCT	1,510	-60.04	0.6	-67.03
NOV	901	-79.35	0.35	-81.18
DEC	1,095	76.61	0.43	72.2
Total	14,097	-9.4	5.86	-15.28

Source: DCE

Table 1-4-94 Annual Delivery Data of PP Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
2021	15,559	111.4	6.92	139.86
2022	14,097	-9.4	5.86	-15.28

Source: DCE

Table 1-4-95 Monthly Exercise Data of PP Options, 2022

Month	Exercise Volume (lot)
JAN	238
FEB	177
MAR	334

Continued

Month	Exercise Volume (lot)
APR	6,081
MAY	113
JUN	71
JUL	145
AUG	5,492
SEP	154
OCT	92
NOV	106
DEC	5,037
Total	18,040

Source: DCE

Table 1-4-96 Annual Exercise Data of PP Options, 2021-2022

Year	Exercise Volume (lot)	YoY Change (%)
2021	49,672	—
2022	18,040	-63.68

Source: DCE

(III) Price Trend (Figure 1-4-10, Table 1-4-97—Table 1-4-98)

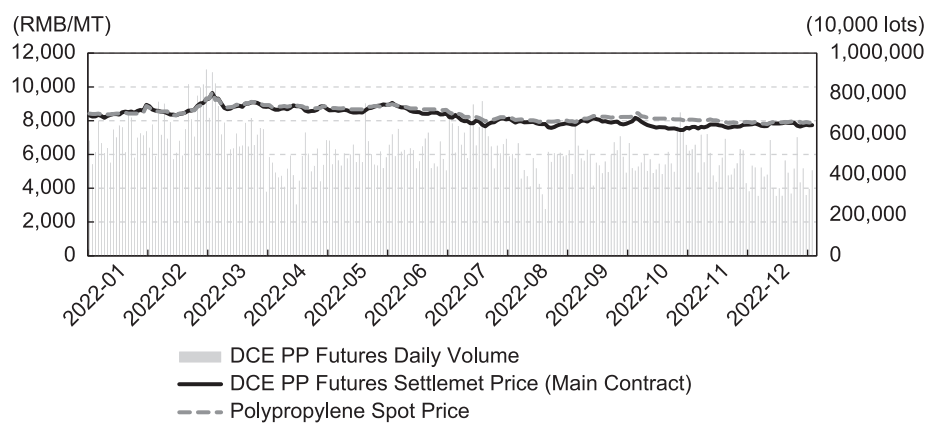


Figure 1-4-10 PP Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: DCE; Sci99.com

Table 1-4-97 PP Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
DCE main futures contract (RMB/MT)	8,143	9,861	7,327	7,825	-318	8,244.06	482.76	2,534
T30S PP spot from Sanyuan Petrochemical at Shaoxing (RMB/MT)	8,600	9,700	7,800	7,890	-710	8,402.69	389.52	1,900

Source: DCE; Sci99.com

Table 1-4-98 Price Correlation of DCE PP Futures, 2022

Prices	Correlation
DCE main futures contract settlement vs. PP spot	0.96

Source: DCE; Sci99.com

XI. Polyvinyl Chloride (PVC) Futures and Options

(I) Futures and Options Trading (Table 1-4-99—Table 1-4-102)

Table 1-4-99 Monthly Trading Data of PVC Futures, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	2,059.05	199.66	8,867.6	258.85	59.75	42.95
FEB	1,783.85	159.19	7,870.48	183.44	70.15	89.06
MAR	2,402.55	55.27	10,866.61	61.17	72.91	53.43
APR	1,681.5	45.69	7,587.43	49.53	64.06	34.53
MAY	1,535.89	54.22	6,518.14	46.48	76.38	53.83
JUN	2,114.38	94.72	8,386.15	79.44	92.32	73.05
JUL	3,155.83	210.69	10,306.97	126	90.58	46.22
AUG	2,886.38	140.23	9,402.29	71.1	84.96	12.49
SEP	2,438.33	38.54	7,632.85	-16.1	99.44	46.12
OCT	1,873.3	-12.77	5,554.68	-52.85	151.8	173.61
NOV	3,282.75	18.36	9624	-19.93	138.15	107.25
DEC	3,152.33	17.71	9,815.71	-12.25	135.14	109.32
Total	28,366.14	59.94	102,432.91	27.52	—	—

Source: DCE

Table 1-4-100 Annual Trading Data of PVC Futures, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	17,735.02	203.3	80,326.91	314.72	64.56	57.45
2022	28,366.14	59.94	102,432.91	27.52	135.14	109.32

Source: DCE

Table 1-4-101 Monthly Trading Data of PVC Options, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Put/Call Ratio	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	31.57	27.93	0.44	3.34	88.01	4.37	12.08
FEB	41.38	81.74	0.66	3.07	18.96	6.47	59.14
MAR	55.31	9.88	0.29	2.83	-40.55	6.54	-4.35
APR	21.45	-18.72	0.34	0.95	-65.95	1.93	-53.29
MAY	22.26	19.42	0.71	1.49	-44.82	4.1	-5.14
JUN	60.34	71.43	0.81	3.77	-1.43	7.39	32.28
JUL	97.38	126.98	0.62	4.28	12.18	9.99	58.23
AUG	32.9	2.8	0.94	1.49	-30.56	1.88	-59.31
SEP	33.79	-26.42	0.67	2.02	-69.24	4.8	-16.64
OCT	45.06	31.69	0.76	1.64	-77.32	9.57	44.29
NOV	116.45	78.52	0.54	2.88	-36.03	11.91	36.73
DEC	50.94	20.51	0.67	2.13	-46.71	3.48	-0.96
Total	608.83	38.2	0.6	29.89	-35.98	—	—

Source: DCE

Table 1-4-102 Annual Trading Data of PVC Options, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Put/Call Ratio	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	440.6	—	0.93	46.7	—	3.5	-29.3
2022	608.83	38.2	0.6	29.89	-35.98	3.48	-0.96

Source: DCE

(II) Delivery and Exercise (Table 1-4-103—Table 1-4-106)

Table 1-4-103 Monthly Delivery Data of PVC Futures, 2022

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
JAN	9,825	-23.24	4.16	-7.74
FEB	7,642	216.57	3.51	279.51

Continued

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
MAR	5,406	47.83	2.43	55.08
APR	3,500	8.29	1.61	13.88
MAY	3,311	-57.5	1.47	-59.75
JUN	729	-57.57	0.31	-59.99
JUL	1,339	92.94	0.47	45.78
AUG	2,431	6,845.71	0.84	4,900.63
SEP	16,544	162.10	5.59	82.08
OCT	3,840	137.77	1.17	10.68
NOV	930	-75.18	0.27	-84.77
DEC	1,379	147.13	0.41	64.93
Total	56,876	27.60	22.24	14.96

Source: DCE

Table 1-4-104 Annual Delivery Data of PVC Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
2021	44,572	225.13	19.36	330.65
2022	56,876	27.60	22.24	14.96

Source: DCE

Table 1-4-105 Monthly Exercise Data of PVC Options, 2022

Month	Exercise Volume (lot)
JAN	309
FEB	199
MAR	239
APR	7,716
MAY	112
JUN	218
JUL	1936
AUG	17,479
SEP	211
OCT	101
NOV	55
DEC	12,630
Total	41,205

Source: DCE

Table 1-4-106 Annual Exercise Data of PVC Options, 2021-2022

Year	Exercise Volume (lot)	YoY Change (%)
2021	65,070	—
2022	41,205	-36.68

Source: DCE

(III) Price Trend (Figure 1-4-11, Table 1-4-107—Table 1-4-108)

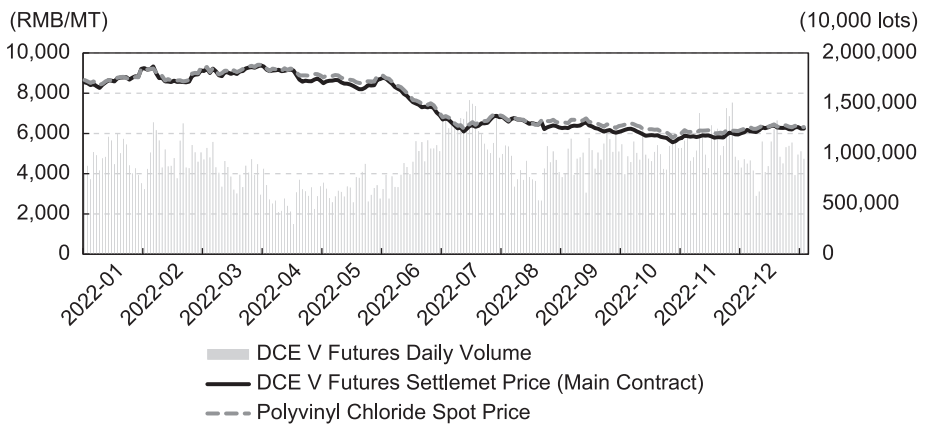


Figure 1-4-11 PVC Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: DCE; Sci99.com

Table 1-4-107 PVC Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
DCE main futures contract (RMB/MT)	8,321	9,529	5,484	6,263	-2,058	7,417.27	1,275.52	4,045
PVC spot price at Xinjiang Tianye (Hangzhou) (RMB/MT)	8,420	9,415	5,790	6,320	-2,100	7,562.17	1,234.44	3,625

Source: DCE; Wind

Table 1-4-108 Price Correlation of DCE PVC Futures, 2022

Prices	Correlation
DCE main futures contract settlement vs. PVC spot	0.997

Source: DCE; Wind

XII. Coke Futures

(I) Trading (Table 1-4-109—Table 1-4-110)

Table 1-4-109 Monthly Trading Data of Coke Futures, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	67.28	-89.76	2,049.27	-88.84	2.76	-85.03
FEB	64.31	-82.61	2,065.96	-78.37	3.60	-80.47
MAR	76.16	-88.56	2,755.31	-82.03	3.71	-81.32
APR	69.88	-87.93	2,717.63	-81.22	2.83	-87.28
MAY	65.16	-89.66	2,205.73	-86.51	3.09	-88.34
JUN	88.27	-88.45	2,909.86	-85.66	3.55	-86.91
JUL	105.33	-86.50	2,914.09	-85.99	4.02	-87.88
AUG	104.19	-87.74	2,902.68	-88.67	3.94	-84.05
SEP	73.54	-74.47	1,920.58	-80.47	3.96	-55.7
OCT	54.3	-62.86	1,438.99	-73.15	4.28	-22.5
NOV	75.22	-22.02	1,992.69	-26.14	3.99	24.62
DEC	82.11	-6.20	2,286.46	-11.49	3.12	-3.89
Total	925.75	-84.34	28,159.25	-82.54	—	—

Source: DCE

Table 1-4-110 Annual Trading Data of Coke Futures, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	5,913.3	2.90	161,252.09	31.54	3.25	-84.62
2022	925.75	-84.34	28,159.25	-82.54	3.12	-3.89

Source: DCE

(II) Delivery (Table 1-4-111—Table 1-4-112)

Table 1-4-111 Monthly Delivery Data of Coke Futures, 2022

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
JAN	320	-60.49	0.99	-60.26
FEB	10	-97.67	0.03	-97.48
MAR	30	-84.21	0.11	-79.07
APR	0	-100	0	-100

Continued

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
MAY	450	-57.55	1.65	-41.02
JUN	0	-100	0	-100
JUL	0	-100	0	-100
AUG	0	-100	0	-100
SEP	750	177.78	1.83	70.06
OCT	0	-100	0	-100
NOV	0	-100	0	-100
DEC	0	-100	0	-100
Total	1,560	-53.43	4.61	-53.59

Source: DCE

Table 1-4-112 Annual Delivery Data of Coke Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
2021	3,350	216.04	9.92	360.31
2022	1,560	-53.43	4.61	-53.59

Source: DCE

(III) Price Trend (Figure 1-4-12, Table 1-4-113—Table 1-4-114)

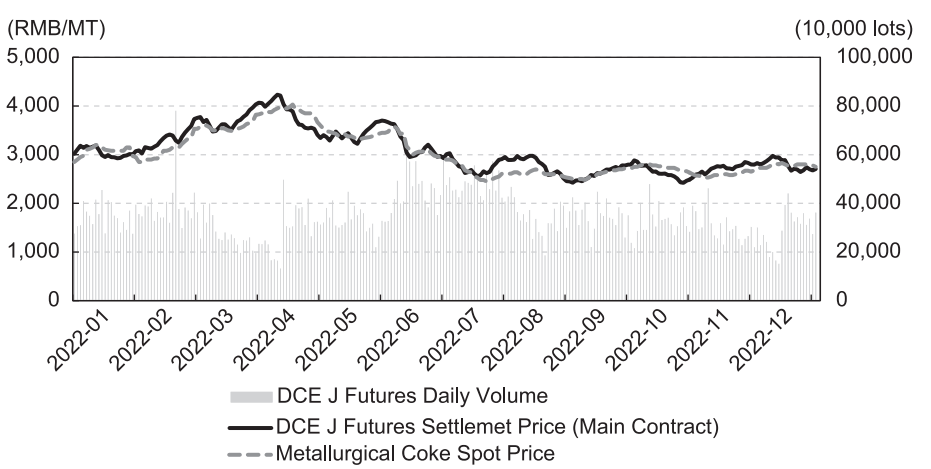


Figure 1-4-12 Coke Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: DCE; Mysteel. com

Table 1-4-113 Coke Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
DCE main futures contract (RMB/MT)	2,934	4,284	2,367.5	2,670	-264	3,070.9	438.44	1,916.5
Spot price of Grade-1 metallurgical coke (Rizhao Port)	2,570	4,030	2,450	2,750	180	3,014.88	427.77	1,580

Source: DCE; Mysteel.com

Table 1-4-114 Price Correlation of DCE Coke Futures, 2022

Prices	Correlation
DCE main futures contract settlement vs. Coke spot	0.94

Source: DCE; Mysteel.com

XIII. Coking Coal Futures

(I) Trading (Table 1-4-115—Table 1-4-116)

Table 1-4-115 Monthly Trading Data of Coking Coal Futures, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	84.71	-82.93	1,156.23	-76.79	3.28	-76.99
FEB	88.15	-67.9	1,318.47	-46.94	5.04	-65.72
MAR	131.49	-75.41	2,341.3	-52.5	5.95	-67.41
APR	100.59	-76.44	1,828.39	-57.3	3.91	-80.42
MAY	101.49	-83.21	1,591.79	-76.51	4.37	-82.78
JUN	137.03	-79.82	2,104.16	-73.25	4.83	-83.07
JUL	186.61	-74.58	2,325.41	-73.87	6.27	-85.45
AUG	170.07	-85.46	2,093.8	-87.31	6.08	-82.94
SEP	130.82	-71.22	1,550.64	-79.73	6.96	-51.05
OCT	92.23	-52.01	1,119.89	-68.46	8.31	31.08
NOV	131.52	-5.53	1,589.67	-6.14	9.33	99.84
DEC	153.03	22.71	1,783.38	13.42	7.74	60.14
Total	1,507.74	-74.14	20,803.13	-70.78	—	—

Source: DCE

Table 1-4-116 Annual Trading Data of Coking Coal Futures, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	5,830.59	120.59	71,189.65	236.93	4.84	-62.47
2022	1,507.74	-74.14	20,803.13	-70.78	7.74	60.14

Source: DCE

(II) Delivery (Table 1-4-117—Table 1-4-118)

Table 1-4-117 Monthly Delivery Data of Coking Coal Futures, 2022

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
JAN	3,000	57.89	4.03	126.07
FEB	0	-100	0	-100
MAR	0	-100	0	-100
APR	0	-100	0	-100
MAY	1,300	30	2.37	123.62
JUN	0	-100	0	-100
JUL	0	-100	0	-100
AUG	0	-100	0	-100
SEP	300	-88.46	0.38	-92.05
OCT	0	-100	0	-100
NOV	0	-100	0	-100
DEC	0	—	0	—
Total	4,600	-52.08	6.78	-44.76

Source: DCE

Table 1-4-118 Annual Delivery Data of Coking Coal Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
2021	9,600	65.52	12.29	186.93
2022	4,600	-52.08	6.78	-44.76

Source: DCE

(III) Price Trend (Figure 1-4-13, Table 1-4-119—Table 1-4-120)

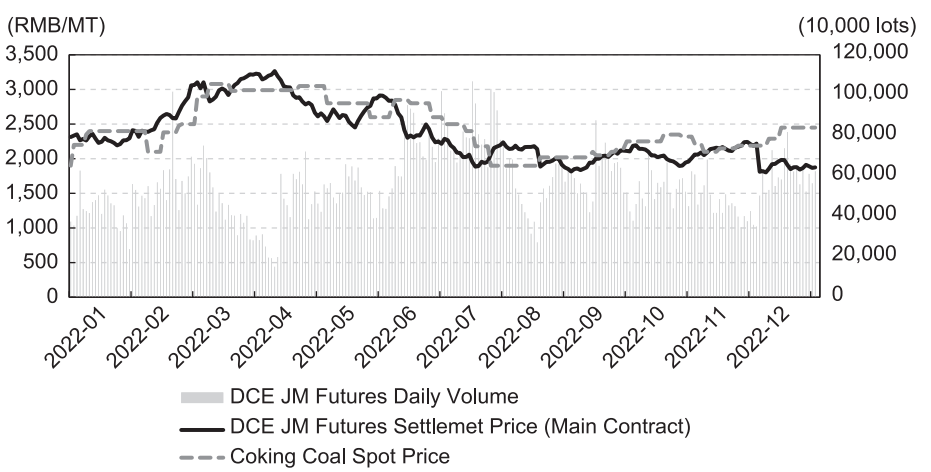


Figure 1-4-13 Coking Coal Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: DCE; Mysteel. com

Table 1-4-119 Coking Coal Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
DCE main futures contract (RMB/MT)	2,228.5	3,297.5	1,778	1,864.5	-364	2,355.51	401.69	1,519.5
Spot price of Liulin medium-sulfur coking coal (RMB/MT)	2,400	3,080	1,900	2,450	50	2,442.36	355.82	1,180

Source: DCE; Mysteel.com

Table 1-4-120 Price Correlation of DCE Coking Coal Futures, 2022

Prices	Correlation
DCE main futures contract settlement vs. Coking coal spot	0.78

Source: DCE; Mysteel.com

XIV. Iron Ore Futures and Options

(I) Futures and Options Trading (Table 1-4-121—Table 1-4-126)

Table 1-4-121 Monthly Trading Data of Iron Ore Futures, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	1,533.01	71.79	11,164.21	20.68	99.6	67.04
FEB	1,551.1	151.75	11,385.47	76.72	98.24	50.22
MAR	2,130.86	74.12	17,279.01	36.6	102.2	31.74
APR	1,368.04	48.74	12,069.48	24.74	98.39	23.76
MAY	1,432.73	39.67	11,824.96	0.88	120.07	39.07
JUN	1,753.28	58.14	14,233.09	11.64	125.46	21.77
JUL	2,261.77	91.52	15,789.31	17.99	126.7	13.45
AUG	2,190.22	21.2	15,859.81	3.33	113.34	3.94
SEP	1,712.27	-10.91	12,062.07	-11.6	109.04	21.04
OCT	1,284.43	-15.02	8,679.98	-18.94	130.68	33.36
NOV	2,559.93	3.12	17,932.9	26.51	144.3	34.64
DEC	2,334.43	-15.14	18,834.04	3.91	131.33	22.27
Total	22,112.07	26.78	167,114.33	13.01	—	—

Source: DCE

Table 1-4-122 Annual Trading Data of Iron Ore Futures, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	17,441.2	-38.72	147,872.51	-31.52	107.41	76.98
2022	22,112.07	26.78	167,114.33	13.01	131.33	22.27

Source: DCE

Table 1-4-123 Annual Trading Data of Domestic and Intl' Iron Ore Futures, 2021-2022

Year	Volume (10,000 lots)		Year-End OI (10,000 lots)	
	DCE	SGX	DCE	SGX
2021	17,441.2	1,818.47	107.41	73.7
2022	22,112.07	2,507.84	131.33	88.66

Note: DCE iron ore futures is 100 MT/lot; SGX iron ore futures is 100 MT/lot.

Source: DCE; SGX

Table 1-4-124 Monthly Trading Data of Iron Ore Options, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Put/Call Ratio	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	157.58	133.08	1.33	30.85	40.61	24.42	51.72
FEB	253.88	266.94	1.33	43.71	86.15	31.38	83.05
MAR	348.5	111.57	1.03	55.57	46.2	33.9	54.61
APR	247.09	217.06	1.3	40.86	76.19	16.16	23.24
MAY	257.54	167.72	1.39	42.27	-2.13	23.47	51.24
JUN	359.79	184.58	1.55	63.86	40.46	38.4	62.93
JUL	508.91	136.9	1.46	71.24	48.99	38.99	57.19
AUG	351.38	99.12	1.19	48.45	-2.08	24.6	28.8
SEP	270.02	99.9	1.23	32.4	-17.49	30.25	40.05
OCT	299.84	160.94	1.16	33.02	14.8	45.56	76.7
NOV	669.87	105.1	1.18	70.8	43.76	52.6	33.38
DEC	446.82	87.77	1.61	49.49	17.31	40.8	66.8
Total	4,171.22	130.72	1.3	582.52	28.87	—	—

Source: DCE

Table 1-4-125 Annual Trading Data of Iron Ore Options, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Put/Call Ratio	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	1,807.9	55.9	1.01	452	95.5	24.5	32.9
2022	4,171.22	130.72	1.3	582.52	28.87	40.8	66.8

Source: DCE

Table 1-4-126 Annual Trading Data of Domestic and Intl' Iron Ore Options, 2021-2022

Year	Volume (10,000 lots)		Year-End OI (10,000 lots)	
	DCE	SGX	DCE	SGX
2021	1,807.9	332.5	24.5	58.6
2022	4,171.22	529.17	40.8	64.34

Note: DCE iron ore options is for one futures contract at 100 MT/lot; SGX iron ore options is for one futures contact at 100 MT/lot.

Source: DCE; SGX

(II) Delivery and Exercise (Table 1-4-127—Table 1-4-130)

Table 1-4-127 Monthly Delivery Data of Iron Ore Futures, 2022

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
JAN	11,200	286.21	7.79	139.86
FEB	900	200	0.73	108.97
MAR	600	0	0.51	-32.98
APR	200	-60	0.19	-68.41
MAY	200	-94.59	0.2	-95.9
JUN	100	-66.67	0.1	-75.34
JUL	0	—	0	—
AUG	800	—	0.63	—
SEP	3,400	277.78	2.61	228.02
OCT	1,500	400	1.14	427.32
NOV	0	-100	0	-100
DEC	400	-55.56	0.32	-40.86
Total	19,300	80.37	14.22	19.69

Source: DCE

Table 1-4-128 Annual Delivery Data of Iron Ore Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
2021	10,700	-45.96	11.87	-28.8
2022	19,300	80.37	14.22	19.69

Source: DCE

Table 1-4-129 Monthly Exercise Data of Iron Ore Options, 2022

Month	Exercise Volume (lot)
JAN	9,786
FEB	5,385
MAR	6,955
APR	28,284
MAY	4,727
JUN	5,562
JUL	8,842
AUG	24,223
SEP	4,995
OCT	5,426
NOV	7,091
DEC	47,973
Total	159,249

Source: DCE

Table 1-4-130 Annual Exercise Data of Iron Ore Options, 2021-2022

Year	Exercise Volume (lot)	YoY Change (%)
2021	114,976	-14.4
2022	159,249	38.51

Source: DCE

(III) Price Trend (Figure 1-4-14, Table 1-4-131—Table 1-4-132)

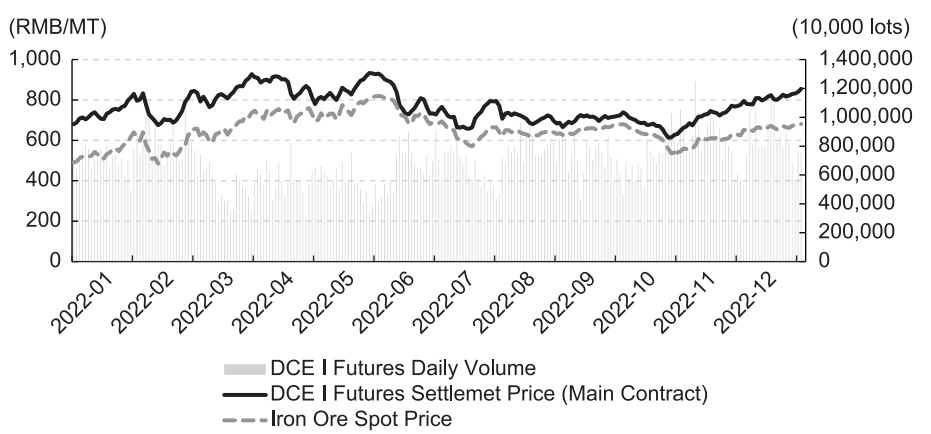


Figure 1-4-14 Iron Ore Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: DCE; Wind

Table 1-4-131 Iron Ore Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
DCE main futures contract (RMB/MT)	680	948	599.5	863	183	767.37	75.23	348.5
SGX iron ore futures contract (USD/MT)	121.07	165.88	78.57	117.15	-3.92	120.16	22.23	87.31
Super special fines spot at Qingdao port (RMB/MT)	490	820	485	681	191	649.07	73.02	335

Source: DCE; Wind

Table 1-4-132 Price Correlation of DCE Iron Ore Futures, 2022

Prices	Correlation
DCE main futures contract settlement vs. SGX iron ore futures	0.73
DCE main futures contract settlement vs. Iron ore spot	0.75

Source: DCE; Wind

XV. Ethylene Glycol (EG) Futures

(I) Trading (Table 1-4-133—Table 1-4-134)

Table 1-4-133 Monthly Trading Data of EG Futures, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	772.5	-0.12	4,059.24	17.92	40.36	26.56
FEB	653.58	-14.97	3,391.92	-14.85	51.36	49.71
MAR	1,123.24	-32.9	5,979.3	-33.57	45.01	51.59
APR	968.7	-4.83	4,761.91	-3.25	43.96	42.28
MAY	885.49	-0.18	4,446.53	1.62	47.47	36.3
JUN	1,070.08	40.42	5,287.26	41.76	59.98	76.25
JUL	1,099.77	16.42	4,757.64	-3.78	51.25	18.4
AUG	1,203.07	27.78	4,934.7	1.51	55.35	45.25
SEP	1,032.07	5.09	4,466.24	-17.76	46.77	20.49
OCT	641.08	-55.47	2,588.8	-71.96	66.29	105.65
NOV	1,103.69	-2.59	4,289.8	-29.14	60.35	45
DEC	1,186.56	33.5	4,830.66	11.9	51.06	24.99
Total	11,739.83	-3.87	53,794	-16.33	—	—

Source: DCE

Table 1-4-134 Annual Trading Data of EG Futures, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	12,212.69	46.58	64,293.73	100.14	40.85	50.18
2022	11,739.83	-3.87	53,794	-16.33	51.06	24.99

Source: DCE

(II) Delivery (Table 1-4-135—Table 1-4-136)

Table 1-4-135 Monthly Delivery Data of EG Futures, 2022

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
JAN	7,385	212.39	3.8	256.86
FEB	2,168	610.82	1.11	755.55
MAR	1,093	51.6	0.53	30.28
APR	2,273	1,375.97	1.15	1,427.91
MAY	3,358	148.01	1.65	146.3
JUN	4,106	950.13	2.02	972.29
JUL	3,942	1,175.73	1.7	1,046.33
AUG	965	534.87	0.41	463.72
SEP	7,919	313.74	3.19	214.71
OCT	3,846	110.16	1.6	31.41
NOV	4,846	221.57	1.83	119.88
DEC	2,037	231.22	0.8	170.66
Total	43,938	278.25	19.79	223.51

Source: DCE

Table 1-4-136 Annual Delivery Data of EG Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
2021	11,616	-28.67	6.11	2.19
2022	43,938	278.25	19.79	223.51

Source: DCE

(III) Price Trend (Figure 1-4-15, Table 1-4-137—Table 1-4-138)

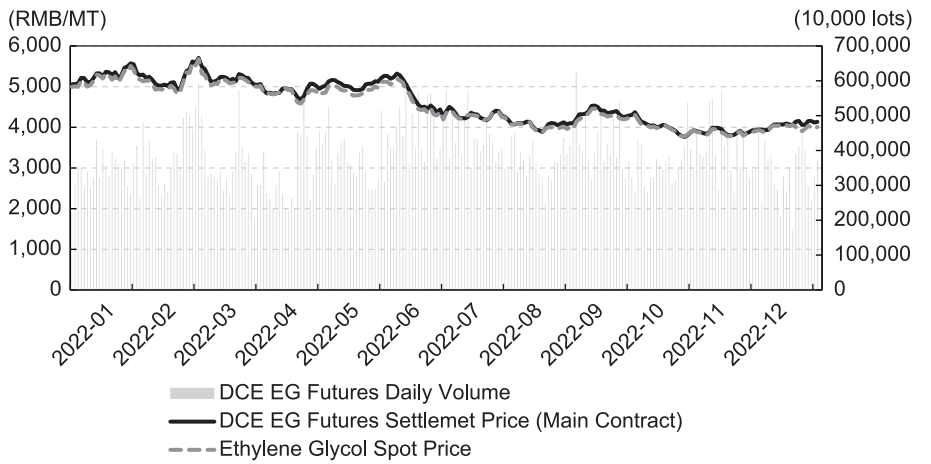


Figure 1-4-15 EG Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: DCE; Sci99. com

Table 1-4-137 EG Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
DCE main futures contract (RMB/MT)	4,935	5,903	3,715	4,190	-745	4,596.48	536.47	2,188
EG spot in eastern China (RMB/MT)	4,880	5,677.5	3,772.5	4,007.5	-872.5	4,527.36	513.1	1,905

Source: DCE; Sci99. com

Table 1-4-138 Price Correlation of DCE EG Futures, 2022

Prices	Correlation
DCE main futures contract settlement vs. Ethylene glycol spot	0.996

Source: DCE; Sci99. com

XVI. Blockboard Futures

(I) Trading (Table 1-4-139)

Table 1-4-139 Annual Trading Data of Blockboard Futures, 2021-2022

Year	Volume (lot)	YoY Change (%)	Turnover (¥10,000)	YoY Change (%)	Year-End OI (lot)	YoY Change (%)
2021	307	-83.93	4,252.34	-77.19	0	—
2022	39	-87.3	774.68	-81.78	0	—

Source: DCE

(II) Delivery

No DCE blockboard futures contracts were delivered in 2022.

(III) Price Trend (Figure 1-4-16, Table 1-4-140—Table 1-4-141)

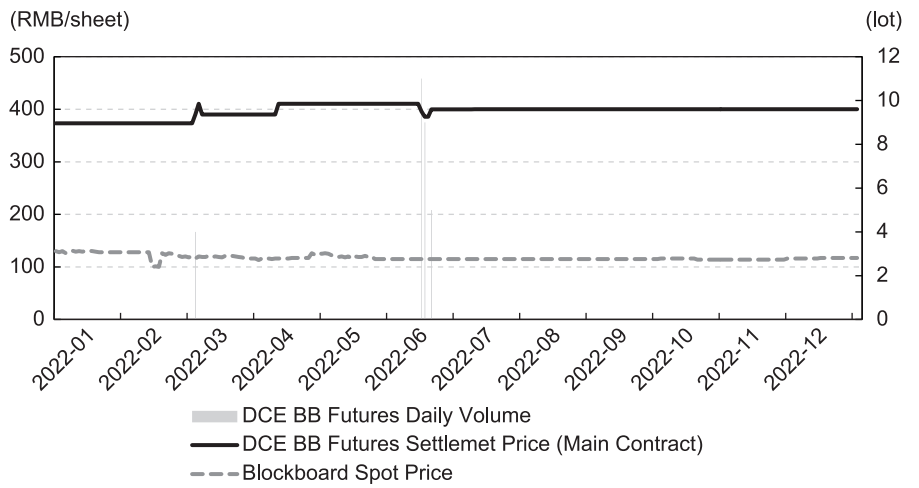


Figure 1-4-16 Blockboard Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: DCE; Wind (Jan-Jun); Oilchem. net (Jul-Dec)

Table 1-4-140 Blockboard Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
DCE main futures contract (RMB/sheet)	373.3	451.65	370.05	400	26.7	396.17	11.87	81.6
Blockboard spot at Yuzhu (RMB/sheet)	83	131	100	117	34	117.67	5.09	31

Source: DCE; Sci99. com

Table 1-4-141 Price Correlation of DCE Blockboard Futures, 2022

Prices	Correlation
DCE main futures contract settlement vs. Blockboard spot	-0.54

Source: DCE, Wind (Jan-Jun); Oilchem. net (Jul-Dec)

XVII. Fiberboard Futures

(I) Trading (Table 1-4-142)

Table 1-4-142 Annual Trading Data of Fiberboard Futures, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Year-End OI (lot)	YoY Change (%)
2021	155.45	50.4	210.96	50.43	1,004	18.4
2022	48.13	-69.04	63.98	-69.67	0.19	93.03

Source: DCE

(II) Delivery (Table 1-4-143—Table 1-4-144)

Table 1-4-143 Monthly Delivery Data of Fiberboard Futures, 2022

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥10,000)	YoY Change (%)
JAN	133	216.67	167.31	210.38
FEB	86	68.63	111.03	77.13
MAR	200	-21.57	257.9	-6.96
APR	150	-49.15	200.03	-45.84
MAY	100	-45.95	135.35	-44.17
JUN	50	-48.98	70.1	-46.22
JUL	0	-100	0	-100
AUG	11	-8.33	14.94	-2.94
SEP	41	-85.86	56.97	-84.22
OCT	209	5,125	256.97	4,401.85
NOV	43	975	52.31	802.2
DEC	0	—	0	—
Total	1,023	-24.05	1,322.91	-20.61

Source: DCE

Table 1-4-144 Annual Delivery Data of Fiberboard Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
2021	1,347	94.37	0.17	105.05
2022	1,023	-24.05	0.13	-20.61

Source: DCE

(III) Price Trend (Figure 1-4-17, Table 1-4-145—Table 1-4-146)

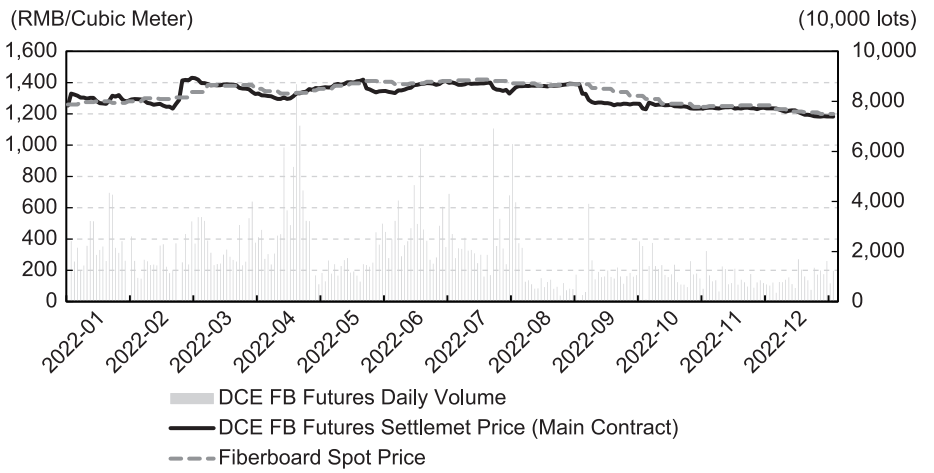


Figure 1-4-17 Fiberboard Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: DCE; Oilchem. net

Table 1-4-145 Fiberboard Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
DCE main futures contract (RMB/cubic meter)	1,243	1,445	1,175	1,188	-55	1,315.03	67	270
Fiberboard spot at Yuzhu (RMB/cubic meter)	1,200	1,420	1,200	1,200	-659	1,330.23	65.01	220

Source: DCE; Oilchem. net

Table 1-4-146 Price Correlation of DCE Fiberboard Futures, 2022

Prices	Correlation
DCE main futures contract settlement vs. Fiberboard spot	0.86

Source: DCE; Oilchem. net

XVIII. Polished Round-Grained Rice (RR) Futures

(I) Trading (Table 1-4-147—Table 1-4-148)

Table 1-4-147 Monthly Trading Data of RR Futures, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	26.35	-62.72	89.02	-65.81	2.26	-19.69

Continued

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
FEB	21.11	-50.23	72.9	-52.92	2.54	-9.82
MAR	31.79	-56.92	110.09	-58.8	2.95	-22.63
APR	25.8	-48.69	88.39	-51.38	2.59	-39.87
MAY	25.51	-23.11	87.87	-26.8	3.22	-8.84
JUN	24.7	-38.45	83.42	-41.31	3.08	-2.88
JUL	18.16	-46.21	61.12	-48.75	3.17	-0.4
AUG	19.58	-48.98	66.53	-51.14	3.06	3.02
SEP	14.47	-54.97	49.33	-56.09	2.72	20.69
OCT	11.22	-63.25	38.13	-63.7	3.11	18.99
NOV	13.81	-68.87	46.95	-69.63	2.87	-0.99
DEC	11.77	-75.84	39.82	-75.87	2.48	-30.3
Total	244.27	-54.63	833.57	-56.56	—	—

Source: DCE

Table 1-4-148 Annual Trading Data of RR Futures, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	538.37	4.32	1,918.75	5.51	3.56	-23.97
2022	244.27	-54.63	833.57	-56.56	2.48	-30.3

Source: DCE

(II) Delivery (Table 1-4-149—Table 1-4-150)

Table 1-4-149 Monthly Delivery Data of RR Futures, 2022

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥10,000)	YoY Change (%)
JAN	30	-91.55	100.11	-91.88
FEB	109	-90.35	363.25	-91.13
MAR	20	-93.94	65.54	-94.32
APR	39	-68.55	127.97	-70.79
MAY	159	-41.33	539.02	-43.07
JUN	151	-80.86	495.45	-82.62
JUL	24	-95.71	78.24	-96.03
AUG	0	-100	0	-100
SEP	30	—	99.24	—
OCT	4	-80	13.48	-79.15

Continued

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥10,000)	YoY Change (%)
NOV	343	802.63	1,153.72	869.07
DEC	18	-48.57	60.30	-42.57
Total	927	-76.72	3,096.32	-78.04

Source: DCE

Table 1-4-150 Annual Delivery Data of RR Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
2021	3,982	189.81	1.41	217.28
2022	927	-76.72	0.31	-78.04

Source: DCE

(III) Price Trend (Figure 1-4-18, Table 1-4-151—Table 1-4-152)

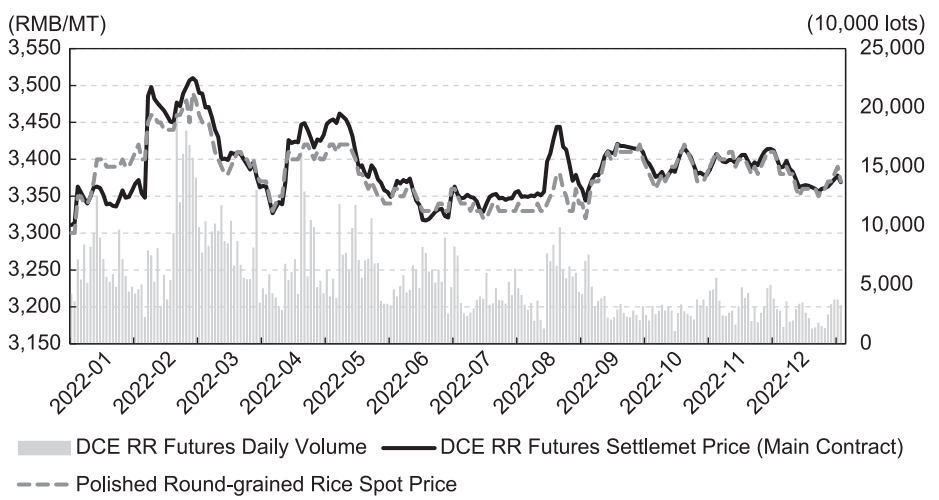


Figure 1-4-18 RR Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: DCE; Wind

Table 1-4-151 RR Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
DCE main futures contract (RMB/MT)	3,323	3,622	3,285	3,367	44	3,388.66	42.76	337
Regular Japonica rice spot price (RMB/MT)	3,650	3,490	3,300	3,370	-280	3,380.54	36.99	190

Source: DCE; Wind

Table 1-4-152 Price Correlation of DCE RR Futures, 2022

Prices	Correlation
DCE main futures contract settlement vs. Japonica rice spot	0.87

Source: DCE; Wind

XIX. Ethenylbenzene (EB) Futures

(I) Trading (Table 1-4-153—Table 1-4-154)

Table 1-4-153 Monthly Trading Data of EB Futures, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	568.19	-20.38	2,454.26	-0.35	19.31	28.29
FEB	410.98	-43.57	1,872.47	-39.59	18.83	4.03
MAR	555.86	-33.36	2,719.73	-26.23	18.3	25.37
APR	456.14	-37.32	2,216.75	-31.79	19.04	-10.59
MAY	501.22	-24.16	2,523.01	-18.75	28.07	36.14
JUN	720.63	-5.14	3,823.15	16.8	20.27	-32.28
JUL	724.43	-13.05	3,288.71	-13.46	20.92	-14.65
AUG	842.6	24.71	3,489.78	19.8	24.74	1.31
SEP	910.62	18.19	3,985.34	13.09	19.44	12.26
OCT	633.13	17.43	2,607.01	1.31	25.51	37.51
NOV	872.18	28.47	3,448.03	18.94	22.75	-3.47
DEC	744.74	6.94	3,037.77	8.42	27.61	27.75
Total	7,940.72	-7.86	35,466.01	-5.14	—	—

Source: DCE

Table 1-4-154 Annual Trading Data of EB Futures, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	8,617.99	64.34	37,388.86	122.73	21.62	112.76
2022	7,940.72	-7.86	35,466.01	-5.14	27.61	27.75

Source: DCE

(II) Delivery (Table 1-4-155—Table 1-4-156)

Table 1-4-155 Monthly Delivery Data of EB Futures, 2022

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
JAN	516	-40.69	0.22	-23.58
FEB	2,140	-60.81	0.95	-60.93

Continued

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
MAR	3,120	3.31	1.55	22.89
APR	1,204	-59.87	0.59	-60.5
MAY	2,433	57.99	1.23	56.61
JUN	925	334.27	0.50	431.28
JUL	1,421	173.27	0.69	185.48
AUG	861	97.93	0.37	93.08
SEP	738	12.5	0.35	19.2
OCT	1,566	0.19	0.67	-9.49
NOV	962	-20.3	0.40	-28.1
DEC	345	-54.18	0.14	-55.09
Total	16,231	-15.63	7.66	-11.76

Source: DCE

Table 1-4-156 Annual Delivery Data of EB Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
2021	19,237	5.53	8.67	55.95
2022	16,231	-15.63	7.66	-11.76

Source: DCE

(III) Price Trend (Figure 1-4-19, Table 1-4-157—Table 1-4-158)

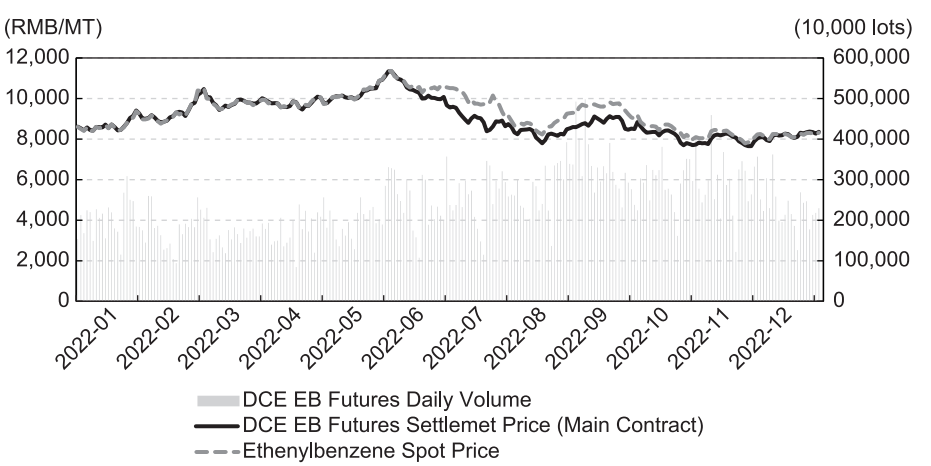


Figure 1-4-19 EB Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: DCE; Sci99.com

Table 1-4-157 EB Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
DCE main futures contract (RMB/MT)	8,552	11,515	7,550	8,455	-97	9,053.9	864.56	3,965
EB spot in Jiangsu (RMB/MT)	8,450	11,365	7,785	8,325	-125	9,295.18	850.57	3,580

Source: DCE; Sci99.com

Table 1-4-158 Price Correlation of DCE EB Futures, 2022

Prices	Correlation
DCE main futures contract settlement vs. Ethenylbenzene spot	0.92

Source: DCE; Sci99.com

XX. Liquefied Petroleum Gas (LPG) Futures and Options

(I) Futures and Options Trading (Table 1-4-159—Table 1-4-162)

Table 1-4-159 Monthly Trading Data of LPG Futures, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	502.52	116.44	4,781.04	177.02	11.01	27.7
FEB	397.25	85.63	4,266.97	174.00	11.12	110.88
MAR	462.76	111.94	5,823.22	239.69	10.4	98.81
APR	302.16	78.66	3,627.33	184.94	9.07	1.1
MAY	337.49	74.2	4,097.84	155.12	9.92	2.62
JUN	387.66	77.42	4,487.9	127.37	10.59	0.43
JUL	430.23	68.78	4,679.19	86.79	9.29	-8.9
AUG	366.48	55.13	3,927.93	64.64	12.19	10.26
SEP	370.45	-3.69	3,973.56	-8.57	11.87	-18.62
OCT	241.21	-47.38	2,434.88	-57.11	10.46	-1.9
NOV	334.98	-23.62	3,376.56	-20.84	10.71	-21.02
DEC	315.96	-35.17	2,841.44	-33.56	14.06	-5.62
Total	4,449.15	26.9	48,317.86	45.07	—	—

Source: DCE

Table 1-4-160 Annual Trading Data of LPG Futures, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	3,506.03	-27.34	33,307.22	-1.46	14.9	128.37
2022	4,449.15	26.9	48,317.86	45.07	14.06	-5.62

Source: DCE

Table 1-4-161 Monthly Trading Data of LPG Options, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Put/Call Ratio	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	25.91	55.92	0.66	3.02	57.71	1.49	-48.03
FEB	25.32	36.63	0.85	2.86	19	1.83	-11.01
MAR	42.07	127.6	0.76	7.07	196.83	2.01	-6.78
APR	33.7	98.42	0.89	2.98	87.15	2.35	-7.33
MAY	41.75	68.31	0.89	3.11	16.09	2.67	-3.74
JUN	66.74	173.75	1.06	5.2	122.57	4.26	27.07
JUL	55.17	73.91	1.7	5.99	83.4	2.66	-7.23
AUG	44.43	113.34	1.16	4.05	86.7	3.16	44.55
SEP	49	91.45	0.98	4.04	-26.24	3.06	10.02
OCT	39.35	110.43	0.88	2.19	-53.93	2.64	33.45
NOV	61.77	189.28	1.03	3.29	15.49	3.19	93
DEC	63.03	153.65	0.73	2.78	8.42	4.1	131.92
Total	548.24	108.58	0.97	46.58	35.46	—	—

Source: DCE

Table 1-4-162 Annual Trading Data of LPG Options, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Put/Call Ratio	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	262.8	—	0.85	34.4	—	1.8	-16.7
2022	548.24	108.58	0.97	46.58	35.46	4.1	131.92

Source: DCE

(II) Delivery and Exercise (Table 1-4-163—Table 1-4-166)

Table 1-4-163 Monthly Delivery Data of LPG Futures, 2022

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
JAN	1,225	-55.95	1.15	-42.1
FEB	1,352	-60.27	1.30	-42.1
MAR	1,029	43.12	1.17	142.15
APR	1,183	3,979.31	1.42	5,447.55
MAY	684	236.95	0.82	413.21
JUN	680	31.02	0.80	81.1
JUL	550	-47.17	0.63	-37.01
AUG	17	-98.72	0.02	-98.59

Continued

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
SEP	2,005	-38.52	2.23	-31.58
OCT	2,924	166.06	2.97	115.02
NOV	1,412	-16.1	1.48	-9.11
DEC	1,050	-49.45	1.00	-43.83
Total	14,111	-22.24	14.99	-4.63

Source: DCE

Table 1-4-164 Annual Delivery Data of LPG Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
2021	18,146	337.46	15.75	430.41
2022	14,111	-22.24	14.99	-4.63

Source: DCE

Table 1-4-165 Monthly Exercise Data of LPG Options, 2022

Month	Exercise Volume (lot)
JAN	3,991
FEB	4,222
MAR	3,983
APR	2,507
MAY	1,715
JUN	2,061
JUL	3,263
AUG	2,255
SEP	3,621
OCT	3,527
NOV	3,586
DEC	3,903
Total	38,634

Source: DCE

Table 1-4-166 Annual Exercise Data of LPG Options, 2021-2022

Year	Exercise Volume (lot)	YoY Change (%)
2021	55,138	—
2022	38,634	-29.93

Source: DCE

(III) Price Trend (Figure 1-4-20, Table 1-4-167—Table 1-4-168)

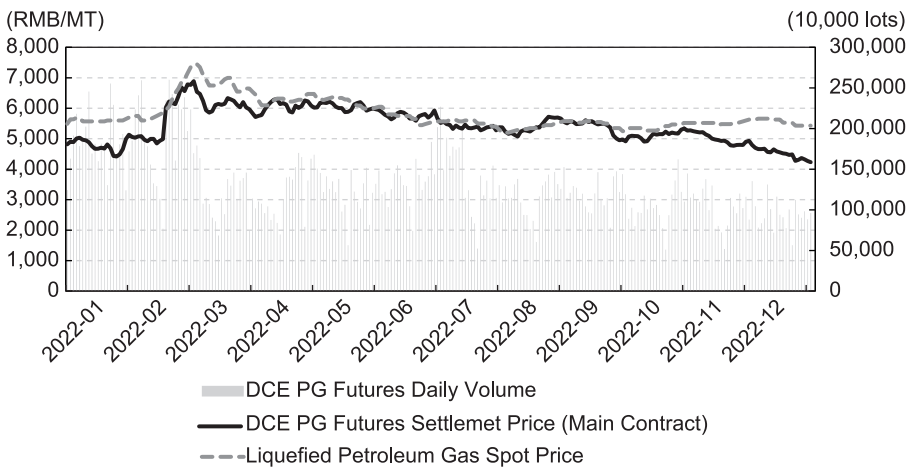


Figure 1-4-20 LPG Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: DCE; Wind

Table 1-4-167 LPG Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
DCE main futures contract (RMB/MT)	4,748	7,017	4,191	4,238	-510	5,436.6	568.68	2,826
LPG spot at Guangzhou (RMB/MT)	5,338	7,448	5,198	5,428	90	5,798.25	489.06	2,250

Source: DCE; Wind

Table 1-4-168 Price Correlation of DCE LPG Futures, 2022

Prices	Correlation
DCE main futures contract settlement vs. LPG spot	0.76

Source: DCE; Wind

XXI. Live Hog Futures

(I) Trading (Table 1-4-169—Table 1-4-170)

Table 1-4-169 Monthly Trading Data of Live Hog Futures, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	50.75	43.39	1,163.49	-21.12	11.42	438.32

Continued

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
FEB	60.04	264.64	1,379.89	92.32	10.35	410.05
MAR	98.26	759.72	2,256.35	340.51	11.86	678.5
APR	77.8	1,012.2	2,009.61	561.31	9.09	490.51
MAY	61.37	328.15	1,858.52	239.68	9.77	251.89
JUN	58.07	-19.61	1,820.83	-16.31	10.33	71.09
JUL	110.01	139.75	3,814.9	178.07	9.08	55.19
AUG	61.11	15.64	2,134.72	47.61	8.34	7.27
SEP	49.75	-45.93	1,784.96	-16.47	7.29	-33.18
OCT	48.64	-54.79	1,764.23	-35.55	8.18	-16.63
NOV	61.48	-26.85	2,036.5	-5.51	7.9	-28.04
DEC	90.64	36.21	2,505.57	59.89	7.18	-28.68
Total	827.92	36.67	24,529.57	43.06	—	—

Source: DCE

Table 1-4-170 Annual Trading Data of Live Hog Futures, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	605.78	—	17,146.43	—	10.07	—
2022	827.92	36.67	24,529.57	43.06	7.18	-28.68

Source: DCE

(II) Delivery (Table 1-4-171—Table 1-4-172)

Table 1-4-171 Monthly Delivery Data of Live Hog Futures, 2022

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥10,000)	YoY Change (%)
JAN	47	—	1,073.90	—
MAR	225	—	4,330.62	—
MAY	204	—	5,006.94	—
JUL	23	—	797.08	—
SEP	16	-15.79	622.88	49.96
NOV	78	129.41	3,050.83	232.38
Total	593	—	14,882.25	—

Source: DCE

Table 1-4-172 Annual Delivery Data of Live Hog Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥10,000)	YoY Change (%)
2021	53	—	0.13	—
2022	593	—	1.49	—

Source: DCE

(III) Price Trend (Figure 1-4-21, Table 1-4-173—Table 1-4-174)

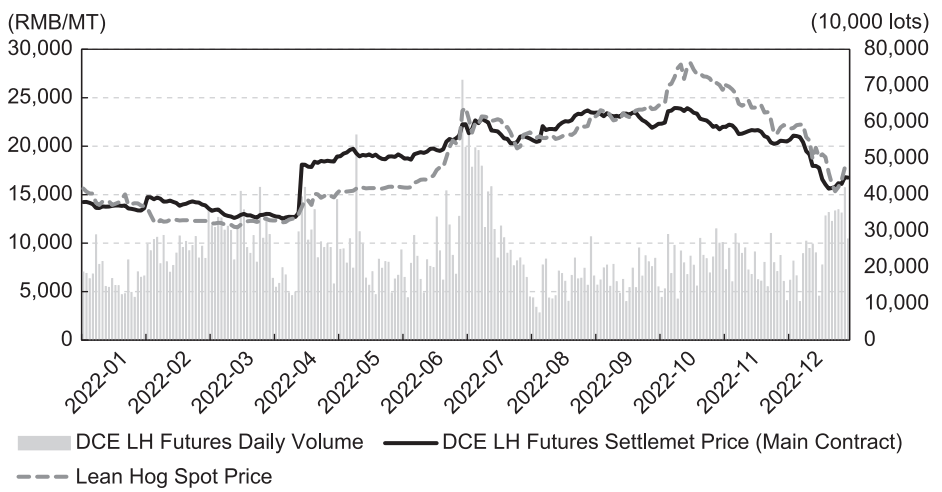


Figure 1-4-21 Live Hog Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: DCE; Wind

Table 1-4-173 Live Hog Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
DCE main futures contract (RMB/MT)	14,450	24,300	12,360	16,145	1,695	18,731.05	3,706.52	11,940
Hybrid live hog spot price (RMB/MT)	16,250	28,562	11,640	16,816	566	18,580.88	4,877.01	16,922

Source: DCE; Wind

Table 1-4-174 Price Correlation of DCE Live Hog Futures, 2022

Prices	Correlation
DCE main futures contract settlement vs. Live hog spot	0.9

Source: DCE; Wind

>>> Section V CFFEX Market

In 2022, the China Financial Futures Exchange (CFFEX) recorded a trading volume of 152 million lots and a turnover of RMB 133.04 trillion, up 24.44% and 12.58% YoY and representing 2.24% and 24.87% of the national futures market, respectively.

I. CSI 300 Index Futures and Options

(I) Futures and Options Trading (Table 1-5-1—Table 1-5-4)

Table 1-5-1 Monthly Trading Data of CSI 300 Index Futures, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	189.40	-33.88	27,199.31	-42.07	20.84	-1.93
FEB	150.16	-27.96	20,691.62	-40.32	20.32	-8.71
MAR	306.71	-13.85	38,862.68	-28.30	20.62	-0.33
APR	260.75	-4.58	31,721.04	-22.99	22.75	5.53
MAY	227.67	-7.14	27,025.74	-28.31	22.20	0.17
JUN	271.16	0.87	34,510.65	-17.29	21.21	2.85
JUL	239.70	-14.93	30,958.08	-26.95	19.80	-7.82
AUG	211.46	-17.69	26,201.86	-29.92	18.51	-12.54
SEP	183.76	-23.42	21,872.26	-37.70	17.84	-2.12
OCT	172.32	11.51	19,187.10	-15.71	19.92	8.19
NOV	250.51	35.75	28,285.52	5.07	19.59	6.98
DEC	211.35	-0.40	24,922.37	-21.29	19.72	1.89
Total	2,674.94	-9.88	331,438.21	-26.78	—	—

Source: CFFEX

Table 1-5-2 Annual Trading Data of CSI 300 Index Futures, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	2,968.05	-1.06	452,669.08	14.91	19.36	-4.76
2022	2,674.94	-9.88	331,438.21	-26.78	19.72	1.89

Source: CFFEX

Table 1-5-3 Monthly Trading Data of CSI 300 Index Options, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Put/Call Ratio	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	277.65	-1.45	0.85	174.89	-44.80	18.52	8.59

Continued

Month	Volume (10,000 lots)	YoY Change (%)	Put/Call Ratio	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
FEB	194.29	-3.68	0.88	115.22	-49.40	17.61	-9.31
MAR	390.89	35.73	0.86	297.28	6.46	21.03	23.00
APR	279.48	25.45	0.85	211.73	13.84	20.74	22.82
MAY	239.21	4.22	0.86	161.54	-14.23	19.06	-8.05
JUN	351.18	45.11	0.85	247.68	29.92	19.74	0.35
JUL	272.61	-4.56	0.82	177.75	-20.22	18.89	-2.07
AUG	229.19	-22.43	0.79	127.73	-38.56	17.09	-8.82
SEP	203.38	-28.42	0.85	118.42	-42.43	15.76	-0.02
OCT	213.40	27.99	0.77	128.41	4.18	18.11	14.06
NOV	297.08	20.59	0.77	174.29	10.61	17.03	2.19
DEC	207.01	-26.09	0.82	120.12	-33.31	14.45	-26.27
Total	3,155.35	4.34	0.83	2,055.06	-17.34	—	—

Source: CFFEX

Table 1-5-4 Annual Trading Data of CSI 300 Index Options, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Put/Call Ratio	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	3,024.15	80.62	0.73	2,485.07	81.99	19.60	36.97
2022	3,155.35	4.34	0.83	2,055.06	-17.34	14.45	-26.27

Source: CFFEX

(II) Delivery and Exercise (Table 1-5-5—Table 1-5-8)

Table 1-5-5 Monthly Delivery Data of CSI 300 Index Futures, 2022

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
JAN	8,005	31	114.69	14.92
FEB	7,410	17	103.06	-6.05
MAR	12,804	7	163.31	-9.12
APR	8,515	8	107.15	-8.79
MAY	8,750	66	106.81	30.99
JUN	15,391	25	198.49	5.30
JUL	10,281	13	132.22	-5.65
AUG	7,998	-10	99.88	-20.93
SEP	15,604	14	185.23	-6.57

Continued

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
OCT	9,732	12	109.32	-14.59
NOV	8,737	26	100.06	-1.31
DEC	12,187	19	144.03	-5.63
Total	125,414	16.73	1,564.25	-3.64

Source: CFFEX

Table 1-5-6 Annual Delivery Data of CSI 300 Index Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
2021	107,437	43.90	1,623.42	66.37
2022	125,414	16.73	1,564.25	-3.64

Source: CFFEX

Table 1-5-7 Monthly Exercise Data of CSI 300 Index Options, 2022

Month	Exercise Volume (lot)	OI at Expiration (lot)	Exercise Ratio (%)
JAN	21,249	89,401	23.77
FEB	20,684	78,464	26.36
MAR	23,822	89,969	26.48
APR	17,251	86,770	19.88
MAY	20,501	89,032	23.03
JUN	21,794	84,873	25.68
JUL	16,768	77,523	21.63
AUG	18,183	75,439	24.10
SEP	18,764	81,725	22.96
OCT	17,491	70,344	24.86
NOV	16,349	63,753	25.64
DEC	17,203	76,057	22.62
Total	230,059	963,350	23.88

Source: CFFEX

Table 1-5-8 Annual Exercise Data of CSI 300 Index Options, 2021-2022

Year	Exercise Volume (lot)	YoY Change (%)
2021	156,851	125.35
2022	230,059	46.67

Source: CFFEX

(III) Price Trend (Figure 1-5-1, Table 1-5-9—Table 1-5-10)

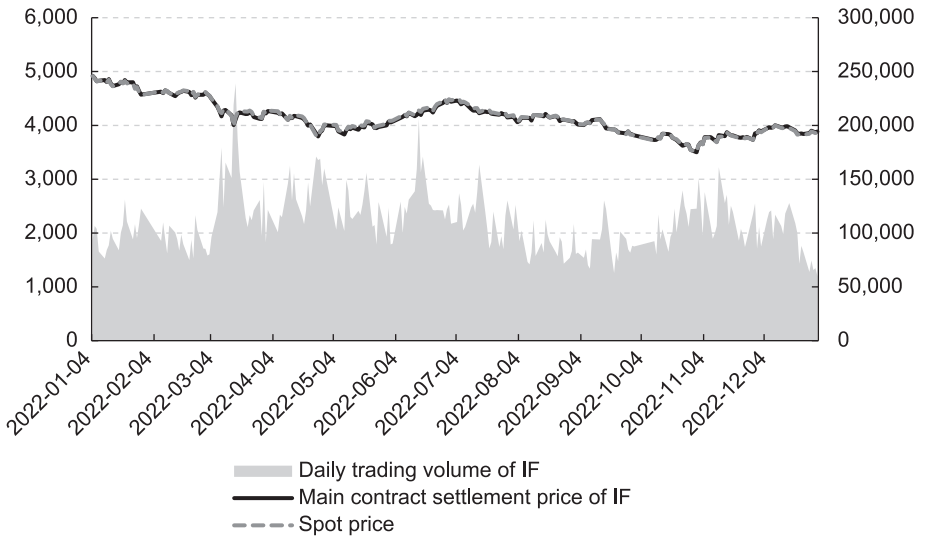


Figure 1-5-1 CSI 300 Index Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: CFFEX; Wind

Table 1-5-9 CSI 300 Index Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
CFFEX main futures contract	4,944.80	4,966.00	3,488.00	3,879.40	-1,065.40	4,137.92	307.37	1,478.00
CSI 300 Index price	4,940.37	4,961.45	3,495.95	3,871.63	-1,068.74	4,146.27	310.05	1,465.50

Source: CFFEX

Table 1-5-10 Price Correlation of CFFEX CSI 300 Index Futures, 2022

Prices	Correlation
CFFEX main futures contract closing vs. CSI 300 Index closing	0.9984

Source: CFFEX

II. SSE 50 Index Futures and Options

SSE 50 Index option was listed on CFFEX on December 19, 2022 for trading.

(I) Futures and Options Trading (Table 1-5-11—Table 1-5-13)

Table 1-5-11 Monthly Trading Data of SSE 50 Index Futures, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	114.21	-0.30	10,972.86	-15.90	11.97	62.01

Continued

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
FEB	84.09	5.22	7,864.23	-15.10	10.31	29.94
MAR	153.22	15.71	13,306.88	-6.25	9.23	21.45
APR	131.64	24.91	11,188.33	1.74	11.32	38.08
MAY	113.24	13.17	9,286.76	-11.74	10.96	34.47
JUN	143.86	20.02	12,434.08	-1.60	11.06	33.45
JUL	122.58	-12.25	10,680.81	-23.37	10.02	-1.72
AUG	122.17	-15.95	10,096.14	-26.69	11.75	7.70
SEP	118.77	-22.83	9,607.54	-34.62	11.98	22.07
OCT	119.37	20.68	8,865.79	-8.73	13.31	33.05
NOV	169.95	44.91	12,769.08	13.05	12.93	29.31
DEC	147.65	16.97	11,797.67	-5.65	11.88	3.23
Total	1,540.77	7.48	128,870.18	-12.08	—	—

Source: CFFEX

Table 1-5-12 Annual Trading Data of SSE 50 Index Futures, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	1,433.59	22.01	146,580.12	33.14	11.51	47.18
2022	1,540.77	7.48	128,870.18	-12.08	11.88	3.23

Source: CFFEX

Table 1-5-13 Annual Trading Data of SSE 50 Index Options, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Put/Call Ratio	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2022	20.06	—	1.01	7.91	—	2.63	—

Source: CFFEX

(II) Delivery and Exercise (Table 1-5-14—Table 1-5-15)

Table 1-5-14 Monthly Delivery Data of SSE 50 Index Futures, 2022

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
JAN	4,577	54.16	44.14	29.94
FEB	3,388	11.93	32.05	-11.95
MAR	4,561	14.40	39.69	-5.52
APR	4,253	18.70	37.45	1.13
MAY	4,551	43.52	38.24	15.32
JUN	6,855	18.19	60.28	0.50
JUL	7,973	97.06	68.55	67.20

Continued

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
AUG	3,585	-11.61	29.65	-20.36
SEP	8,595	-15.93	69.46	-28.15
OCT	8,189	28.45	61.13	-2.94
NOV	3,704	-18.58	28.40	-34.98
DEC	6,340	-6.59	50.92	-23.85
Total	66,571	13.65	559.95	-5.26

Source: CFFEX

Table 1-5-15 Annual Delivery Data of SSE 50 Index Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
2021	58,574	67.41	591.01	81.62
2022	66,571	13.65	559.95	-5.26

Source: CFFEX

No CFFEX SSE 50 Index options contracts were exercised in 2022.

(III) Price Trend (Figure 1-5-2, Table 1-5-16—Table 1-5-17)

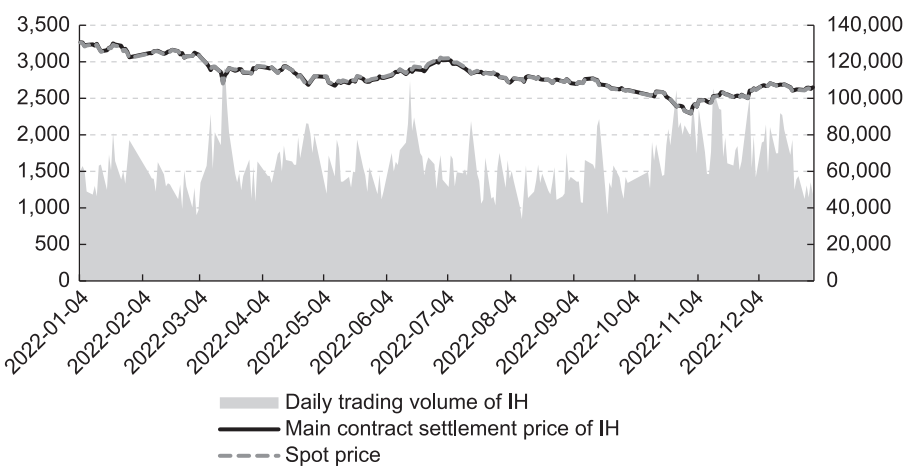


Figure 1-5-2 SSE 50 Index Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: CFFEX; Wind

Table 1-5-16 SSE 50 Index Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
CFFEX main futures contract	3,279.40	3,299.60	2,283.20	2,646.40	-633.00	2,804.04	211.02	1,016.40
SSE 50 Index price	3,274.32	3,289.16	2,288.01	2,635.25	-639.07	2,806.13	211.69	1,001.15

Source: CFFEX

Table 1-5-17 Price Correlation of CFFEX SSE 50 Index Futures, 2022

Prices	Correlation
CFFEX main futures contract closing vs. SSE 50 Index closing	0.9987

Source: CFFEX

III. CSI 500 Index Futures

(I) Trading (Table 1-5-18—Table 1-5-19)

Table 1-5-18 Monthly Trading Data of CSI 500 Index Futures, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	168.35	-24.35	23,608.50	-17.32	31.42	34.45
FEB	135.39	-16.44	18,272.18	-11.80	30.11	29.01
MAR	261.22	7.41	32,971.50	9.82	31.26	29.92
APR	263.82	44.83	30,431.70	32.76	35.33	42.59
MAY	249.86	57.92	28,486.55	38.98	34.93	56.02
JUN	302.18	71.79	37,367.18	60.42	34.45	43.02
JUL	243.36	13.22	30,600.01	5.34	32.49	16.97
AUG	222.24	14.14	27,848.01	3.55	32.68	22.44
SEP	215.56	-6.71	25,925.28	-23.00	32.39	16.30
OCT	179.97	24.46	21,130.35	4.91	33.33	24.64
NOV	207.17	25.58	25,307.86	8.79	30.67	12.18
DEC	172.99	-2.79	20,939.63	-18.73	30.83	13.56
Total	2,622.11	15.40	322,888.74	5.94	—	—

Source: CFFEX

Table 1-5-19 Annual Trading Data of CSI 500 Index Futures, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	2,272.28	-30.63	304,786.00	-20.89	27.15	18.72
2022	2,622.11	15.40	322,888.74	5.94	30.83	13.56

Source: CFFEX

(II) Delivery (Table 1-5-20—Table 1-5-21)

Table 1-5-20 Monthly Delivery Data of CSI 500 Index Futures, 2022

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
JAN	8,488	9.58	118.53	19.70

Continued

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
FEB	6,105	29.84	83.25	32.65
MAR	10,216	11.97	128.83	13.94
APR	6,940	-12.01	84.50	-15.41
MAY	9,647	128.98	114.06	107.12
JUN	14,792	86.96	186.15	76.92
JUL	10,068	38.51	125.91	24.49
AUG	7,233	19.99	92.94	12.07
SEP	14,635	10.01	175.83	-10.13
OCT	8,210	-7.62	97.96	-21.54
NOV	6,673	7.02	82.93	-6.98
DEC	12,737	26.61	154.20	4.66
Total	115,744	23.97	1,445.09	13.24

Source: CFFEX

Table 1-5-21 Annual Delivery Data of CSI 500 Index Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
2021	93,366	35.87	1,276.10	54.83
2022	115,744	23.97	1,445.09	13.24

Source: CFFEX

(III) Price Trend (Figure 1-5-3, Table 1-5-22—Table 1-5-23)

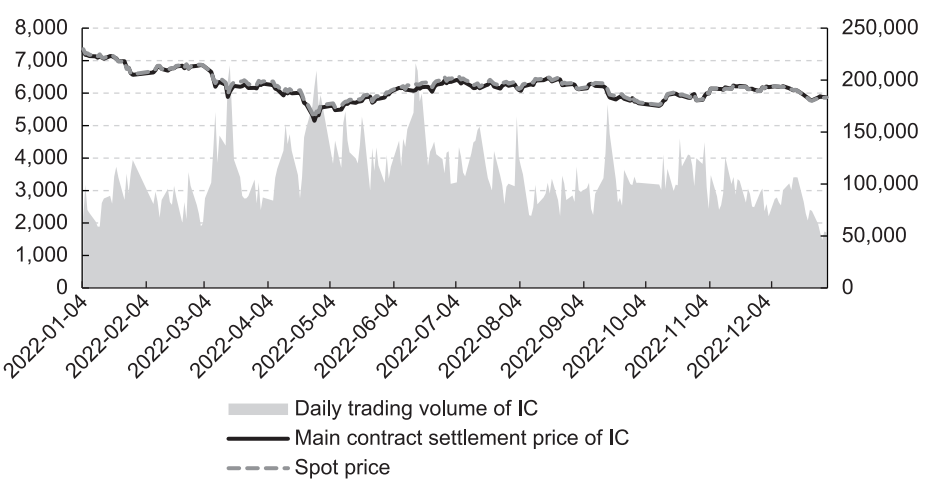


Figure 1-5-3 CSI 500 Index Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: CFFEX; Wind

Table 1-5-22 CSI 500 Index Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
CFFEX main futures contract	7,371.80	7,326.40	5,063.60	5,871.00	-1,500.80	6,197.85	388.71	2,262.80
CSI 500 Index price	7,359.40	7,392.10	5,158.48	5,864.47	-1,494.93	6,246.77	381.28	2,233.62

Source: CFFEX

Table 1-5-23 Price Correlation of CFFEX CSI 500 Index Futures, 2022

Prices	Correlation
CFFEX main futures contract closing vs. SSE 50 Index closing	0.9930

Source: CFFEX

IV. CSI 1000 Index Futures and Options

CSI 1000 Index futures and option were listed on CFFEX on July 22, 2022 for trading.

(I) Futures and Options Trading (Table 1-5-24—Table 1-5-25)

Table 1-5-24 Annual Trading Data of CSI 1000 Index Futures, 2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2022	611.55	—	80,355.80	—	13.17	—

Source: CFFEX

Table 1-5-25 Annual Trading Data of CSI 1000 Index Options, 2022

Year	Volume (10,000 lots)	YoY Change (%)	Put/Call Ratio	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2022	679.75	—	0.96	580.34	—	6.63	—

Source: CFFEX

(II) Delivery and Exercise (Table 1-5-26—Table 1-5-27)

Table 1-5-26 Annual Delivery Data of CSI 1000 Index Futures, 2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
2022	25,841	—	344.66	—

Source: CFFEX

Table 1-5-27 Annual Exercise Data of CSI 1000 Index Options, 2022

Year	Exercise Volume (lot)	YoY Change (%)
2022	30,257	—

Source: CFFEX

(III) Price Trend (Figure 1-5-4, Table 1-5-28—Table 1-5-29)

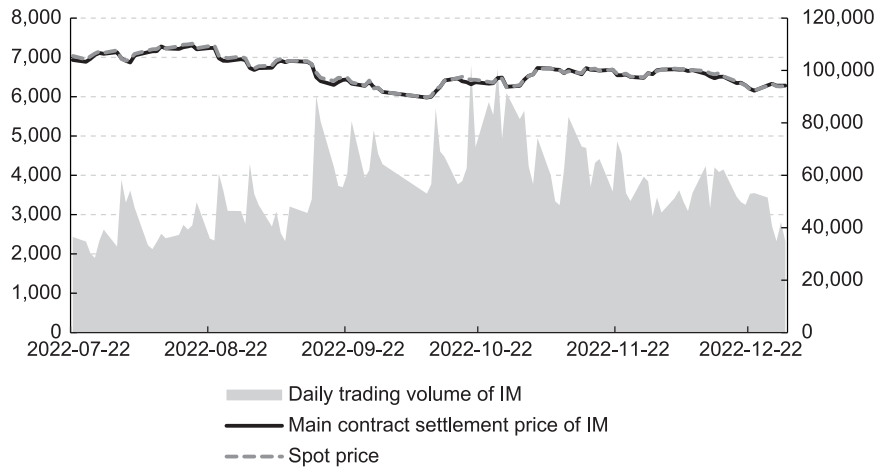


Figure 1-5-4 CSI 1000 Index Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: CFFEX; Wind

Table 1-5-28 CSI 1000 Index Futures and Spot Prices, 2022①

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
CFFEX main futures contract	—	7,337.00	5,895.20	6,285.80	—	6,645.13	323.21	1,441.80
CSI 1000 Index price	—	7,369.73	5,918.02	6,281.62	—	6,675.51	332.25	1,451.71

Source: CFFEX

Table 1-5-29 Price Correlation of CFFEX CSI 1000 Index Futures, 2022

Prices	Correlation
CFFEX main futures contract closing vs. CSI 1000 Index closing	0.9949

Source: CFFEX

V. 5-Year CGB Futures

(I) Trading (Table 1-5-30—Table 1-5-31)

Table 1-5-30 Monthly Trading Data of 5-Year CGB Futures, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	67.58	22.19	6,895.01	24.87	10.79	75.42

① From July 22 to December 31, 2022.

Continued

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
FEB	78.49	70.05	7,987.23	74.21	9.15	71.90
MAR	100.95	114.87	10,238.87	119.41	10.99	82.83
APR	68.24	57.41	6,931.23	60.35	10.41	41.84
MAY	77.01	44.40	7,822.29	46.59	10.40	87.11
JUN	71.06	66.15	7,196.26	68.49	10.18	41.75
JUL	76.27	59.47	7,730.99	60.56	12.73	71.10
AUG	129.87	123.69	13,240.71	125.70	11.76	99.31
SEP	102.92	128.97	10,475.69	130.60	12.90	95.22
OCT	81.90	109.53	8,338.85	111.99	13.77	71.07
NOV	190.29	166.07	19,254.99	166.45	10.16	25.78
DEC	121.96	111.55	12,285.64	110.45	9.35	6.49
Total	1,166.56	92.19	118,397.77	94.33	—	—

Source: CFFEX

Table 1-5-31 Annual Trading Data of 5-Year CGB Futures, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	606.99	4.48	60,925.11	3.79	8.78	45.46
2022	1,166.56	92.19	118,397.77	94.33	9.35	6.49

Source: CFFEX

(II) Delivery (Table 1-5-32—Table 1-5-33)

Table 1-5-32 Monthly Delivery Data of 5-Year CGB Futures, 2022

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
MAR	2,761	1,323.20	28.94	1,431.22
JUN	1,170	33.26	12.04	34.38
SEP	330	-88.48	3.34	-88.79
DEC	1,865	-58.82	18.78	-59.92
Total	6,126	-27.63	63.10	-27.89

Source: CFFEX

Table 1-5-33 Annual Delivery Data of 5-Year CGB Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
2021	8,465	40.59	87.51	42.87
2022	6,126	-27.63	63.10	-27.89

Source: CFFEX

(III) Price Trend (Figure 1-5-5, Table 1-5-34—Table 1-5-35)

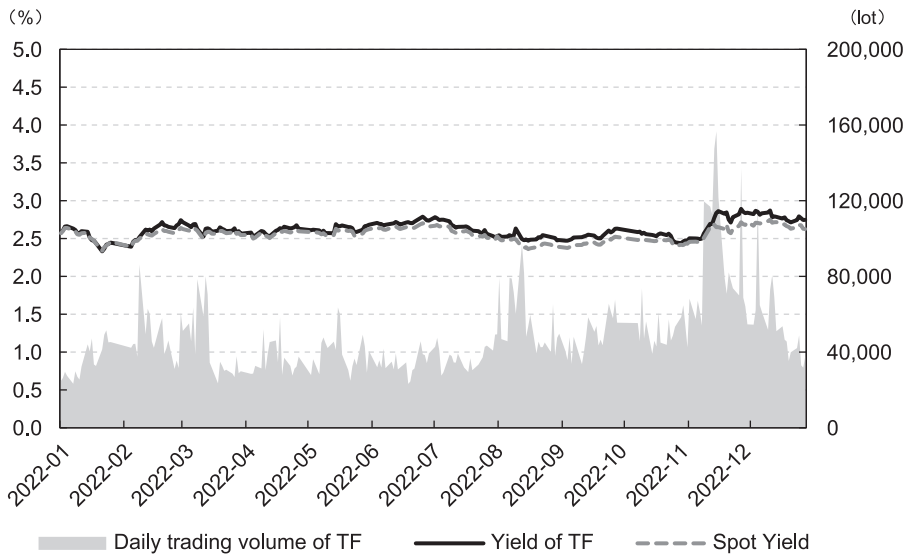


Figure 1-5-5 5-Year CGB Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: CFFEX; Wind

Table 1-5-34 5-Year CGB Futures and Spot Yields (%), 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average	Standard Deviation	Max Spread
CFFEX main futures contract yield	2.607	2.892	2.332	2.746	0.139	2.621	0.109	0.56
5-year CGB spot yield	2.630	2.750	2.340	2.625	-0.005	2.555	0.094	0.41

Source: CFFEX; Wind

Table 1-5-35 Price Correlation of CFFEX 5-Year CGB Futures, 2022

Prices	Correlation
CFFEX main futures contract price vs. 5-year CGB spot	0.9920

Source: CFFEX; Wind

VI. 10-Year CGB Futures

(I) Trading (Table 1-5-36—Table 1-5-37)

Table 1-5-36 Monthly Trading Data of 10-Year CGB Futures, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	127.44	1.81	12,857.46	4.86	16.87	31.10

Continued

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
FEB	151.21	43.48	15,192.03	48.56	16.82	41.56
MAR	196.75	49.53	19,699.19	54.25	17.99	34.24
APR	130.06	10.19	13,056.87	13.33	19.09	38.51
MAY	141.59	-1.83	14,234.54	0.49	16.11	27.76
JUN	135.14	4.07	13,539.17	6.30	18.39	17.39
JUL	145.59	-1.83	14,613.72	-0.73	22.37	39.92
AUG	208.74	20.05	21,173.39	21.76	16.96	15.54
SEP	159.26	25.78	16,128.32	27.45	19.47	29.35
OCT	114.83	10.00	11,623.03	12.36	20.62	24.84
NOV	306.46	71.23	30,746.27	71.95	17.99	10.55
DEC	181.86	20.10	18,142.65	19.64	16.29	-10.03
Total	1,998.94	22.05	201,006.65	24.20	—	—

Source: CFFEX

Table 1-5-37 Annual Trading Data of 10-Year CGB Futures, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	1,637.85	2.93	161,837.56	2.22	18.11	53.22
2022	1,998.94	22.05	201,006.65	24.20	16.29	-10.03

Source: CFFEX

(II) Delivery (Table 1-5-38—Table 1-5-39)

Table 1-5-38 Monthly Delivery Data of 10-Year CGB Futures, 2022

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
MAR	2,300	190.77	22.92	200.00
JUN	75	-88.28	0.76	-87.94
SEP	364	-73.22	3.68	-72.66
DEC	6,520	421.60	64.7	418.85
Total	9,259	129.18	92.07	130.93

Source: CFFEX

Table 1-5-39 Annual Delivery Data of 10-Year CGB Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
2021	4,040	-12.54	39.87	-12.76
2022	9,259	129.18	92.07	130.93

Source: CFFEX

(III) Price Trend (Figure 1-5-6, Table 1-5-40—Table 1-5-41)

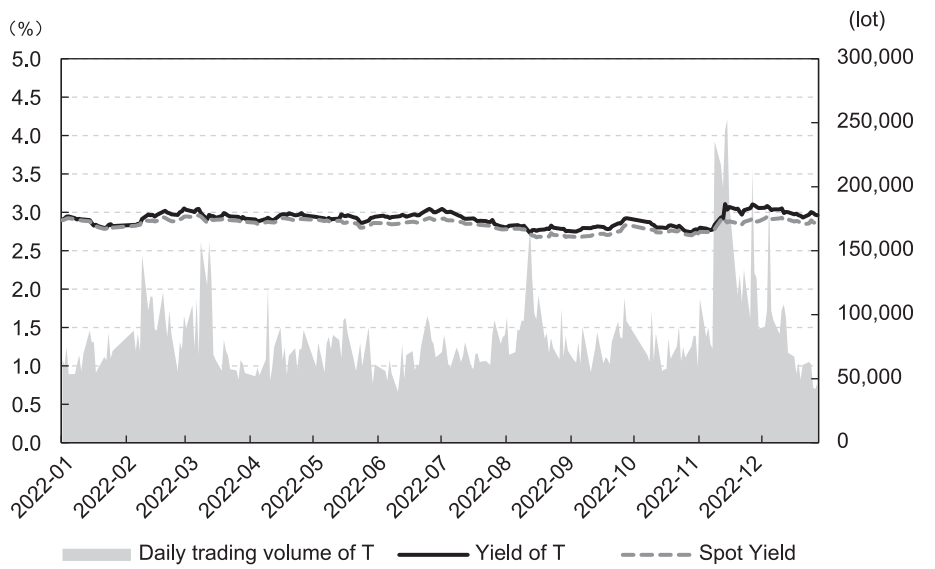


Figure 1-5-6 10-Year CGB Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: CFFEX; Wind

Table 1-5-40 10-Year CGB Futures and Spot Yields (%), 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average	Standard Deviation	Max Spread
CFFEX main futures contract yield	2.889	3.107	2.730	2.962	0.073	2.911	0.089	0.377
10-year CGB spot yield	2.898	2.962	2.664	2.846	−0.052	2.838	0.076	0.298

Source: CFFEX; Wind

Table 1-5-41 Price Correlation of CFFEX 10-Year CGB Futures, 2022

Prices	Correlation
CFFEX main futures contract price vs. 10-year CGB spot	0.9586

Source: CFFEX; Wind

VII. 2-Year CGB Futures

(I) Trading (Table 1-5-42—Table 1-5-43)

Table 1-5-42 Monthly Trading Data of 2-Year CGB Futures, 2022

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
JAN	26.84	45.37	5,431.34	46.48	5.20	111.48

Continued

Month	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Month-End OI (10,000 lots)	YoY Change (%)
FEB	32.38	144.03	6,556.22	146.56	3.42	161.34
MAR	39.98	113.80	8,087.69	116.14	4.82	113.19
APR	33.56	71.03	6,792.42	72.66	4.86	47.30
MAY	37.34	69.57	7,552.43	70.83	4.15	32.94
JUN	45.59	123.79	9,204.96	125.33	4.74	45.09
JUL	52.35	173.95	10,575.09	174.89	6.06	94.14
AUG	78.44	257.83	15,881.39	259.35	5.28	120.80
SEP	80.70	367.04	16,331.86	369.04	5.93	105.35
OCT	62.14	220.15	12,580.64	222.10	7.65	178.12
NOV	124.68	272.62	25,182.21	273.34	4.05	27.39
DEC	102.16	177.83	20,584.60	177.45	4.40	-12.30
Total	716.15	175.03	144,760.83	176.43	—	—

Source: CFFEX

Table 1-5-43 Annual Trading Data of 2-Year CGB Futures, 2021-2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2021	260.39	12.58	52,367.59	12.22	5.02	118.24
2022	716.15	175.03	144,760.83	176.43	4.40	-12.30

Source: CFFEX

(II) Delivery (Table 1-5-44—Table 1-5-45)

Table 1-5-44 Monthly Delivery Data of 2-Year CGB Futures, 2022

Month	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
MAR	2,620	181.72	53.3	184.12
JUN	1,855	-40.35	37.3	-40.83
SEP	1,169	341.13	23.74	343.74
DEC	660	-26.99	13.3	-27.08
Total	6,304	21.02	127.64	21.12

Source: CFFEX

Table 1-5-45 Annual Delivery Data of 2-Year CGB Futures, 2021-2022

Year	Delivery Volume (lot)	YoY Change (%)	Delivery Value (¥100mn)	YoY Change (%)
2021	5,209	2.58	105.38	3.23
2022	6,304	21.02	127.64	21.12

Source: CFFEX

(III) Price Trend (Figure 1-5-7, Table 1-5-46—Table 1-5-47)

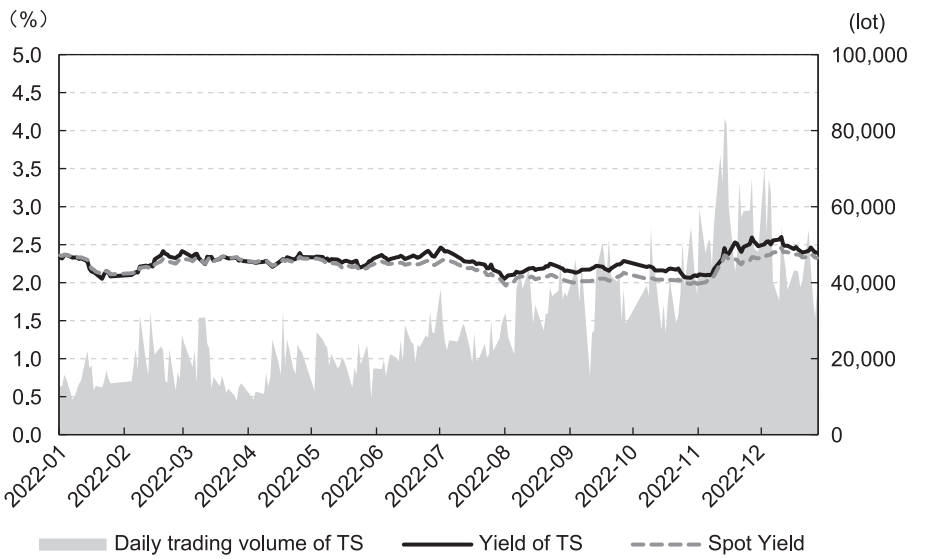


Figure 1-5-7 2-Year CGB Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: CFFEX; Wind

Table 1-5-46 2-Year CGB Futures and Spot Yields (%), 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average	Standard Deviation	Max Spread
CFFEX main futures contract yield	2.325	2.601	2.047	2.396	0.071	2.282	0.119	0.554
2-year CGB spot yield	2.400	2.460	1.960	2.325	−0.075	2.205	0.121	0.5

Source: CFFEX; Wind

Table 1-5-47 Price Correlation of CFFEX 2-Year CGB Futures, 2022

Prices	Correlation
CFFEX main futures contract price vs. 2-year CGB spot	0.9822

Source: CFFEX; Wind

>>> Section VI GFEX Market

On December 22, 2022, the Guangzhou Futures Exchange (GFEX) welcomed the listing of its first product, silicon metal futures, followed by the December 23 listing of the silicon metal options. Trading volume and turnover in 2022 were 193,600 lots and RMB 15.840 billion, respectively.

• Silicon Metal Futures and Options

(I) Futures and Options Trading (Table 1-6-1—Table 1-6-2)

Table 1-6-1 Annual Trading Data of Silicon Metal Futures, 2022

Year	Volume (10,000 lots)	YoY Change (%)	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2022	17.78	—	157.60	—	0.96	—

Source: GFEX

Table 1-6-2 Annual Trading Data of Silicon Metal Options, 2022

Year	Volume (10,000 lots)	YoY Change (%)	Put/Call Ratio	Turnover (¥100mn)	YoY Change (%)	Year-End OI (10,000 lots)	YoY Change (%)
2022	1.58	—	0.95	0.80	—	0.56	—

Source: GFEX

(II) Delivery and Exercise

No GFEX silicon metal futures or options contracts were delivered or exercised in 2022.

(III) Price Trend (Figure 1-6-1, Table 1-6-3)

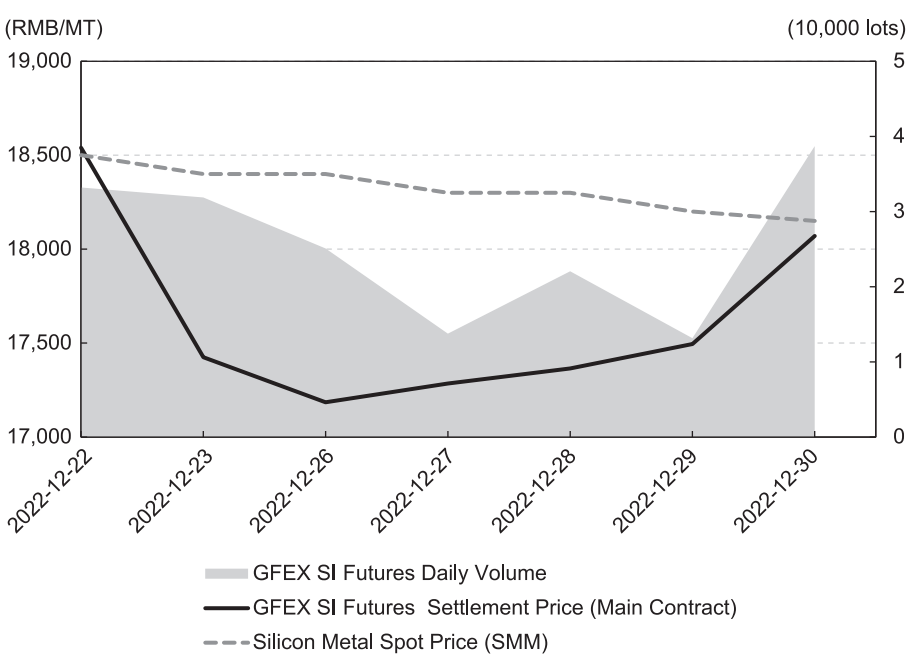


Figure 1-6-1 Silicon Metal Futures Daily Volume & Main Contract Settlement Price vs. Spot Price in 2022

Source: GFEX; SMM

Table 1-6-3 Silicon Metal Futures and Spot Prices, 2022

Market	2021 Closing	2022 High	2022 Low	2022 Closing	YoY Change	Average Settlement	Standard Deviation	Max Spread
GFEX main futures contract (RMB/MT)	—	19,720	16,825	17,895	—	17,624	458	2,895
SMM east China #553 oxygen-free silicon spot (RMB/MT)	19,700	22,150	15,250	18,150	-1,550	18,831	1,594	6,900

Source: GFEX; SMM

>>> Section VII Futures and Options Products Open to Overseas Investors

Crude oil, TSR 20, low sulfur fuel oil (LSFO), and bonded copper futures and crude oil options are "Specified Domestic Products" (i. e., products open to overseas traders) listed and traded on the Shanghai International Energy Exchange (INE), a subsidiary and the international platform of SHFE. In September 2022, SHFE and INE introduced qualified foreign institutional investors (QFIIs) to 16 of their products—namely 11 futures (gold, silver, copper, aluminum, zinc, steel rebar, hot rolled coils, crude oil, TSR 20, LSFO, and bonded copper) and 5 options (gold, copper, aluminum, zinc, and crude oil)—as the two exchanges continued to expand the array of overseas trader-accessible products.

The sections below provide a basic overview of how to access crude oil, TSR 20, LSFO, and bonded copper futures and crude oil options at INE as well as the procedures for opening an account, trading, clearing, and delivery. Refer to the INE website① and its product handbooks for more detailed information on these procedures.

I. Participation Models

(I) Domestic Investors

Domestic investors who are eligible for INE membership may trade directly as a Non-Futures Firm Member ("Non-FF Member") or, for those who are not eligible, through a domestic Futures Firm Member ("FF Member").

(II) Overseas Investors

Overseas investors can trade Specified Domestic Products through one of the following four approaches:

(i) Directly through domestic futures companies;

(ii) Through Overseas Intermediaries that have partnered with domestic FF Members or

① https://www.ine.cn.

Overseas Special Brokerage Participants ("OSBPs");

(iii) Through OSBPs; and

(iv) As Overseas Special Non-Brokerage Participants ("OSNBPs") (Figure 1-7-1).

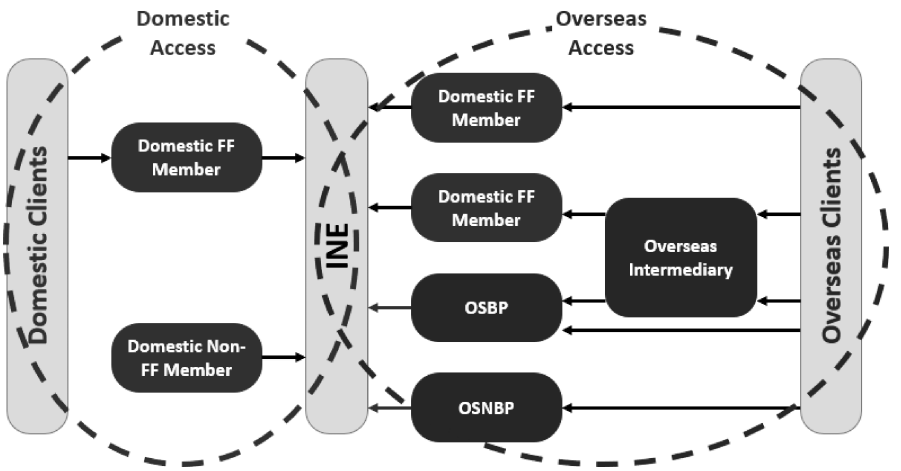


Figure 1-7-1 Trading as Overseas Investors

Note: Black arrows indicate trading, clearing, and delivery. Red arrows indicate direct trading access to INE, but overseas special participants must complete clearing and delivery through domestic FF Members.

II. Account Opening Process

A client can open an account in three steps: select an account opening institution, complete the account opening procedures, and receive the account. The account opening procedures can be further divided into three parts: pre-opening preparations, application procedures, and waiting for the back-end processes between the futures company (or other types of account opening institutions) and the China Futures Market Monitoring Center (CFMMC) and INE(Figure 1-7-2).

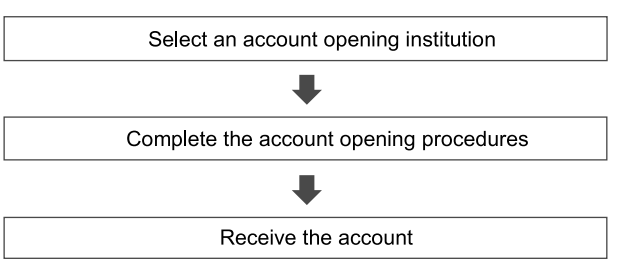


Figure 1-7-2 Account Opening Process

III. Trading and Clearing Process(Figure 1-7-3)

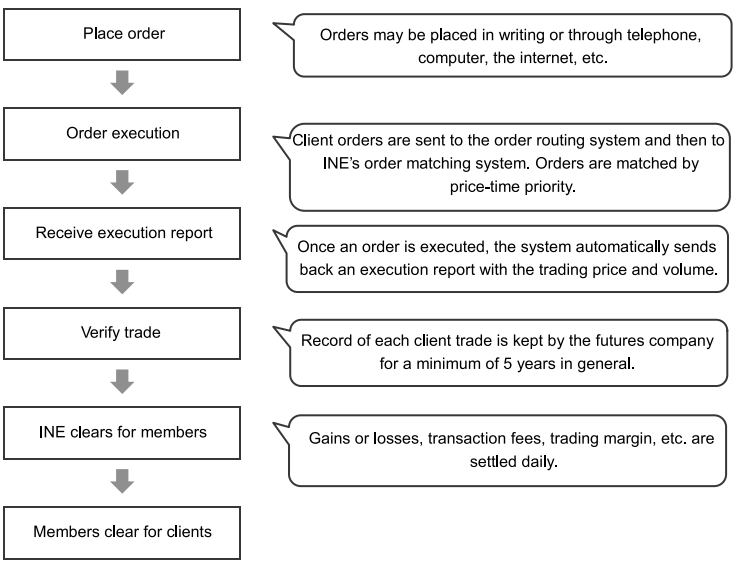


Figure 1-7-3 Trading and Clearing Process

IV. Delivery Process(Figure 1-7-4)

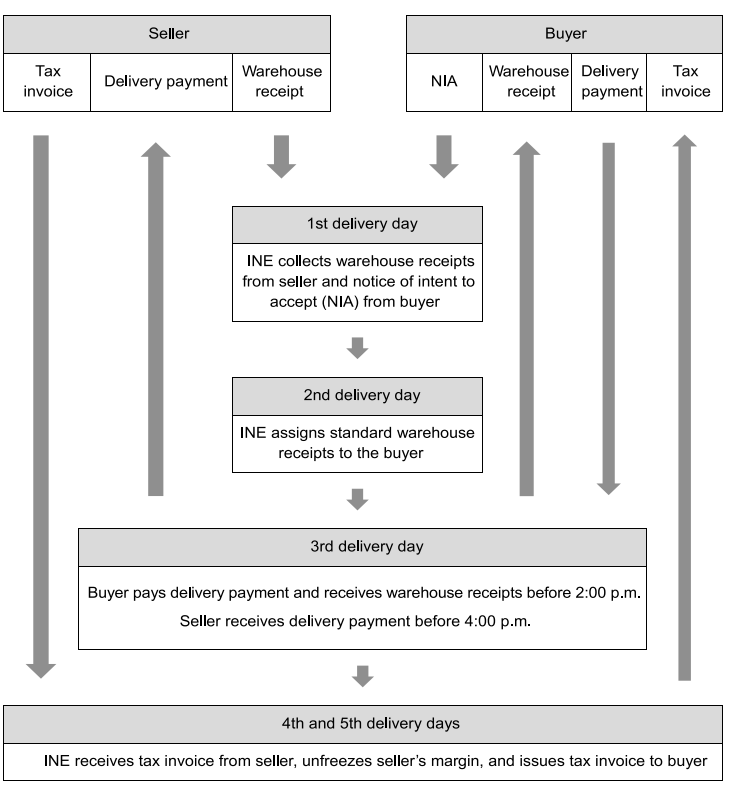


Figure 1-7-4 Delivery Process

I. Crude Oil Futures and Options

(I) Crude Oil Futures Contract(Table 1-7-1)

Table 1-7-1 Crude Oil Futures Contract

Product	Medium Sour Crude Oil
Contract Unit	1,000 barrels/lot
Price Quotation	Chinese yuan (RMB) per barrel (exclusive of tax and customs duty)
Minimum Price Fluctuation	RMB 0.1 yuan/barrel
Daily Price Limit	±4% of the previous settlement price
Listed Contracts	Monthly contracts of the next 12 consecutive months followed by 8 quarterly contracts
Trading Hours	9:00 a.m. –11:30 a.m., 1:30 p.m. –3:00 p.m., and other hours specified by INE (Beijing time)
Last Trading Day	The last trading day of the month before the delivery month, subject to adjustment by INE in case of public holidays
Delivery Period	5 consecutive trading days after the last trading day
Grade and Quality	Medium sour crude oil with the quality specifications of API 32.0 degrees and sulfur content of 1.5% by weight The deliverable grades and the price discounts and/or premiums will be separately established by INE
Delivery Venue	Delivery facilities designated by INE
Minimum Trading Margin	5% of contract value
Settlement Type	Physical delivery
Product Code	SC
Listing Exchange	Shanghai International Energy Exchange (INE)

Note: The product code "SC" is short for Shanghai Crude or Sour Crude.

(II) Appendices

(i) Delivery Unit

The delivery unit of an SC contract is 1,000 barrels. Delivery should be made in multiples of the delivery unit.

(ii) Last Trading Day

The last trading day of an SC contract is the last day of trading of the month before the delivery month. INE has the right to adjust this date for public holidays to protect the interests of the trading parties and the general public and to mitigate market risks. For example, if a public holiday of three consecutive days or longer falls between the penultimate trading day, the last trading day, and one of the days in the delivery period, INE may move the last trading

day either forward or backward with an announcement in advance.

(iii) Grade and Quality

Medium sour crude oil with following quality specifications: API gravity of 32.0 degrees and sulfur content of 1.5% by weight. The deliverable grades and the premiums and discounts will be separately established by INE and subject to adjustment by INE based on market developments. "Crude oil" referred to in this contract means the liquid hydrocarbons extracted directly from underground natural reservoirs or a mixture of their natural forms.

(iv) Designated Delivery Facilities

Delivery facilities will be designated and separately announced by INE.

(III) Deliverable Crude Streams, Grades, and Premiums/Discounts

In accordance with the *INE Crude Oil Futures Contract* and the *INE Delivery Rules*, deliverable crude streams, grades, and discounts/premiums are as follows(Table 1-7-2):

Table 1-7-2 Deliverable Crude Streams, Grades, and Premiums/Discounts

Country	Deliverable Crude	API Gravity	Sulfur (%)	Premium/Discount (RMB/Barrel)	Origins
UAE	Dubai	≥ 30	≤ 2.8	0	Fateh Terminal
UAE	Upper Zakum	≥ 33	≤ 2.0	0	Zirku Island
UAE	Murban	≥ 35	≤ 1.5	5	Fujairah Terminal or Jebel Dhanna Terminal
Oman	Oman	≥ 30	≤ 1.6	0	Mina Al Fahal
Qatar	Qatar Marine	≥ 31	≤ 2.2	0	Halul Island
Iraq	Basrah Light	≥ 29	≤ 3.5	-5	Basrah Oil Terminal or SPM
Iraq	Basrah Medium	≥ 26	≤ 4.0	-10	Basrah Oil Terminal or SPM
Brazil	Tupi	≥ 28	≤ 0.8	10	Angra Dos Reis, Port Açu, STS Santos, STS Sao Paolo, Sao Sebastian, and FPSO of Brazil, La Paloma of Uruguay, and other loading ports recognized by INE
China	Shengli	≥ 24	≤ 1.0	-5	Dongying Depot of Sinopec Shengli Oilfield Company

Notes:

1. API Gravity = (141.5/SG at 60 °F) - 131.5. Gravity as determined by ASTM D1298.
2. Sulfur as determined by ASTM D4294.
3. Basra Light with 28 ≤ API° < 29 that is already stored in designated delivery storage facilities can still be used for physical delivery.

For details please refer to *Crude Oil Futures Trading Handbook (2023 Edition)*
https://www.ine.cn/upload/20230615/1686791560709.pdf

(IV) Crude Oil Options Contract(Table 1-7-3)

Table 1-7-3 Crude Oil Options Contract

Underlying	INE Crude Oil Futures (SC) contract (1,000 barrels)
Contract Type	Call options; put options
Contract Unit	1 SC contract
Price Quotation	Chinese yuan (RMB) per barrel
Minimum Price Fluctuation	RMB 0.05 yuan/barrel
Daily Price Limit	Same as that for the SC contract
Listed Contracts	Option contracts will be listed for the nearest 2 consecutive months and, when the open interest of the underlying SC contract after daily clearing reaches a specific threshold separately announced by INE, for later months on the 2nd trading day thereafter
Trading Hours	9:00 a.m. – 11:30 a.m., 1:30 p.m. – 3:00 p.m., and other hours specified by INE (Beijing time)
Last Trading Day	The thirteenth-to-last trading day of the month before the delivery month of the underlying SC contract (subject to adjustment by INE in case of public holidays and other special circumstances)
Expiration Date	Same as the last trading day
Strike Price	The range of strike price is the preceding trading day's settlement price of the SC contract plus or minus 1.5 times the current day's price limit. The strike price interval is 2 yuan/barrel if strike price ≤ 250 yuan/barrel; 5 yuan/barrel if 250 yuan/barrel < strike price ≤ 500 yuan/barrel; 10 yuan/barrel if strike price > 500 yuan/barrel
Option Style	American. Buyers may submit an exercise request during trading hours on any trading day before the expiration date and an exercise or abandonment request before 3:30 p.m. on the expiration date
Product Code	Calls: SC-contract month-C-strike price Puts: SC-contract month-P-strike price
Listing Exchange	Shanghai International Energy Exchange (INE)

II. Bonded Copper Futures (INE)

(I) Standard Contract Specifications(Table 1-7-4)

Table 1-7-4 Standard Contract Specifications

Product	Copper Cathode
Contract Unit	5 metric tons/lot
Price Quotation	Chinese yuan (RMB) per metric ton (exclusive of tax and customs duty)
Minimum Price Fluctuation	RMB 10 yuan/metric ton
Daily Price Limit	±3% of the previous settlement price
Listed Contracts	Monthly contracts of January to December (Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec)

Continued

Trading Hours	9:00 a. m. – 11:30 a. m., 1:30 p. m. – 3:00 p. m., and other hours specified by INE (Beijing time)
Last Trading Day	15th day of the delivery month (postponed accordingly if it is a public holiday or weekend, and subject to adjustment by INE in case of public holidays and other special circumstances)
Delivery Period	5 consecutive trading days after the last trading day
Grade and Quality	Copper cathodes meeting the standards for Grade A copper (Cu-CATH-1) under GB/T 467-2010 or BS EN 1978:1998
Delivery Venue	Delivery facilities designated by INE
Minimum Trading Margin	5% of contract value
Settlement Type	Physical delivery
Product Code	BC
Listing Exchange	Shanghai International Energy Exchange (INE)

(II) Contract Appendices

(i) Delivery Unit

The delivery unit of a standard copper cathode futures contract is 25 metric tons. Delivery should be made in multiples of the delivery unit.

(ii) Quality Standards

- Copper cathodes to be delivered should meet the quality standards for Grade A copper (CU-CATH-1) under GB/T 467-2010 or BS EN 1978:1998.
- Shape and weight. Deliverable copper cathodes should be in plate form. Each plate should weigh no less than 15 kg, and measure no less than 5 mm at the centerline.
- Maximum tolerance is ±2% and maximum pound difference is ±0.1% for each standard warehouse receipt.
- Copper cathodes underlying each standard warehouse receipt should consist of products of the same manufacturer, designation, registered trademark, quality grade, and shape, and secured into bundles of similar weight.
- Copper cathodes underlying each standard warehouse receipt should be of a brand registered with INE or registered with SHFE and approved by INE, and should be accompanied by a certificate of quality.
- Standard warehouse receipts will be issued by INE-designated delivery facilities after the goods pass the required inspections.

(iii) Manufacturers and Registered Brands Certified by INE

Copper cathodes to be used in physical delivery should be of a brand registered with INE or registered with SHFE and approved by INE. Registered brands and rates of brand premiums and discounts will be separately announced by INE.

(iv) Designated Delivery Facilities

Designated delivery facilities and delivery premiums and discounts will be separately announced by INE.

(III) *Deliverables (Table 1-7-5)*

Table 1-7-5 **List of Deliverable Brands for INE Bonded Copper Cathodes Futures**

	Country	Producer	Origin	Brand	Grade/ Specification	Premium/ Discount	Dimension	Bundle Weight (kg)	Bundle/ Lot
1	China	Jiangxi Copper Co., Ltd.	Guixi, Jiangxi	Guiye	Grade A (conventional electrolysis)	Flat	1,020×1,010×16	2,500	10
				Jiangtong (Guixi/ISA)	Grade A (ISA)	Flat	1,020×1,010×7.5	2,500	10
2	China	Tongling Nonferrous Metals Group Co., Ltd.	Tongling, Anhui	TG-JG (Tongling/KIDD)	Grade A (KIDD)	Flat	1,060×1,030×16	2,780	9
3	China	Yunnan Copper Co., Ltd.	Kunming, Yunnan	Tiefeng (Kunming/conventional electrolysis)	Grade A (conventional electrolysis)	Flat	890×850×8	2,500	10
				Tiefeng (Kunming/ISA)	Grade A (ISA)	Flat	913×903×7	2,500	10
4	China	Daye Nonferrous Metals Co., Ltd.	Huangshi, Hubei	Dajiang (Huangshi/conventional electrolytic small plate)	Grade A (conventional electrolysis)	Flat	810×780×13	2,100	12
				Dajiang (Huangshi/conventional electrolytic large plate)	Grade A (conventional electrolysis)	Flat	1,030×1,000×18	2,500	10
				Dajiang (Huangshi/ISA)	Grade A (KIDD)	Flat	1,025×1,025×18	2,500	10
5	China	Baiyin Nonferrous Group Co., Ltd.	Baiyin, Gansu	Honglu	Grade A (conventional electrolysis)	Flat	1,025×990×13	2,500	10
6	China	Jinchuan Group Co., Ltd.	Jinchuan, Gansu	JNMC	Grade A (conventional electrolysis)	Flat	1,030×1,000×15	2,500	10

Continued

	Country	Producer	Origin	Brand	Grade/ Specification	Premium/ Discount	Dimension	Bundle Weight (kg)	Bundle/ Lot
7	China	Northern Copper Industry Co., Ltd.	Yuanqu and Houma, Shanxi	Zhongtiaoshan	Grade A (conventional electrolysis)	Flat	900×740×10	2,080	12
8	China	Jinlong Copper Co., Ltd.	Tongling, Anhui	Jintun	Grade A (conventional electrolysis)	Flat	1,035×1,015×8-13	2,500	10
				TG-JL	Grade A (KIDD)	Flat	1,060×1,030×10	2,500	10
9	China	Zhangjiagang Union Copper Co., Ltd.	Zhangjiagang, Jiangsu	Tongguan (Zhangjiagang/conventional electrolysis)	Grade A (conventional electrolysis)	Flat	1,000×740×14	2,500	10
10	China	Shandong Jinsheng Nonferrous Group Co., Ltd.	Linyi, Shandong	Yimeng	Grade A (conventional electrolysis)	Flat	900×780×12.5	2,480	10
				Yimeng	Grade A (KIDD)	Flat	1,040×1,000×8	2,500	10
11	China	Dongying Fangyuan Nonferrous Metals Co., Ltd.	Dongying, Shandong	Lufang	Grade A (conventional electrolysis)	Flat	1,020×810×10-12	2,500	10
12	China	Yanggu Xiangguang Copper Co., Ltd.	Yanggu, Shandong	Xiangguang	Grade A (ISA)	Flat	1,030×1,010×7	2,500	10
				Xiangguang	Grade A (KIDD)	Flat	1,030×1,010×7	2,500	10
13	China	Zijin Copper Co., Ltd.	Shanghang, Fujian	Zijin	Grade A (KIDD)	Flat	1,010×1,030×8	2,500	10
14	China	Jiangxi Copper (Qingyuan) Co., Ltd.	Qingyuan, Guangdong	Jiangtong (Qingyuan/conventional electrolysis)	Grade A (conventional electrolysis)	Flat	1,030×1,000×10	2,500	10

Continued

	Country	Producer	Origin	Brand	Grade/ Specification	Premium/ Discount	Dimension	Bundle Weight (kg)	Bundle/ Lot
15	China	Guangxi Jinchuan Nonferrous Metals Co., Ltd.	Fangchenggang, Guangxi	JNMC (Fangchenggang/KIDD)	Grade A (KIDD)	Flat	1,030×1,010×10	2,500	10
16	China	Henan Yuguang Gold & Lead Co., Ltd.	Jiyuan, Henan	YG	Grade A (KIDD)	Flat	1,040×1,020×12	2,500	10
17	China	Henan Zhongyuan Gold Smelter LLC	Sanmenxia, Henan	ZJZY	Grade A (KIDD)	Flat	1,040×1,020×8	2,500	10
18	China	Zhejiang Jiangtong Fuye Heding Copper Co., Ltd.	Fuyang, Zhejiang	Jinfeng	Grade A (KIDD)	Flat	1,045×1,025×14	2,500	10
19	China	Xinjiang Wuxin Copper Industry Co., Ltd.	Changji, Xinjiang	Tianfu	Grade A (conventional electrolysis)	Flat	1,000×1,000×13	2,500	10
20	China	Yunnan Tin Co., Ltd.	Honghe, Yunnan	YT	Grade A (conventional electrolysis)	Flat	1,030×1,030×12	2,500	10
21	USA	Freeport-McMoRan Copper & Gold Inc.	El Paso (TX)	P*D	Grade A (conventional electrolysis)	Flat	972×959×18	2,250	11
22	Chile	CODELCO	Ventanas	ENM	Grade A (conventional electrolysis)	Flat	960×980×14	2,300	11
23	Spain	Freeport-McMoRan Copper & Gold Inc.	Huelva	FMS	Grade A (ISA)	Flat	985×930×7	3,100	8

Continued

	Country	Producer	Origin	Brand	Grade/ Specification	Premium/ Discount	Dimension	Bundle Weight (kg)	Bundle/ Lot
24	South Korea	LS-Nikko Copper Inc.	Onsan-eup (Ulsan)	ONSAN I	Grade A (KIDD)	Flat	1,070×932×13	2,500	10
25	South Korea	LS-Nikko Copper Inc.	Onsan-eup (Ulsan)	ONSAN II	Grade A (KIDD)	Flat	1,020×980×11	2,300	11
26	Chile	Minera Michilla S. A.	Mejillones	MIC-P	Grade A (SX-EW)	Flat	960×1,000×6	1,400	18
27	Chile	Minera Michilla S. A.	Mejillones	MIC-T	Grade A (SX-EW)	Flat	1,100×1,000×10	1,950	13
28	USA	Kennecott Utah Copper Corp.	Magna (UT)	KUC	Grade A (conventional electrolysis)	Flat	990×993×5	2,520	10
29	Chile	CODELCO	Chuquicamata	CCC SX-EW	Grade A (SX-EW)	Flat	1,100×920×7	2,300	11
30	Poland	KGHM Polska Miedź S. A.	Glogów	HMG-B	Grade A (conventional electrolysis)	Flat	1,030×1,030×12	1,900	13
31	Poland	KGHM Polska Miedź S. A.	Glogów	HMG-S	Grade A (conventional electrolysis)	Flat	910×910×14	1,900	13
32	Poland	KGHM Polska Miedź S. A.	Legnica	HML	Grade A (conventional electrolysis)	Flat	918×785×14	2,100	12
33	Brazil	Caraiba Metais	Dias D'Avila, Bahia	CbM	Grade A (conventional electrolysis)	Flat	990×970×15	2,500	10
34	Chile	Anglo American Chile	Antofagasta	MB	Grade A (SX-EW)	Flat	1,000×1,100×8	2,500	10

Continued

	Country	Producer	Origin	Brand	Grade/ Specification	Premium/ Discount	Dimension	Bundle Weight (kg)	Bundle/ Lot
35	Chile	Anglo American Chile	Copiapó	MV	Grade A (SX-EW)	Flat	1,004×1,000×8	2,500	10
36	Chile	Minera Escondida	Antofagasta	ESOX	Grade A (SX-EW)	Flat	1,000×1,000×8-10	2,500	10
37	Chile	Compañía Minera Cerro Colorado	Iquique	CMCC	Grade A (SX-EW)	Flat	1,000×1,000×5	2,500	10
38	Canada	Glencore Canada Corp.	Quebec	NORANDA	Grade A (KIDD)	Flat	937×949×14	3,100	8
39	Chile	Freeport-McMoRan Copper & Gold Inc.	Calama	ABRA	Grade A (SX-EW)	Flat	1,000×1,000×5	2,500	10
40	Peru	Freeport-McMoRan Copper & Gold Inc.	Arequipa / Uchumayo	SMCV	Grade A (SX-EW)	Flat	1,000×1,020×20	3,125	8
41	Japan	Sumitomo Metal Mining Co. Ltd.	Ehime	SUMIKO-N	Grade A (conventional electrolysis)	Flat	1,060×1,080×17	2,800	9
42	Japan	Sumitomo Metal Mining Co. Ltd.	Ehime	SUMIKO-T	Grade A (conventional electrolysis)	Flat	1,060×1,080×17	2,800	9
43	Indonesia	PT. Smelting	Java	GRESIK	Grade A (ISA)	Flat	1,000×1,000×6	2,500	10
44	The Philippines	PASAR	Isabel	PSR ISABEL	Grade A (ISA)	Flat	1,040×1,020×8	2,500	10
45	Chile	CODELCO	Chuquicamata	cCc-P	Grade A (KIDD)	Flat	1,270×925×12-18	2,750	9

Continued

	Country	Producer	Origin	Brand	Grade/ Specification	Premium/ Discount	Dimension	Bundle Weight (kg)	Bundle/ Lot
46	Australia	Mount Isa Mines Limited	Townsville	ISA	Grade A (ISA)	Flat	975×965×10	3,168	8
47	Chile	CODELCO	Radomiro Tomic	RT	Grade A (SX-EW)	Flat	1,050×1,000×9-11	2,270	11
48	Peru	Southern Perú Copper	Ilo	SPCC-ILO	Grade A (conventional electrolysis)	Flat	1,020×1,020×20	3,600	7
49	Chile	Minera Centinela S. A.	Antofagasta	MET	Grade A (SX-EW)	Flat	1,000×1,000×4	2,300	11
50	Myanmar	Myanmar Wanbao Mining Copper Ltd.	Myanmar	MONYWA LPT	Grade A	Flat	1,030×1,025×5	2,500	10

III. Low Sulfur Fuel Oil Futures (INE)

(I) Standard Contract Specifications(Table 1-7-6)

Table 1-7-6 Low Sulfur Fuel Oil Futures Contract

Product	Low Sulfur Fuel Oil
Contract Unit	10 metric tons/lot
Price Quotation	Chinese yuan (RMB) per metric ton (exclusive of tax and customs duty)
Minimum Price Fluctuation	RMB 1 yuan/metric ton
Daily Price Limit	±5% of the previous settlement price
Listed Contracts	Monthly contracts of January to December (Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec)
Trading Hours	9:00 a.m. –11:30 a.m., 1:30 p.m. –3:00 p.m., and other hours specified by INE (Beijing time)
Last Trading Day	The last trading day of the month before the delivery month (postponed accordingly if it is a public holiday or weekend, and subject to adjustment by INE in case of public holidays and other special circumstances)
Delivery Period	5 consecutive trading days after the last trading day
Grade and Quality	Low-sulfur marine fuel oil, refer to Appendices for detailed quality standards
Delivery Venue	Delivery facilities designated by INE
Minimum Trading Margin	8% of contract value
Settlement Type	Physical delivery
Product Code	LU
Listing Exchange	Shanghai International Energy Exchange (INE)

(II) Contract Appendices

(i) Delivery Unit

The delivery unit of a standard LSFO futures contract is 10 metric tons. Delivery should be made in multiples of the delivery unit.

(ii) Quality Standards

Low-sulfur marine fuel oil to be delivered should meet the quality standards set by INE. "Low-sulfur marine fuel oil" refers to homogeneous mixtures of hydrocarbons made from petroleum, possibly with additives to improve certain performance and characteristics. It should not contain any inorganic acid or used lubricating oil, any substance that may cause abnormal operations of ships, or any artificially added additive or chemical waste that may threaten ship safety, adversely affect mechanical performance, damage health, or pollute the air.

Specific rates of premium and discount will be separately established and announced by INE(Table 1-7-7).

Table 1-7-7 INE LSFO Quality Standards

Properties	Limit	Test Method
Kinematic viscosity (50℃, mm^2/s)	380.0 max 100.00 min	ASTM D445
Density (15℃, kg/m^3)	991.0 max 930.0 min	ASTM D1298
Calculated Carbon Aromaticity Index (CCAI)	870 max	ISO 8217:2017(E)
Sulfur content (m/m, %)	0.50 max	ASTM D4294
Flash point (closed cup) (℃)	60.0 min	ASTM D93
Hydrogen sulfide (mg/kg)	2.00 max	IP 570
Acid value (mg KOH/g)	2.5 max	ASTM D664
Total sediment (thermal aging test) (m/m, %)	0.10 max	ASTM D4870
Carbon residue (m/m, %)	18.00 max	ASTM D4530
Pour point (℃)	30 max	ASTM D97
Moisture (V/V, %)	0.50 max	ASTM D95
Ash content (m/m, %)	0.100 max	ASTM D482
Vanadium (mg/kg)	350 max	IP 501
Sodium (mg/kg)	100 max	IP 501
Aluminum + Silicon (mg/kg)	60 max	IP 501
Net calorific value (cal/g)	9,500 min	ASTM D240
Used lubricating oil (ULO) (mg/kg) Calcium and Zinc Calcium and phosphorus	Fuel oil should be free of ULO, which is deemed to be present if: Ca > 30 and Zn > 15 or Ca > 30 and P > 15	IP 501
Compatibility (level)	No higher than spot No. 2	ASTM D4740
Cleanness (level)	No higher than spot No. 2	
Styrene (mg/kg)	20 max	GB/T 6041
Phenol (mg/kg)	10 max	

(iii) Designated Delivery Facilities

Designated delivery facilities will be separately announced by INE.

For details, please refer to *Low Sulfur Fuel Oil Futures Handbook for Trading (2020 Edition)*: https://www.shfe.com.cn/upload/20200618/1592446378526.pdf

IV. TSR 20 Futures (INE)

(I) Standard Contract Specifications(Table 1-7-8)

Table 1-7-8 Standard Contract Specifications

Product	TSR 20
Contract Unit	10 metric tons/lot
Price Quotation	Chinese yuan (RMB) per metric ton (exclusive of tax and customs duty)
Minimum Price Fluctuation	RMB 5 yuan/metric ton
Daily Price Limit	±5% of the previous settlement price
Listed Contracts	Monthly contracts of January to December (Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec)
Trading Hours	9:00 a.m. –11:30 a.m., 1:30 p.m. –3:00 p.m., and other hours specified by INE (Beijing time)
Last Trading Day	15th day of the delivery month (postponed accordingly if it is a public holiday or weekend, and subject to adjustment by INE in case of public holidays and other special circumstances)
Delivery Period	5 consecutive trading days after the last trading day
Grade and Quality	Refer to Appendices for detailed quality standards
Delivery Venue	Delivery facilities designated by INE
Minimum Trading Margin	7% of contract value
Settlement Type	Physical delivery
Product Code	NR
Listing Exchange	Shanghai International Energy Exchange (INE)

(II) Contract Appendices

(i) Delivery Unit

The delivery unit of a standard TSR 20 futures contract is 10 metric tons. Delivery should be made in multiples of the delivery unit.

(ii) Quality Standards

- TSR 20 to be delivered should meet the quality standards set by INE(Table 1-7-9).

Table 1-7-9 INE TSR 20 Quality Standards

Properties	Limit	Test Method
Dirt retained on the 45 μm sieve, maximum % (mass fraction)	0.16	GB/T 8086
Ash, maximum % (mass fraction)	1.0	GB/T 4498.1
Nitrogen content, maximum % (mass fraction)	0.6	GB/T 8088
Volatile-matter content, maximum % (mass fraction)	0.8	GB/T 24131.1
Initial plasticity (P_0), minimum	30	GB/T 3510
Plasticity retention index (PRI), minimum	40	GB/T 3517

• TSR 20 underlying each standard warehouse receipt should be registered with INE, accompanied by the corresponding certificate of quality.

• TSR 20 underlying each standard warehouse receipt should consist of rubber of the same brand, manufacturer (factory), and packaging specification.

(iii) Registered Commodities

Registered commodities and their manufacturers (factories) and rates of premium and discount will be separately announced by INE.

(iv) Designated Delivery Facilities

Designated delivery facilities and delivery premiums and discounts will be separately announced by INE.

For details, please refer to Manual for TSR 20 Futures Contract Trading (2019 Edition): https://www.ine.cn/upload/20230404/1680589095219.pdf

V. PTA Futures (ZCE)

(I) Standard Contract Specifications(Table 1-7-10)

Table 1-7-10 Standard Contract Specifications

Product	Purified Terephthalic Acid (PTA)
Contract Unit	5 metric tons/lot
Price Quotation	Chinese yuan (RMB) per metric ton
Minimum Price Fluctuation	RMB 2 yuan/metric ton
Daily Price Limit	±4% of the previous settlement price and subject to the price limit provisions of the *Risk Control Rules of Zhengzhou Commodity Exchange*
Minimum Trading Margin	5% of contract value
Listed Contracts	Monthly contracts for 12 consecutive months
Trading Hours	Monday to Friday (except public holidays) 9:00 a.m. – 11:30 a.m. and 1:30 p.m. – 3:00 p.m. (Beijing time) and other trading hours prescribed by ZCE
Last Trading Day	10th trading day of the delivery month
Last Delivery Day	13th trading day of the delivery month
Grade and Quality	See the *Detailed Business Rules for Purified Terephthalic Acid Futures*
Delivery Venue	Delivery points designated by ZCE
Settlement Type	Physical delivery
Product Code	TA
Listing Exchange	Zhengzhou Commodity Exchange (ZCE)

(II) Account Opening, Trading, and Clearing Procedures(Figure 1-7-5)

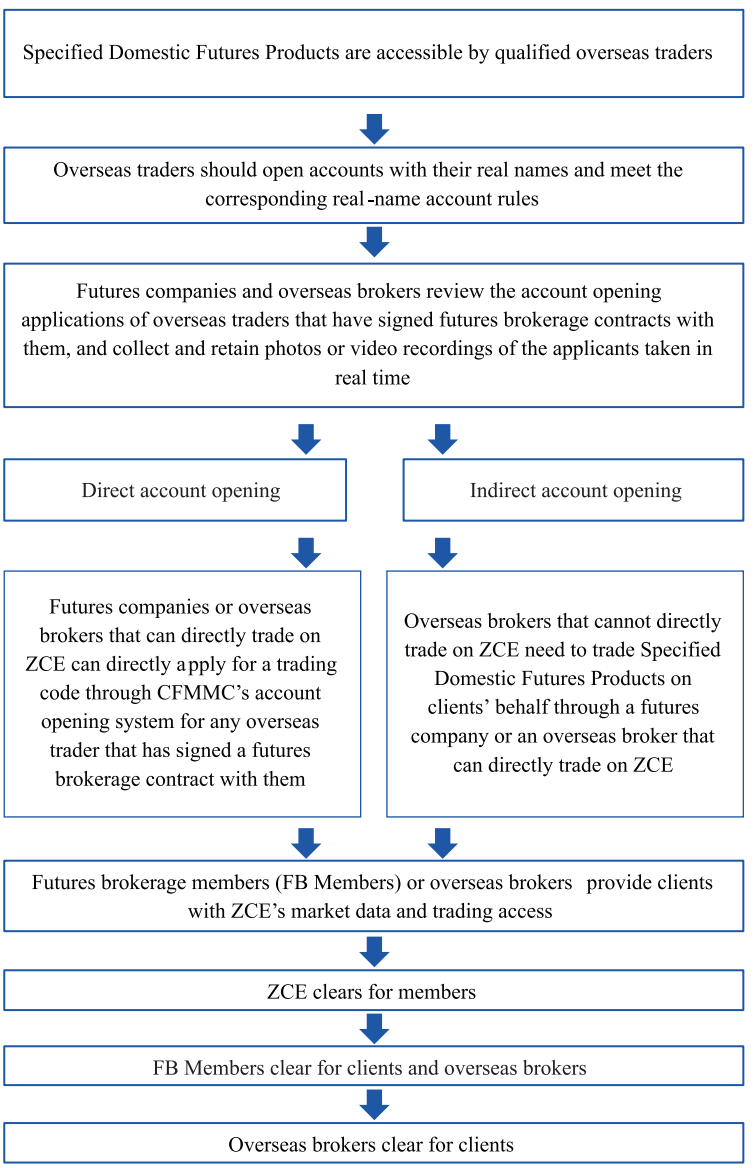


Figure 1-7-5 Account Opening, Trading, and Clearing Procedures

Note: Overseas brokers and overseas traders may use foreign currency as margin. ZCE currently accepts USD for this purpose, which will be virtually converted into RMB at the current day's Central Parity Rate published by CFETS at a haircut of 0.05.

For details, please refer to:

- Measures for the Administration of Trader Suitability Requirements for Futures Trading http://english.czce.com.cn/enportal/rootfiles/2019/05/31/1558748984932334-1558748985075472.doc
- Measures for the Administration of the Futures Trading of Futures Brokerage Members

Appointed by Overseas Brokers
http://english.czce.com.cn/enportal/rootfiles/2018/11/14/1538464541947758-1538464541969732.pdf

- Uniform Account Opening Rules for Overseas Traders
  http://www.cfmmc.com/main/a/20230424/40820.shtml
- Measures for the Administration of Futures Trading
  http://english.czce.com.cn/en/Rulebook/GeneralRules/webinfo/2023/04/1684183720042786.htm
- Measures for the Administration of Futures Clearing
  http://english.czce.com.cn/en/Rulebook/GeneralRules/webinfo/2023/06/1689458047528151.htm

(III) Warehouse Receipts Registration Procedures(Figure 1-7-6)

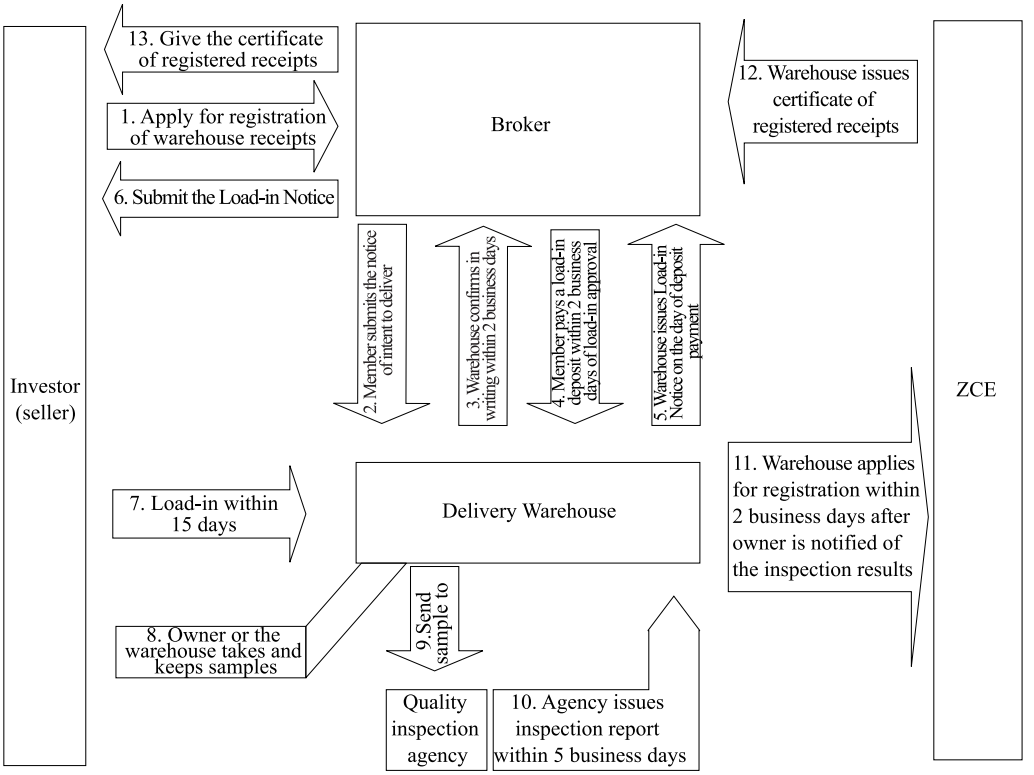


Figure 1-7-6 Warehouse Receipts Registration Procedures

Notes:

1. When applying for registration of standard warehouse receipts, a bonded delivery warehouse should specify whether the underlying commodities are bonded or duty-paid and should manage these two types of commodities separately.

2. Overseas-produced PTA subject to anti-dumping duties in China is not accepted for the registration of bonded standard warehouse receipts.

For details, please refer to:

- Measures for the Administration of Registered Receipts
  http://english.czce.com.cn/en/Rulebook/GeneralRules/webinfo/2022/12/1681343807580792.htm
- Detailed Business Rules for Purified Terephthalic Acid Futures
  http://english.czce.com.cn/en/Rulebook/DetailedRules/webinfo/2022/12/1681343807486957.htm

(IV) Delivery Procedures(Figure 1-7-7)

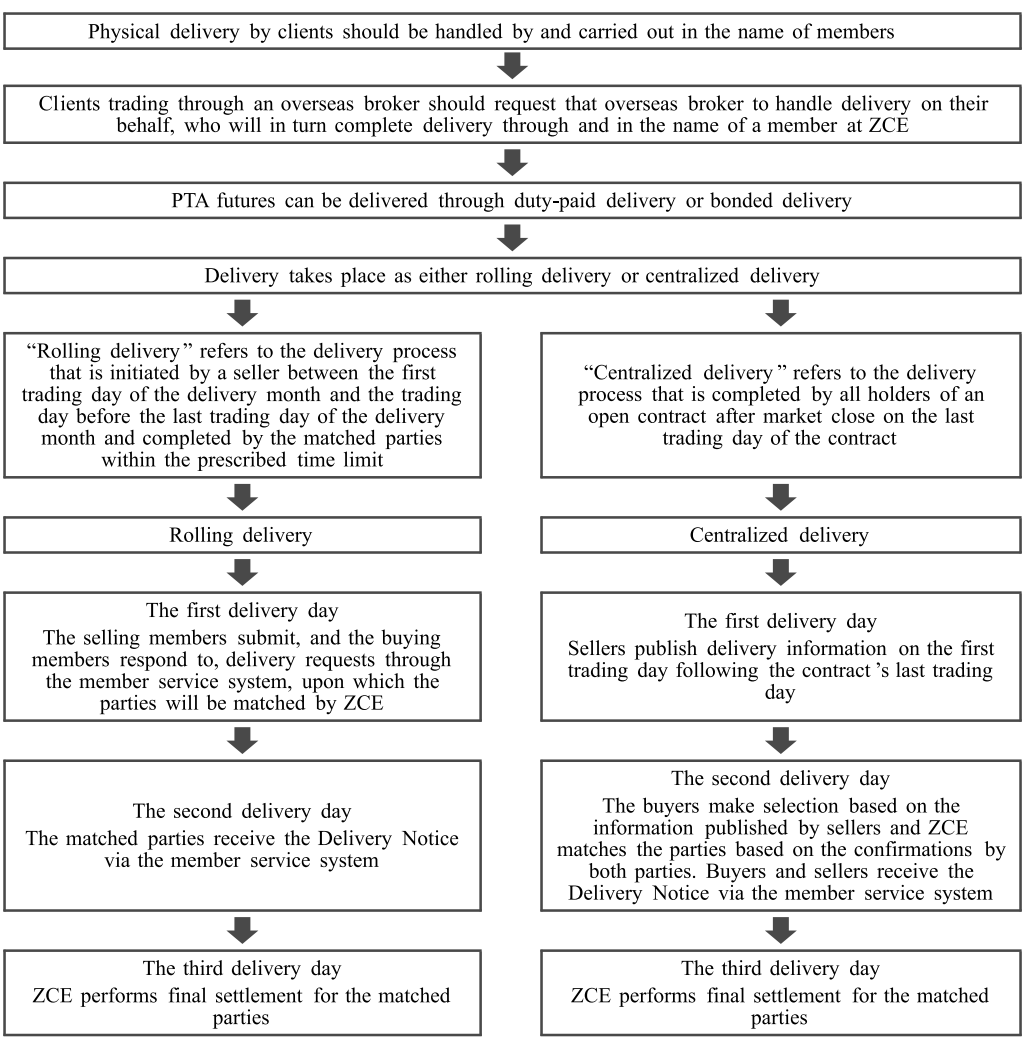


Figure 1-7-7 Delivery Procedures

For details, please refer to:

- Measures for the Administration of Futures Delivery
  http://english.czce.com.cn/en/Rulebook/GeneralRules/webinfo/2022/12/16813438075

83819. htm

- Detailed Business Rules for Purified Terephthalic Acid Futures
  http: //english. czce. com. cn/en/Rulebook/DetailedRules/webinfo/2022/12/16813438074 86957. htm

Ⅵ. PTA Options (ZCE)

(Ⅰ) Standard Contract Specifications(Table 1-7-11)

Table 1-7-11 Standard Contract Specifications

Underlying	Purified Terephthalic Acid (PTA) Futures (TA) Contract
Contract Type	Call options; put options
Contract Unit	1 TA contract
Price Quotation	Chinese yuan (RMB) per metric ton
Minimum Price Fluctuation	RMB 0. 5 yuan/metric ton
Daily Price Limit	Same as the price limit for TA contracts
Listed Contracts	The two consecutive nearby months of the underlying futures contract; contracts of subsequent months are listed on the trading day following the day when (single-counted) post-clearing open interest of the relevant underlying futures contract exceeds 10, 000 lots
Trading Hours	Monday to Friday (except public holidays) 9: 00 a. m. -11: 30 a. m. and 1: 30 p. m. -3: 00 p. m. (Beijing time) and other trading hours prescribed by ZCE
Last Trading Day	3rd trading day of the month before the delivery month of the underlying futures contract, or another date prescribed by ZCE
Expiration Date	Same as the Last Trading Day
Strike Price	The range of strike price (SP) is the preceding trading day's settlement price of the underlying futures contract plus or minus 1. 5 times the current day's price limit. Six in-the-money contracts, one at-the-money contract, and six out-of-the-money contracts will be listed according to the strike price interval. The strike price interval is: 50 yuan/metric ton if SP≤5, 000 yuan/metric ton; 100 yuan/metric ton if 5, 000 yuan/metric ton < SP≤10, 000 yuan/metric ton; 200 yuan/metric ton if SP > 10, 000 yuan/metric ton
Option Style	American. The buyer can submit an exercise request during trading hours on any trading day before the expiration day, and an exercise or abandonment request before 3: 30 p. m. on the expiration day
Product Code	Calls: TA-contract month-C-strike price Puts: TA-contract month-P-strike price
Listing Exchange	Zhengzhou Commodity Exchange (ZCE)

(II) Account Opening, Trading, and Clearing Procedures(Figure 1-7-8)

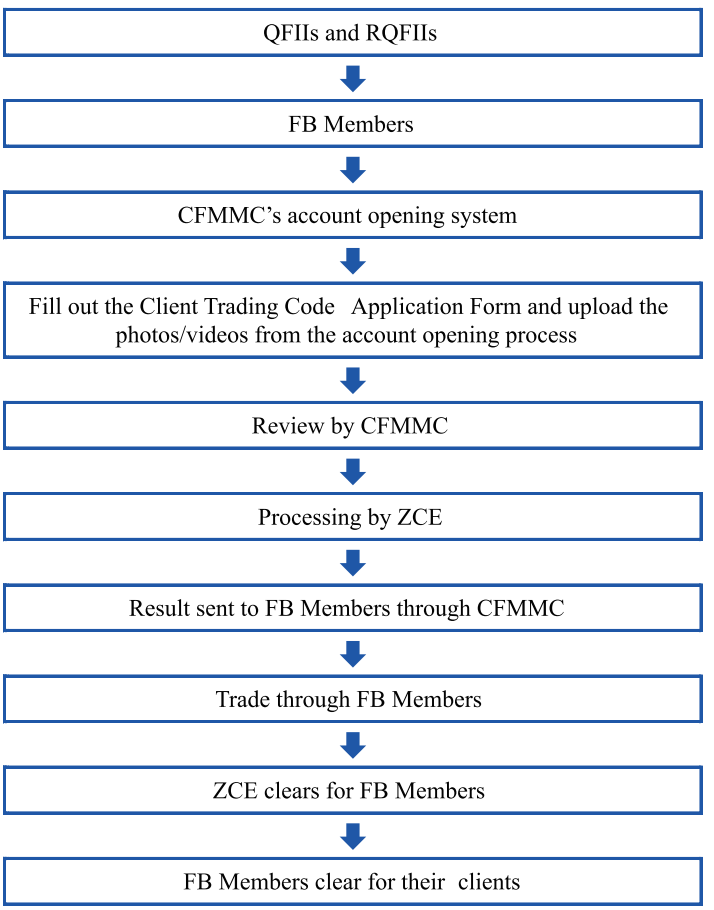


Figure 1-7-8 Account Opening, Trading, and Clearing Procedures

For details, please refer to:

- Circular on the Participation of Qualified Foreign Institutional Investors and RMB Qualified Foreign Institutional Investors in Commodity Futures and Options Trading
  http://english.czce.com.cn/enportal/News/Announcements/webinfo/2022/09/1655821721132453.htm
- Notice on the Arrangements of Qualified Foreign Institutional Investors' and RMB Qualified Foreign Institutional Investors' Participation in Commodity Futures and Options Trading
  http://english.czce.com.cn/enportal/News/Announcements/webinfo/2022/09/1655821721286599.htm
- Uniform Account Opening Guidelines for Special Institutional Clients
  http://www.cfmmc.com/main/a/20230424/40820.shtml
- Measures for the Administration of Trader Suitability Requirements
  http://english.czce.com.cn/enportal/rootfiles/2019/05/31/1558748984932334-1558748985075472.doc
- Measures for the Administration of Option Trading

http: //english. czce. com. cn/en/Rulebook/GeneralRules/webinfo/2023/01/16813438074 46122. htm

(III) Option Exercise and Fulfillment(Figure 1-7-9)

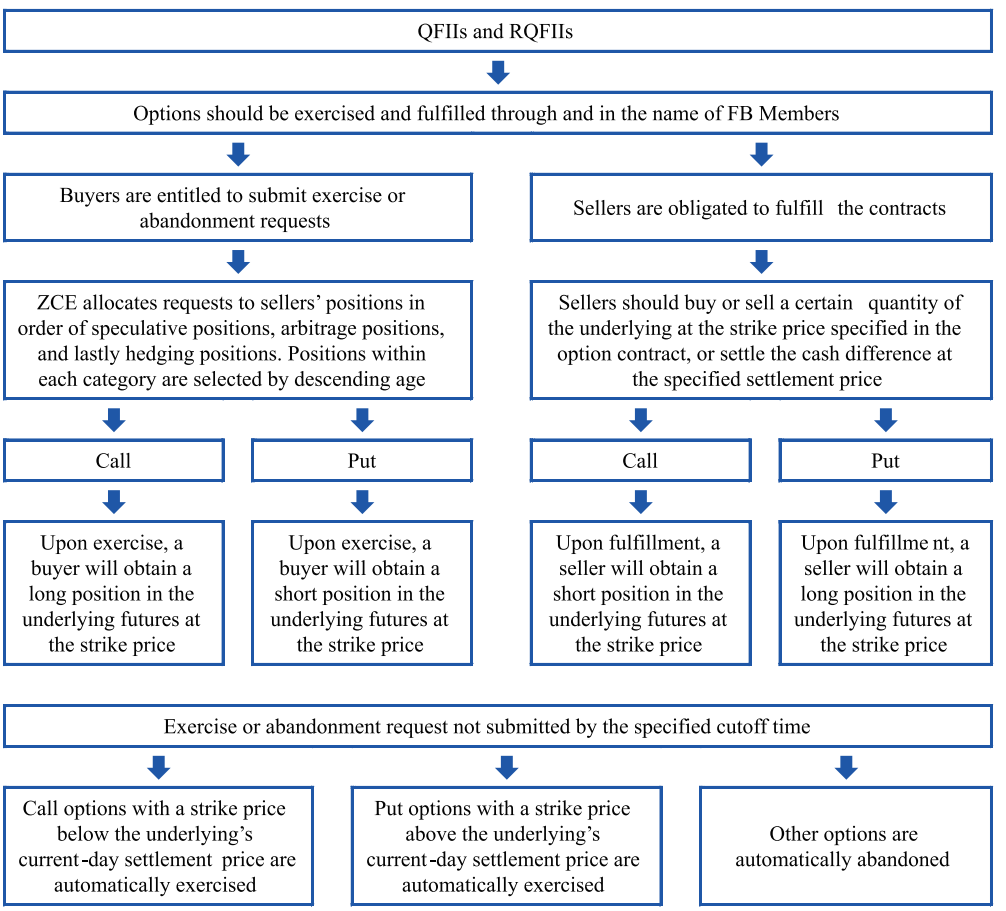


Figure 1-7-9 Option Exercise and Fulfillment

For details, please refer to:

- Measures for the Administration of Option Trading
  http: //english. czce. com. cn/en/Rulebook/GeneralRules/webinfo/2023/01/16813438074 46122. htm

VII. Polyester Staple Fiber Futures (ZCE)

(I) Standard Contract Specifications(Table 1-7-12)

Table 1-7-12 Standard Contract Specifications

Product	Polyester Staple Fiber
Contract Unit	5 metric tons/lot
Price Quotation	Chinese yuan (RMB) per metric ton

Continued

Minimum Price Fluctuation	RMB 2 yuan/metric ton
Daily Price Limit	±4% of the previous settlement price and subject to the price limit provisions of the *Risk Control Rules of Zhengzhou Commodity Exchange*
Minimum Trading Margin	5% of contract value
Listed Contracts	Monthly contracts for 12 consecutive months
Trading Hours	Monday to Friday (except public holidays) 9:00 a. m. -11:30 a. m. and 1:30 p. m. -3:00 p. m. (Beijing time) and other trading hours prescribed by ZCE
Last Trading Day	10th trading day of the delivery month
Last Delivery Day	13th trading day of the delivery month
Grade and Quality	See the *Detailed Business Rules for Polyester Staple Fiber Futures*
Delivery Venue	Delivery points designated by INE
Settlement Type	Physical delivery
Product Code	PF
Listing Exchange	Zhengzhou Commodity Exchange (ZCE)

(II) Account Opening, Trading, and Clearing Procedures(Figure 1-7-10)

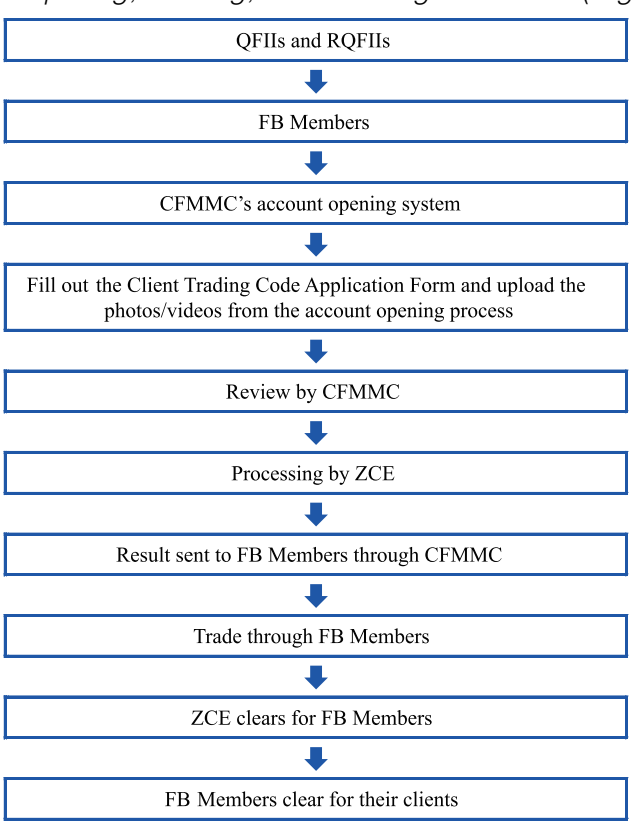


Figure 1-7-10 Account Opening, Trading, and Clearing Procedure

For details, please refer to:

- Circular on the Participation of Qualified Foreign Institutional Investors and RMB Qualified Foreign Institutional Investors in Commodity Futures and Options Trading
  http://english.czce.com.cn/enportal/News/Announcements/webinfo/2022/09/1655821721132453.htm
- Notice on the Arrangements of Qualified Foreign Institutional Investors' and RMB Qualified Foreign Institutional Investors' Participation in Commodity Futures and Options Trading
  http://english.czce.com.cn/enportal/News/Announcements/webinfo/2022/09/1655821721286599.htm
- Uniform Account Opening Guidelines on Special Institutional Clients
  http://www.cfmmc.com/main/a/20230424/40820.shtml
- Measures for the Administration of Trader Suitability Requirements
  http://english.czce.com.cn/enportal/rootfiles/2019/05/31/1558748984932334-1558748985075472.doc
- Measures for the Administration of Futures Trading
  http://english.czce.com.cn/en/Rulebook/GeneralRules/webinfo/2023/04/1684183720042786.htm
- Measures for the Administration of Futures Clearing
  http://english.czce.com.cn/en/Rulebook/GeneralRules/webinfo/2023/06/1689458047528151.htm
- Detailed Business Rules for Polyester Staple Fiber Futures
  http://english.czce.com.cn/en/Rulebook/DetailedRules/webinfo/2022/12/1681343807544887.htm

VIII. Methanol Futures (ZCE)

(I) Standard Contract Specifications(Table 1-7-13)

Table 1-7-13 Standard Contract Specifications

Product	Methanol
Contract Unit	10 metric tons/lot
Price Quotation	Chinese yuan (RMB) per metric ton
Minimum Price Fluctuation	RMB 1 yuan/metric ton
Daily Price Limit	±4% of the previous settlement price and subject to the price limit provisions of the *Risk Control Rules of Zhengzhou Commodity Exchange*
Minimum Trading Margin	5% of contract value
Listed Contracts	Monthly contracts for 12 consecutive months
Trading Hours	Monday to Friday (except public holidays) 9:00 a.m.-11:30 a.m. and 1:30 p.m.-3:00 p.m. (Beijing time) and other trading hours prescribed by ZCE

Continued

Last Trading Day	10th trading day of the delivery month
Last Delivery Day	13th trading day of the delivery month
Grade and Quality	See the *Detailed Business Rules for Methanol Futures*
Delivery Venue	Delivery points designated by ZCE
Settlement Type	Physical delivery
Product Code	MA
Listing Exchange	Zhengzhou Commodity Exchange (ZCE)

(II) Account Opening, Trading, and Clearing Procedures(Figure 1-7-11)

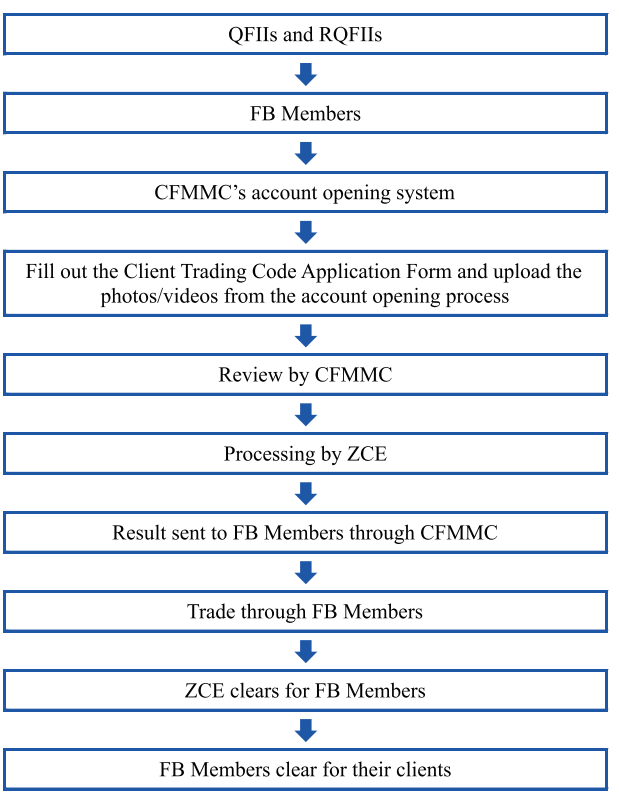


Figure 1-7-11 Account Opening, Trading, and Clearing Procedures

For details, please refer to:

- Circular on the Participation of Qualified Foreign Institutional Investors and RMB Qualified Foreign Institutional Investors in Commodity Futures and Options Trading
  http://english.czce.com.cn/enportal/News/Announcements/webinfo/2022/09/1655821721132453.htm
- Notice on the Arrangements of Qualified Foreign Institutional Investors' and RMB Qualified Foreign Institutional Investors' Participation in Commodity Futures and Options Trading

http: //english. czce. com. cn/enportal/News/Announcements/webinfo/2022/09/16558217 21286599. htm

- Uniform Account Opening Guidelines on Special Institutional Clients
  http: //www. cfmmc. com/main/a/20230424/40820. shtml
- Measures for the Administration of Trader Suitability Requirements
  http: //english. czce. com. cn/enportal/rootfiles/2019/05/31/1558748984932334-15587489 85075472. doc
- Measures for the Administration of Futures Trading
  http: //english. czce. com. cn/en/Rulebook/GeneralRules/webinfo/2023/04/16841837200 42786. htm
- Measures for the Administration of Futures Clearing
  http: //english. czce. com. cn/en/Rulebook/GeneralRules/webinfo/2023/06/16894580475 28151. htm
- Detailed Business Rules for Methanol Futures
  http: //english. czce. com. cn/en/Rulebook/DetailedRules/webinfo/2022/12/16813438074 89979. htm

IX. Methanol Options (ZCE)

(I) Standard Contract Specifications(Table 1-7-14)

Table 1-7-14 Standard Contract Specifications

Underlying	Methanol Futures (MA) Contract
Contract Type	Call options; put options
Contract Unit	1 MA contract
Price Quotation	Chinese yuan (RMB) per metric ton
Minimum Price Fluctuation	RMB 0. 5 yuan/metric ton
Daily Price Limit	Same as the price limit for MA contracts
Listed Contracts	The two consecutive nearby months of the underlying futures contract; contracts of subsequent months are listed on the trading day following the day when (single-counted) post-clearing open interest of the relevant underlying futures contract exceeds 10, 000 lots
Trading Hours	Monday to Friday (except public holidays) 9: 00 a. m. -11: 30 a. m. and 1: 30 p. m. -3: 00 p. m. (Beijing time) and other trading hours prescribed by ZCE
Last Trading Day	3rd trading day of the month before the delivery month of the underlying futures contract, or another date prescribed by ZCE
Expiration Date	Same as the Last Trading Day

Continued

Strike Price	The range of strike price (SP) is the preceding trading day's settlement price of the underlying futures contract plus or minus 1.5 times the current day's price limit. Six in-the-money contracts, one at-the-money contract, and six out-of-the-money contracts will be listed according to the strike price interval. The strike price interval is: 50 yuan/metric ton if SP ≤ 5,000 yuan/metric ton; 100 yuan/metric ton if 5,000 yuan/metric ton < SP ≤ 10,000 yuan/metric ton; 200 yuan/metric ton if SP > 10,000 yuan/metric ton
Option Style	American. The buyer can submit an exercise request during trading hours on any trading day before the expiration day, and an exercise or abandonment request before 3:30 p.m. on the expiration day
Product Code	Calls: MA-contract month-C-strike price Puts: MA-contract month-P-strike price
Listing Exchange	Zhengzhou Commodity Exchange (ZCE)

(II) Account Opening, Trading, and Clearing Procedures(Figure 1-7-12)

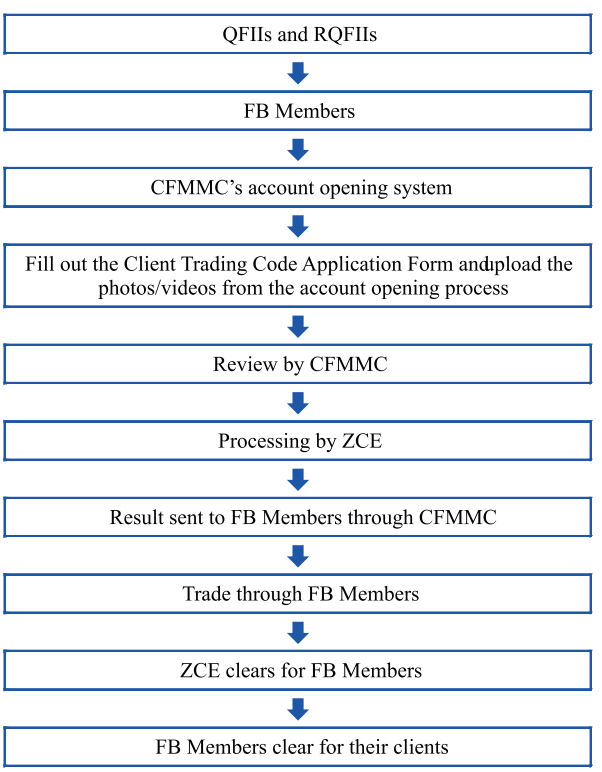


Figure 1-7-12 Account Opening, Trading, and Clearing Procedures

For details, please refer to:

- Circular on the Participation of Qualified Foreign Institutional Investors and RMB Qualified Foreign Institutional Investors in Commodity Futures and Options Trading

http: //english. czce. com. cn/enportal/News/Announcements/webinfo/2022/09/16558217 21132453. htm

- Notice on the Arrangements of Qualified Foreign Institutional Investors' and RMB Qualified Foreign Institutional Investors' Participation in Commodity Futures and Options Trading http: //english. czce. com. cn/enportal/News/Announcements/webinfo/2022/09/16558217 21286599. htm
- Uniform Account Opening Guidelines on Special Institutional Clients http: //www. cfmmc. com/main/a/20230424/40820. shtml
- Measures for the Administration of Trader Suitability Requirements http: //english. czce. com. cn/enportal/rootfiles/2019/05/31/1558748984932334-15587489 85075472. doc
- Measures for the Administration of Option Trading http: //english. czce. com. cn/en/Rulebook/GeneralRules/webinfo/2023/01/16813438074 46122. htm

(III) Option Exercise and Fulfillment (Figure 1-7-13)

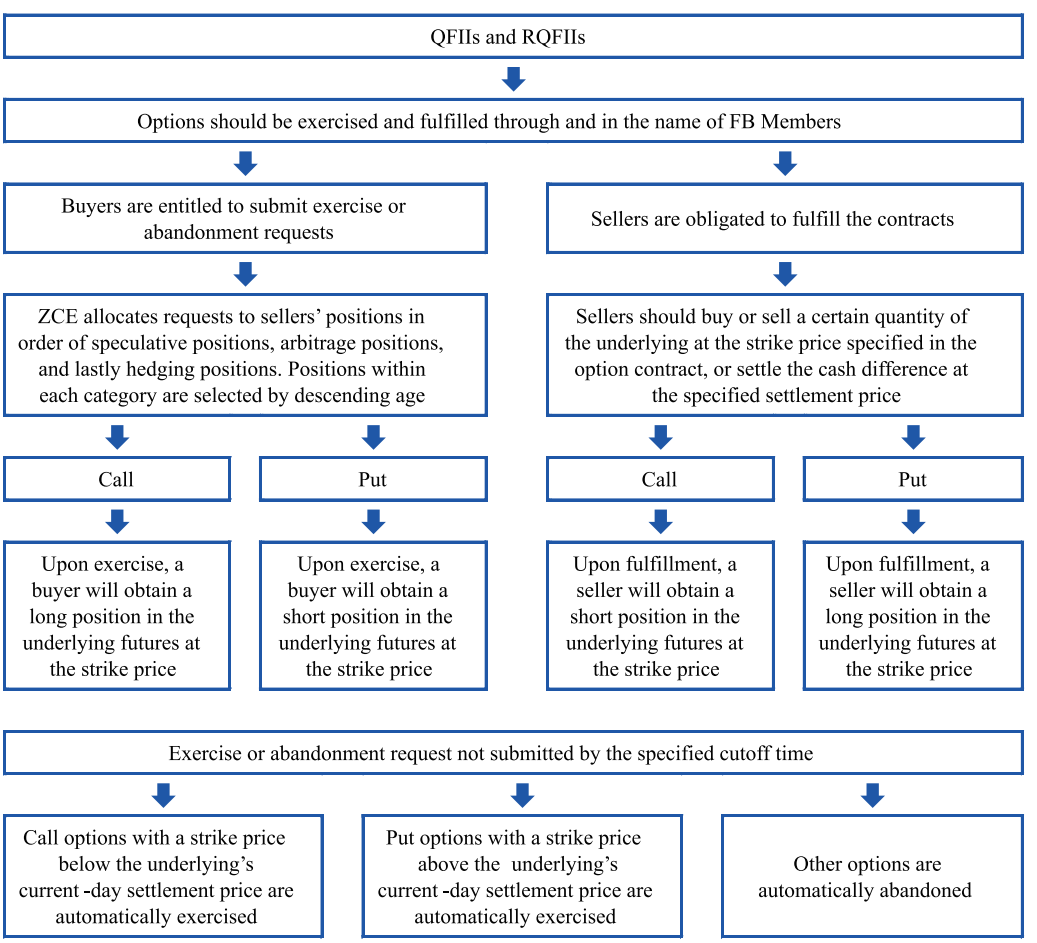


Figure 1-7-13 Option Exercise and Fulfillment

For details, please refer to:

- Measures for the Administration of Option Trading
  http://english.czce.com.cn/en/Rulebook/GeneralRules/webinfo/2023/01/1681343807446122.htm

X. White Sugar Futures (ZCE)

(I) Standard Contract Specifications(Table 1-7-15)

Table 1-7-15 Standard Contract Specifications

Product	White Sugar
Contract Unit	10 metric tons/lot
Price Quotation	Chinese yuan (RMB) per metric ton
Minimum Price Fluctuation	RMB 1 yuan/metric ton
Daily Price Limit	±4% of the previous settlement price and subject to the price limit provisions of the *Risk Control Rules of Zhengzhou Commodity Exchange*
Minimum Trading Margin	January, March, May, July, September, and November
Listed Contracts	Monday to Friday (except public holidays) 9:00 a.m.-11:30 a.m. and 1:30 p.m.-3:00 p.m. (Beijing time) and other trading hours prescribed by ZCE
Trading Hours	10th trading day of the delivery month
Last Trading Day	13th trading day of the delivery month
Last Delivery Day	See the *Detailed Business Rules for White Sugar Futures*
Grade and Quality	Delivery points designated by ZCE
Delivery Venue	5% of contract value
Settlement Type	Physical delivery
Product Code	SR
Listing Exchange	Zhengzhou Commodity Exchange (ZCE)

(II) Account Opening, Trading, and Clearing Procedures (Figure 1-7-14)

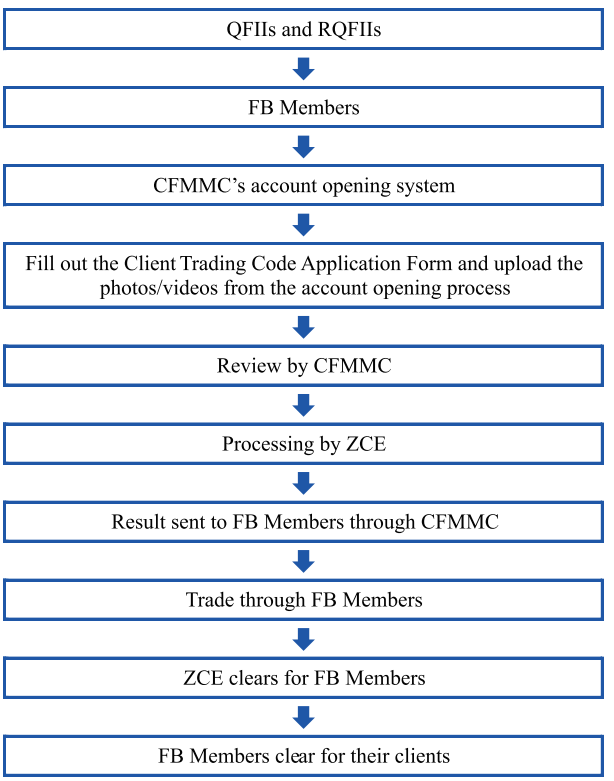


Figure 1-7-14 Account Opening, Trading, and Clearing Procedures

For details, please refer to:

- Circular on the Participation of Qualified Foreign Institutional Investors and RMB Qualified Foreign Institutional Investors in Commodity Futures and Options Trading
  http://english.czce.com.cn/enportal/News/Announcements/webinfo/2022/09/1655821721132453.htm
- Notice on the Arrangements of Qualified Foreign Institutional Investors' and RMB Qualified Foreign Institutional Investors' Participation in Commodity Futures and Options Trading
  http://english.czce.com.cn/enportal/News/Announcements/webinfo/2022/09/1655821721286599.htm
- Uniform Account Opening Guidelines on Special Institutional Clients
  http://www.cfmmc.com/main/a/20230424/40820.shtml
- Measures for the Administration of Trader Suitability Requirements
  http://english.czce.com.cn/enportal/rootfiles/2019/05/31/1558748984932334-1558748985075472.doc
- Measures for the Administration of Futures Trading
  http://english.czce.com.cn/en/Rulebook/GeneralRules/webinfo/2023/04/1684183720042786.htm

- Measures for the Administration of Futures Clearing
  http: //english. czce. com. cn/en/Rulebook/GeneralRules/webinfo/2023/06/1689458047528151. htm
- Detailed Business Rules for White Sugar Futures
  http: //english. czce. com. cn/en/Rulebook/DetailedRules/webinfo/2022/12/1681343807469211. htm

XI. White Sugar Options (ZCE)

(I) Standard Contract Specifications(Table 1-7-16)

Table 1-7-16 Standard Contract Specifications

Underlying	White Sugar Futures (SR) Contract
Contract Type	Call options; put options
Contract Unit	1 SR contract (10 metric tons)
Price Quotation	Chinese yuan (RMB) per metric ton
Minimum Price Fluctuation	RMB 0. 5 yuan/metric ton
Daily Price Limit	Same as the price limit for SR contracts
Listed Contracts	The two consecutive nearby months of the underlying futures contract; contracts of subsequent months are listed on the trading day following the day when (single-counted) post-clearing open interest of the relevant underlying futures contract exceeds 5,000 lots
Trading Hours	Monday to Friday (except public holidays) 9:00 a. m. -11:30 a. m. and 1:30 p. m. -3:00 p. m. (Beijing time) and other trading hours prescribed by ZCE
Last Trading Day	3rd trading day of the month before the delivery month of the underlying futures contract, or another date prescribed by ZCE
Expiration Date	Same as the Last Trading Day
Strike Price	The range of strike price (SP) is the preceding trading day's settlement price of the underlying futures contract plus or minus 1. 5 times the current day's price limit. Five in-the-money contracts, one at-the-money contract, and five out-of-the-money contracts will be listed according to the strike price interval. The strike price interval is: 50 yuan/metric ton if SP $\leqslant$ 3,000 yuan/metric ton; 100 yuan/metric ton if 3,000 yuan/metric ton $<$ SP $\leqslant$ 10,000 yuan/metric ton; 200 yuan/metric ton if SP $>$ 10,000 yuan/metric ton
Option Style	American. The buyer can submit an exercise request during trading hours on any trading day before the expiration day, and an exercise or abandonment request before 3:30 p. m. on the expiration day
Product Code	Calls: SR-contract month-C-strike price Puts: SR-contract month-P-strike price
Listing Exchange	Zhengzhou Commodity Exchange (ZCE)

(II) Account Opening, Trading, and Clearing Procedures(Figure 1-7-15)

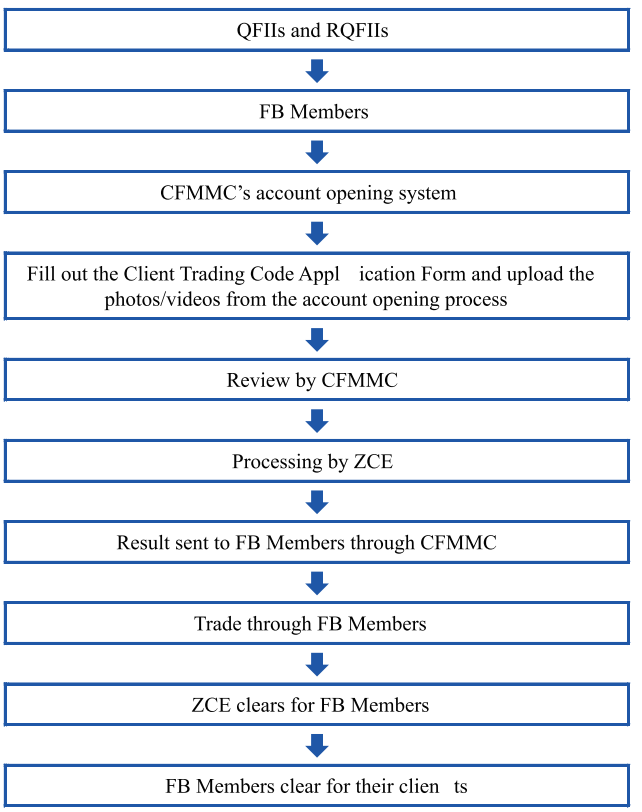


Figure 1-7-15 Account Opening, Trading, and Clearing Procedures

For details, please refer to:

- Circular on the Participation of Qualified Foreign Institutional Investors and RMB Qualified Foreign Institutional Investors in Commodity Futures and Options Trading
  http://english.czce.com.cn/enportal/News/Announcements/webinfo/2022/09/1655821721132453.htm
- Notice on the Arrangements of Qualified Foreign Institutional Investors' and RMB Qualified Foreign Institutional Investors' Participation in Commodity Futures and Options Trading
  http://english.czce.com.cn/enportal/News/Announcements/webinfo/2022/09/1655821721286599.htm
- Uniform Account Opening Guidelines on Special Institutional Clients
  http://www.cfmmc.com/main/a/20230424/40820.shtml
- Measures for the Administration of Trader Suitability Requirements
  http://english.czce.com.cn/enportal/rootfiles/2019/05/31/155874898493233415587489 85075472.doc
- Measures for the Administration of Option Trading
  http://english.czce.com.cn/en/Rulebook/GeneralRules/webinfo/2023/01/1681343807446122.htm

(III) Option Exercise and Fulfillment(Figure 1-7-16)

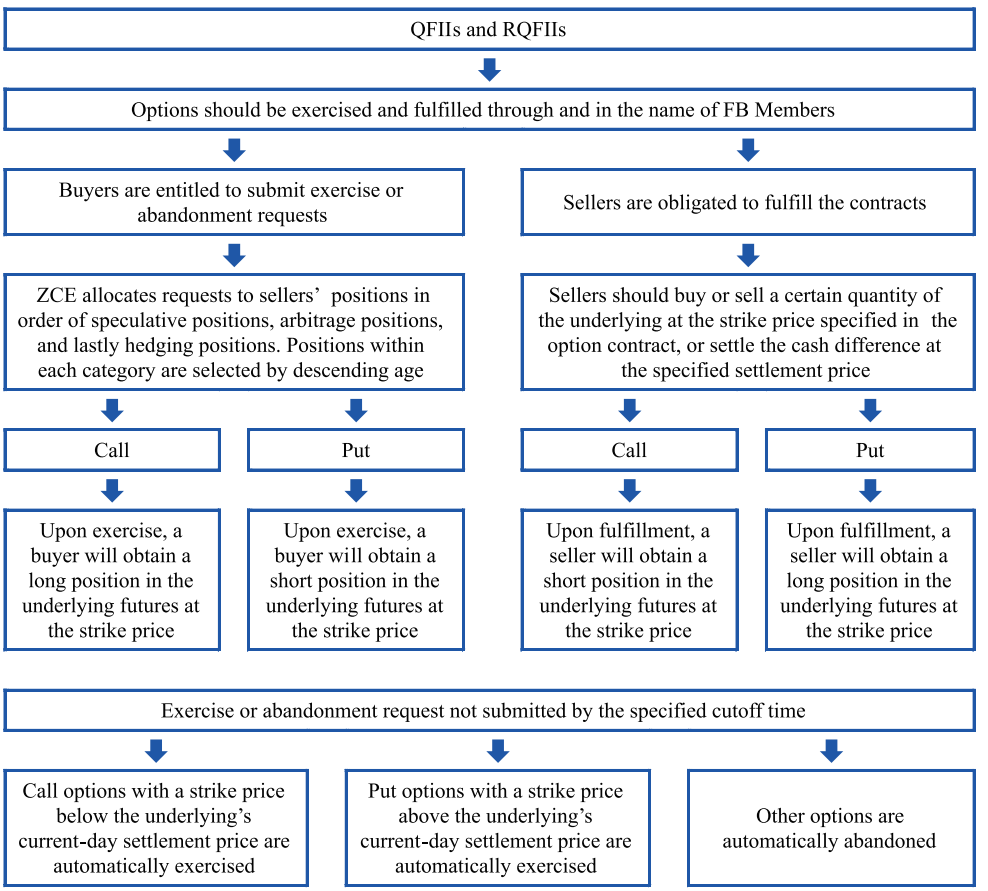


Figure 1-7-16 Option Exercise and Fulfillment

For details, please refer to:

- Measures for the Administration of Option Trading
  http://english.czce.com.cn/en/Rulebook/GeneralRules/webinfo/2023/01/1681343807446122.htm

XII. Rapeseed Oil Futures (ZCE)

(I) Standard Contract Specifications(Table 1-7-17)

Table 1-7-17 Standard Contract Specifications

Product	Rapeseed Oil
Contract Unit	10 metric tons/lot
Price Quotation	Chinese yuan (RMB) per metric ton
Minimum Price Fluctuation	RMB 1 yuan/metric ton

Continued

Daily Price Limit	±4% of the previous settlement price and subject to the price limit provisions of the *Risk Control Rules of Zhengzhou Commodity Exchange*
Minimum Trading Margin	5% of contract value
Listed Contracts	January, March, May, July, September, and November
Trading Hours	Monday to Friday (except public holidays) 9:00 a. m. -11:30 a. m. and 1:30 p. m. -3:00 p. m. (Beijing time) and other trading hours prescribed by ZCE
Last Trading Day	10th trading day of the delivery month
Last Delivery Day	13th trading day of the delivery month
Grade and Quality	Benchmark deliverable: Grade IV rapeseed oil under National Standard of the People's Republic of China "Rapeseed Oil" (GB 1536-2004) Substitute deliverables and premiums/discounts: See the *Detailed Business Rules for Rapeseed Oil Futures*
Delivery Venue	Delivery points designated by ZCE
Settlement Type	Physical delivery
Product Code	OI
Listing Exchange	Zhengzhou Commodity Exchange (ZCE)

(II) Account Opening, Trading, and Clearing Procedures(Figure 1-7-17)

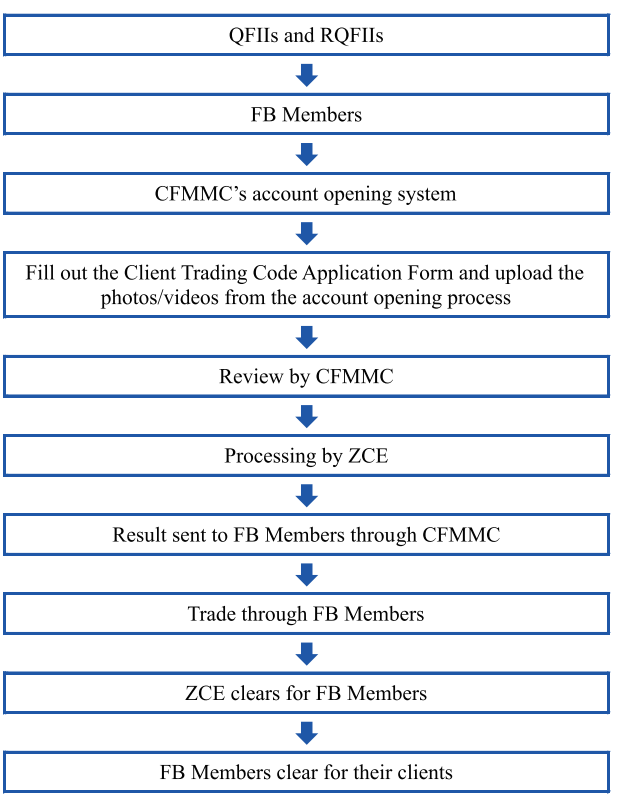


Figure 1-7-17 Account Opening, Trading, and Clearing Procedures

For details, please refer to:

- Circular on the Participation of Qualified Foreign Institutional Investors and RMB Qualified Foreign Institutional Investors in Commodity Futures and Options Trading
  http://english.czce.com.cn/enportal/News/Announcements/webinfo/2022/09/1655821721132453.htm
- Notice on the Arrangements of Qualified Foreign Institutional Investors' and RMB Qualified Foreign Institutional Investors' Participation in Commodity Futures and Options Trading
  http://english.czce.com.cn/enportal/News/Announcements/webinfo/2022/09/1655821721286599.htm
- Uniform Account Opening Guidelines on Special Institutional Clients
  http://www.cfmmc.com/main/a/20230424/40820.shtml
- Measures for the Administration of Trader Suitability Requirements
  http://english.czce.com.cn/enportal/rootfiles/2019/05/31/15587489849323341558748985075472.doc
- Measures for the Administration of Futures Trading
  http://english.czce.com.cn/en/Rulebook/GeneralRules/webinfo/2023/04/1684183720042786.htm
- Measures for the Administration of Futures Clearing
  http://english.czce.com.cn/en/Rulebook/GeneralRules/webinfo/2023/06/1689458047528151.htm
- Detailed Business Rules for Rapeseed Oil Futures
  http://english.czce.com.cn/en/Rulebook/DetailedRules/webinfo/2023/01/1681343807455728.htm

XIII. Rapeseed Oil Options (ZCE)

(I) Standard Contract Specifications(Table 1-7-18)

Table 1-7-18 Standard Contract Specifications

Underlying	Rapeseed Oil Futures (OI) Contract
Contract Type	Call options; put options
Contract Unit	1 OI contract
Price Quotation	Chinese yuan (RMB) per metric ton
Minimum Price Fluctuation	RMB 0.5 yuan/metric ton
Daily Price Limit	Same as the price limit for OI contracts
Listed Contracts	The two consecutive nearby months of the underlying futures contract; contracts of subsequent months are listed on the trading day following the day when (single-counted) post-clearing open interest of the relevant underlying futures contract exceeds 5,000 lots
Trading Hours	Monday to Friday (except public holidays) 9:00 a.m.-11:30 a.m. and 1:30 p.m.-3:00 p.m. (Beijing time) and other trading hours prescribed by ZCE

Continued

Last Trading Day	3rd trading day of the month before the delivery month of the underlying futures contract, or another date prescribed by ZCE
Expiration Date	Same as the Last Trading Day
Strike Price	The range of strike price (SP) is the preceding trading day's settlement price of the underlying futures contract plus or minus 1.5 times the current day's price limit. Nine in-the-money contracts, one at-the-money contract, and nine out-of-the-money contracts will be listed according to the strike price interval. The strike price interval is: 50 yuan/metric ton if SP ≤ 5,000 yuan/metric ton; 100 yuan/metric ton if 5,000 yuan/metric ton < SP ≤ 10,000 yuan/metric ton; 200 yuan/metric ton if SP > 10,000 yuan/metric ton
Option Style	American. The buyer can submit an exercise request during trading hours on any trading day before the expiration day, and an exercise or abandonment request before 3:30 p.m. on the expiration day
Product Code	Calls: OI-contract month-C-strike price Puts: OI-contract month-P-strike price
Listing Exchange	Zhengzhou Commodity Exchange (ZCE)

(II) Account Opening, Trading, and Clearing Procedures(Figure 1-7-18)

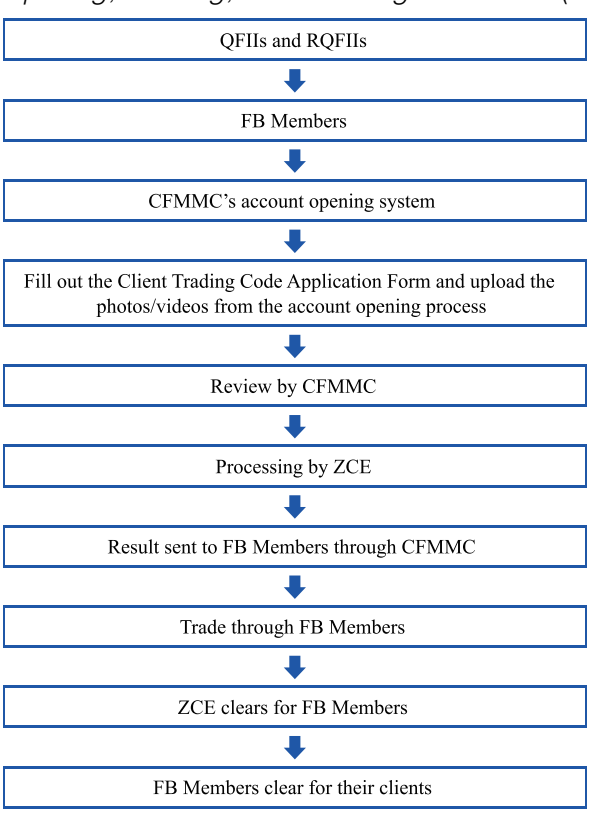


Figure 1-7-18 Account Opening, Trading, and Clearing Procedures

For details, please refer to:

- Circular on the Participation of Qualified Foreign Institutional Investors and RMB Qualified Foreign Institutional Investors in Commodity Futures and Options Trading
  http://english.czce.com.cn/enportal/News/Announcements/webinfo/2022/09/1655821721132453.htm
- Notice on the Arrangements of Qualified Foreign Institutional Investors' and RMB Qualified Foreign Institutional Investors' Participation in Commodity Futures and Options Trading
  http://english.czce.com.cn/enportal/News/Announcements/webinfo/2022/09/1655821721286599.htm
- Uniform Account Opening Guidelines on Special Institutional Clients
  http://www.cfmmc.com/main/a/20230424/40820.shtml
- Measures for the Administration of Trader Suitability Requirements
  http://english.czce.com.cn/enportal/rootfiles/2019/05/31/1558748984932334-1558748985075472.doc
- Measures for the Administration of Option Trading
  http://english.czce.com.cn/en/Rulebook/GeneralRules/webinfo/2023/01/1681343807446122.htm

(III) Option Exercise and Fulfillment(Figure 1-7-19)

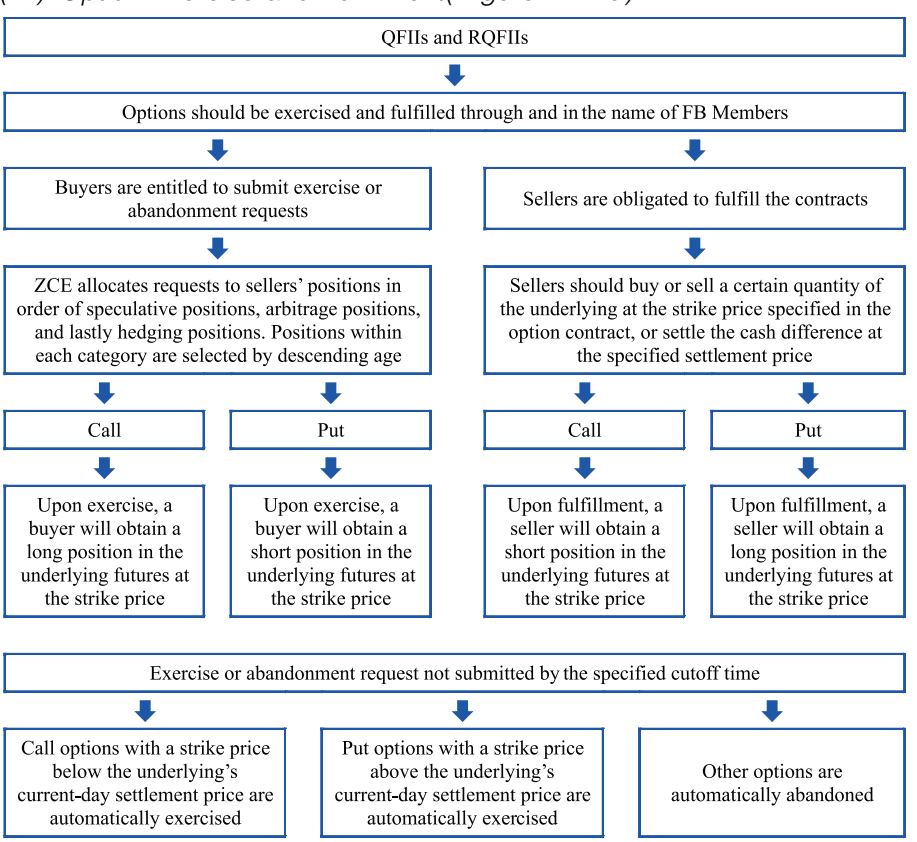


Figure 1-7-19 Option Exercise and Fulfillment

For details, please refer to:

- Measures for the Administration of Option Trading
  http://english.czce.com.cn/en/Rulebook/GeneralRules/webinfo/2023/01/1681343807446122.htm

XIV. Iron Ore Futures (DCE)

(I) Product-Related Rules

Investors trading iron ore futures on DCE should comply with the *DCE Trading Rules*①, *DCE Measures for Trading Management*, *DCE Measures for Clearing Management*, *DCE Measures for Delivery Management*, and *DCE Measures for Risk Management*, among others②, as well as the *DCE Detailed Rules of Iron Ore Futures*③ and other rules of DCE (Table 1-7-19, Table 1-7-20).

Table 1-7-19 DCE Iron Ore Futures Contract (For I2009 and subsequent contracts)

Product	Iron Ore
Contract Unit	100 metric tons/lot
Price Quotation	Chinese yuan (RMB) per metric ton
Minimum Price Fluctuation	RMB 0.5 yuan/metric ton
Daily Price Limit	±4% of the previous settlement price
Listed Contracts	Monthly contracts of January to December
Trading Hours	9:00 a.m. – 11:30 a.m., 1:30 p.m. – 3:00 p.m. Monday to Friday (Beijing time), and other hours specified by DCE
Last Trading Day	10th trading day of the contract month
Last Delivery Day	3rd trading day after the last trading day
Grade and Quality	DCE Iron Ore Delivery Quality Standard (F/DCE I001-2019). The deliverable brands and their discounts/premiums will be separately established by DCE
Delivery Venue	Delivery facilities and locations designated by DCE
Minimum Trading Margin	5% of contract value
Settlement Type	Physical delivery
Product Code	I
Listing Exchange	Dalian Commodity Exchange (DCE)

① http://www.dce.com.cn/dalianshangpin/fgfz/6142914/6142918/6146499/index.html.
② http://www.dce.com.cn/dalianshangpin/fgfz/6142914/index.html.
③ http://www.dce.com.cn/dalianshangpin/fgfz/6142914/6142926/6146552/index.html.

Table 1-7-20 DCE Iron Ore Futures Contract
(For I2205 and subsequent contracts)

Product	Iron Ore
Contract Unit	100 metric tons/lot
Price Quotation	Chinese yuan (RMB) per metric ton
Minimum Price Fluctuation	RMB 0.5 yuan/metric ton
Daily Price Limit	±4% of the previous settlement price
Listed Contracts	Monthly contracts of January to December
Trading Hours	9:00 a.m. – 11:30 a.m., 1:30 p.m. – 3:00 p.m. Monday to Friday (Beijing time), and other hours specified by DCE
Last Trading Day	10th trading day of the contract month
Last Delivery Day	3rd trading day after the last trading day
Grade and Quality	DCE Iron Ore Delivery Quality Standard (F/DCE I004-2021). The deliverable brands and their premiums/discounts will be separately established by DCE
Delivery Venue	Delivery facilities and locations designated by DCE
Minimum Trading Margin	5% of contract value
Settlement Type	Physical delivery
Product Code	I
Listing Exchange	Dalian Commodity Exchange (DCE)

Note 1: DCE may adjust the daily price limit and trading margin of each contract according to market conditions. For detailed trading parameters, please see: http://www.dce.com.cn/DCE/TradingClearing/Business%20Parameters/Trading%20Parameters/index.html.

Note 2: Daytime trading consists of three sessions: 9:00 – 10:15 a.m., 10:30 – 11:30 a.m., and 1:30 – 3:00 p.m.

Note 3: The product offers a nighttime trading session at 9:00 – 11:00 p.m.

(II) Process Flows

(i) Account Opening (Figure 1-7-20)

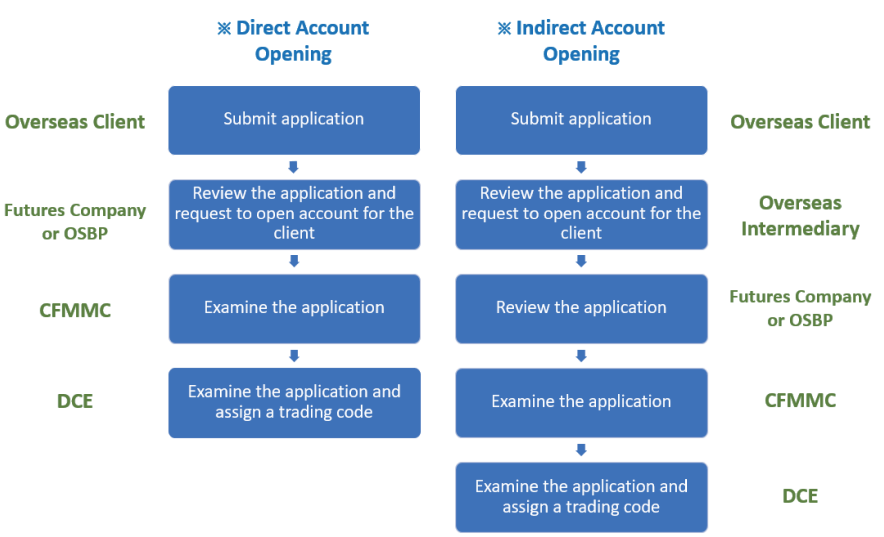


Figure 1-7-20 Account Opening

(ii) Trading(Figure 1-7-21)

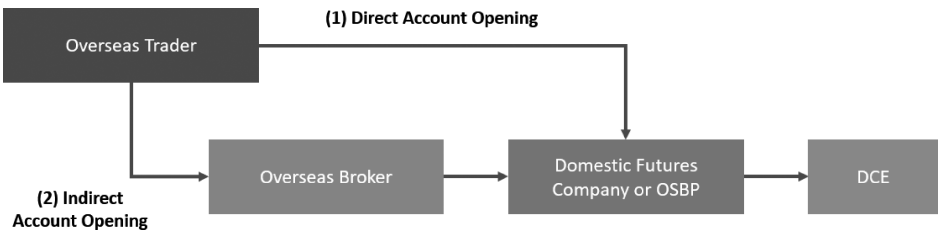


Figure 1-7-21 Trading

(iii) Funds Transfer(Figure 1-7-22)

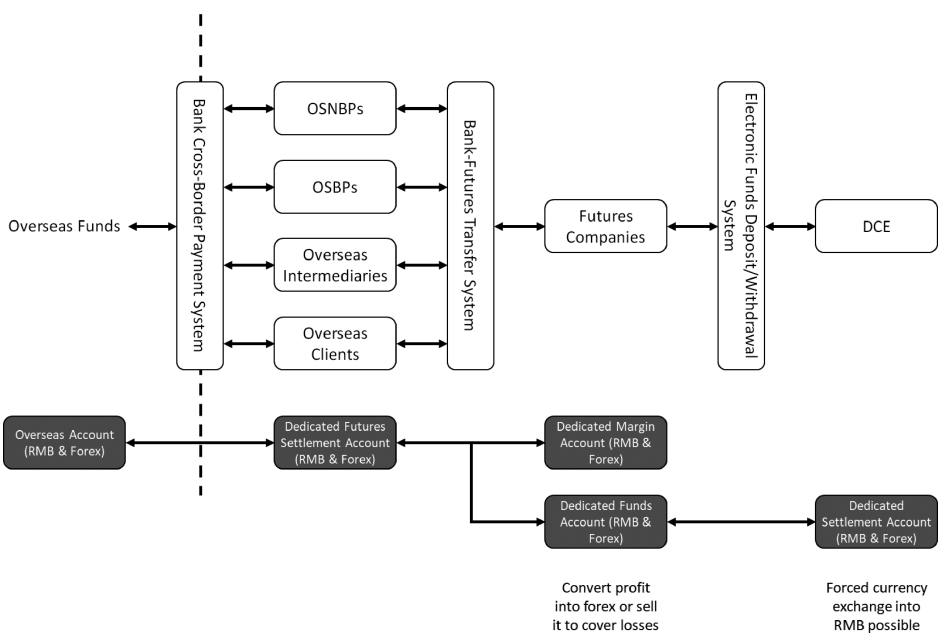


Figure 1-7-22 Funds Transfer

(iv) Warehouse Delivery (Illustrated with One-Off (Centralized) Delivery) (Figure 1-7-23)

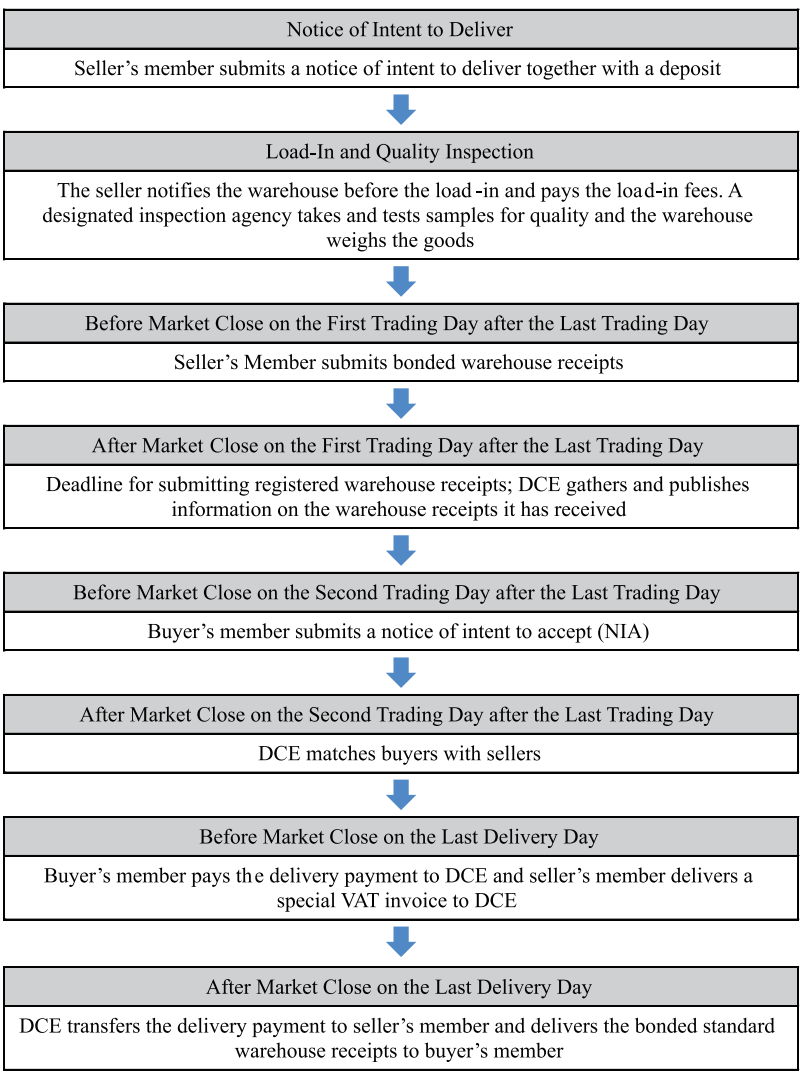


Figure 1-7-23 Warehouse Delivery

XV. Iron Ore Options (DCE)

(I) Product-Related Rules

Investors trading iron ore options on DCE should comply with the *DCE Trading Rules*①, *DCE Measures for Trading Management*, *DCE Management Measures on Futures Traders Suitability*, *DCE Measures for Options Trading Management*, *DCE Measures for Clearing Management*, *DCE Measures for Delivery Management*, and *DCE Measures for Risk*

① http://www.dce.com.cn/DCE/RulesRegulation/6146719/6146731/6146735/6147416/index.html.

Management, among others①, as well as the *DCE Detailed Rules of Iron Ore Futures*② and other rules of DCE(Table 1-7-21).

Table 1-7-21 DCE Iron Ore Options Contract

Underlying	Iron Ore Futures Contract
Contract Type	Call options; put options
Contract Unit	1 lot (100 metric tons) of Iron Ore futures contract
Price Quotation	Chinese yuan (RMB) per metric ton
Minimum Price Fluctuation	RMB 0.1 yuan/metric ton
Daily Price Limit	Same as that for the Iron Ore futures contract
Listed Contracts	Monthly contracts of January to December
Trading Hours	9:00 a.m. – 11:30 a.m. and 1:30 p.m. – 3:00 p.m. Monday to Friday (Beijing time), and other hours specified by DCE
Last Trading Day	5th trading day of the month before the delivery month of the underlying Iron Ore futures contract
Expiration Date	Same as the last trading day
Strike Price	The range of strike price is the preceding trading day's settlement price of the Iron Ore futures contract plus or minus 1.5 times the current day's price limit. The strike price interval is 5 yuan/metric ton if strike price ≤ 300 yuan/metric ton; 10 yuan/metric ton if 300 yuan/metric ton < strike price ≤ 1,000 yuan/metric ton; 20 yuan/metric ton if strike price > 1,000 yuan/metric ton
Option Style	American. Buyers may submit an exercise request during trading hours on any trading day before the expiration date and before 3:30 p.m. on the expiration date
Product Code	Calls: I-contract month-C-strike price Puts: I-contract month-P-strike price
Listing Exchange	Dalian Commodity Exchange (DCE)

Note 1: Daytime trading consists of three sessions: 9:00 – 10:15 a.m., 10:30 – 11:30 a.m., and 1:30 – 3:00 p.m.

Note 2: The product offers a nighttime trading session at 9:00 – 11:00 p.m.

① http://www.dce.com.cn/DCE/RulesRegulation/6146719/6146731/index.html.

② http://www.dce.com.cn/DCE/RulesRegulation/6146719/6146731/6146743/6147488/index.html.

(II) Process Flows

(i) Account Opening(Figure 1-7-24)

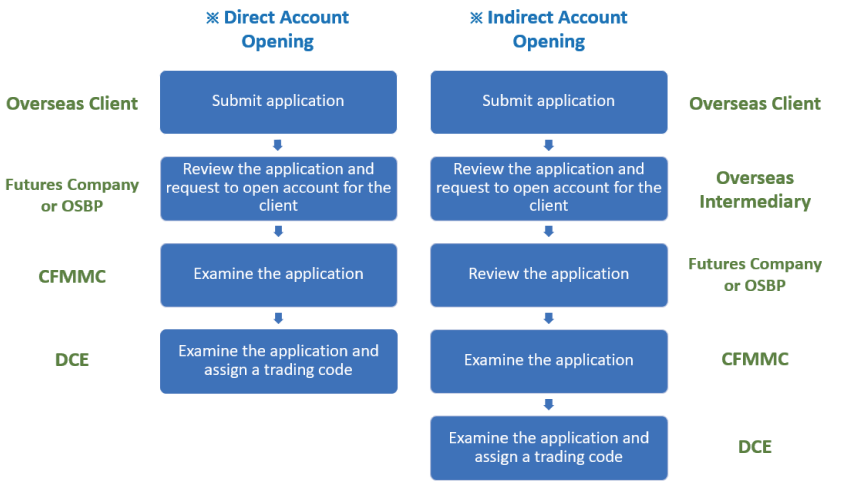


Figure 1-7-24 Account Opening

(ii) Trading(Figure 1-7-25)

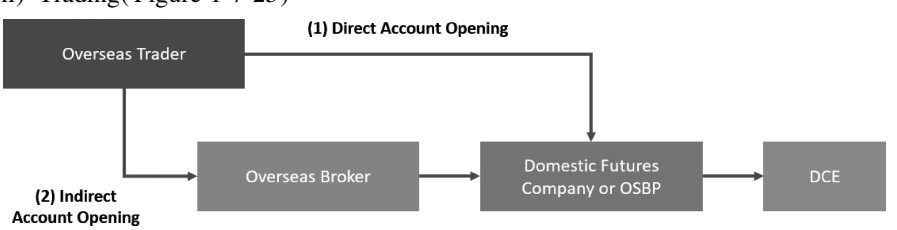


Figure 1-7-25 Trading

(iii) Funds Transfer(Figure 1-7-26)

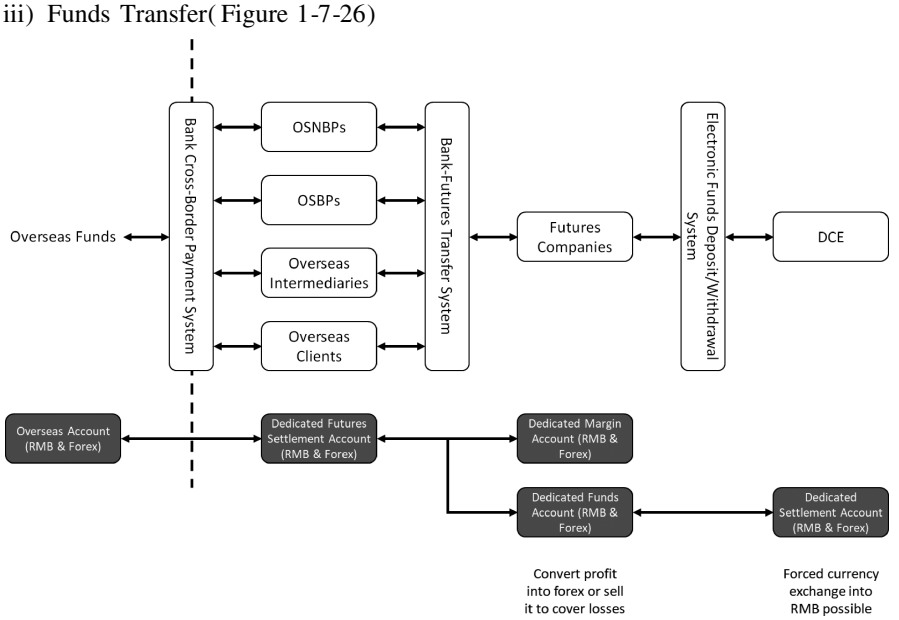


Figure 1-7-26 Funds Transfer

(iv) Option Exercise and Fulfillment(Figure 1-7-27)

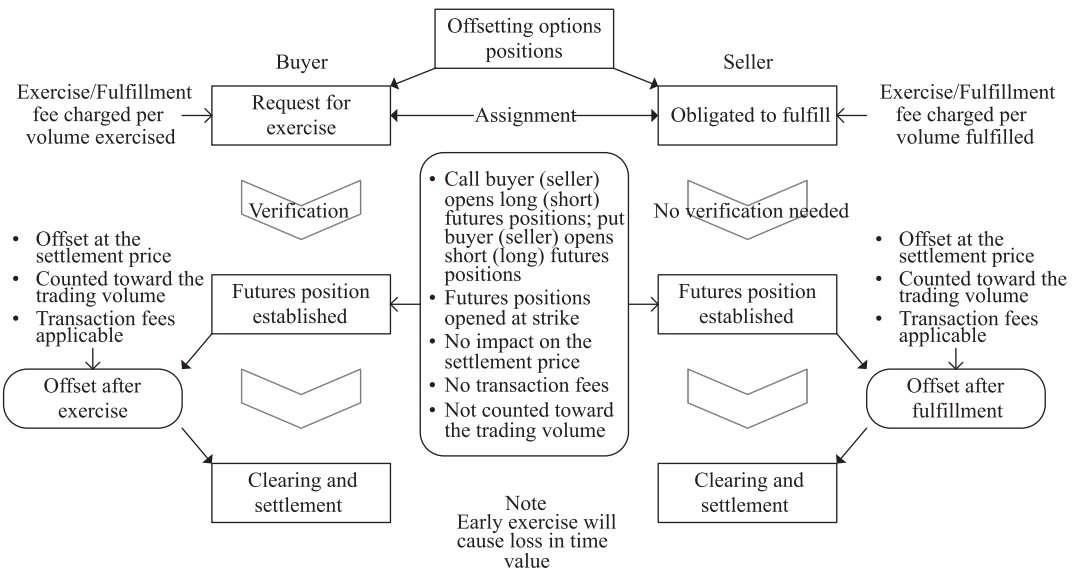


Figure 1-7-27 Option Exercise and Fulfillment

XVI. RBD Palm Olein Futures (DCE)

(I) Product-Related Rules

Investors trading RBD Palm Olein futures on DCE should comply with the *DCE Trading Rules*①, *DCE Measures for Trading Management*, *DCE Measures for Clearing Management*, *DCE Measures for Delivery Management*, *DCE Measures for Risk Management*, among others②, as well as the *DCE Detailed Rules of RBD Palm Olein Futures*③ and other rules of DCE(Table 1-7-22).

Table 1-7-22 DCE RBD Palm Olein Futures Contract

Product	RBD Palm Olein
Contract Unit	10 metric tons/lot
Price Quotation	Chinese yuan (RMB) per metric ton
Minimum Price Fluctuation	RMB 2 yuan/metric ton
Daily Price Limit	±4% of the previous settlement price
Listed Contracts	Monthly contracts of January to December
Trading Hours	9:00 a.m. – 11:30 a.m., 1:30 p.m. – 3:00 p.m. Monday to Friday (Beijing time), and other hours specified by DCE

① http://www.dce.com.cn/dalianshangpin/fgfz/6142914/6142918/6146499/index.html.

② http://www.dce.com.cn/dalianshangpin/fgfz/6142914/index.html.

③ http://www.dce.com.cn/dalianshangpin/fgfz/6142914/6142926/6146529/index.html.

Continued

Last Trading Day	10th trading day of the contract month
Last Delivery Day	3rd trading day after the last trading day
Grade and Quality	*RBD Palm Olein Delivery Quality Standard of Dalian Commodity Exchange*
Delivery Venue	Delivery facilities designated by DEC
Minimum Trading Margin	5% of contract value
Settlement Type	Physical delivery
Product Code	P
Listing Exchange	Dalian Commodity Exchange (DCE)

Note 1: DCE may adjust the daily price limit and trading margin of each contract according to market conditions. For detailed trading parameters, please see: http://www.dce.com.cn/DCE/TradingClearing/Business%20Parameters/Trading%20Parameters/index.html.

Note 2: Daytime trading consists of three sessions: 9:00 – 10:15 a.m., 10:30 – 11:30 a.m., and 1:30 – 3:00 p.m.

Note 3: The product offers a nighttime trading session at 9:00 – 11:00 p.m.

(II) Process Flows

(i) Account Opening (Figure 1-7-28)

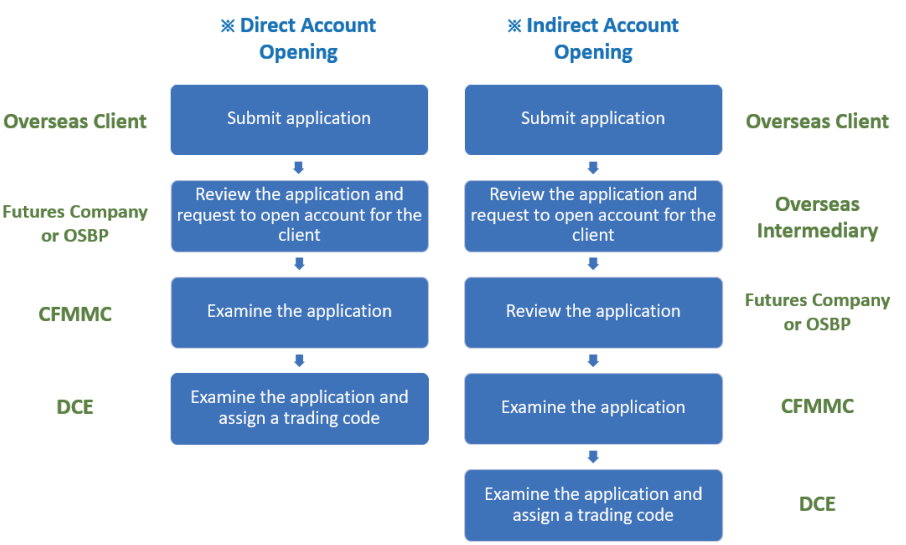


Figure 1-7-28 Account Opening

(ii) Trading (Figure 1-7-29)

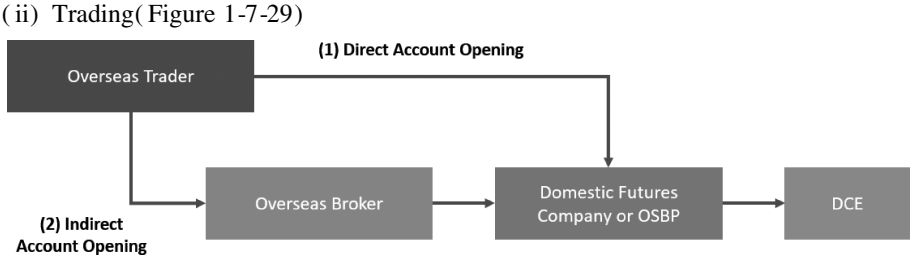


Figure 1-7-29 Trading

(iii) Funds Transfer(Figure 1-7-30)

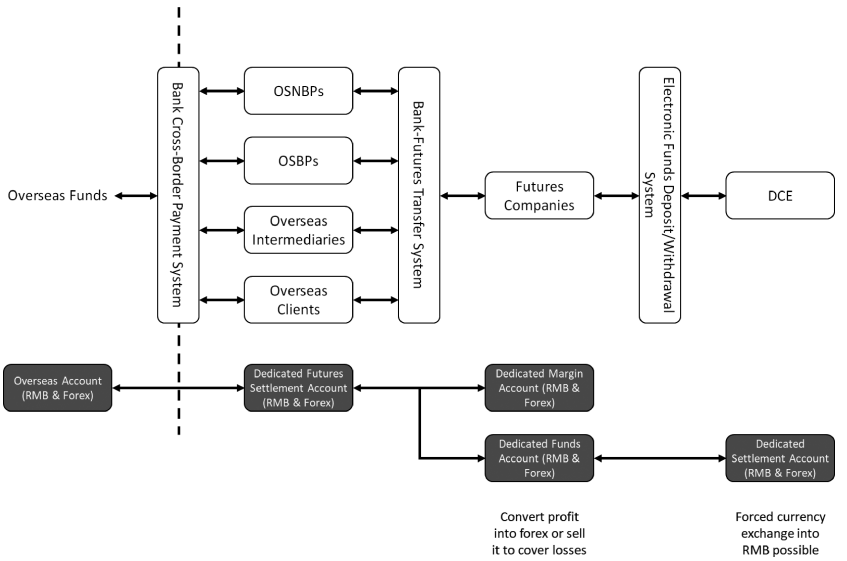


Figure 1-7-30 Funds Transfer

(iv) Warehouse (Factory) Delivery(Figure 1-7-31)

Notice of Intent to Deliver
Seller's member submits a notice of intent to deliver together with a deposit
↓
Load-In and Quality Inspection
The seller notifies the warehouse before the load-in and pays the load-in fees. A designated inspection agency takes and tests samples for quality and the warehouse weighs the goods
↓
Before Market Close on the First Trading Day after the Last Trading Day
Seller's Member submits bonded warehouse receipts
↓
After Market Close on the First Trading Day after the Last Trading Day
Deadline for submitting registered warehouse receipts; DCE gathers and publishes information on the warehouse receipts it has received
↓
Before Market Close on the Second Trading Day after the Last Trading Day
Buyer's member submits a notice of intent to accept (NIA)
↓
After Market Close on the Second Trading Day after the Last Trading Day
DCE matches buyers with sellers
↓
Before Market Close on the Last Delivery Day
Buyer's member pays the delivery payment to DCE and seller's member delivers a special VAT invoice to DCE
↓
After Market Close on the Last Delivery Day
DCE transfers the delivery payment to seller's member and delivers the bonded standard warehouse receipts to buyer's member

Figure 1-7-31 Warehouse (Factory) Delivery

XVII. RBD Palm Olein Options (DCE)

(I) Product-Related Rules

Investors trading RBD Palm Olein options on DCE should comply with the *DCE Trading Rules*①, *DCE Measures for Trading Management*, *DCE Management Measures on Futures Trader Suitability*, *DCE Measures for Management of Options Trading*, *DCE Measures for Clearing Management*, *DCE Measures for Delivery Management*, *DCE Measures for Risk Management*, among others②, as well as the *DCE Detailed Rules of RBD Palm Olein Futures*③ and other rules of DCE(Table 1-7-23).

Table 1-7-23 DCE RBD Palm Olein Options Contract

Underlying	RBD Palm Olein Futures Contract
Contract Type	Call options; put options
Contract Unit	1 lot (10 metric tons) of RBD Palm Olein futures contract
Price Quotation	Chinese yuan (RMB) per metric ton
Minimum Price Fluctuation	RMB 0.5 yuan/metric ton
Daily Price Limit	Same as that for the RBD Palm Olein futures contract
Listed Contracts	Monthly contracts of January to December
Trading Hours	9:00 a.m. – 11:30 a.m. and 1:30 p.m. – 3:00 p.m. Monday to Friday (Beijing time), and other hours specified by DCE
Last Trading Day	5th trading day of the month before the delivery month of the underlying RBD Palm Olein futures contract
Expiration Date	Same as the last trading day
Strike Price	The range of strike price is the preceding trading day's settlement price of the RBD Palm Olein futures contract plus or minus 1.5 times the current day's price limit. The strike price interval is 50 yuan/metric ton if strike price ≤ 5,000 yuan/metric ton; 100 yuan/metric ton if 5,000 yuan/metric ton < strike price ≤ 10,000 yuan/metric ton; 200 yuan/metric ton if strike price > 10,000 yuan/metric ton
Option Style	American. Buyers may submit an exercise request during trading hours on any trading day before the expiration date and before 3:30 p.m. on the expiration date
Product Code	Calls: P-contract month-C-strike Price Puts: P-contract month-P-strike Price
Listing Exchange	Dalian Commodity Exchange (DCE)

Note 1: Daytime trading consists of three sessions: 9:00 – 10:15 a.m., 10:30 – 11:30 a.m., and 1:30 – 3:00 p.m.

Note 2: The product offers a nighttime trading session at 9:00 – 11:00 p.m.

① http://www.dce.com.cn/dalianshangpin/fgfz/6142914/6142918/6146499/index.html.

② http://www.dce.com.cn/dalianshangpin/fgfz/6142914/index.html.

③ http://www.dce.com.cn/dalianshangpin/fgfz/6142914/6142926/6146529/index.html.

(II) Process Flows

(i) Account Opening(Figure 1-7-32)

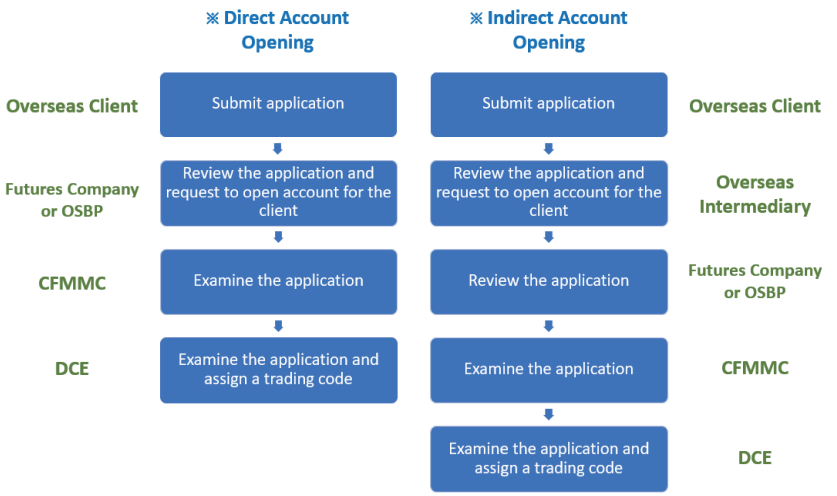


Figure 1-7-32 Account Opening

(ii) Trading(Figure 1-7-33)

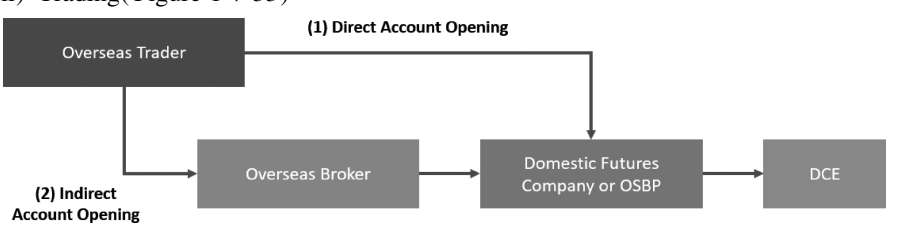


Figure 1-7-33 Trading

(iii) Funds Transfer(Figure 1-7-34)

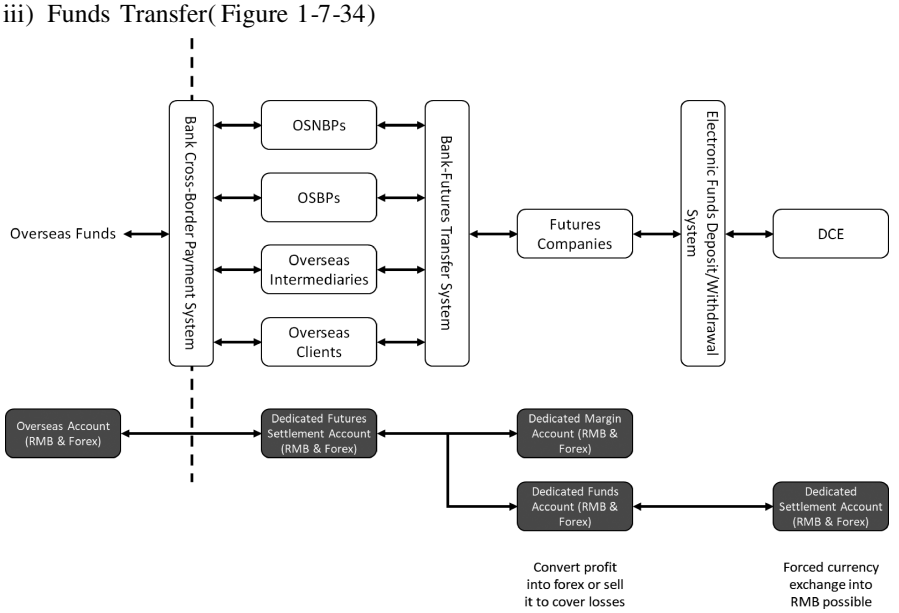


Figure 1-7-34 Funds Transfer

(iv) Option Exercise and Fulfillment(Figure 1-7-35)

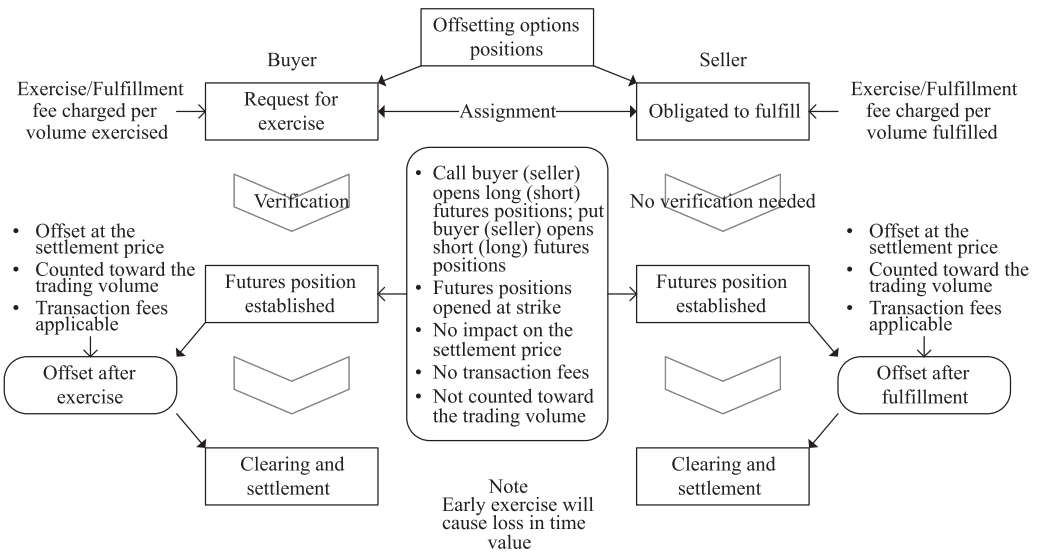


Figure 1-7-35 Option Exercise and Fulfillment

XVIII. No.1 Soybean Futures (DCE)

(I) Product-Related Rules

Investors trading No. 1 Soybean futures on DCE should comply with the *DCE Trading Rules*①, *DCE Measures for Trading Management*, *DCE Measures for Clearing Management*, *DCE Measures for Delivery Management*, *DCE Measures for Risk Management*, among others②, as well as the *DCE Detailed Rules of No. 1 Soybean Futures*③ and other rules of DCE (Table 1-7-24).

Table 1-7-24 DCE No. 1 Soybean Futures Contract

Product	No. 1 Soybean
Contract Unit	10 metric tons/lot
Price Quotation	Chinese yuan (RMB) per metric ton
Minimum Price Fluctuation	RMB 1 yuan/metric ton
Daily Price Limit	±4% of the previous settlement price
Listed Contracts	January, March, May, July, September, November
Trading Hours	9:00 a.m. – 11:30 a.m., 1:30 p.m. – 3:00 p.m. Monday to Friday (Beijing time), and other hours specified by DCE

① http://www.dce.com.cn/DCE/RulesRegulation/6146719/6146731/6146735/6147416/index.html.
② http://www.dce.com.cn/DCE/RulesRegulation/6146719/6146731/index.html.
③ http://www.dce.com.cn/DCE/rulesregulation/6146719/6146731/6146743/6147422/index.html.

Continued

Last Trading Day	10th trading day of the contract month
Last Delivery Day	3rd trading day after the last trading day
Grade and Quality	No. 1 Soybean Delivery Quality Standard of Dalian Commodity Exchange (F/DCE A001-2018)
Delivery Venue	Delivery facilities designated by DCE
Minimum Trading Margin	5% of contract value
Settlement Type	Physical delivery
Product Code	A
Listing Exchange	Dalian Commodity Exchange (DCE)

Note 1: DCE may adjust the daily price limit and trading margin of each contract according to market conditions. For detailed trading parameters, please see: http://www.dce.com.cn/DCE/TradingClearing/Business%20Parameters/Trading%20Parameters/index.html.

Note 2: Daytime trading consists of three sessions: 9:00 – 10:15 a.m., 10:30 – 11:30 a.m., and 1:30 – 3:00 p.m.

Note 3: The product offers a nighttime trading session at 9:00 – 11:00 p.m.

(II) Process Flows

(i) Account Opening(Figure 1-7-36)

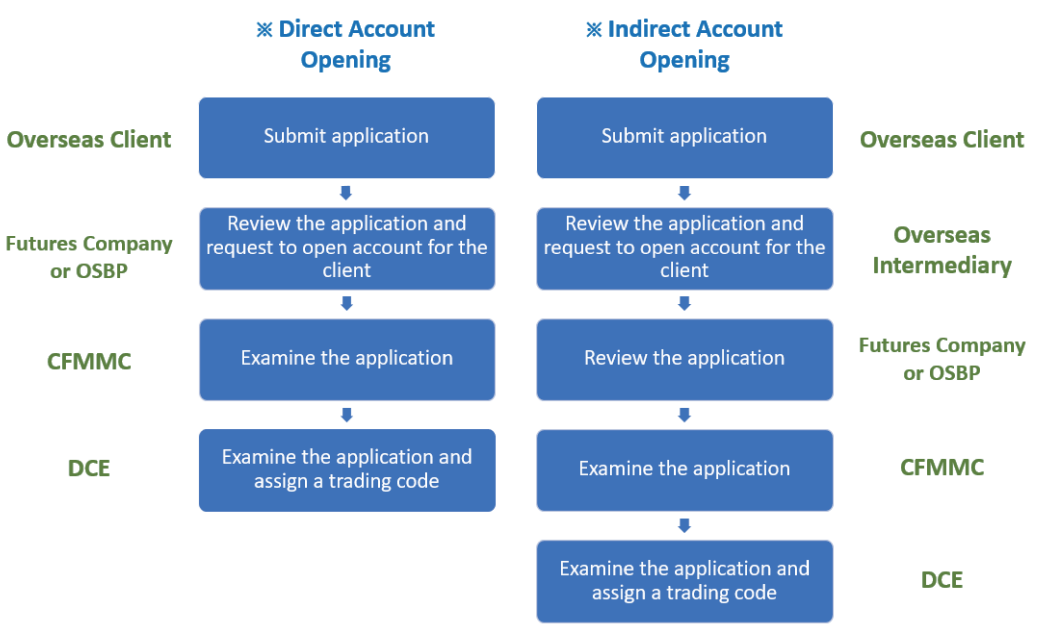


Figure 1-7-36 Account Opening

(ii) Trading(Figure 1-7-37)

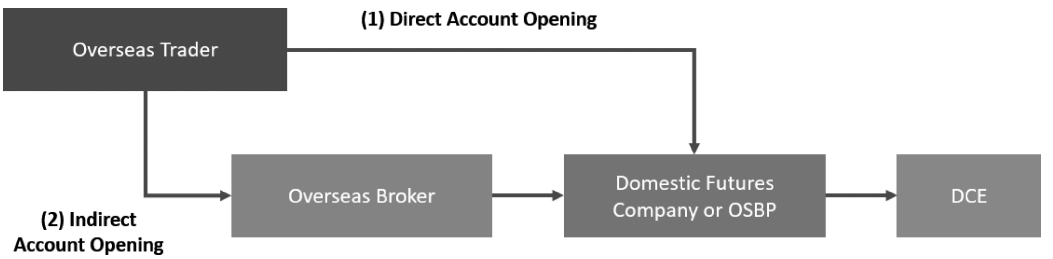


Figure 1-7-37 Trading

(iii) Funds Transfer(Figure 1-7-38)

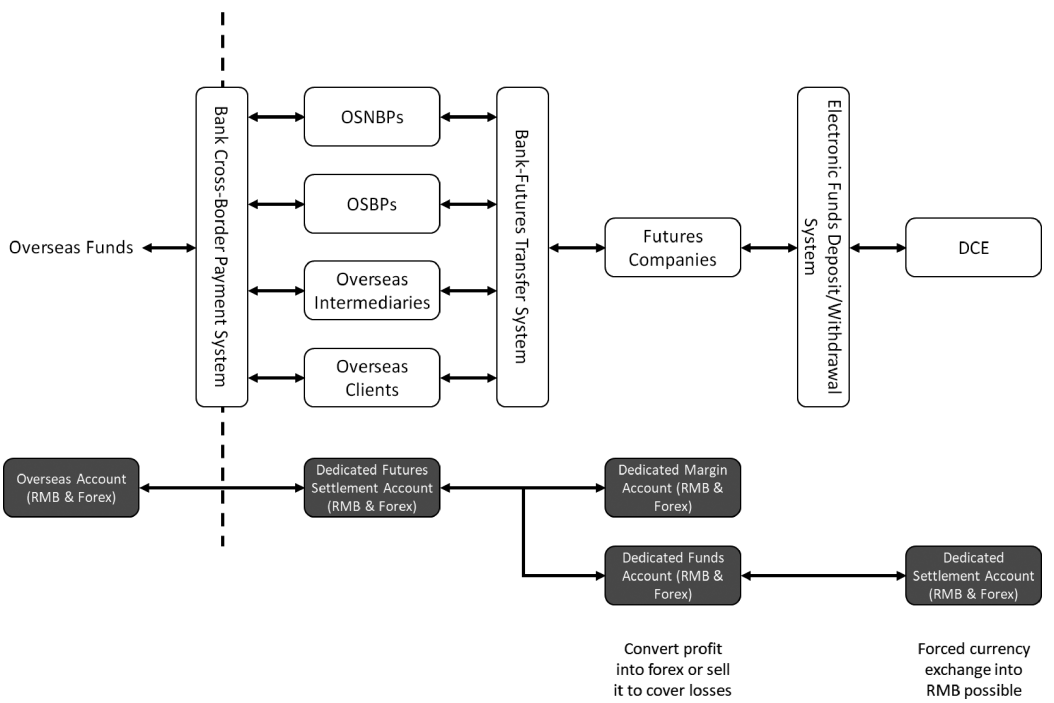


Figure 1-7-38 Funds Transfer

(iv) Warehouse Delivery(Figure 1-7-39)



Figure 1-7-39 Warehouse Delivery

XIX. No.1 Soybean Options (DCE)

(I) Product-Related Rules

Investors trading No. 1 Soybean options on DCE should comply with the *DCE Trading Rules*①, *DCE Measures for Trading Management*, *DCE Management Measures on Futures Trader Suitability*, *DCE Measures for Management of Options Trading*, *DCE Measures for Clearing Management*, *DCE Measures for Delivery Management*, *DCE Measures for Risk*

① http://www.dce.com.cn/DCE/RulesRegulation/6146719/6146731/6146735/6147416/index.html.

Management, among others①, as well as the *DCE Detailed Rules of No. 1 Soybean Futures*② and other rules of DCE (Table 1-7-25).

Table 1-7-25 DCE No. 1 Soybean Options Contract

Underlying	No. 1 Soybean Futures Contract
Contract Type	Call options; put options
Contract Unit	1 lot (10 metric tons) of No. 1 Soybean futures contract
Price Quotation	Chinese yuan (RMB) per metric ton
Minimum Price Fluctuation	RMB 0.5 yuan/metric ton
Daily Price Limit	Same as that for the No. 1 Soybean futures contract
Listed Contracts	January, March, May, July, September, November
Trading Hours	9:00 a.m. – 11:30 a.m. and 1:30 p.m. – 3:00 p.m. Monday to Friday (Beijing time), and other hours specified by DCE
Last Trading Day	5th trading day of the month before the delivery month of the underlying No. 1 Soybean futures contract
Expiration Date	Same as the last trading day
Strike Price	The range of strike price is the preceding trading day's settlement price of the No. 1 Soybean futures contract plus or minus 1.5 times the current day's price limit. The strike price interval is 25 yuan/metric ton if strike price ≤ 2,500 yuan/metric ton; 50 yuan/metric ton if 2,500 yuan/metric ton < strike price ≤ 50,000 yuan/metric ton; 100 yuan/metric ton if strike price > 50,000 yuan/metric ton
Option Style	American. Buyers may submit an exercise request during trading hours on any trading day before the expiration date and before 3:30 p.m. on the expiration date
Product Code	Calls: A-contract month-C-strike Price Puts: A-contract month-P-strike Price
Listing Exchange	Dalian Commodity Exchange (DCE)

Note 1: Daytime trading consists of three sessions: 9:00 – 10:15 a.m., 10:30 – 11:30 a.m., and 1:30 – 3:00 p.m.

Note 2: The product offers a nighttime trading session at 9:00 – 11:00 p.m.

① http://www.dce.com.cn/DCE/RulesRegulation/6146719/6146731/index.html.

② http://www.dce.com.cn/DCE/rulesregulation/6146719/6146731/6146743/6147422/index.html.

(II) Process Flows

(i) Account Opening (Figure 1-7-40)

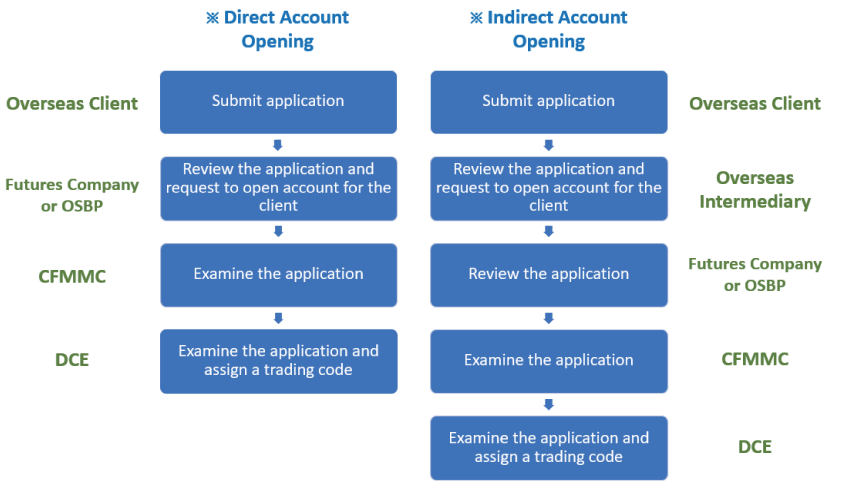


Figure 1-7-40 Account Opening

(ii) Trading (Figure 1-7-41)

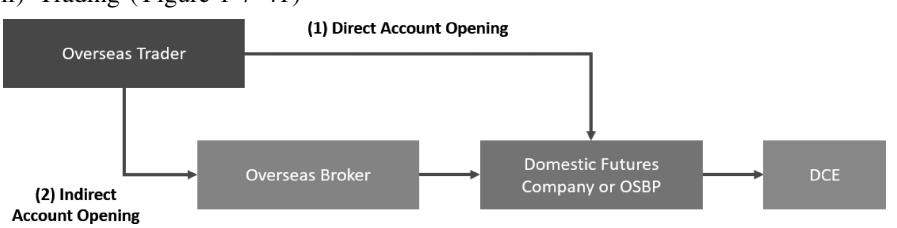


Figure 1-7-41 Trading

(iii) Funds Transfer (Figure 1-7-42)

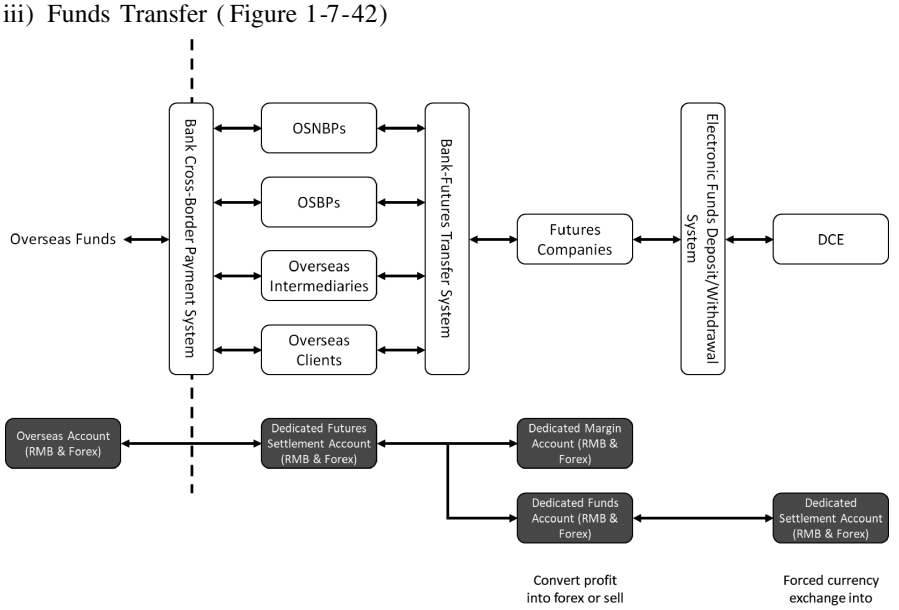


Figure 1-7-42 Funds Transfer

(iv) Option Exercise and Fulfillment (Figure 1-7-43)

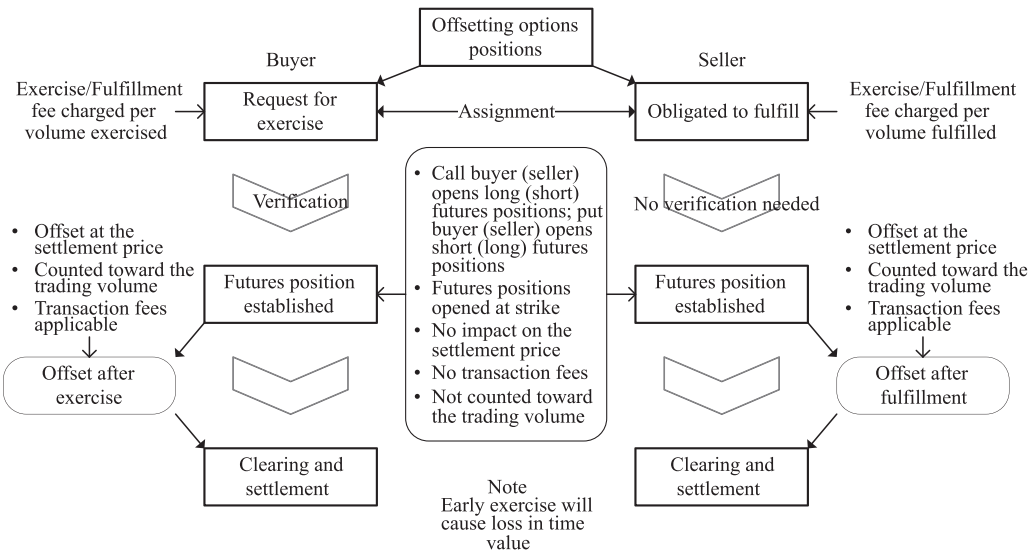


Figure 1-7-43 Option Exercise and Fulfillment

XX. No.2 Soybean Futures (DCE)

(I) Product-Related Rules

Investors trading No. 2 Soybean futures on DCE should comply with the *DCE Trading Rules*①, *DCE Measures for Trading Management*, *DCE Measures for Clearing Management*, *DCE Measures for Delivery Management*, *DCE Measures for Risk Management*, among others②, as well as the *DCE Detailed Rules of No. 2 Soybean Futures*③ and other rules of DCE (Table 1-7-26).

Table 1-7-26 DCE No. 2 Soybean Futures Contract

Product	No. 2 Soybean
Contract Unit	10 metric tons/lot
Price Quotation	Chinese yuan (RMB) per metric ton
Minimum Price Fluctuation	RMB 1 yuan/metric ton
Daily Price Limit	±4% of the previous settlement price
Listed Contracts	Monthly contracts of January to December
Trading Hours	9:00 a.m. – 11:30 a.m., 1:30 p.m. – 3:00 p.m. Monday to Friday (Beijing time), and other hours specified by DCE

① http://www.dce.com.cn/DCE/RulesRegulation/6146719/6146731/6146735/6147416/index.html.

② http://www.dce.com.cn/DCE/RulesRegulation/6146719/6146731/index.html.

③ http://www.dce.com.cn/DCE/rulesregulation/6146719/6146731/6146743/6147430/index.html.

Continued

Last Trading Day	10th trading day of the contract month
Last Delivery Day	3rd trading day after the last trading day
Grade and Quality	No. 2 Soybean Delivery Quality Standard of Dalian Commodity Exchange (F/DCE B003-2017)
Delivery Venue	Designated delivery facilities designated by DCE
Minimum Trading Margin	5% of contract value
Settlement Type	Physical delivery
Product Code	B
Listing Exchange	Dalian Commodity Exchange (DCE)

Note 1: DCE may adjust the daily price limit and trading margin of each contract according to market conditions. For detailed trading parameters, please see: http://www.dce.com.cn/DCE/TradingClearing/Business%20Parameters/Trading%20Parameters/index.html.

Note 2: Daytime trading consists of three sessions: 9:00 – 10:15 a.m., 10:30 – 11:30 a.m., and 1:30 – 3:00 p.m.

Note 3: The product offers a nighttime trading session at 9:00 – 11:00 p.m.

(II) Process Flows

(i) Account Opening (Figure 1-7-44)

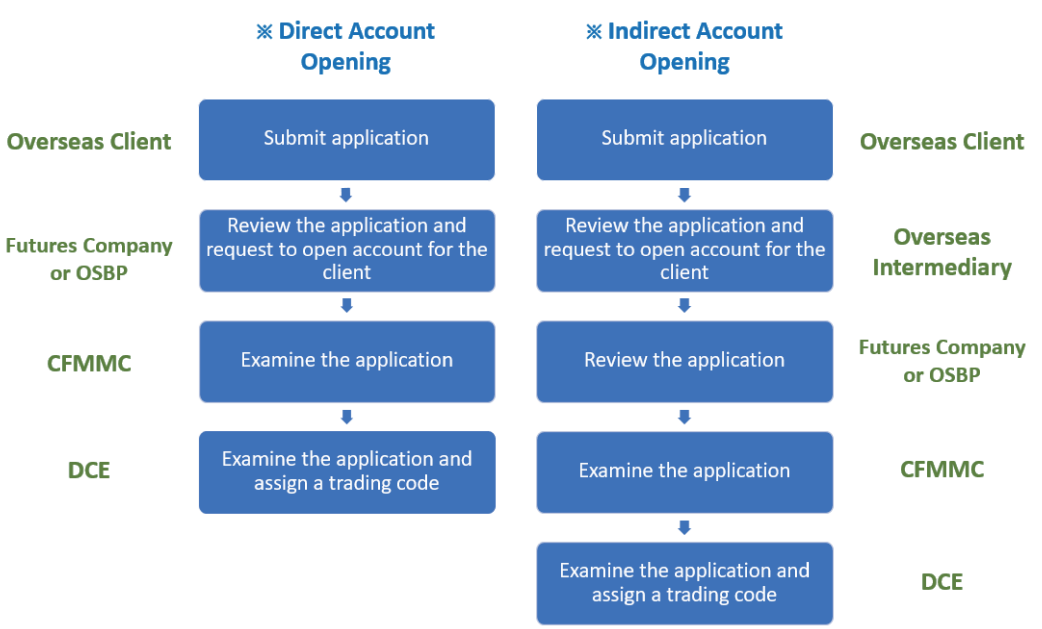


Figure 1-7-44 Account Opening

(ii) Trading (Figure 1-7-45)

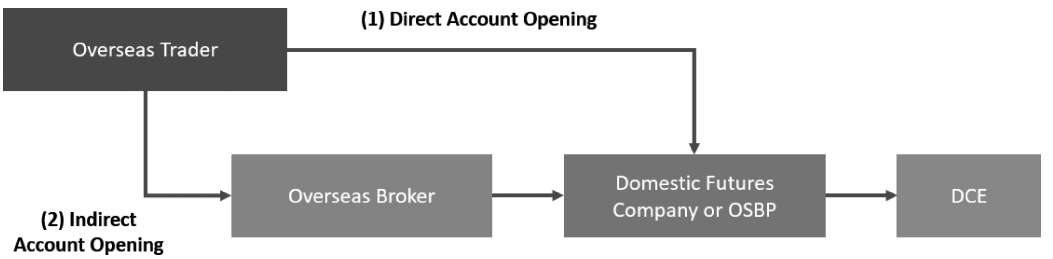


Figure 1-7-45 Trading

(iii) Funds Transfer (Figure 1-7-46)

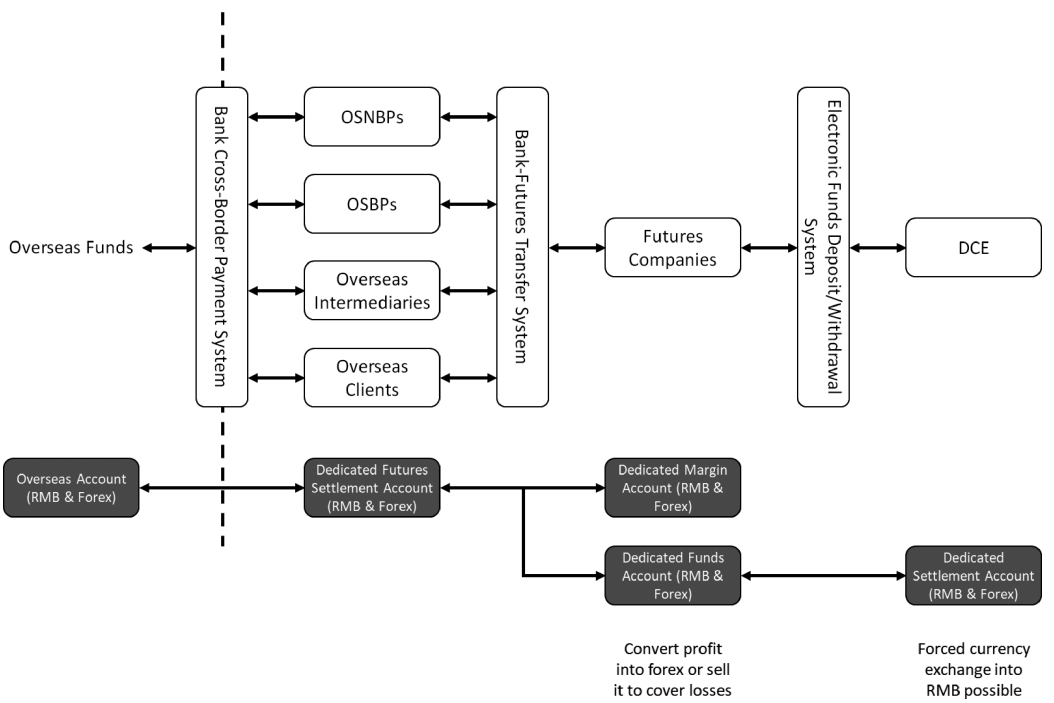


Figure 1-7-46 Funds Transfer

(iv) Warehouse Delivery (Figure 1-7-47)



Figure 1-7-47 Warehouse Delivery

XXI. No.2 Soybean Options (DCE)

(I) Product-Related Rules

Investors trading No. 2 Soybean options on DCE should comply with the *DCE Trading Rules*①, *DCE Measures for Trading Management*, *DCE Management Measures on Futures Trader Suitability*, *DCE Measures for Management of Options Trading*, *DCE Measures for Clearing Management*, *DCE Measures for Delivery Management*, *DCE Measures for Risk*

① http://www.dce.com.cn/DCE/RulesRegulation/6146719/6146731/6146735/6147416/index.html.

Management, among others①, as well as the *DCE Detailed Rules of No. 2 Soybean Futures*② and other rules of DCE (Table 1-7-27).

Table 1-7-27 DCE No. 2 Soybean Options Contract

Underlying	No. 2 Soybean Futures Contract
Contract Type	Call options; put options
Contract Unit	1 lot (10 metric tons) of No. 2 Soybean futures contract
Price Quotation	Chinese yuan (RMB) per metric ton
Minimum Price Fluctuation	RMB 0.5 yuan/metric ton
Daily Price Limit	Same as that for the No. 2 Soybean futures contract
Listed Contracts	Monthly contracts of January to December
Trading Hours	9:00 a.m. – 11:30 a.m. and 1:30 p.m. – 3:00 p.m. Monday to Friday (Beijing time), and other hours specified by DCE
Last Trading Day	5th trading day of the month before the delivery month of the underlying No. 2 Soybean futures contract
Expiration Date	Same as the last trading day
Strike Price	The range of strike price is the preceding trading day's settlement price of the No. 2 Soybean futures contract plus or minus 1.5 times the current day's price limit. The strike price interval is 25 yuan/metric ton if strike price ≤ 2,500 yuan/metric ton; 50 yuan/metric ton if 2,500 yuan/metric ton < strike price ≤ 5,000 yuan/metric ton; 100 yuan/metric ton if strike price > 5,000 yuan/metric ton
Option Style	American. Buyers may submit an exercise request during trading hours on any trading day before the expiration date and before 3:30 p.m. on the expiration date
Product Code	Calls option: B-contract month-C-strike price Puts option: B-contract month-P-strike price
Listing Exchange	Dalian Commodity Exchange (DCE)

Note 1: Daytime trading consists of three sessions: 9:00 – 10:15 a.m., 10:30 – 11:30 a.m., and 1:30 – 3:00 p.m.

Note 2: The product offers a nighttime trading session at 9:00 – 11:00 p.m.

① http://www.dce.com.cn/DCE/RulesRegulation/6146719/6146731/index.html.

② http://www.dce.com.cn/DCE/rulesregulation/6146719/6146731/6146743/6147430/index.html.

(II) Process Flows

(i) Account Opening (Figure 1-7-48)

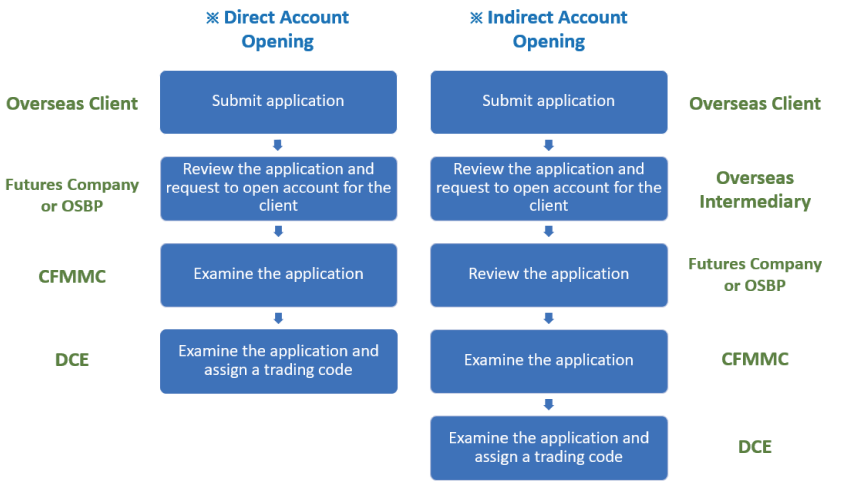


Figure 1-7-48 Account Opening

(ii) Trading (Figure 1-7-49)

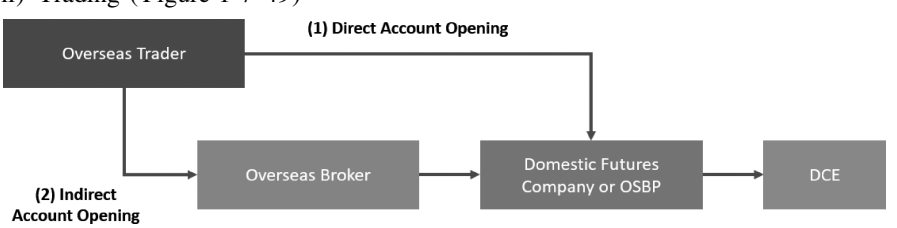


Figure 1-7-49 Trading

(iii) Funds Transfer (Figure 1-7-50)

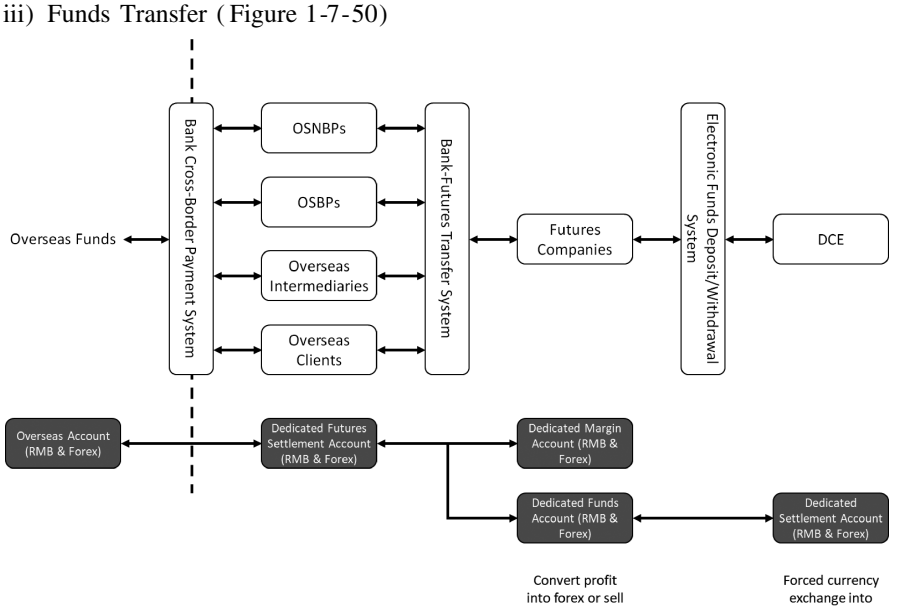


Figure 1-7-50 Funds Transfer

(iv) Option Exercise and Fulfillment (Figure 1-7-51)

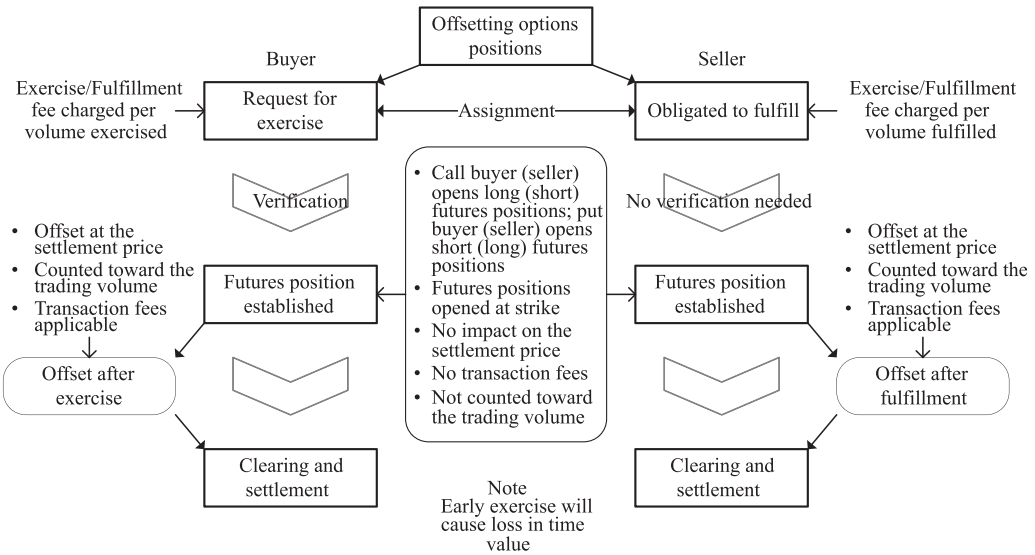


Figure 1-7-51 Option Exercise and Fulfillment

XXII. Soybean Meal Futures (DCE)

(I) Product-Related Rules

Investors trading Soybean Meal futures on DCE should comply with the *DCE Trading Rules*①, *DCE Measures for Trading Management*, *DCE Measures for Clearing Management*, *DCE Measures for Delivery Management*, *DCE Measures for Risk Management*, among others②, as well as the *DCE Detailed Rules of Soybean Meal Futures*③ and other rules of DCE (Table 1-7-28).

Table 1-7-28 DCE Soybean Meal Futures Contract

Product	Soybean Meal
Contract Unit	10 metric tons/lot
Price Quotation	Chinese yuan (RMB) per metric ton
Minimum Price Fluctuation	RMB 1 yuan/metric ton
Daily Price Limit	±4% of the previous settlement price
Listed Contracts	January, March, May, July, August, September, November, December
Trading Hours	9:00 a.m. – 11:30 a.m., 1:30 p.m. – 3:00 p.m. Monday to Friday (Beijing time), and other hours specified by DCE

① http://www.dce.com.cn/dalianshangpin/fgfz/6142914/6142918/6146499/index.html.

② http://www.dce.com.cn/dalianshangpin/fgfz/6142914/index.html.

③ http://www.dce.com.cn/dalianshangpin/fgfz/6142914/6142926/6146529/index.html.

Continued

Last Trading Day	10th trading day of the contract month
Last Delivery Day	3rd trading day after the last trading day
Grade and Quality	Soybean Meal Delivery Quality Standard of Dalian Commodity Exchange (F/DCE M004-2020)
Delivery Venue	Delivery facilities designated by DCE
Minimum Trading Margin	5% of contract value
Settlement Type	Physical delivery
Product Code	M
Listing Exchange	Dalian Commodity Exchange (DCE)

Note 1: DCE may adjust the daily price limit and trading margin of each contract according to market conditions. For detailed trading parameters, please see: http://www.dce.com.cn/DCE/TradingClearing/Business%20Parameters/Trading%20Parameters/index.html.

Note 2: Daytime trading consists of three sessions: 9:00 – 10:15 a.m., 10:30 – 11:30 a.m., and 1:30 – 3:00 p.m.

Note 3: The product offers a nighttime trading session at 9:00 – 11:00 p.m.

(II) Process Flows

(i) Account Opening (Figure 1-7-52)

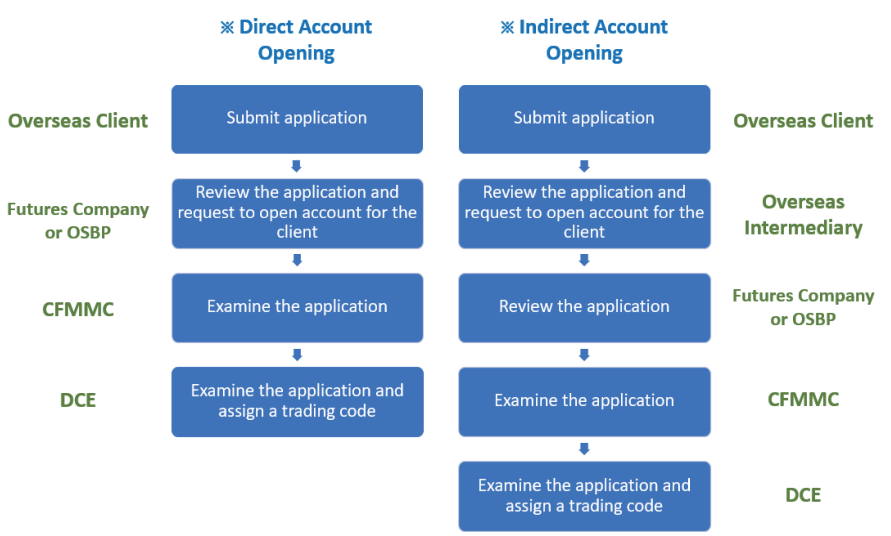


Figure 1-7-52 Account Opening

(ii) Trading (Figure 1-7-53)

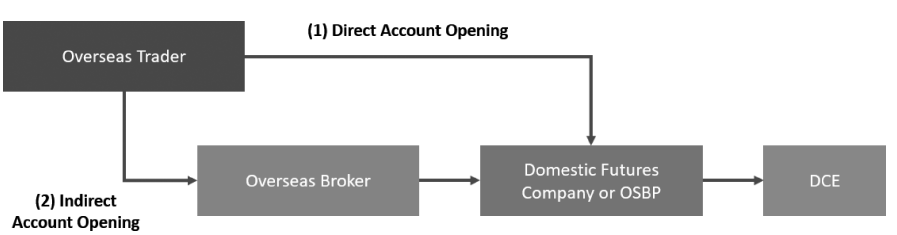


Figure 1-7-53 Trading

(iii) Funds Transfer (Figure 1-7-54)

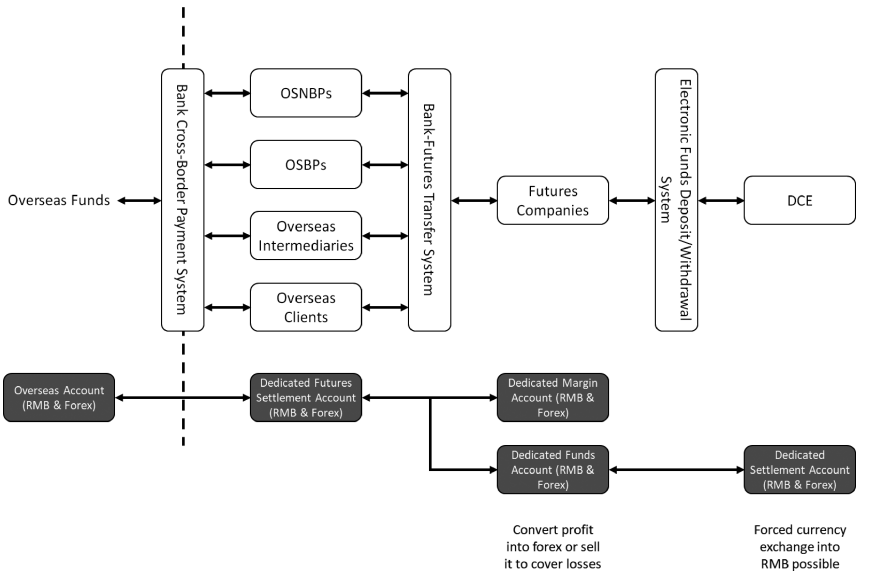


Figure 1-7-54 Funds Transfer

(iv) Warehouse Delivery (Figure 1-7-55)

Notice of Intent to Deliver
Seller's member submits a notice of intent to deliver together with a deposit
Load-In and Quality Inspection
The seller notifies the warehouse before the load-in and pays the load-in fees. A designated inspection agency takes and tests samples for quality and the warehouse weighs the goods
Before Market Close on the First Trading Day after the Last Trading Day
Seller's Member submits bonded warehouse receipts
After Market Close on the First Trading Day after the Last Trading Day
Deadline for submitting registered warehouse receipts; DCE gathers and publishes information on the warehouse receipts it has received
Before Market Close on the Second Trading Day after the Last Trading Day
Buyer's member submits a notice of intent to accept (NIA)
After Market Close on the Second Trading Day after the Last Trading Day
DCE matches buyers with sellers
Before Market Close on the Last Delivery Day
Buyer's member pays the delivery payment to DCE and seller's member delivers a special VAT invoice to DCE
After Market Close on the Last Delivery Day
DCE transfers the delivery payment to seller's member and delivers the bonded standard warehouse receipts to buyer's member

Figure 1-7-55 Warehouse Delivery

XXIII. Soybean Meal Options (DCE)

(I) Product-Related Rules

Investors trading Soybean Meal options on DCE should comply with the *DCE Trading Rules*①, *DCE Measures for Trading Management*, *DCE Management Measures on Futures Trader Suitability*, *DCE Measures for Management of Options Trading*, *DCE Measures for Clearing Management*, *DCE Measures for Delivery Management*, *DCE Measures for Risk Management*, among others②, as well as the *DCE Detailed Rules of Soybean Meal Futures*③ and other rules of DCE (Table 1-7-29).

Table 1-7-29 DCE Soybean Meal Options Contract

Underlying	Soybean Meal Futures Contract
Contract Type	Call options; put options
Contract Unit	1 lot (10 metric tons) of Soybean Meal futures contract
Price Quotation	Chinese yuan (RMB) per metric ton
Minimum Price Fluctuation	RMB 0.5 yuan/metric ton
Daily Price Limit	Same as that for the Soybean Meal futures contract
Listed Contracts	January, March, May, July, August, September, November, December
Trading Hours	9:00 a.m. – 11:30 a.m. and 1:30 p.m. – 3:00 p.m. Monday to Friday (Beijing time), and other hours specified by DCE
Last Trading Day	5th trading day of the month before the delivery month of the underlying Soybean Meal futures contract
Expiration Date	Same as the last trading day
Strike Price	The range of strike price is the preceding trading day's settlement price of the Soybean Meal futures contract plus or minus 1.5 times the current day's price limit. The strike price interval is 25 yuan/metric ton if strike price ≤ 2,000 yuan/metric ton; 50 yuan/metric ton if 2,000 yuan/metric ton < strike price ≤ 50,000 yuan/metric ton; 100 yuan/metric ton if strike price > 50,000 yuan/metric ton
Option Style	American. Buyers may submit an exercise request during trading hours on any trading day before the expiration date and before 3:30 p.m. on the expiration date
Product Code	Calls: M-contract month-C-strike price Puts: M-contract month-P-strike price
Listing Exchange	Dalian Commodity Exchange (DCE)

Note 1: Daytime trading consists of three sessions: 9:00 – 10:15 a.m., 10:30 – 11:30 a.m., and 1:30 – 3:00 p.m.

Note 2: The product offers a nighttime trading session at 9:00 – 11:00 p.m.

① http://www.dce.com.cn/DCE/RulesRegulation/6146719/6146731/6146735/6147416/index.html.

② http://www.dce.com.cn/DCE/RulesRegulation/6146719/6146731/index.html.

③ http://www.dce.com.cn/DCE/rulesregulation/6146719/6146731/6146743/6147438/index.html.

(II) Process Flows

(i) Account Opening (Figure 1-7-56)

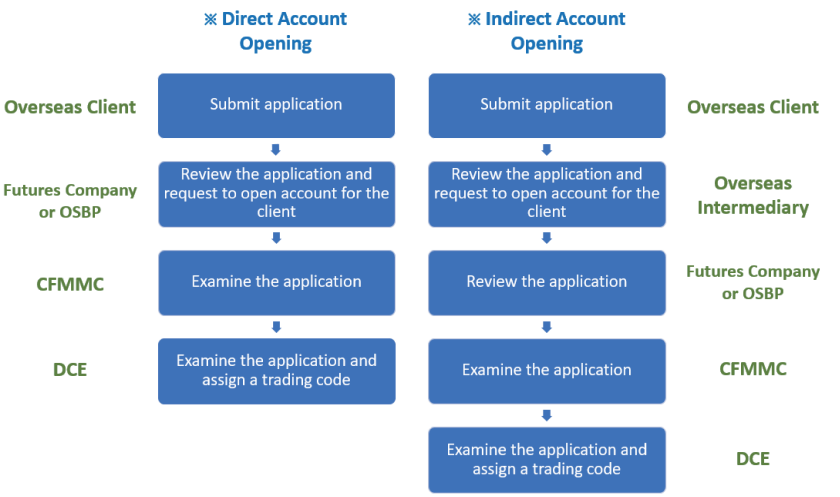


Figure 1-7-56 Account Opening

(ii) Trading (Figure 1-7-57)

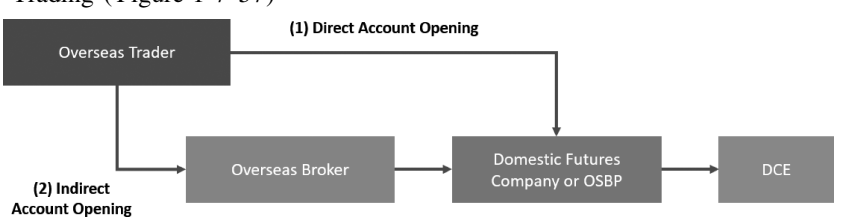


Figure 1-7-57 Trading

(iii) Funds Transfer (Figure 1-7-58)

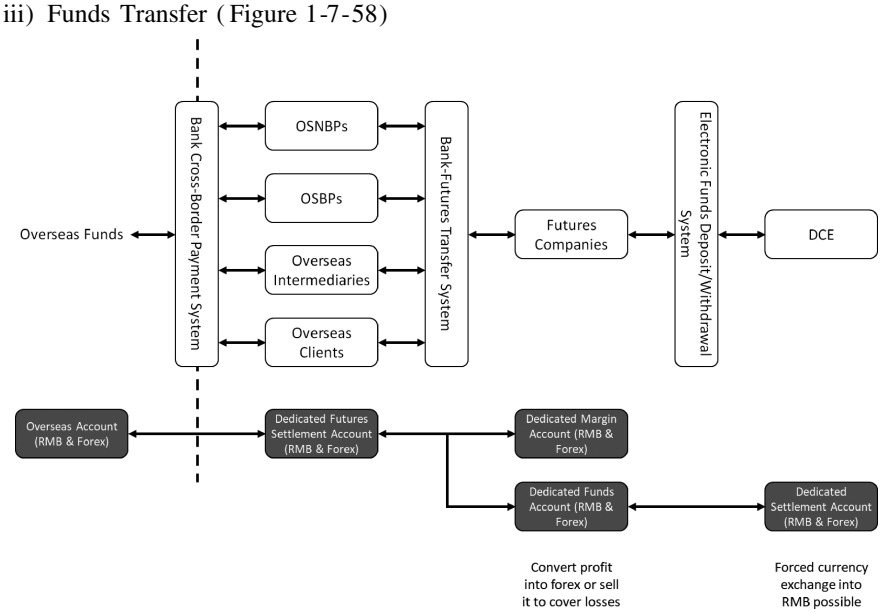


Figure 1-7-58 Funds Transfer

(iv) Option Exercise and Fulfillment (Figure 1-7-59)

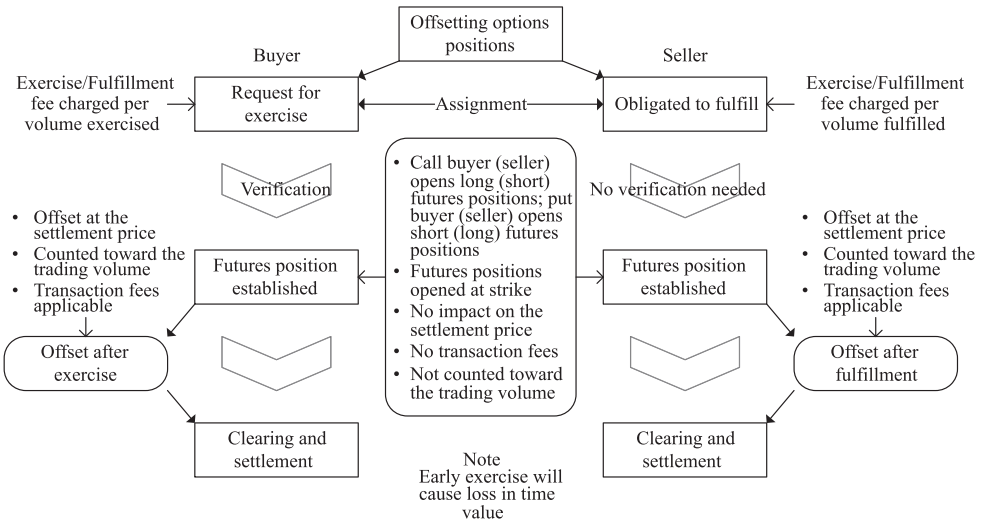


Figure 1-7-59 Option Exercise and Fulfillment

XXIV. Soybean Oil Futures (DCE)

(I) Product-Related Rules

Investors trading RBD Palm Olein futures on DCE should comply with the *DCE Trading Rules*①, *DCE Measures for Trading Management*, *DCE Measures for Clearing Management*, *DCE Measures for Delivery Management*, *DCE Measures for Risk Management*, among others②, as well as the *DCE Detailed Rules of Soybean Oil Futures*③ and other rules of DCE (Table 1-7-30).

Table 1-7-30 DCE Soybean Oil Futures Contract

Product	Crude Soybean Oil
Contract Unit	10 metric tons/lot
Price Quotation	Chinese yuan (RMB) per metric ton
Minimum Price Fluctuation	RMB 2 yuan/metric ton
Daily Price Limit	±4% of the previous settlement price
Listed Contracts	January, March, May, July, August, September, November, December
Trading Hours	9:00 a.m. – 11:30 a.m., 1:30 p.m. – 3:00 p.m. Monday to Friday (Beijing time), and other hours specified by DCE
Last Trading Day	10th trading day of the contract month

① http://www.dce.com.cn/DCE/RulesRegulation/6146719/6146731/6146735/6147416/index.html.

② http://www.dce.com.cn/DCE/RulesRegulation/6146719/6146731/index.html.

③ http://www.dce.com.cn/DCE/rulesregulation/6146719/6146731/6146743/6147444/index.html.

Continued

Last Delivery Day	3rd trading day after the last trading day
Grade and Quality	Soybean Oil Delivery Quality Standard of Dalian Commodity Exchange (F/DCE Y002-2020)
Delivery Venue	Delivery facilities designated by DCE
Minimum Trading Margin	5% of contract value
Settlement Type	Physical delivery
Product Code	Y
Listing Exchange	Dalian Commodity Exchange (DCE)

Note 1: DCE may adjust the daily price limit and trading margin of each contract according to market conditions. For detailed trading parameters, please see: http://www.dce.com.cn/DCE/TradingClearing/Business%20Parameters/Trading%20Parameters/index.html.

Note 2: Daytime trading consists of three sessions: 9:00 – 10:15 a.m., 10:30 – 11:30 a.m., and 1:30 – 3:00 p.m.

Note 3: The product offers a nighttime trading session at 9:00 – 11:00 p.m.

(II) Process Flows

(i) Account Opening (Figure 1-7-60)

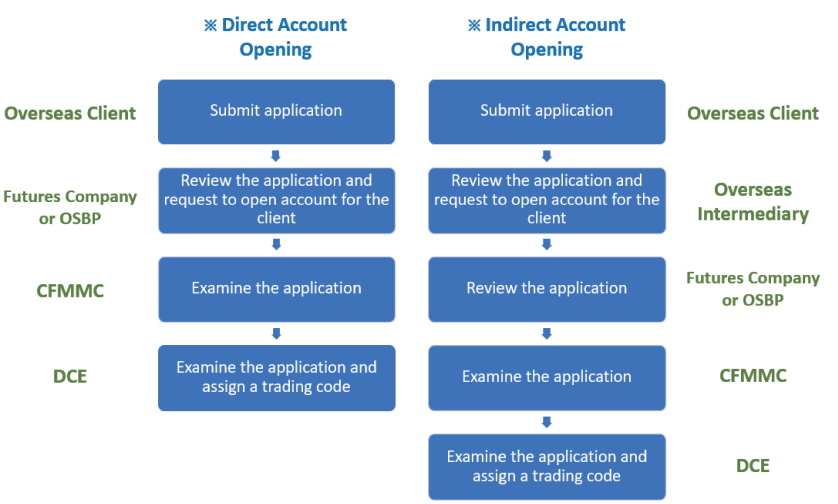


Figure 1-7-60 Account Opening

(ii) Trading (Figure 1-7-61)

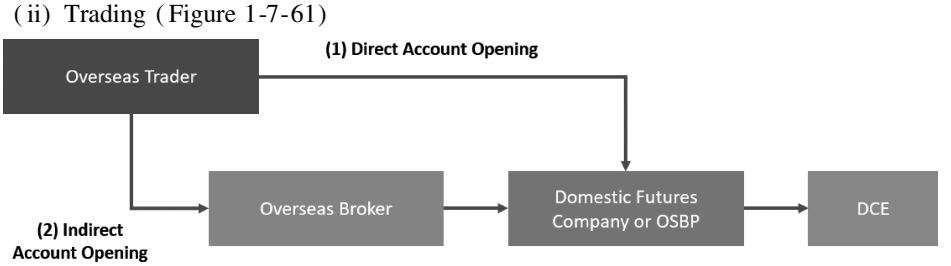


Figure 1-7-61 Trading

(iii) Funds Transfer (Figure 1-7-62)

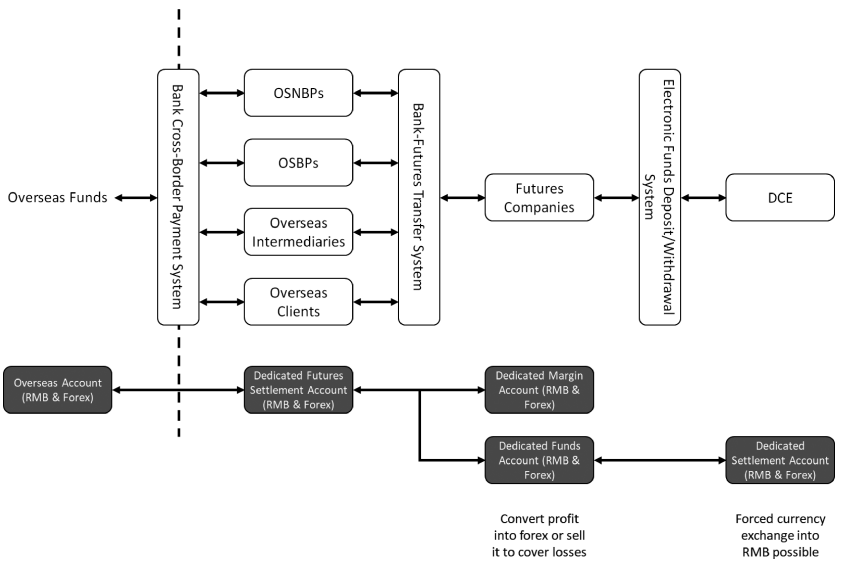


Figure 1-7-62 Funds Transfer

(iv) Warehouse Delivery (Figure 1-7-63)

Notice of Intent to Deliver
Seller's member submits a notice of intent to deliver together with a deposit
↓
Load-In and Quality Inspection
The seller notifies the warehouse before the load -in and pays the load -in fees. A designated inspection agency takes and tests samples for qual ity and the warehouse weighs the goods
↓
Before Market Close on the First Trading Day after the Last Trading Day
Seller's Member submits bonded warehouse receipts
↓
After Market Close on the First Trading Day after the Last Trading Day
Deadline for submitting registered warehouse receipts; DCE gathers and publishes information on the warehouse receipts it has received
↓
Before Market Close on the Second Trading Day after the Last Trading Day
Buyer's member submits a notice of intent to accept (NIA)
↓
After Market Close on the Second Trading Day after the Last Trading Day
DCE matches buyers with sellers
↓
Before Market Close on the Last Delivery Day
Buyer's member pays the delivery payment to DCE and seller's member delivers a special VAT invoi ce to DCE
↓
After Market Close on the Last Delivery Day
DCE transfers the delivery payment to seller's member and delivers the bonded standard warehouse receipts to buyer's member

Figure 1-7-63 Warehouse Delivery

XXV. Soybean Oil Options (DCE)

(I) Product-Related Rules

Investors trading RBD Palm Olein options on DCE should comply with the *DCE Trading Rules*①, *DCE Measures for Trading Management*, *DCE Management Measures on Futures Trader Suitability*, *DCE Measures for Management of Options Trading*, *DCE Measures for Clearing Management*, *DCE Measures for Delivery Management*, *DCE Measures for Risk Management*, among others②, as well as the *DCE Detailed Rules of Soybean Oil Futures*③ and other rules of DCE (Table 1-7-31).

Table 1-7-31 DCE Soybean Oil Options Contract

Underlying	Soybean Oil Futures Contract
Contract Type	Call options; put options
Contract Unit	1 lot (10 metric tons) of Soybean Oil futures contract
Price Quotation	Chinese yuan (RMB) per metric ton
Minimum Price Fluctuation	RMB 0.5 yuan/metric ton
Daily Price Limit	Same as that for the Soybean Oil futures contract
Listed Contracts	January, March, May, July, August, September, November, December
Trading Hours	9:00 a.m. – 11:30 a.m. and 1:30 p.m. – 3:00 p.m. Monday to Friday (Beijing time), and other hours specified by DCE
Last Trading Day	5th trading day of the month before the delivery month of the underlying Soybean Meal futures contract
Expiration Date	Same as the last trading day
Strike Price	The range of strike price is the preceding trading day's settlement price of the Soybean Oil futures contract plus or minus 1.5 times the current day's price limit. The strike price interval is 50 yuan/metric ton if strike price ≤ 5,000 yuan/metric ton; 100 yuan/metric ton if 5,000 yuan/metric ton < strike price ≤ 10,000 yuan/metric ton; 200 yuan/metric ton if strike price > 10,000 yuan/metric ton
Option Style	American. Buyers may submit an exercise request during trading hours on any trading day before the expiration date and before 3:30 p.m. on the expiration date
Product Code	Calls: Y-contract month-C-strike price Puts: Y-contract month-P-strike price
Listing Exchange	Dalian Commodity Exchange (DCE)

Note 1: Daytime trading consists of three sessions: 9:00 – 10:15 a.m., 10:30 – 11:30 a.m., and 1:30 – 3:00 p.m.
Note 2: The product offers a nighttime trading session at 9:00 – 11:00 p.m.

① http://www.dce.com.cn/DCE/RulesRegulation/6146719/6146731/6146735/6147416/index.html.
② http://www.dce.com.cn/DCE/RulesRegulation/6146719/6146731/index.html.
③ http://www.dce.com.cn/DCE/rulesregulation/6146719/6146731/6146743/6147444/index.html.

(II) Process Flows

(i) Account Opening (Figure 1-7-64)

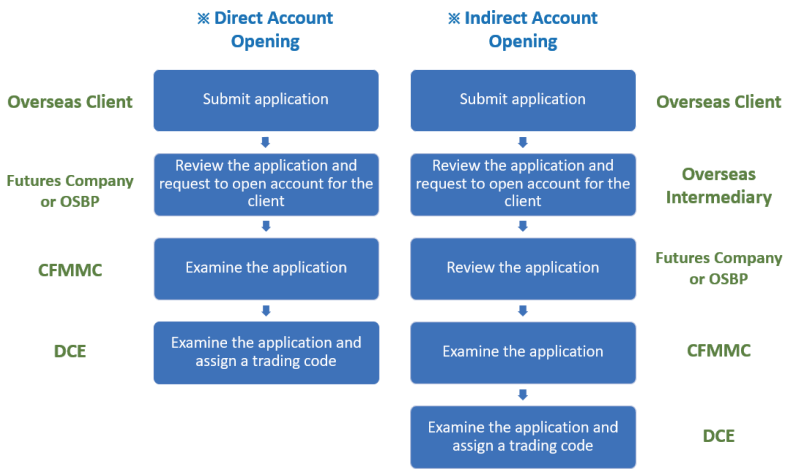


Figure 1-7-64 Account Opening

(ii) Trading (Figure 1-7-65)

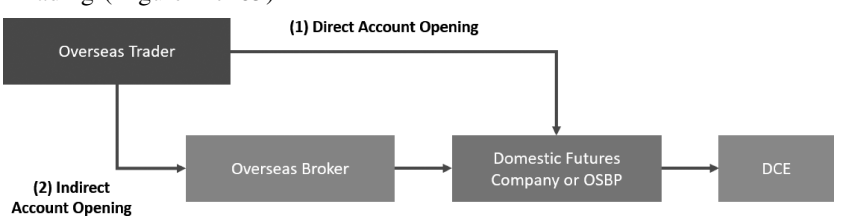


Figure 1-7-65 Trading

(iii) Funds Transfer (Figure 1-7-66)

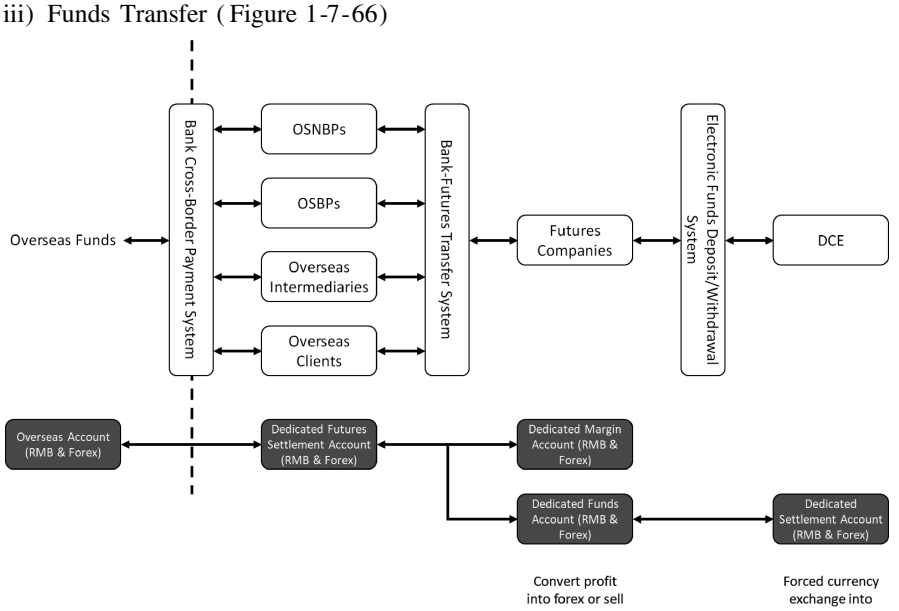


Figure 1-7-66 Funds Transfer

(iv) Option Exercise and Fulfillment (Figure 1-7-67)

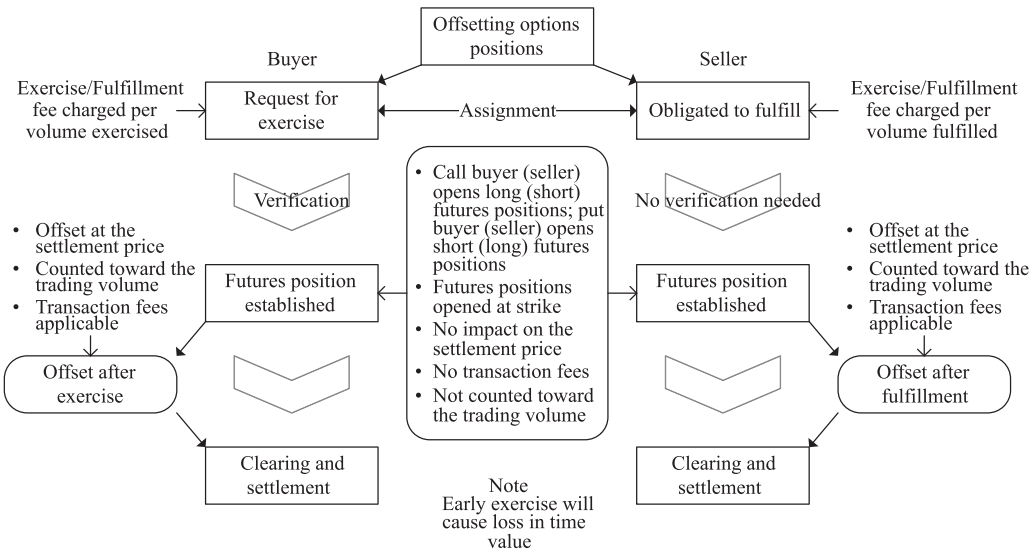


Figure 1-7-67 Option Exercise and Fulfillment

XXVI. Linear Low Density Polyethylene (LLDPE) Futures (DCE)

(I) Product-Related Rules

Investors trading LLDPE futures on DCE should comply with the *DCE Trading Rules*①, *DCE Measures for Trading Management*, *DCE Measures for Clearing Management*, *DCE Measures for Delivery Management*, *DCE Measures for Risk Management*, among others②, as well as the *DCE Detailed Rules of Linear Low Density Polyethylene Futures*③ and other rules of DCE (Table 1-7-32).

Table 1-7-32 DCE LLDPE Futures Contract

Product	Linear Low Density Polyethylene (LLDPE)
Contract Unit	5 metric tons/lot
Price Quotation	Chinese yuan (RMB) per metric ton
Minimum Price Fluctuation	RMB 1 yuan/metric ton
Daily Price Limit	±4% of the previous settlement price
Listed Contracts	Monthly contracts of January to December
Trading Hours	9:00 a.m. – 11:30 a.m., 1:30 p.m. – 3:00 p.m. Monday to Friday (Beijing time), and other hours specified by DCE

① http://www.dce.com.cn/DCE/RulesRegulation/6146719/6146731/6146735/6147416/index.html.
② http://www.dce.com.cn/DCE/RulesRegulation/6146719/6146731/index.html.
③ http://www.dce.com.cn/DCE/rulesregulation/6146719/6146731/6146743/6147464/index.html.

Continued

Last Trading Day	10th trading day of the contract month
Last Delivery Day	3rd trading day after the last trading day
Grade and Quality	Linear Low Density Polyethylene Delivery Quality Standard of Dalian Commodity Exchange
Delivery Venue	Delivery facilities designated by DCE
Minimum Trading Margin	5% of contract value
Settlement Type	Physical delivery
Product Code	L
Listing Exchange	Dalian Commodity Exchange (DCE)

Note 1: DCE may adjust the daily price limit and trading margin of each contract according to market conditions. For detailed trading parameters, please see: http://www.dce.com.cn/DCE/TradingClearing/Business%20Parameters/Trading%20Parameters/index.html.

Note 2: Daytime trading consists of three sessions: 9:00 – 10:15 a.m., 10:30 – 11:30 a.m., and 1:30 – 3:00 p.m.

Note 3: The product offers a nighttime trading session at 9:00 – 11:00 p.m.

(II) Process Flows

(i) Account Opening (Figure 1-7-68)

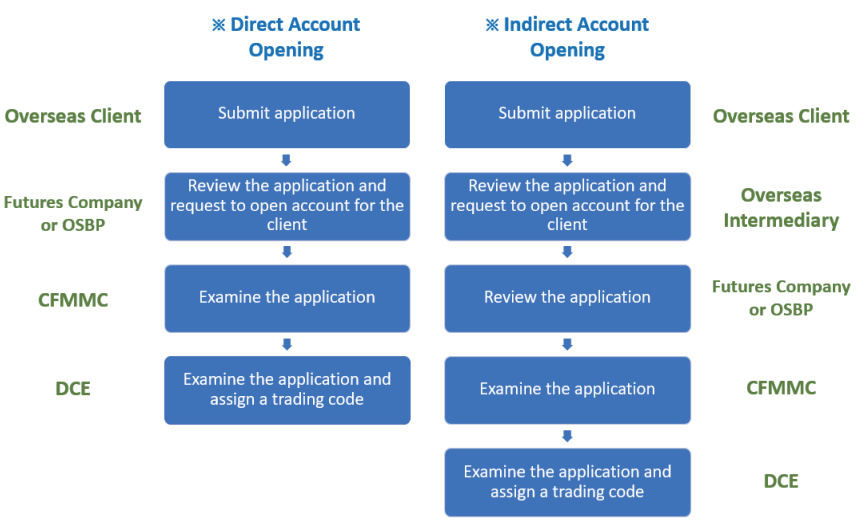


Figure 1-7-68 Account Opening

(ii) Trading (Figure 1-7-69)

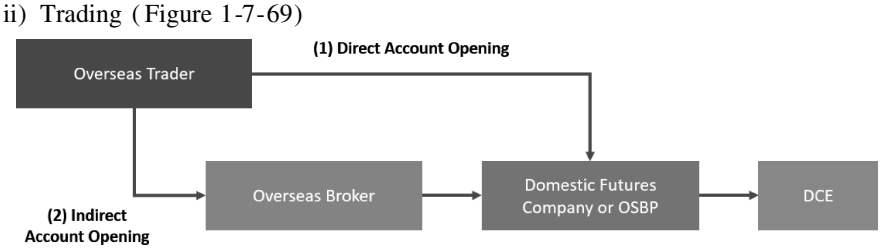


Figure 1-7-69 Trading

(iii) Funds Transfer (Figure 1-7-70)

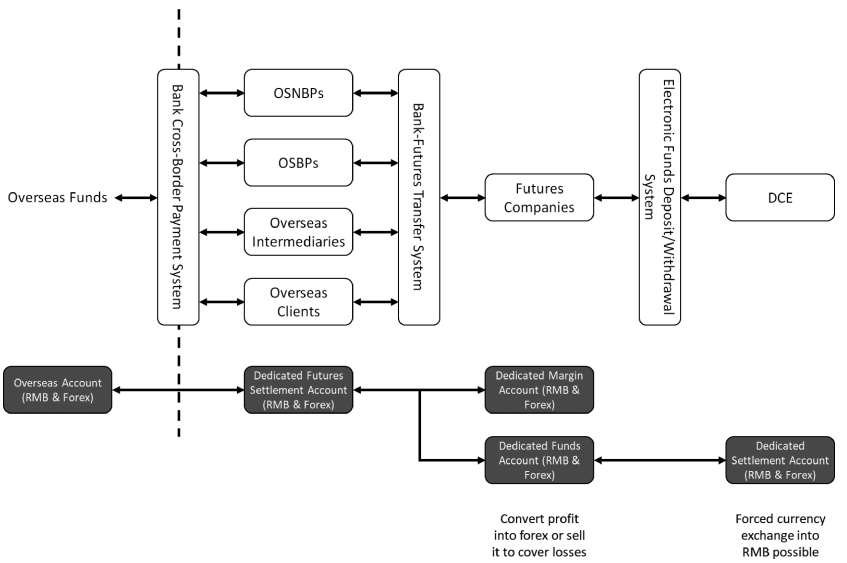


Figure 1-7-70 Funds Transfer

(iv) Warehouse Delivery (Figure 1-7-71)

Notice of Intent to Deliver
Seller's member submits a notice of intent to deliver together with a deposit
↓
Load-In and Quality Inspection
The seller notifies the warehouse before the load-in and pays the load-in fees. A designated inspection agency takes and tests samples for quality and the warehouse weighs the goods
↓
Before Market Close on the First Trading Day after the Last Trading Day
Seller's Member submits bonded warehouse receipts
↓
After Market Close on the First Trading Day after the Last Trading Day
Deadline for submitting registered warehouse receipts; DCE gathers and publishes information on the warehouse receipts it has received
↓
Before Market Close on the Second Trading Day after the Last Trading Day
Buyer's member submits a notice of intent to accept (NIA)
↓
After Market Close on the Second Trading Day after the Last Trading Day
DCE matches buyers with sellers
↓
Before Market Close on the Last Delivery Day
Buyer's member pays the delivery payment to DCE and seller's member delivers a special VAT invoice to DCE
↓
After Market Close on the Last Delivery Day
DCE transfers the delivery payment to seller's member and delivers the bonded standard warehouse receipts to buyer's member

Figure 1-7-71 Warehouse Delivery

XXVII. LLDPE Options (DCE)

(I) Product-Related Rules

Investors trading LLDPE options on DCE should comply with the *DCE Trading Rules*①, *DCE Measures for Trading Management*, *DCE Management Measures on Futures Trader Suitability*, *DCE Measures for Management of Options Trading*, *DCE Measures for Clearing Management*, *DCE Measures for Delivery Management*, *DCE Measures for Risk Management*, among others②, as well as the *DCE Detailed Rules of Linear Low Density Polyethylene Futures*③ and other rules of DCE (Table 1-7-33).

Table 1-7-33 DCE LLDPE Options Contract

Underlying	Linear Low Density Polyethylene Futures Contract
Contract Type	Call options; put options
Contract Unit	1 lot (5 metric tons) of Linear Low Density Polyethylene futures contract
Price Quotation	Chinese yuan (RMB) per metric ton
Minimum Price Fluctuation	RMB 0.5 yuan/metric ton
Daily Price Limit	Same as that for the Linear Low Density Polyethylene futures contract
Listed Contracts	Monthly contracts of January to December
Trading Hours	9:00 a.m. – 11:30 a.m. and 1:30 p.m. – 3:00 p.m. Monday to Friday (Beijing time), and other hours specified by DCE
Last Trading Day	5th trading day of the month before the delivery month of the underlying Linear Low Density Polyethylene Palm Olein futures contract
Expiration Date	Same as the last trading day
Strike Price	The range of strike price is the preceding trading day's settlement price of the Linear Low Density Polyethylene futures contract plus or minus 1.5 times the current day's price limit. The strike price interval is 50 yuan/metric ton if strike price ≤ 5,000 yuan/metric ton; 100 yuan/metric ton if 5,000 yuan/ metric ton < strike price ≤ 10,000 yuan/metric ton; 200 yuan/metric ton if strike price > 10,000 yuan/metric ton
Option Style	American. Buyers may submit an exercise request during trading hours on any trading day before the expiration date and before 3:30 p.m. on the expiration date
Product Code	Calls: L-contract month-C-strike price Puts: L-contract month-P-strike price
Listing Exchange	Dalian Commodity Exchange (DCE)

Note 1: Daytime trading consists of three sessions: 9:00 – 10:15 a.m., 10:30 – 11:30 a.m., and 1:30 – 3:00 p.m.
Note 2: The product offers a nighttime trading session at 9:00 – 11:00 p.m.

① http://www.dce.com.cn/DCE/RulesRegulation/6146719/6146731/6146735/6147416/index.html.
② http://www.dce.com.cn/DCE/RulesRegulation/6146719/6146731/index.html.
③ http://www.dce.com.cn/DCE/rulesregulation/6146719/6146731/6146743/6147464/index.html.

(II) Process Flows

(i) Account Opening (Figure 1-7-72)

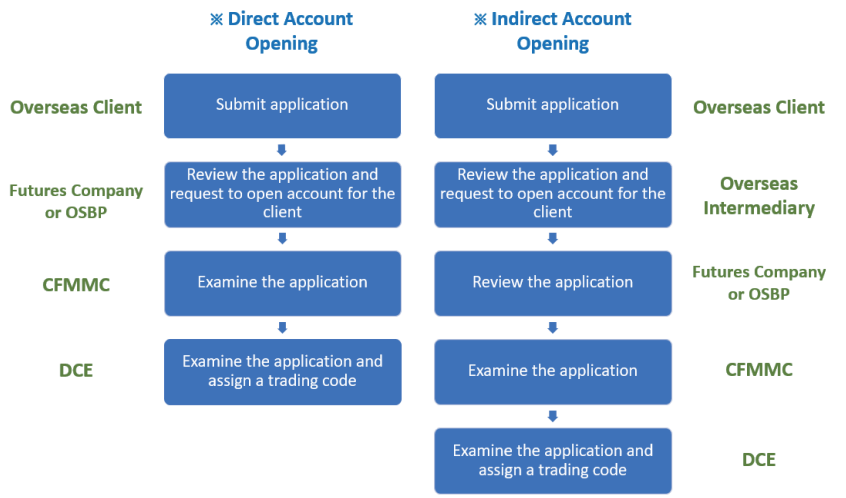


Figure 1-7-72 Account Opening

(ii) Trading (Figure 1-7-73)

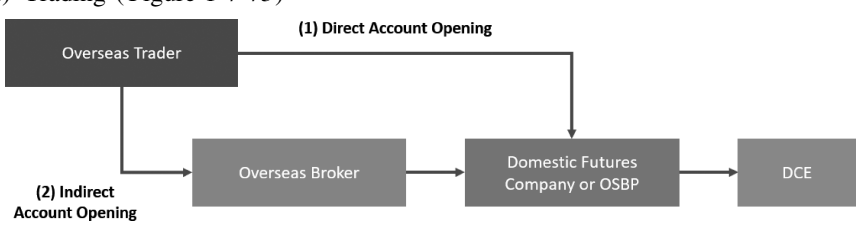


Figure 1-7-73 Trading

(iii) Funds Transfer (Figure 1-7-74)

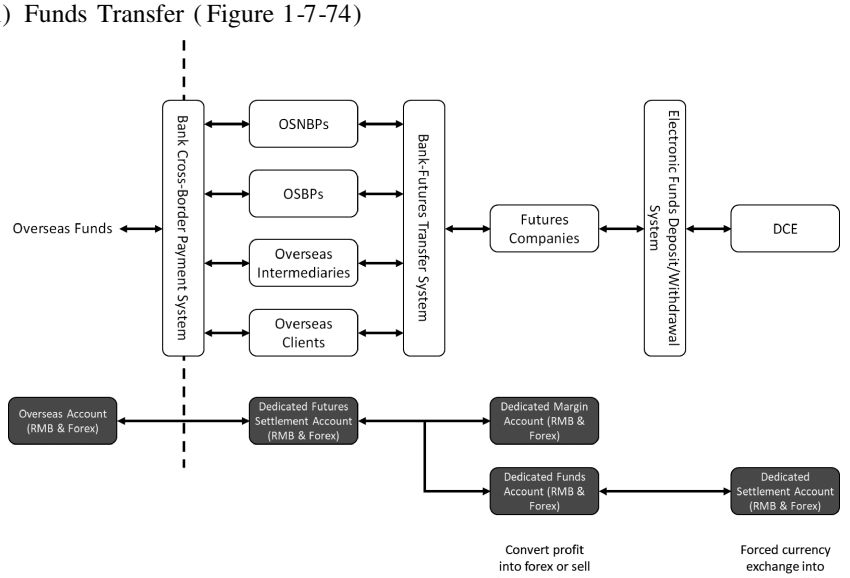


Figure 1-7-74 Funds Transfer

(iv) Option Exercise and Fulfillment (Figure 1-7-75)

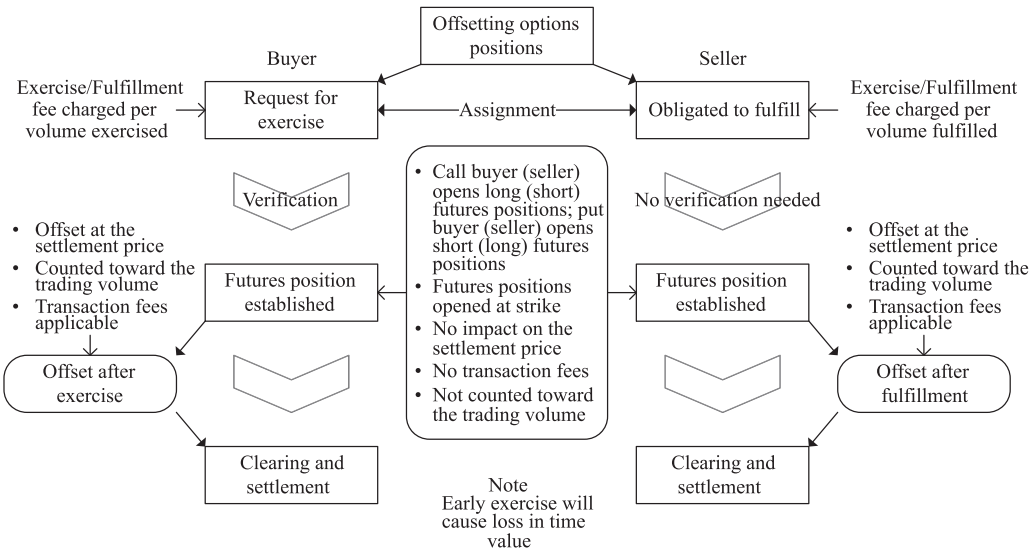


Figure 1-7-75 Option Exercise and Fulfillment

PART II FUTURES COMPANIES

>>> Section I Overview

I. Organizations

There were 150 futures companies in China at the end of 2022, same as the year before (Table 2-1-1). All 150 were actively offering brokerage services through 2, 174 service outlets; 121 were licensed to engage in investment consultancy and 129 in asset management. A total of 97 futures companies have completed filing with the China Futures Association (CFA) for 100 risk management subsidiaries, 99 of which have filed for engaging in risk management business on a trial basis.

Table 2-1-1 Number of Futures Companies and Service Outlets in Last Three Years

	2020	2021	2022
Futures Companies	149	150	150
Service Outlets	1, 951	2, 042	2, 174

In terms of listed futures companies as of the end of 2022, Nanhua Futures, Ruida Futures, Yongan Futures, and Holly Futures were listed on the A-share market; Zhongtai Futures and Holly Futures were listed on HKEX. A total of 13 companies—Chuang Yuan Futures, HNA Futures, Zijin Tianfeng Futures, China Dragon Futures, Dayue Futures, SPIC Xianrong Futures, Maike Futures, Bohai Futures, Funeng Futures, Chaos Ternary Futures,

Goldstate Futures, Changjiang Futures, and Haitong Futures—were listed on NEEQ.

II. Assets

At end-2022, net assets of China-based futures companies had grown 14.03% year-on-year to RMB 184.133 billion (Figure 2-1-1).

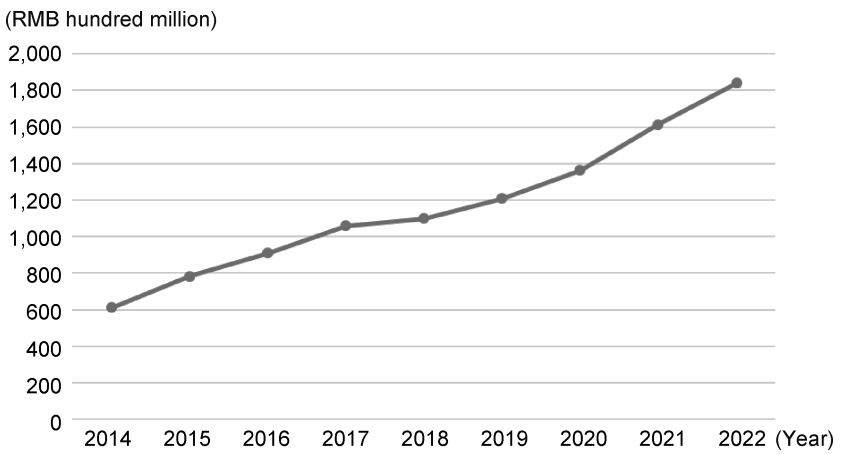


Figure 2-1-1 Total Net Assets of Futures Companies

A breakdown of futures companies by net assets is given in Table 2-1-2. Notably, 48 futures companies have reached or exceeded RMB 1 billion in net assets (Table 2-1-2).

Table 2-1-2 Breakdown of Futures Companies by Net Assets, 2021-2022

Net Assets	2021		2022	
	Number	Proportion (%)	Number	Proportion (%)
> ¥1 billion	41	27.33	48	32.00
¥0.5 – 1 billion	50	33.33	47	31.33
¥100 – 500 million	51	34.00	45	30.00
≤ ¥100 million	8	5.34	10	6.67

III. Classification and Rating

According to its *Rules on the Classification-Based Supervision of Futures Companies* (revised February 15, 2019), the CSRC assigns a rating to each futures company based on its risk management capabilities, with considerations given also to its contribution to the real economy, competitiveness, and compliance record, in order to facilitate classification-based supervision.

In 2022, 54 of the 150 China-based futures companies were rated "A" (including 18 rated "AA"); 76 "B"; 17 "C"; and 3 "D."

The 18 AA-rated futures companies were Guotai Junan Futures, Galaxy Futures, Yongan Futures, CITIC Futures, Orient Futures, Huatai Futures, Nanhua Futures, COFCO Futures, China Futures, Shenyin & Wanguo Futures, Zhongtai Futures, Zheshang Futures, Haitong Futures, GF Futures, Xinhu Futures, Everbright Futures, China Merchants Futures, and SDIC Essence Futures(Table 2-1-3).

Table 2-1-3 Futures Company Ratings in Last Three Years

Rating	2020		2021		2022	
	Number	Proportion (%)	Number	Proportion (%)	Number	Proportion (%)
AA	19	12.75	17	11.41	18	12.00
A	21	14.09	22	14.77	36	24.00
BBB	41	27.52	34	22.82	37	24.67
BB	35	23.49	39	26.17	32	21.33
B	17	11.41	22	14.77	7	4.67
CCC	3	2.01	5	3.36	13	8.67
CC	8	5.37	3	2.00	1	0.66
C	1	0.67	2	1.34	3	2.00
D	4	2.68	5	3.36	3	2.00

IV. Registered Futures Professionals

As of December 31, 2022, number of CFA-registered futures professionals totaled 77,866, 7,572 or 10.77% more than at end-2021. Futures companies employed a workforce of 36,898, including 35,899 registered professionals, a year-on-year increase of 9.26%. Among the registered professionals working at futures companies, 4,931 or 13.74% were licensed to provide futures investment consulting services. Another 41,967 registered professionals were employed by securities companies as introducing brokers①, an increase of 4,530 or 12.10% year-on-year (Figure 2-1-2).

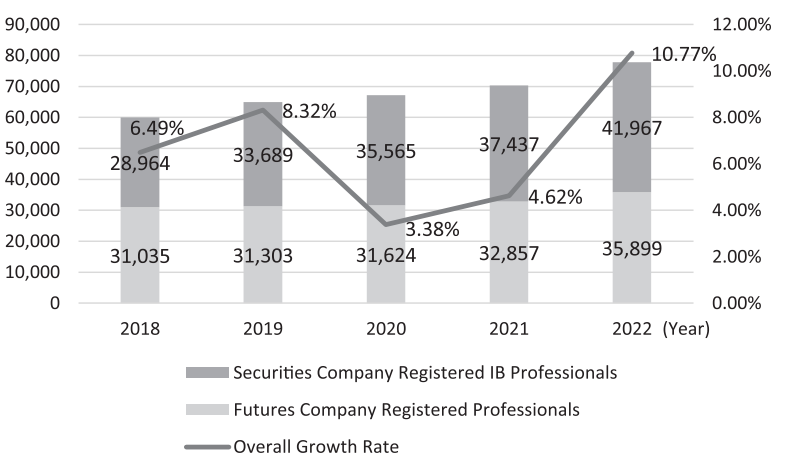


Figure 2-1-2 Number of Registered Futures Professionals (End-2018 to End-2022)

① Referring to registered professionals that provide futures introducing broker services at securities companies.

>>> Section II Business and Services

I. Brokerage Service

In 2022 domestic futures companies recorded RMB 23. 302 billion in brokerage income, a year-on-year decline of 22. 33% (Figure 2-2-1) and accounting for 58. 00% of their revenue. Brokerage trades of futures companies hit RMB 534. 02 trillion by turnover, down 7. 96%, and 7. 046 billion lots by volume, down 9. 55% (Figure 2-2-2). In particular, brokerage trades in commodity futures fell 13. 20% to RMB 400. 77 trillion by turnover and 10. 51% to 6. 610 billion lots by volume, respectively accounting for 75. 05% and 93. 81% of the market total; that in financial futures rose 12. 51% and 7. 65% to RMB 133. 24 trillion and 436 million lots, accounting for 24. 95% and 6. 19% of the market total.

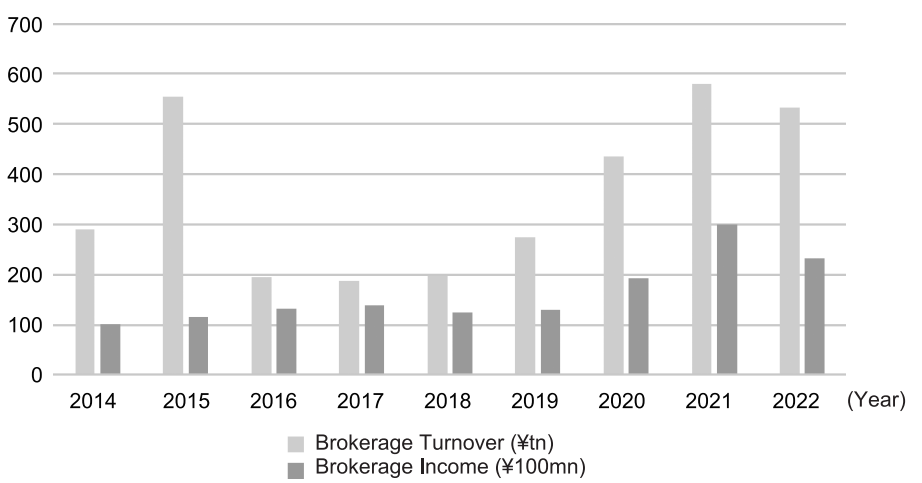


Figure 2-2-1 Futures Companies Brokerage Turnover and Income

II. Investment Consulting Service

In 2022, 64 futures companies recorded income from investment consulting service, which amounted to RMB 115 million (-35. 03% YoY) and accounted for 0. 29% of the total revenue of all futures companies. In particular, 3 companies posted an investment-consultancy income of more than RMB 10 million(Table 2-2-1).

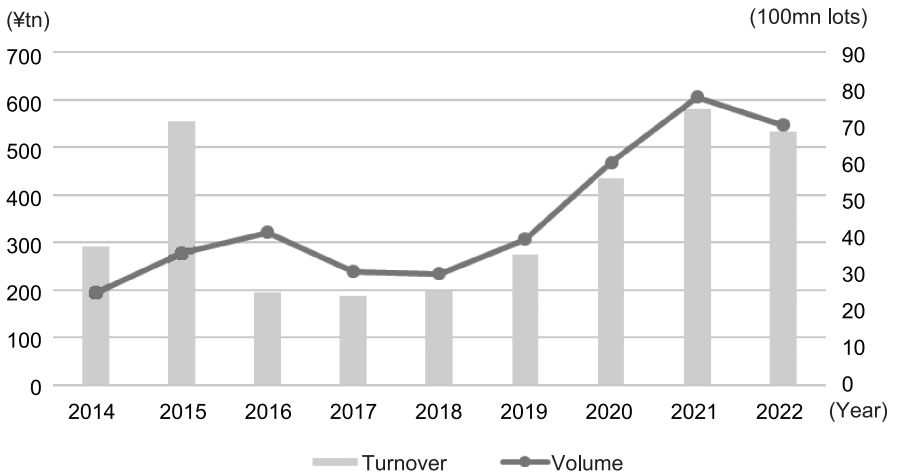


Figure 2-2-2 Turnover and Volume of Futures Companies Brokerage Trades

Table 2-2-1 Futures Companies Revenue from Investment Consulting Service, 2021-2022

Revenue	Number of Futures Companies in 2021	Number of Futures Companies in 2022
≥ ¥10,000,000	4	3
¥5,000,000 – ¥10,000,000	2	2
¥1,000,000 – ¥5,000,000	14	14
¥500,000 – ¥1,000,000	11	10
¥100,000 – ¥500,000	19	25
< ¥100,000	15	10

III. Asset Management Service

In 2022, 110 futures companies recorded income from asset management service totaling RMB 1.004 billion (−6.69% YoY), including 22 companies each with more than RMB 10 million(Table 2-2-2).

Table 2-2-2 Futures Companies Revenue from Asset Management Service, 2021-2022

Revenue	Number of Futures Companies in 2021	Number of Futures Companies in 2022
≥ ¥10,000,000	29	22
¥5,000,000 – ¥10,000,000	8	19
¥1,000,000 – ¥5,000,000	31	31
¥500,000 – ¥1,000,000	11	10
¥100,000 – ¥500,000	18	14
< ¥100,000	10	14

IV. Risk Management Service

As of the close of 2022, 100 risk management subsidiaries of futures companies have completed CFA filing. In particular, 87 have filed for warehouse receipt services, 94 for basis trading, 53 for cooperative hedging, 73 for OTC derivatives business (Table 2-2-3), and 60 for market-making service. Combined, these 100 risk management subsidiaries had total assets of RMB 153.712 billion (+23.46% YoY) and net assets of RMB 40.407 billion (+25.39%), and recorded RMB 241.381 billion(−8.17%) in revenue and RMB 1.154 billion (−44.47%) in net profit in 2022.

Table 2-2-3 Increments in OTC Derivatives Business of Risk Management Subsidiaries, 2021 – 2022

Instrument	Notional Principal (¥ bn)			Trade Confirmations		
	New in Jan-Dec 2022	New in Jan-Dec 2021	YoY Change	New in Jan-Dec 2022	New in Jan-Dec 2021	YoY Change
Forward	211.180	98.471	114%	38,303	18,825	103%
Swap	482.672	276.378	75%	31,358	13,851	126%
Option	1,353.184	1,257.389	8%	166,537	161,697	3%

Note: Only based on data available to CFA.

PART III FUTURES MARKET REGULATION

>>> Section I CSRC and CSRC Regional Offices

The China Securities Regulatory Commission (CSRC) is a ministry-level government agency directly under the State Council. In 2006, the CSRC was approved to be governed under the *Civil Servant Law*. Operating under the authority granted by laws, regulations, and the State Council, the CSRC is China's central agency for regulating and maintaining fair, equitable, and open national securities and futures markets, preventing systemic risks, protecting investors, and promoting healthy securities and futures markets.

The CSRC is headquartered in Beijing and currently headed by one Chairman, four Vice Chairmen, and one Chief Inspector from the Discipline Inspection and Supervision Office. The CSRC head office comprises 20 functional departments, 1 inspection division, and 3 administrative, research and service centers. The CSRC operates 36 regional offices in China's provinces, autonomous regions, municipalities, and cities specifically designated in the state plan, as well as the Shanghai Commissioner Office and Shenzhen Commissioner Office.

The CSRC head office is responsible for making and improving the rules and regulations for the securities and futures markets; drawing up market development plans; performing key reviews and approvals; advising on and coordinating risk mitigation efforts; organizing investigations into major violations and misconducts and imposing sanctions; and directing, inspecting, overseeing, and coordinating supervisory efforts nationwide.

The CSRC regional offices report directly to the head office and are the regional frontline supervisors. Within their respective jurisdictions, regional offices are responsible for overseeing

the securities and futures activities of listed companies, securities and futures business organizations, securities and futures investment consulting firms, and law firms, accounting firms, asset appraisal firms, and other intermediaries that provide securities- and futures-related services, pursuant to the administrative approval and supervisory powers granted by laws, administrative regulations, and the CSRC head office. Other responsibilities include preventing and resolving risks, investigating and enforcing sanctions against violations and misconducts, and organizing investor education and protection programs.

>>> Section II China Futures Market Monitoring Center

The China Futures Market Monitoring Center (CFMMC) is a not-for-profit corporation approved for establishment by the CSRC. Its main functions are to: (i) act as the central account-opening institution for futures investors; (ii) monitor the safe custody of futures margin; (ii) provide trading and clearing data to investors; (iv) monitor the activities of futures markets; (v) conduct macro and industry analysis and research; (vi) monitor the activities of futures intermediaries; and (vii) build and operate the trade repository. It is also responsible for managing the Futures Trader Protection Fund on behalf of the CSRC and the Ministry of Finance, providing information services to regulatory authorities and futures exchanges, conducting futures market surveys, and assisting in the resolution of at-risk companies.

>>> Section III China Futures Association

The China Futures Association (CFA) is a self-regulatory organization of the national futures industry, established as a non-profit incorporated social organization on December 29, 2000, in accordance with the *Regulations on the Registration of Social Organizations* and the *Regulation on the Administration of Futures Trading*. It operates under the dual guidance and supervision of the CSRC, the regulatory authority for China's futures and securities market, and the Ministry of Civil Affairs, China's administrative authority for social organizations.

Operating under the principles of "self-regulation, service, and engagement," CFA fulfills the following responsibilities in accordance with the *Futures and Derivatives Law*: (i) formulating and implementing the self-regulatory rules of the futures industry, supervising and inspecting the conducts of its members and their professionals, and, in response to any violation of laws, administrative regulations, state policies, or the articles of association or self-regulatory rules of CFA, imposing disciplinary sanctions or other self-disciplinary measures in accordance with applicable rules; (ii) mediating the disputes between its members and between its members and the traders; (iii) safeguarding the legitimate rights and interests of its

members and reporting their suggestions and requests to the futures regulatory authority under the State Council; (iv) organizing professional trainings for the futures practitioners and exchanges among its members; (v) educating its members and futures practitioners about futures laws, regulations, and policies to facilitate observance, enhancing the integrity of the futures industry, and establishing integrity-linked incentives and restraints for the industry; (vi) organizing trader education and protection activities, supervising its members to implement the trader suitability regime, and promoting the futures market; (vii) taking self-regulatory measures to oversee its members' information security programs and supervising its members to observe the technical regulations and standards of the state and the industry on information security; (viii) organizing its members to conduct research on the development, operation, and other aspects of the futures industry, compiling and publishing futures-related information, providing member services, organizing industry exchanges, and shaping the innovations and the course of the industry; and (ix) performing the other duties specified in its articles of association.

CFA had 429 members as of the end of 2022, consisting of 348 regular members (futures companies, securities companies, asset management companies, risk management companies, among others), 7 special members (namely the futures exchanges in China, CFMMC, and China Commodity Indices Co., Ltd.), and 74 associate members (i.e., local associations).

>>> Section IV Futures Exchanges

There are five futures exchanges in China: Shanghai Futures Exchange (SHFE), Zhengzhou Commodity Exchange (ZCE), Dalian Commodity Exchange (DCE), China Financial Futures Exchange (CFFEX), and Guangzhou Futures Exchange (GFEX). SHFE, ZCE, and DCE are mutual (i.e., member-owned) exchanges and CFFEX and GFEX are demutualized exchanges.

Futures exchanges perform their functions in accordance with the *Regulation on the Administration of Futures Trading* and *Measures for the Administration of Futures Exchanges*, and exercise market self-regulation according to their articles of association and market rules. Committed to building an open, fair, and impartial market and maintaining market integrity, the futures exchanges provide the venues, facilities, and services for the centralized trading of futures contracts, and conduct frontline supervision of trading activities to prevent market risks and maintain orderly trading. Futures exchanges in China implement margin requirements, price limits, daily market-to-market, and physical delivery, among other systems, and constantly reinvent themselves to better support market innovation and development.

I. Shanghai Futures Exchange

Regulated by the China Securities Regulatory Commission (CSRC), the Shanghai Futures

Exchange (SHFE) organizes the futures trading activities approved by the CSRC on an open, fair, impartial, and good faith basis to serve the real economy. Subsidiaries of SHFE include Shanghai International Energy Exchange Co., Ltd. (INE), Shanghai Futures Information Technology Co., Ltd., Shanghai Futures and Derivatives Research Institute Co., Ltd., and SHFE Business Services Co., Ltd.

Under the continuing guidance of the Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era and the leadership of the CSRC, SHFE is committed to supporting China's real economy and national strategies, safeguarding national economic and financial security, and fulfilling its frontline supervisory duties. SHFE continues to pursue its seven-prong development plan, covering product offerings, service platforms, institutional innovation, market opening-up, IT systems, green practices, and self-supervision. The goal is to align its services with the real economy, enhance its and China's influence in the pricing of the major commodities, and help build a modern capital market with Chinese characteristics.

As of the end of 2022:

- SHFE (INE included) lists 20 commodity futures and 8 options products.
- SHFE has 202 members, composed of 150 futures firm members and 52 non-futures firm members. INE has 161 members, composed of 150 futures firm members and 11 non-futures firm members.
- SHFE (INE included) recorded a trading volume of 1.943 billion lots and a turnover of RMB 181.30 trillion in 2022, respectively accounting for 28.71% and 33.89% of the domestic futures market.
- SHFE (INE included) oversees 114 delivery warehouses and 223 storage sites nationwide.

Pursuant to the *Futures and Derivatives Law of the People's Republic of China*, the *Regulation on the Administration of Futures Trading*, and the *Measures for the Administration of Futures Exchanges*, SHFE has developed a complete set of rules and protocols for managing trading activities and the market as a whole. It implements margin requirement, daily mark-to-market, and physical delivery, among other trading-related rules, as well as law-based, comprehensive, and strict supervision. Based on its rules—with the *General Exchange Rules* at the foundation—and its multi-dimensional risk control framework, SHFE duly performs its frontline supervisory duties to maintain an orderly market. SHFE has established a rigorous and complete central counterparty clearing system in accordance with the *Principles for Financial Market Infrastructures* (PFMI) and is recognized as a QCCP by the CSRC.

Through licensed domestic and overseas data vendors, SHFE ensures its real-time and delayed market data are accessible globally and simultaneously via dedicated lines and the internet, and makes timely and compliant disclosures through its website, WeChat, and Weibo. Tapping into its Market Service Center and investor education e-platform, SHFE continues to expand the breadth and depth of its market literacy program. SHFE provides its members and investors with comprehensive and prompt services without compromising its

supervisory goals.

II. Zhengzhou Commodity Exchange

The Zhengzhou Commodity Exchange (ZCE) was founded in October 1990, originally on a pilot basis as China's first modern futures exchange approved by the State Council. ZCE is regulated by the CSRC.

Maintaining its marketplace on an open, fair, impartial, and good faith basis, ZCE exercises market self-regulation in accordance with its *Bylaws*, its *Trading Rules*, and the related implementing rules. ZCE provides the venue, facilities, and services for the centralized auction trading of futures contracts, and conducts frontline supervision of trading activities to prevent market risks and keep trading activities safe and secure.

ZCE is a member-owned mutual exchange. The Member Assembly is the supreme decision-making body of ZCE and is composed of all ZCE members. The Board is the standing presence of the Members Assembly; under its umbrella are the Strategic Advisory Committee and seven specialized committees—Products Committee, Trading Committee, Supervision Committee, Self-Disciplinary Committee, Finance & Audit Committee, IT Committee and Risk Management Committee. ZCE currently has 164 members. It oversees a network of 363 designated delivery warehouses, factory warehouses and board delivery service providers, and 15 designated margin depository banks.

ZCE is composed of 20 functional departments, namely the Executive Office (CPC Committee office), Commodities Department I, Commodities Department II, Commodities Department III, Futures Derivatives Department, Market Development Department, Member Management Department, Trading Department, Clearing Department, Delivery Department, Market Surveillance Department, Information Technology Department I, Information Technology Department II, Risk Management Department, Legal Affairs Department, CPC Affairs Department, Disciplinary Inspection Office, Human Resource Department (CPC Organization Department), Finance Department, and Audit Department. It also operates four regional branches, which are the R&D Center in Beijing, the Service and Development Centers in Shanghai and Urumqi, and the Singapore Representative Office, as well as four affiliates—Zhengzhou Esunny Information Technology Co., Ltd., ZCE Futures & Derivatives Institute Co., Ltd., Future Financial Service Co., Ltd., and Future Commercial Operation Co., Ltd.

ZCE has launched 23 futures products, including common wheat, strong gluten wheat, early long-grain non-glutinous paddy, late long-grain non-glutinous paddy, medium to short-grain non-glutinous paddy, cotton, cotton yarn, rapeseed, rapeseed oil, rapeseed meal, white sugar, fresh apple, dried jujube, thermal coal, methanol, purified terephthalic acid (PTA), flat glass, manganese silicon, ferrosilicon, urea, soda ash, polyester staple fiber, peanut kernel, and 8 options products which are white sugar, cotton, PTA, methanol, rapeseed meal, rapeseed oil, thermal coal, and peanut kernel options, covering such crucial fields of national

economy as agriculture, energy, chemicals, textile, metallurgical industries and construction materials.

In 2022, ZCE registered a trading volume of 2.40 billion lots, or 35.42% of the national market, and a turnover of RMB 96.9 trillion.

ZCE has implemented a complete set of futures trading systems including margin requirement, daily price limit, daily mark-to-market, and physical delivery. These systems are kept up-to-date with the latest market developments and innovations.

ZCE runs full-featured electronic systems for trading, delivery, settlement, risk monitoring, information release, and member services. Members and investors can trade futures through a remote trading system.

International communication and cooperation are given high priority at ZCE. The exchange joined the International Options Market Association in June 1995 and the World Federation of Exchange (WFE) in October 2012. In March 2019, ZCE joined Futures Industry Association (FIA). ZCE has signed cooperative agreements with overseas exchanges on the regular exchange of market information. Among them are the Chicago Board Options Exchange (CBOE), Chicago Mercantile Exchange (CME), India Multi Commodity Exchange (MCX), Hong Kong Stock Exchange (HKEX), Mexican Derivatives Exchange (MexDer), Agricultural Futures Exchange of Thailand (AFET), Toronto Stock Exchange (TMX), Deutsche Boerse AG (DBAG), Moscow Exchange (MOEX), Singapore Exchange (SGX) and Bursa Malaysia (BMD), further raising ZCE's international influence.

Looking forward, ZCE will continue to follow the guidance of the Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era. At the new stage of development, ZCE will adhere to the new concept for development, serve the new development paradigm, and adopt a holistic approach to coordinate development and safety. Adhering to the policy of "institutional building, non-intervention, and zero tolerance for violation" of the capital market and the supervisory principle of "Four Awes" and "One Joint Effort," ZCE will continue to uphold "Integrity, Innovation, Professionalism, and Responsibility" as its core values and enhance product innovation, market services, IT systems, and risk prevention. It aims to achieve its vision of becoming an industry-leading risk management platform and a global pricing center for commodity markets, and to further contribute to China's high-quality economic and social development in 14th Five-Year Plan period (2021-2025).

III. Dalian Commodity Exchange

Founded on February 28, 1993 and operating since November 18 the same year, Dalian Commodity Exchange (DCE) is one of the five futures exchanges in the Chinese Mainland and the only one in Northeast China. By the end of 2022, DCE listed 21 futures products (corn, corn starch, polished round-grained rice, No. 1 soybean, No. 2 soybean, soybean meal, soybean oil, RBD palm olein, egg, fiberboard, blockboard, LLDPE, PVC, PP, EG, EB,

coke, coking coal, iron ore, LPG, live hog) and 11 options products (soybean meal, corn, iron ore, LPG, PP, PVC, LLDPE, RBD palm olein, No. 1 soybean, No. 2 soybean, and soybean oil). In addition, DCE has also launched night trading for17 futures products and 11 options products. By building "One Ecosystem and Two Centers" (commodity ecosystem, commodity trading center, and price information center) in the OTC market, DCE has strengthened the linkage between the exchange and OTC markets to more effectively support the real economy.

In 2022, in view of China's current realities and stage of development and in line with the overarching goal of "building a well-regulated, transparent, open, vibrant and resilient capital market," DCE continued to expand the boundary and workings of the uniquely Chinese futures market, seeking to maintain stability while pursuing measurable progress, so as to make breakthroughs in supporting the real economy. In particular, DCE is aiming to build a world-class derivatives exchange that connects futures and cash, exchange and over-the-counter, and domestic and overseas markets. It is developing new ideas, strategies, and approaches for building an integrated national market, helping ensure the supply safety of primary agricultural and industrial products, and enhancing macro stability and the resilience and security of industries and supply chains, with a view to boosting its and China's influence in the pricing of the major commodities.

True to its founding vision, DCE continued to develop new products and ideas in 2022. The year saw the launch of 3 soybean-related option products and the opening of 8 soybean-related derivatives to qualified overseas investors, bringing the total number of foreigner-accessible products to 14. Preparations for the listing of recycled iron and steel, container freight capacity, and chemicals monthly average futures as well as ethylene glycol and ethenylbenzene options are well underway. The China Meteorological Data Service Center-DCE Temperature Index was also launched. All these spoke to a significant progress in high-quality market development.

DCE has become one of China's most significant futures trading centers thanks to its orderly market operations and steady growth and development since establishment some 20 years ago. As of the end of 2022, DCE had 161 members and 512 delivery facilities. In 2022 DCE recorded a trading volume, turnover, and daily open interest of 2.275 billion contracts, RMB 123.73 trillion, and 12,172,500 contracts contracts, a change of −3.77%, −11.91%, and 15.40% year-on-year. This makes DCE the world's nineth-largest exchange by trading volume. Globally, DCE is now a major futures exchange for agricultural products, plastics, coke, and iron ore. DCE futures prices have likewise become authoritative benchmarks in the domestic market, providing price signals and risk management functions to all types of businesses. Certain products are also open to overseas traders, helping them meet their trading goals.

In recent years, DCE has launched a series of market service programs including industry conferences, forums, the Futures Institute, Industry-Finance Cultivation Bases, and Futures

Talent Training Project at universities. A range of *sannong* (agriculture, farmers, and rural areas) and industry service projects—farmer revenue protection plan and enterprise risk management plan—are also being tested to accentuate the role of the futures market and find new ways for it to support the real economy, helping create more robust and sustainable industries.

DCE has been high on the government's agenda. It is featured in the Northeast Region Revitalization Plan (2007), Liaoning Coastal Economic Belt Development Plan (2009), Opinions on Further Implementing the Revitalization Strategy for Old Industrial Bases in Northeast China (2009), 12th Five-Year Plan for the Revitalization of Northeast China (2012), and 13th Five-Year Plan for the Revitalization of Northeast China (2016) approved by the State Council, as DCE is positioned as a key global futures trading center. In 2013, President Xi Jinping visited DCE and encouraged it to "create a path to success with solid steps and an audacious spirit." As socialism with Chinese characteristics has entered a new era, China's derivatives markets need to keep up with the times in their reforms and opening-up. Under the guidance of Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, DCE is determined to fulfill its missions in the new era to grow into an open, diversified, and world-class derivatives exchange and play a greater role in supporting China's real economy and opening- up. DCE will contribute to a vibrant futures market with Chinese characteristics for the new era and China's modernization as a whole.

IV. China Financial Futures Exchange

China Financial Futures Exchange (CFFEX), established with the approval of the State Council and CSRC, is an incorporated exchange specializing in providing trading and clearing services for financial futures, options, and other financial derivatives. CFFEX was established on September 8, 2006 in Shanghai by Shanghai Futures Exchange, Zhengzhou Commodity Exchange, Dalian Commodity Exchange, Shanghai Stock Exchange, and Shenzhen Stock Exchange.

The establishment of CFFEX and development of China's financial futures market bear great strategic significance on deepening the financial market reform, enhancing the financial system, facilitating the robust functioning of the financial market and adapting to the new normal of economic development.

CFFEX is committed to supporting China's real economy and multi-layered capital market. By offering safe, efficient, and well-functioning financial derivatives and services, CFFEX facilitates the sound transfer and allocation of financial risks, improves the efficiency of the financial market, and boosts social and economic prosperity.

CFFEX is tasked to organize and arrange for the trading, clearing, and delivery of financial futures and other financial derivatives; establish relevant rules; exercise market self-regulation; distribute market data and related information; provide the related technologies,

venues, and facilities; and perform other functions approved by the CSRC.

While ensuring high standards and market stability, CFFEX strives to expand its financial derivatives product offering, improves its equity, interest rate and foreign exchange product line so as to meet the diverse risk management needs of market participants. CFFEX runs a fully electronic trading system backed by efficient and secure IT infrastructures. Drawing on the latest IT technologies and designs of domestic and foreign exchanges, CFFEX has developed a stable, well-structured, and highly functional trading platform.

CFFEX implements a tiered membership clearing system, which classifies members into Clearing Members and Trading Members. By scope of business, Clearing Members are further divided into Trading Clearing Members, General Clearing Members, and Special Clearing Members. The tiered membership clearing system helps to form a multi-layered risk-management framework that safeguards sound operations of the market.

CFFEX also implements such systems as trader suitability regime, cross-market supervising cooperation, and abnormal trading monitoring to guarantee the orderly functioning of an open, fair and just financial market, protect legitimate rights and interests of market participants, especially small and medium investors, and defend the bottom line of preventing systemic risk.

CFFEX gradually advances the opening – up of the financial futures market by joining international futures industry associations, signing MOUs and strengthening cooperation with major overseas exchanges through information sharing, personnel training, joint research and product development, thus meeting domestic and foreign demand for cross-border trading.

V. Guangzhou Futures Exchange

The Guangzhou Futures Exchange (GFEX) was formally established on April 19, 2021, with the approval of the State Council and CSRC. Operating under the supervision of the CSRC, its shareholders are SHFE (15%), ZCE (15%), DCE (15%), CFFEX (15%), Ping An Insurance (Group) Company of China, Ltd. (15%), Guangdong Pearl River Investment Management Group Co., Ltd. (9%), Guangzhou Finance Holdings Group Co., Ltd. (9%), and Hong Kong Exchanges and Clearing Ltd. (7%).

GFEX is committed to supporting the green economy, the development of the Guangdong-Hong Kong-Macao Greater Bay Area (GBA), and China's Belt and Road Initiative (BRI). Providing facilities and services for the trading and clearing of futures and other derivatives, GFEX adopts an innovation- and market-driven strategy in product development, rule-making, and IT system development to build itself into an internationally influential exchange. In May 2021, the CSRC's Department of Futures Supervision approved GFEX' product listing plan for the next two years. The proposed product lineup covers carbon emissions, electricity, polysilicon, silicon metal, lithium, rare earths, platinum, palladium, China commodity index, energy and chemical index, feed and livestock index, steel mill profits index, the Hang

Seng Index, indica rice, sorghum, and coffee.

GFEX has signed MOUs with HKEX and Deutsche Börse Group, inaugurating its collaboration with the international markets. Its firm commitment to market opening-up will shape all stages of product development, rule-making, and IT system development.

>>> Section V China Commodity Indices Co., Ltd.

China Commodity Indices Co., Ltd. (CCI), a limited liability company jointly established by SHFE, ZCE, DCE, and CFFEX with the approval of the CSRC, is incorporated in the Xiongan New Area, Hebei Province on December 16, 2020, at a registered capital of RMB 1 billion.

CCI is a securities and futures financial institution under the direct supervision of the CSRC. Its scope of business encompasses (i) designing, compiling, and administering exchange-specific and cross-exchange futures indices; (ii) designing, compiling, and administering spot indices and products; (iii) offering customized index product services; (iv) providing index products and supporting research to inform macroeconomic decisions and regulatory policies; (v) managing the licensing of index-related products; (vi) providing data services; (vii) providing index-related IT services; (viii) engaging in international cooperation and exchange; and (ix) conducting other activities approved by the CSRC.

As a major part of financial industry's support for the reform and opening-up of the Xiongan New Area, CCI shoulders the important mandates of developing authoritative and internationally competitive index products; providing index tools that facilitate product innovation by exchanges and financial institutions and risk management by industrial companies; supporting the supply-side structural reform of the capital market; facilitating the reform and opening-up of the Xiongan New Area; and supporting macroeconomic decision-making and risk management by industrial companies.

>>> Section VI Legal Framework

I. Laws

- Futures and Derivatives Law of the People's Republic of China.
- Securities Law of the People's Republic of China.
- Securities Investment Fund Law of the People's Republic of China.

II. Administrative Regulations, Judicial Interpretations, and State Council Documents

- Regulation on the Administration of Futures Trading.
- Interim Measures for the Administration of Securities and Futures Investment Consultancy.
- Notice of the Supreme People's Court on Issuing the Minutes of the Conference of National Courts on Civil and Commercial Trials.
- Opinions of the State Council on Further Promoting the Healthy Development of Capital Markets.
- Opinions of the General Office of the State Council on Further Strengthening the Protection of Lawful Rights and Interest of Small and Medium Investors in the Capital Market.
- Notice of the General Office of the State Council on Aggressively Responding to Illegal and Criminal Activities Masqueraded as Securities and Futures Investment.
- Interpretation of the Supreme People's Court and the Supreme People's Procuratorate on Issues Concerning the Application of Law in Criminal Cases Involving Trading with Non-Public Information.
- Interpretation of the Supreme People's Court and the Supreme People's Procuratorate on Issues Concerning the Application of Law in Criminal Cases Involving Manipulation of Securities and Futures Markets.
- Notice of the Supreme People's Court and the China Securities Regulatory Commission on Implementing the Pilot Program of a Multi-Dimensional Dispute Resolution Mechanism for the Securities and Futures Industries in Certain Regions in China.
- Opinions of the Supreme People's Court and the China Securities Regulatory Commission on Comprehensively Advancing the Establishment of a Multi-Dimensional Dispute Resolution Mechanism for the Securities and Futures Industries.
- Interpretation of the Supreme People's Court and the Supreme People's Procuratorate on Issues Concerning the Application of Law in Criminal Cases Involving Insider Trading and Divulgation of Insider Information.
- Notice of the Supreme People's Court and the Supreme People's Procuratorate on Issues Concerning the Implementation of the "Opinions on Issues Concerning Handling of Securities and Futures Violations and Crimes".
- Provisions of the Supreme People's Court on the Trial of Futures Cases.
- Provisions of the Supreme People's Court on the Trial of Futures Cases (II).
- Notice of the Supreme People's Court on the Freezing and Forced Transfer of Funds in the Clearing Accounts of Stock and Futures Exchanges, Securities Depository and Clearing Institutions, Securities Business Organizations, and Futures Brokerage Companies.
- Urgent Notice of the Supreme People's Court on Areas of Note Concerning the Implementation of the "Freezing and Forced Transfer of Funds in the Clearing Accounts of

Stock and Futures Exchanges, Securities Depository and Clearing Institutions, Securities Business Organizations, and Futures Brokerage Companies".

III. Ministry-Level Rules and Normative Documents

(I) Futures Exchanges

- Measures for the Administration of Futures Exchanges.
- Measures for the Administration of Representative Offices of Foreign Stock and Futures Exchanges in China.

(II) Futures Companies

- Measures for the Supervision and Administration of Futures Companies.
- Measures for the Administration of Foreign-Invested Futures Companies.
- Measures for the Administration of Risk-Based Regulatory Indicators of Futures Companies.
- Standards for the Contents and Formats of Annual Reports of Futures Companies.
- Rules on the Classification-Based Supervision of Futures Companies.
- Guidelines on the Preparation and Submission of Risk-Based Regulatory Statements of Futures Companies.
- Decision on Canceling Administrative Approval for the Establishment, Acquisition, and Equity Investment in Overseas Futures Business Organizations by Futures Companies.
- Rules on Regulating the Control and Holding of Equity Interest in Futures Companies.

(III) Registered Futures Professionals

- Measures for the Administration of Qualifications of Directors, Supervisors, and Officers of Futures Companies.
- Measures for the Administration of Registered Futures Professionals.
- Rules for the Administration of Chief Risk Officers of Futures Companies (Trial).

(IV) Futures Brokerage Business

- Interim Measures for the Administration of Overseas Traders' and Overseas Brokers' Engagement in the Trading of Specified Domestic Futures Products.
- Pilot Measures for the Financial Futures Clearing Business of Futures Companies.
- Guidelines on the Trading of China Government Bond Futures by Publicly Offered Securities Investment Funds.
- Guidelines on the Trading of Equity Index Futures and China Government Bond Futures by Securities Companies.
- Rules for the Administration of Account-Opening for Futures Market Clients.
- Decision on Regulating Futures Market Accounts.
- Guidelines on the Trading of Equity Index Futures by Qualified Foreign Institutional Investors.
- Guidelines on the Trading of Equity Index Futures by Securities Investment Funds.

- Pilot Measures for the Introducing Broker Business of Securities Companies for Futures Companies.
- Notice on Regulating the Deposit and Withdrawal of Futures Margin.
- Interim Measures for the Segregation of Margin by Futures Brokerage Companies.

(V) Futures Investment Consulting Business

- Pilot Measures for the Futures Investment Consulting Business of Futures Companies.

(VI) Futures Asset Management Business

- Guiding Opinions on Regulating the Asset Management Business of Financial Institutions.
- Measures for the Administration of Private Asset Management Business of Securities and Futures Business Organizations.
- Rules for the Operations of Private Asset Management Schemes of Securities and Futures Business Organizations.
- Interim Measures for the Supervision and Administration of Private Investment Funds.
- Measures for the Administration of Distribution of Securities Investment Fund Units.
- Guidelines on the Manager of Managers Products of Securities and Futures Business Organizations (Trial).
- Guidelines No. 1 on the Operations of Public Securities Investment Funds—Guidelines for Open-End Commodity Futures Exchange-Traded Funds.

(VII) Options Business

- Measures for the Administration of the Stock Options Trading Pilot.
- Guidelines on the Pilot Trading of Stock Options by Securities and Futures Business Organizations.

(VIII) Investor Protection

- Measures for the Administration of Securities and Futures Investors Suitability.
- Measures for the Administration of the Futures Investors Protection Fund.
- Interim Rules on the Reporting of Securities and Futures Violations.
- Guidelines on the Supervision of Education Centers for Securities and Futures Investors.
- Rules on Contributions of Futures Exchanges and Futures Companies to the Futures Investors Protection Fund.
- Guiding Opinions on Strengthening the Building of Education Centers for Securities and Futures Investors.
- Rules on Establishing Suitability Rules for Investors of Financial Futures.

(IX) Information Technology

- Measures for the Administration of Safeguarding Information Security in the Securities and Futures Industries.
- Announcement on Further Strengthening the Collection of Clients' Trading Terminal Information by Futures Business Organizations.

• Rules on Strengthening the Management of Trading Terminal Information and Other Client Information by Securities and Futures Business Organizations.

• Guiding Opinions on Further Strengthening the Management of Information Technology at Futures Companies.

• Standards for the Information Technology Management at Futures Exchanges and Futures Business Organizations (Trial).

• Rules on Enhanced Administration of the Distribution of Securities and Futures Information.

• Measures for Reporting, Investigating, and Handling Information Security Incidents in Securities and Futures Industries.

(X) Supervision and Administration

• Measures for the Supervision and Administration of Integrity in Securities and Futures Markets (2020 Amendment).

• Rules on Item (5) of Article 70 ("committing other acts of manipulating futures trading prices") of the "Regulation on the Administration of Futures Trading".

• Rules on Professional Integrity of Securities and Futures Business Organizations and Their Employees.

• Implementation Measures for Anti-Money Laundering in Securities and Futures Industries.

• Measures for the Administration of Client Identification and Retention of Client Identity Materials and Trading Records at Financial Institutions.

• Notice on Preventing Risks Associated with Futures Financing.

• Opinions on the Handling of Cases of Securities and Futures Violations and Crimes.

• Notice on Strengthening Enforcement Cooperation in Combating Securities and Futures Violations and Crimes.

(XI) Other Subjects

• Rules on Procedures for Securities and Futures Rule-Making.

• Notice on Further Improving the Drafting, Review, and Making of Administrative Normative Documents on Securities and Futures.

• Measures for the Administration of Securities and Futures Market Statistics.

• Opinions on Implementing the Pilot Business Tax-to-VAT Program for Securities, Futures, and Funds Business Organizations.

• Notice on Lawful Arbitration of Disputes on Securities and Futures Contracts.

• Guiding Opinions on the Rules for Overseas Futures Hedging Activities of State-Owned Enterprises.

• Measures for the Administration of Overseas Futures Hedging Activities of State-Owned Enterprises.

• Interim Rules on Financial Management of Commodity Futures Trading.

• Notice on Rigorously Investigating and Punishing Illegal FX Futures Trading and FX Margin Trading.

- Rules for Administrative Penalty Hearing of the China Securities Regulatory Commission.
- Decision on Repealing Certain Normative Documents on Securities and Futures.
- Notice on Further Strengthening the Administration of Introducing Broker Business of Securities Companies for Futures Companies.
- Notice on Strengthening the Administration of Specialized Internet Video and Audio Programs on Securities and Futures Information and Advertising.
- Trial Rules for Seeking Public Comment on Draft Securities and Futures Rules.
- Notice on Further Strengthening the Supervision of Physical Delivery of Commodity Futures.

IV. Self-Regulatory Rules

(I) Organization and Operation of the Industry Association

- Articles of Association of the China Futures Association.
- Work Rules of the Council of the China Futures Association.
- Measures for the Administration of the Professional Committees of the China Futures Association.
- Measures for the Making of Self-Regulatory Rules of the China Futures Association.

(II) Membership Management

- Membership Rules of the China Futures Association.
- Measures for the Collection of Membership Fees of the China Futures Association.
- Self-Disciplinary Pact of the Members of the China Futures Association.
- Anti-Commercial Bribery Pact of the China Futures Association.
- Code of Integrity of the Futures Industry.
- Implementation Rules on Professional Integrity of Futures Business Organizations and Their Employees.
- Measures for the Administration of Integrity Information of Futures Business Organizations.

(III) Management of Registered Futures Professionals.

- Rules for the Administration of the Futures Qualification Examination.
- Rules for the Administration of Qualifications of Registered Futures Professionals.
- Standards of Professional Conduct for Registered Futures Professionals (Updated).
- Rules for the Continuing Education of Registered Futures Professionals (Trial).
- Rules for the Administration of the Industry Information Management Platform of the China Futures Association.

(IV) Business Rules

(i) Futures Brokerage

- Guidelines on Futures Brokerage Contract.
- Guidelines on Futures Brokerage Contract (applicable to overseas brokers that trade domestic futures through domestic futures companies).

• Guidelines on the Clearing Agreements between Futures Companies and Overseas Special Participants.

• Guidelines on Supplemental Agreement to the Futures Brokerage Contract on the Trading of Specified Domestic Futures Products by Overseas Traders.

• Guidelines on the Introducing Broker Agreement for Securities Companies Providing Services to Futures Companies.

• Measure for the Administration of Referral Agents of Futures Companies (Trial).

(ii) Futures Investment Consulting

• Guidelines on Futures Investment Consulting Service Contracts.

(iii) Futures Asset Management

• Rules for Credit Reporting in the Asset Management Business of Futures Business Organizations.

• Rules for the Administration of Filing of the Asset Management Business of Futures Business Organizations.

(iv) Risk Management

• Guidelines on the Pilot Program of Risk Management Subsidiaries of Futures Companies.

• Implementation Rules on Using Standard Warehouse Receipts as Margin for OTC Derivatives Trading of the Risk Management Subsidiaries of Futures Companies (Trial).

• Rules for Member Credit Information Reporting of Risk Management Subsidiaries.

• Measures for the Administration of Risk Control Indicators of Futures Risk Management Subsidiaries (Trial).

(v) OTC Derivatives

• OTC Derivatives Trading in China Securities and Futures Markets: Master Agreement (2014 Edition).

• OTC Derivatives Trading in China Securities and Futures Markets: Definitions for Equity Derivatives (2014 Edition).

• OTC Derivatives Trading in China Securities and Futures Markets: Definitions for Commodity Derivatives (2015 Edition).

• China Securities and Futures Markets: Trade Confirmation for OTC Commodity Forwards (2015 Edition).

• China Securities and Futures Markets: Trade Confirmation for OTC Commodity Swaps (2015 Edition).

• China Securities and Futures Markets: Trade Confirmation for OTC Commodity Options (2015 Edition).

• Notice on Issuing "Derivatives Trading in China Securities and Futures Markets: Master Agreement".

• Notice on Issuing "Derivatives Trading in China Securities and Futures Markets: Master Agreement (For CDX)".

(vi) Online Opening Account

- Rules on Opening Account Online with Futures Companies.

(vii) Risk Control and Compliance

- Guidelines on the Anti-Money Laundering Program of Members of the China Futures Association.
- Guidelines on the Standards for Money Laundering Risk Classification of Clients of Futures Companies.
- Guidelines on Assistance of Futures Industry to Combating Illegal Futures Activities.
- Implementation Rules on Accounting Treatment of Futures Companies.
- Guidelines on Re-Capitalization of Futures Companies.
- Rules for the Management of Subordinated Debts of Futures Companies.
- Guidelines on Stress Tests of Futures Companies (Trial).

(viii) Investor Education and Suitability Management

- Guidelines on Futures Investor Education Programs.
- Guidelines on Investor Suitability Management at Futures Business Organizations (Trial).
- Rules for Sharing the Credit Risk Information of Futures Investors (Updated).

(ix) Information Technology

- Guidelines on Information Technology Management at Futures Companies.
- Guidelines for Futures Companies on Contracts for Core Software Products and Technical Services.
- Guidelines on IT Governance at Securities and Futures Business Organizations (Trial).
- Technical Guidelines on Internet-Based Futures Information Systems of Futures Companies.
- Measures for the Administration of Technology Awards of the Securities and Futures Industries.
- Measures of the China Futures Association for the Administration of Intergroup Standards.

(V) Self-Discipline and Monitoring

- Disciplinary Penalty Procedures of the China Futures Association.
- Reprimand and Warning Procedures of the China Futures Association.
- Measures of the China Futures Association for the Handling of Dishonest Conducts and Violations (Trial).

(VI) Dispute Mediation

- Mediation Rules of the China Futures Association.
- Guidelines on the Handling of Investor Complaints at Securities, Funds, and Futures Business Organizations (Trial).

(VII) Other Subjects

- Opinions on Establishing A Self-Regulatory Cooperation Mechanism for the National Futures Industry.
- Notice on Cancellation of Several Filing and Reporting Items.

PART IV INVESTOR PROTECTION

>>> Section I Investor Protection at CSRC

Fully committed to a public-interest-first philosophy, the CSRC continues to build its collaborative investor protection framework and is integrating investor protection objectives throughout its regulatory and supervisory programs. With the combined efforts of all stakeholders, the market is offering strong investor protections than ever, investors are becoming more aware and capable of avoiding risks, and China is seeing growing international influence in investor education programs.

I. Improving Investor Protection Frameworks and Mechanisms

The CSRC put the *Futures and Derivatives Law* into action and amended the *Measures for the Administration of Suitability of Securities and Futures Investors.* It released the *Announcement on Optimizing the Operations of the* 12386 *Service Platform* to clarify the platform's positioning, operational rules, and handling of complaints, with the goal of strengthening its institutional foundations and procedural management, providing unified service standards, and ensuring orderly and compliant delivery of services.

II. Resolving Investment Disputes through Diversified Channels

The CSRC has upgraded its 12386 hotline and integrated it with the newly established

12386 online platform to create the 12386 service platform. The platform enables the CSRC to receive complaints, tips, questions, and comments and suggestions from investors.

The CSRC has been working to implement the online litigation and mediation docking mechanism for securities and futures disputes, a project jointly undertaken by the CSRC and the Supreme People's Court. With the CSRC's assistance, all securities and futures mediation organizations have completed the certification on tiaojie. court. gov. cn and tiaojie. investor. org. cn; the correspondence mechanism with high and intermediate people's courts are also being established. The CSRC guided the China Securities Investor Services Center (ISC) to upgrade the online mediation platform for securities and futures disputes hosted on the China Investors Website (www. investor. org. cn), and launched the corresponding WeChat mini program to enable virtual mediation on cellphones. It summarized case studies and organized a series of training courses for mediators to improve the quality and efficiency of their services.

III. Enhancing Investor Education

The CSRC continued to organize investor education activities on key dates and trending topics. Among them were the fourth "May 15" National Investor Day which heavily featured the *Futures and Derivatives Law*, the March 15 investor protection-themed campaign, and the Financial Literacy Month co-organized with the PBC, CBIRC, and the Cyberspace Administration of China (CAC).

The CSRC also directed the institutions under its supervision to organize a variety of investor education events. Notably, SHFE hosted the inaugural "Songlin Cup" contest for investor protection-themed animations as well as the "SHFE Investor Protection Relay" event; ZCE and the CFA jointly held the 5th ZCE Cup; DCE and the CFA co-sponsored the 1st "Young Futures Trader" derivatives trading competition for college students; CFFEX and the CFA co-hosted the 8th CFFEX Cup, a financial literacy competition for college students across the country; and the CFA continued to work on its educational book series to promote public understanding of the futures market.

Furthermore, the CSRC has been supervising investor education centers to offer more effective and efficient services. At present, SHFE, ZCE, CFFEX, and the CFA have all set up their national investor education centers; futures companies have built 2 national and 12 provincial investor education centers; and DCE has formally launched its online "Futures Academy." These centers have been producing original educational resources and holding a variety of activities to better serve investors.

IV. Increasing Public and International Engagement

Following a comprehensive assessment of the investor protection programs in the capital markets, the CSRC published the *Blue Book on the State of Investor Protection in China's*

Capital Market and Related Sub – reports (2022), which offers a systematic review of the progress and achievements of futures companies and self-regulatory organizations in enhancing market rules, holding investor education activities, and facilitating dispute mediation and complaint resolution.

The CSRC also published the *Survey Report on National Futures Market Participants* 2021. Combining objective analysis of base data with a subjective survey of investors and traders, the report reveals the structure and behaviors of China's futures market participants, thereby enabling more relevant investor protection and market supervision programs.

Aiming to raise China's global influence in investor protection, the CSRC took an active part in the works of IOSCO Committee 8. Notably, the CSRC has organized its regional offices as well as exchanges, industry associations, and market participants to publicize and celebrate the World Investor Week 2022. It also organized events including "Ten Extraordinary Years for the Capital Market and I."

>>> Section II Investor Protection at CFA

In 2022, under the guidance of the CSRC, the CFA upheld and strengthened Party leadership and integrated Party-building goals with its own development objectives. Strictly fulfilling its duties as a self-regulatory organization for the industry, the CFA is committed to improving its services to better protect traders. It has achieved positive outcomes in various trader service activities, including introducing new approaches for trader education, organizing industry's outreach programs, receiving trader complaints and promptly resolving disputes, strengthening services and training for business enterprises in the real economy ("industry traders"), working with the media to publicize the developments and achievements of the futures market, helping build a positive industry culture, and contributing to the high-quality development of the market.

I. Carrying out Innovative Trader Education and Protection Activities

The CFA promoted the development and observance of trader suitability rules and facilitated the corresponding compliance checks and handling of violations. On key trader protection dates such as March 15 and May 15, the CFA organized the industry to hold various educational activities. The CFA continued to operate and improve edu. cfachina. org—a national trader education center rated "very good" in the CSRC's most recent annual assessment—to build it into a one-stop learning platform for securities and futures traders. Promoting trader protection with the suitability rules as the foundation, the CFA conducted the first corresponding survey which culminated in the *2021 Survey Report on Traders in China's Futures Market*. It is working with four partnering courts to raise awareness for illegal futures

activities online, and has submitted a total of 301 tips on such activities on a monthly schedule. The CFA has distributed 6, 730 trader education books and 15, 700 educational products to traders for free. Furthermore, the CFA solicited exemplary trader education cases in the futures industry and advocated for the inclusion of futures courses in the national curriculum. To build its own trader education brand, the CFA worked with the China National Radio (CNR) in producing the "Futures Classroom" program to inform and raise risk awareness. Some of the key industry terms from that production were put on a playback loop on CNR's Business Ratio station at prime time.

II. Promptly Handling Trader Complaints and Prioritizing Mediation

With optimized complaint acceptance criteria and heads-up matters, the CFA continued to accept trader complaints and requests over the telephone, the internet, and email and in-person. In 2022, the CFA received 692 trader complaints and tips. Of the 281 complaints proceeded to mediation, 152 or 54. 1% were successfully settled—the highest settlement rate in the last three years—helping traders recover RMB 7, 426, 300 in compensation. In particular, 265 complaints regarding referral agents were resolved through effective inter-departmental collaboration. For complaints that fell outside its powers, the CFA offered legal advice instead, defusing a number of temperamental, threatening, and disruptive cases. As part of building an online complaint handling platform, the CFA optimized the "Complaint" section as a central portal for trader complaints, tips, inquiries, and mediation requests, which offers a fully online experience, and full audit trail, for the entire process from acceptance and referral to processing, reply, and post-resolution survey. Prioritizing complaints and tips on referral agents, the CFA duly tracked the number of these reports and reviewed the latest developments on a timely basis to inform updates to its referral agent rules. Moreover, the CFA has registered 33 of its mediators at the National Securities and Futures Mediation Platform and established online collaborative relationships with 4 people's courts. Leveraging the strength of its Mediation Committee, the CFA processed two mediation cases from referrals, held mediator trainings, and selected and advised five mediators to provide on-site complaint handling and dispute mediation services.

III. Reinventing the Means of Informing and Serving Industry Traders

CFA has been helping industry traders to properly take advantage of the futures market and improving the related educational efforts. Drawing on the model cases it has earlier selected of futures business organizations contributing to the real economy, the CFA produced 16 promotional videos for release on "self-media" platforms, attracting 1, 688, 600 hits. For greater impact, the CFA called on its members to publicize these videos. At the same time, it continues to build its own line of investor education products, officially publishing 8 more

books for its futures education series, bringing the total to 77. The CFA also wrote and released on its website 52 ebooks on precious metals, ferrous metals, financial futures, non-ferrous metals, energy and chemicals, and agricultural products. It published the book *Futures Market Lifesaver* (2nd edition), created based on the *Futures and Derivatives Law*, the most recent rules and normative documents of the CSRC, model cases, and market data. The CFA also bought 6,730 investor education books and distributed them to industry and individual traders through its members, to promote better understanding of the fundamentals of futures trading as well as risk awareness among industry traders.

IV. Building a Positive Industry Image and Effectively Handling Negative Sentiment

Working more closely with media outlets and focusing on industry priorities, the CFA assisted governmental departments in writing articles for the mainstream media channels, highlighting in particular the guiding opinions of the 20th CPC National Congress and the *Futures and Derivatives Law*. In addition to submitting two *neican* (i.e., internal reference) reports to senior government officials through the Xinhua News Agency, the CFA was mentioned some 300 times in central media programs and outlets such as *Xinwen Lianbo*, the *People's Daily*, and Xinhua News Agency. CFA's WeChat account has attracted 290,000 followers, up 29.4% from the year before and connecting the public with the developments of the futures market. The CFA made further upgrades to its website, which showcases the functions of the futures market and the core values of the Association through a greater wealth of information, professional research reports, latest industry news, and thematic publicity reports, to build the website into a one-stop portal for futures-related information. These upgrades boosted the site's ranking from the 5,825th place to the 1,789th on the traffic chart, with a 201% increase in daily visits and a 20% increase in voluntary coverage by the media. Furthermore, the CFA produced 16 videos on model cases of futures market supporting the real economy, which attracted 1.68 million hits, as well as 52 ebooks and 102 electronic products on investor education. Its WeChat, WeChat video, Weibo, and Douyin channels now form a connected media network that brings the industry closer to the public. The CFA also closely monitored and promptly responded to negative and sensitive discussions, especially around the times of the Two Sessions and the 20th CPC National Congress and in relation to the release of the *Futures and Derivatives Law*, the release of exam announcements and subsequent adjustments, the volatile commodity prices, and referral agents. The CFA prepared 11 public-sentiment reports and monitoring briefs and submitted over 600 daily, weekly, monthly, and special public-sentiment reports to regulatory authorities.

V. Building a Positive Industry Culture for High-Quality Development

Strengthening the Party to build a stronger industry culture, the CFA is taking the tenets of

"Two Forms of Integration" to heart by calling upon futures business organizations to respect the rule of law and fulfill their fiduciary duties. It has updated the *Outline of the Cultural Building Plan for the Futures Industry* and completed the first draft of the book *Fiduciary Duty*. The CFA aired 144 sessions, on the CNR's Business Radio station, of the program on building the industry culture, and produced 46 episodes of the "Futures Classroom." As a follow-up to the corrective actions identified by higher-level inspectors, the Association completed the first assessment on the building of the industry culture, the findings from which are submitted to the CSRC in a dedicated report. The CFA institutionalized fiduciary duty in the industry's self-regulatory rules, explored how fiduciary duty can be best integrated with the various operating activities of futures business organizations, and introduced more-rigorous risk disclosure rules. Seeking to align with the *Futures and Derivatives Law*, the CFA continues to work on a set of self-regulatory rules for the industry to ensure the fulfillment of fiduciary duty; is contributing to the creation of guidelines for brokerage, trading, service, and asset management contracts; and is helping futures intermediaries and service providers to enhance their pricing and risk management capacities and protect investor interests based on the principle of "sellers acting with due diligence and buyers assuming due risks." Based on CFA's recommendation, two futures companies were recognized as "Model Financial Institutions of 2021-2022 for Culture Building." The CFA itself was awarded the second prize by the Research Association of Ideological and Political Work of China Financial Institutions for its political program and culture-building survey in 2022.

>>> Section III Investor Protection at Futures Exchanges

I. Shanghai Futures Exchange (SHFE)

(I) Supporting the Real Economy and the High-Quality Growth of Enterprises

Guided by the new development philosophy, SHFE was committed to publicizing how the futures market can serve the real economy and supporting the formation of the modern industry system.

First, building walk-in investor education centers to promote information sharing between the futures and spot markets. SHFE has by now built more than 20 investor education centers and industry training centers, covering benchmark non-ferrous metals enterprises such as Jiangxi Copper and Tongling Nonferrous Metals Group, and industry leaders such as Shandong Chambroad Petrochemicals, Asia Pulp & Paper (APP), and Hainan Rubber. Tightly integrated with the local and industry realities, these centers also have a national reach, combining theories with on-site teaching to empower traders to contribute to the real economy.

Second, launching the "SHFE on Wheels" market service brand in association with the

Shanghai Stock Exchange, Shenzhen Stock Exchange, China Association for Public Companies (CAPCO), and China Capital Market Institute. SHFE has developed an effective, comprehensive cooperation mechanism for the derivatives market—covering products, research, training, and more—as well as a dedicated curriculum, to acclimate the senior executives of public companies to futures and other derivatives, and teach these companies how to manage risks with derivatives in a compliant manner to achieve operational stability.

Third, working with members on market development. In 2022, SHFE organized 891 market activities ranging from live streams to industry surveys and salons, targeting all types of market participants, to improve its industry services and the influence of the futures market. In particular, SHFE conducted 50 surveys to provide one-on-one advice to industrial enterprises such as SMEs and specialized and innovation companies.

(II) Launching "SHFE Investor Protection" Events and Investor Education Products

First, with the support of the CSRC's Department of Futures Supervision and Investor Protection Bureau, SHFE held the first Songlin Cup, a cartoon competition meant to raise traders' risk and legal awareness and steer them toward rational trading of futures and other derivatives. Specifically, in line with the new requirements of investor protection and the latest developments in the futures market, SHFE sought to build synergy within the industry to inform traders about the *Futures and Derivatives Law* and other essential knowledge required for futures trading and to remind them to keep risks under control and invest rationally. The competition drew strong interest from members, industry associations, and creators. In all, 59 members nominated 113 works for the awards. After voting by some 350,000 people, 24 productions were recognized for their topic selection, content, and creativity. The event attracted widespread attention both inside and outside the industry.

Second, SHFE held a variety of engaging investor protection activities for the "March 15" World Consumer Rights Day, Illegal Securities and Futures Activity Awareness Month, "May 15" National Investor Day, Financial Literacy Month, and World Investor Week. For example, for the World Consumer Rights Day, SHFE launched a series of events to promote objective market views and rational investing. In particular, one for-prize questionnaire, "My Views on Investor Protection," attracted 4,872 valid responses from close to 10,000 traders, which provided a solid foundation for SHFE to carry out investor protection and education programs. For the Illegal Securities and Futures Activity Awareness Month and the National Investor Day, SHFE organized a knowledge contest which drew 7,798 participants. The Financial Literacy Month saw the holding of the Songlin Cup, a cartoon contest that helps traders better understand the futures market and protect themselves. For the World Investor Week, SHFE produced several pro-traders works: *Growth*, a micro movie on the internationalization of SHFE; a poster designed to enhance risk awareness; an infographic titled "How Much Do You Know About the Futures and Derivatives Law: Cross-Border Futures Trading and Supervision"; and, together with CSRC Shanghai office, motion graphics on

investor protection.

Third, the "SHFE Investor Relay" program was launched. With the support of about 30 members as well as local securities regulators and industry associations, SHFE ran the "SHFE Investor Relay" program from mid-March to the end of the year. Designed to promote investor education and protection across the industry and a more robust futures market, the program featured monthly events held across the country, totaling 54 events by the end of December. For example, for the month of September, SHFE and the CSRC Shanghai office joined hands for the Financial Literacy Month to promote financial literacy and raise risk awareness, so that traders can more effectively identify and prevent risks and avoid scams.

Fourth, SHFE produced a wide range of investor education products, accessible through national investor education centers and SHFE's new media platform. Examples included five posters featuring traders' favorite slogans; six financial literacy and World Investor Week infographics comprising slogan posters, glossary terms, background knowledge, tips on safe investing, real-life examples of illegal financial activities, Q&A, and excerpts from the *Futures and Derivatives Law*; serial posters on avoiding illegal futures activities and celebrating the National Investor Day; and many peripheral products which have been distributed to members.

(III) Promoting the Inclusion of Investment Courses in the National School Curriculum and Sound Risk Management Philosophies

SHFE worked to put the Opinions of the General Office of the State Council on Further Strengthening the Protection of Lawful Rights and Interest of Small and Medium Investors in the Capital Market into action and to fulfill the CSRC's plan on incorporating investment courses into the national school curriculum. In association with institutions of higher education, SHFE informed the faculty members and students about the principle of fairness, impartiality, and openness as it relates to the capital market, and helped them develop an accurate understanding of risk management, value, and wealth before they enter the market, thereby contributing to a sound capital market ecosystem.

First, building on the existing courses jointly developed with universities, SHFE sought new ways to work with them in talent cultivation. Notably, SHFE collaborated with the Zhejiang University to understand how SMEs can tap into the futures market, helping the industry to break new ground through in-depth industry-university-research cooperation. The exchange also co-developed the course "Energy Trade Simulation" with the China University of Petroleum-Beijing, as well as "Financial Engineering Practices" and the for-credit course "Futures and Derivatives in Action" with the Economics and Management School of Wuhan University. It held a series of talks at the Wuhan University on the industries in Hubei, the businesses of risk management subsidiaries, futures research and framework, and strategies employed by commodity trading advisors (CTA).

Second, with the help of its members, SHFE has been helping university students nationwide gain exposure to futures. By the end of 2022, it had built partnerships with more than 20 universities, including the China University of Petroleum, Tsinghua University, and

Hong Kong University, to offer more than 70 for-credit courses, lectures, and risk awareness activities that benefited some 5,000 students. In addition to aligning futures companies with public interest and the real economy, these offerings have taught students about the essentials of the futures market and encouraged them to put this knowledge to use, creating a talent training system for, and with the involvement of, the entire futures industry.

(IV) Addressing Market Concerns and Enhancing Public Engagement

The SHFE Market Service Center (MSC) has made duly addressing public concerns part of its day-to-day activities to ensure trader interests are more effectively protected. First, MSC remained readily accessible even during the pandemic to address questions about the *Futures and Derivatives Law*, confirmation requests from members' audit firms, concerns about odd-lot positions in the delivery month, questions received from the 12386 investor hotline, and other pressing issues of the investing public. Second, MSC streamlined its service procedures, and made information more accessible and transparent by preparing standardized answers for the most commonly seen trader questions, creating a well-functioning question-resolution-improvement cycle. For the "March 15" World Consumer Rights Day, MSC organized a special event to inform traders of the market services provided by SHFE and how to search for information about the SHFE and INE markets, and to answer their questions and concerns. Third, MSC sought to further raise traders' risk awareness. Upon learning traders' plight with phishing websites and wire fraud by unregulated trading platforms, MSC immediately released a risk bulletin on the SHFE and INE websites to remind traders to only trade at licensed trading venues and in a lawful and rational manner, thereby helping traders better identify risks and protect themselves. In 2022 MSC has received 1,584 questions and suggestions from various channels, achieving a 100% response rate and 97% satisfaction rate.

II. Zhengzhou Commodity Exchange (ZCE)

In 2022, in accordance with the guiding principles of the Central Economic Work Conference, ZCE prioritized economic stability and pursued progress while ensuring stability, performed a better role in the futures market, and enhanced investor education and protection.

(I) Exercising Self-Regulation and Further Implementing Suitability Requirements

As part of its preparations for the access of OSPs, ZCE reviewed the application scope of its suitability rules, and explored proper revisions to the *ZCE Measures for the Administration of Trader Suitability Requirements for Futures Trading*. In 2022, ZCE conducted checks on 16 members for their compliance with its self-regulatory rules, requiring them to implement the trader suitability requirements and other rules.

(II) Launching Investor Education Programs to Raise Risk Awareness

In line with the initiative of "Collaborative Investor Protection," and the principle of "Educating, Serving, and Protecting Investors", ZCE introduced a variety of investor education and awareness programs on occasions such as the National Investor Protection Day,

World Consumer Rights Day, World Investor Week, and Financial Literacy Month. ZCE has also produced more than 30 educational products for investors, including a webtoon series for the March 15 event, infographics titled May 15 Investor Protection Tips and Financial Knowledge Memorandum, interactive posters themed Guide on Preventing Illegal Securities and Futures Activities, and animations named Minishow on Preventing Illegal Securities and Futures Activities. These products boosted investors' risk prevention and self-protection awareness, leading to concrete outcomes from the corresponding programs.

ZCE initiated "The Influence of Futures—ZCE Investor Education Pioneers" selection program to collect short videos on six themes of investor protection, like the *Futures and Derivatives Law* and Futures in Support of Rural Revitalization. A total of 63 participants submitted 149 original works. Additionally, ZCE released over 100 investor education products in the form of infographics, short videos, and courses through websites, we-media platforms, and other trending channels. These efforts introduced the *Futures and Derivatives Law* and the basics of futures and derivatives to investors and the general public in simple terms, thus enabling them to make rational investment decision.

ZCE encouraged members and other partners to engage in investor education. In 2022, ZCE held 1,025 lectures through programs such as Futures Literacy at Universities and Investor Education Special Event, attracting about 260,000 participants. It also supported members in rolling out 1,385 activities for "Serving the Industries and Businesses," benefiting about 400,000 people. These initiatives served as a guidance on futures trading for different market players.

(III) Hosting the 5th ZCE Cup to Support the Incorporation of Investor Education into the National School Curriculum

Under the guidance of the Department of Futures Supervision, Investor Protection Bureau, and Communist Youth League Committee of the CSRC, ZCE and CFA held the 5th ZCE Cup, a national virtual trading competition for college students. The event saw a remarkable participation of 51,455 applicants from 2,160 universities at home and abroad. These record-high figures signified increased recognition from universities. The competition sparked students' interest in futures lessons and played a crucial role in nurturing futures professionals for the market.

(IV) Taking Multiple Measures to Expand the Futures Market and Educate Investors

In 2022, ZCE launched the Special Service Program for Industries, an innovative effort to help companies hedge against risk with futures. Under the multi-year program of Protecting the Real Economy and Agricultural Industry with Futures, it organized 209 events that cover topics such as Business Risk Management amid the Pandemic and Futures Serving SMEs While China Seeks Sufficient Provision of Agricultural Supplies at Stable Prices. It also delivered various training courses, including ZCE in Central SOEs, SOE futures training, and risk management training for listed companies, further increasing the risk management awareness and abilities of

investors. In addition, it built 31 Industrial Bases and supported them to carry out 171 industry service activities. To promote the high-quality development of the ferroalloys, nitrogen fertilizers, plant oil and oil seeds, and other industries, it hosted four specific conferences focused on futures derivatives.

(V) Taking Investor Feedback Seriously and Establishing a Sound Communication and Feedback Channel

ZCE properly addressed complaints, disputes, risks, and mediation requests, and accepted, settled, and replied feedback received through its service platforms in a timely manner. In 2022, a total of 67 valid complaints (18 reports, 3 complaint letters, and 46 complaints transferred from the 12386 platform and other channels) were accepted and resolved.

To enhance communication and collaboration with judicial and law enforcement authorities, ZCE joined hands with the relevant political and legal agencies in issuing the *Implementation Opinions on Establishing a Pre-Litigation Mediation Mechanism for Futures Disputes (Trial)*, and the *Implementation Opinions on Establishing a Mechanism for Collaboratively Maintaining Futures Market Order and Strengthening Security Work (Trial)*. Furthermore, it completed mediator-related information on the National Securities and Futures Online Mediation Platform, formulated the *Mediation Rules of the Mediation Committee of Zhengzhou Commodity Exchange*, and established a reliable partnership with the Zhengzhou Intermediate People's Court to ensure efficient and convenient pre-litigation mediation services. ZCE made continuous efforts to promote awareness of the mediation committee's roles and functions, while also providing traders with various channels to express complaints, voice expectations, and seek legal remedies. All these measures aimed to protect the rights and interests of traders.

III. Dalian Commodity Exchange (DCE)

DCE built on its investor education activities while continuing to improve its working mechanisms in 2022. Leveraging the wide public recognition, DCE organized a series of activities focused on educating and protecting investors across the market and industries.

(I) Achieving Notable Results by Upgrading Investor Education

First, DCE established a leading team for investor protection and outlined its operational framework. In late April, the team, headed by Ran Hua, Secretary of the CPC DCE Committee, was formally put together with the aim of bolstering the organization, leadership, and coordination of investor protection. Its operational framework was also outlined from the aspects of overall requirements, tasks, and division of functions. The introduction of the team and its operational framework represents a significant stride in implementing the people-centered philosophy and serving the high-quality development of the futures market. At DCE, this move has not only fortified the organization, leadership, as well as the communication and

coordination mechanism for investor protection, but also enabled holistic and coordinated investor protection across the business lines, products, and process. In a broader context, it has contributed to developing a "Collaborative Investor Protection" landscape.

Second, DCE launched an online center for investor education and introduced a corresponding IP image. On May 15, 2022, the DCE Futures Academy went live as an online center for trader education. It was designed to provide educational services for futures traders, such as developing their futures literacy, promoting the relevant information and policies, and offering risk warnings. The learning resources available include video courses and a wealth of graphical content. The center has been running smoothly and become a one-stop educational platform primarily for futures traders. Furthermore, a cartoon character named Dayan that combined the image of a soybean with DCE's logo was created as the mascot for investor education. Several popular and interesting educational works have been produced, such as the *Growth of Dayan* and *Voice from Dayan.*

Third, DCE planned themed activities and expanded the corresponding product system. Recognizing the diverse needs and characteristics of different market participants, DCE established its own investor education brands, including the "DCE Micro Class", "DCE Infographics," and "DCE Cloud Classroom." Under these brands, more than 200 original investor educational materials have been created to enhance understanding of DCE product contracts and operations, business lines, and rules. These investor protection products formed a fairly comprehensive and multi-level framework. DCE also held a variety of educational events to promote investor protection and risk awareness during significant dates like the March 15 World Consumer Rights Day, May 15 National Investor Protection Day, World Investor Week, and Financial Literacy Month. These events aimed to educate investors to respect the power of the market, identify risks, and make rational investment decisions. Additionally, DCE launched a range of theme-based products, such as the Cartoon on Regulation, Interviews on Corporate Risk Management, and Investor Protection Mini-Dictionary. In particular, DCE promoted and implemented China's *Futures and Derivatives Law* by publishing the relevant materials through its website, WeChat official account, and other platforms in 2022. The objective was to foster an environment where "all market participants know the law's highlights and benefit from its accomplishments." To promote the law in a more accessible, popular, and engaging manner, DCE set up a "Law Promotion Corridor," produced "DCE Legal Talk" series program, and conducted a series of lectures. All of these addressed market concerns and provided a systematic interpretation of the law.

(II) Training Professionals Through the Futures Institute

With the help of local futures associations, DCE has set up branches (or classrooms) for its Futures Institute in 31 central cities across China between the inception of the program in 2006 and the end of 2022. This has created a nationwide training network, enabling simultaneous live streaming of classroom activities at any one location to other branches. An education committee has also been set up with more than 100 members, mostly senior

executives from futures companies. By the end of 2022, the Futures Institute had trained more than 40,000 individuals, including futures company employees, industry customers, as well as government and media personnel. In 2022, the DCE Futures Institute delivered two-week special industry training for futures analysts on the highly correlated plant oil and oil seeds futures products. The training attracted 3,000 employees from futures companies across the country, and selected nearly 300 outstanding participants. Furthermore, DCE carried out through its Futures Institute 26 special training and market development sessions in collaboration with 13 CSRC regional offices and local associations for securities, futures, fund, and listed companies, benefiting more than 65,000 people in total, both online and offline.

(III) Promoting Industry-University-Research Collaboration

First, DCE continued its University Programs for Futures Professionals to facilitate incorporation of futures and derivatives knowledge into the national school curriculum and cultivate professionals for the industry. Throughout 2022, DCE developed 51 University Curriculum Programs that opened 299 classes for a total of 20,000 individuals. On the whole, these enhanced programs have generated more tangible outcomes, and received widespread praise and recognition from teachers and students.

Second, DCE launched University Research Programs on the basis of University Curriculum Programs to further develop futures professionals and leverage the scientific and research resources and advantages of universities. DCE approved the research applications from the Minzu University of China, Shandong University, Nanjing University, and Wuhan University. All of the approved projects have completed their research drafts. Notably, the research paper of the Shandong University has been published in the *International Journal of Financial Engineering*. Moreover, DCE hosted the 5th University Teachers' Derivatives Seminar, which saw the participation of 170 teachers from 60 universities.

Third, in response to the national policy of "Incorporating Investor Education into the National School Curriculum," DCE developed a multi-level futures and derivatives professional training system. In 2022, it initiated the Young Futures Talents Program – 1st DCE University Student Derivatives Trading Competition under the guidance of the CSRC's Department of Futures Supervision and the Investor Protection Bureau. As part of the program, a futures company paired a student team with an industrial company or a risk management subsidiary of the futures company. Both the companies will guide the students through the entire process of managing risks with derivatives, from planning to execution and review. During the practical phase, students had the opportunity to interact face-to-face with responsible persons of the industrial companies for insight into the industries through field research or discussions. They also learned about risk management from experts of the futures companies, enhancing their theoretical knowledge and practical skills by participating in the design of risk management plans for industrial companies. This program ensured a sufficient supply of human resources for the futures and derivatives industry. This 1st competition garnered 46 teams, with 30

competing for the Top 10 through a live-streaming event that was viewed by 63,000 people. The Competition was well received by universities and the market.

IV. China Financial Futures Exchange (CFFEX)

In 2022, CFFEX continued to strengthen investor education and protection, producing a wide spectrum of original contents and mobilizing stakeholders to engage in investor education and protection with broad geographical and audience coverage.

(I) Building New Educational Platforms and Expanding Collaboration between Futures and Cash Markets

To open up new channels for investor education, CFFEX created accounts for WeChat Video, the Futures Daily app, the investor education center of www.cls.cn, Himalaya, Ajmide, and the e-classroom of China Capital Market Institute. In addition, CFFEX and the CSRC Shanghai Office co-produced the *Cautionary Tales on Illegal Financial Activities*, a podcast simultaneously available on Himalaya, the streaming channel of Radio Shanghai, and Yicai Radio and designed to promote objective market views and rational investing. Furthermore, in collaboration with the CSRC Sichuan Office and the Securities and Futures Association of Sichuan, CFFEX and Shanghai Stock Exchange organized the Sichuan and Anhui events for the Investor Service Week, which highlighted collaboration between futures and cash markets by showcasing the positive impact of financial futures on the STAR Market. In partnership with the China Securities Investor Services Center, CFFEX designed questions on financial futures and the *Futures and Derivatives Law* for the grand final of "Here Come the Shareholders" knowledge contest. CFFEX has also set up financial futures learning zones at investor education centers across the country. CFFEX has also been setting up financial futures learning zones at investor education centers around the country. Powered by customized investor protection information platforms, these learning zones seek to promote better understanding of financial futures and rational investing.

(II) Expanding Coverage through Greater Collaboration with Universities, Financial Institutions, and Members

CFFEX and CFA co-hosted the 8th CFFEX Cup financial knowledge contest for college students nationwide. A total of 28,403 contestants from 730 universities and colleges in 29 provinces, autonomous regions, and municipalities registered for the event, with 1,375 receiving a prize. CFFEX continued to integrate financial futures-related courses into the national curriculum and, together with Wuhan University, Sichuan University, and Dongbei University of Finance and Economics, brought financial courses to classrooms. To introduce more medium- and long-term institutional investors into the market, CFFEX has redesigned its training courses on financial derivatives, with enrollment exceeding 180 people in 2022. Similar activities included 8 one-on-one training sessions on CFFEX rulebook as part of CFFEX's "bringing financial futures to institutions" initiative, thematic forums and 7 training

sessions focused on newly launched products, 6 online sessions of "Experts on CGB Futures," and 3 forums and annual conferences co-hosted with CFA and other industry associations. In addition, CFFEX joined hands with 128 of its members in organizing 4,832 investor education activities online and producing 547 easy-to-understand booklets and other educational materials. Moreover, CFFEX unveiled its inaugural selection of the outstanding analyst teams in financial futures, to encourage members to make better use of financial futures for the purpose of serving the real economy. A "Voice of Members" platform was created to enable two-way communication. In particular, CFFEX published 14 interviews on its WeChat channel and in the *Shanghai Securities News* following its one-on-one conversations with exemplary members. In addition, CFFEX held four training sessions on the *Futures and Derivatives Law* and *Anti-Trust Law* through its Member Express platform, to promote greater awareness of compliance among members' employees and higher legal literacy among market participants, professionals, and investors.

(III) Strengthening Investor Education and Protection and Promoting Public Understanding of Financial Futures

CFFEX organized new forms of e-learning activities that have been well received by the public. In 2022, it organized two financial futures knowledge contests, two "best reader comment" giveaways, and four questionnaires on investor protection and education, attracting more than 4,000,000 participants. The exchange continued to develop case studies on how financial futures serve the cash market and the real economy. Notably, its *Market Functions of Financial Futures: Financial Futures in Action* contains 21 cases centering on the use of financial futures. Moreover, CFFEX has developed 216 original, high-quality courses, organized into 11 series, about its key products and services, presented through short animations, infographics, documentaries, and interactive HTML5 (H5) pages.

(IV) Prioritizing Investor Services and Broadening Inquiry and Service Channels

CFFEX continued to respond to investor questions with promptness and efficiency. In 2022, it received 768 calls and 87 mails from investors, as well as 3 inquiries transferred from the 12386 hotline of the CSRC Investor Protection Bureau. A total of 326 valid inquiries received an appropriate and prompt response. Additionally, all relevant CFFEX departments have set up a permanent contact channel for receiving investor comments and suggestions, with the contact details published on CFFEX's website. CFFEX also took proactive steps to better understand investors' needs and suggestions. Furthermore, CFFEX has established a complete investor redress framework that encompasses response to investor questions about the exchange's services, the handling of investor complaints and proposals, and the contingency plans for emergencies.

(V) Increasing Outreach to Promote Financial Futures

To better inform the media about the exchange's new offerings and priorities, CFFEX has been organizing "CFFEX Tea Talk", a regular training program for journalists, and co-hosting

the "CFFEX Qinyuan Financial Media Training Program" with the China Capital Market Institute. Following the launch of CSI 1000 Index futures and options and SSE 50 Index options, CFFEX held news briefings targeting traditional and new media platforms, to form synergy with the journalist community. Priority was given to more than 20 mainstream media outlets including state media and the five major newspapers, providing customized coverage suggestions and source materials and coordinating expert interviews. CFFEX also organized series reports on its model members by helping the *Shanghai Securities News* visit these futures companies on site to presentthrough both articles and videosthe progress, functions, and high-quality development of the financial futures market in the past decade. Furthermore, CFFEX sought to publicize how financial futures contributes to national initiatives. For example, with its assistance, *Sanlian Lifeweek, China Securities Journal,* and *Shanghai Securities News* wrote a story on how CFFEX helped Yanchang County to eliminate poverty and breathed new life into the area. Following the introduction of the *Futures and Derivatives Law,* the exchange also took various opportunities to explain the significance of the law to the financial futures market.

V. Guangzhou Futures Exchange (GFEX)

In 2022, to support the launch of the silicon metal futures and options, GFEX organized training, both online and offline, to analysts as well as trading, clearing, and delivery professionals to ensure better market services. It also fully tapped into visual presentations, expanded promotional platforms, and introduced innovative investor education approaches to help investors better understand and more effectively trade in the futures market.

(I) Enhancing Professional Training to Support Silicon Metal Derivatives and Acclimating Futures Professionals to New Energy and Other Industries

Taking full advantage of the convenience of internet technologies, GFEX delivered training to 30,000 attendees. These training courses included (i) 15 online sessions to futures companies and the market as a whole to help industry professionals and investors better understand the silicon metal industry and the design of the corresponding futures and options contracts and rules; (ii) 5 sessions on the trading, clearing, risk control, and delivery rules of the exchange, and the key provisions of the *Futures and Derivatives Law* in particular, to facilitate understanding of futures laws and GFEX rules by futures company employees; and (iii) 5 online sessions on commodity indices, in anticipation of the planned listing of commodity index futures. GFEX also held a two-day systematic training for silicon metal analysts on industry research and service.

(II) Releasing Investor Education Videos, Infographics, Cartoons, Posters, and Product Handbooks

GFEX created waves with its giant public service announcement, captured in a drone video, on the wall displays of the Canton Tower in celebration of the formal implementation of

the *Futures and Derivatives Law*. It produced motion graphics, sand animations, video monologues, and the serial 100 *Q&As about Silicon Metal* to introduce silicon metal futures and options to prospective investors. The exchange also produced a report on the spot silicon metal market, a trading handbook, and a hedging handbook, which are available on its website and through offline channels.

(III) Optimizing and Expanding Market Service and Outreach Platforms

GFEX' redesigned website contains a new informational section, where investors can receive up-to-date information on listed products and market developments. Also available are the telephone numbers for GFEX' trading, settlement, audit, delivery, and market departments, enabling direct two-way communication with market participants. In addition, the exchange has expanded its investor education channels by creating a WeChat Video account, optimizing the settings for its WeChat account, and setting up a dedicated investor education section with media outlets that shares essential knowledge about the products listed on GFEX, achieving positive outcomes.

(IV) Carrying Out Thematic Investor Education Activities and Promoting Investor Outreach and Education

Duly carrying out the CSRC's plan for investor education and protection, GFEX launched an array of activities to help investors better understand the market and market risk, invest rationally, and steer clear from illegal brokerage and trading venues. Accompanied by posters, serial cartoons, infographics, knowledge contests, and questionnaires, these activities covered the "March 15" World Consumer Rights Day, "May 15" National Investor Day, Illegal Securities and Futures Activity Awareness Month, World Investor Week, and Financial Literacy Month.

>>> Section IV Investor Protection at China Commodity Indices Co., Ltd.

In 2022, under CSRC's leadership, China Commodity Indices established internal policies for investor protection programs and organized a range of targeted investor interest activities in line with its businesses and investor needs.

I. Offering Investor Protection Through Multiple Channels

China Commodity Indices developed the *Measures for the Management of Investor Protection Programs (Trial)* to better regulate the related activities. It also formulated the *Measures for Handling External Questions, Complaints, and Recommendations* to appropriately respond to investor inquiries and feedbacks. Investor protection and services were offered through many channels including its office website, WeChat, a service hotline, and a

dedicated email inbox.

II. Launching Investor Protection Campaigns

At the direction of the CSRC, China Commodity Indices rolled out a range of events that are tightly integrated with its businesses, topical issues, and investor needs, covering such observances as the "March 15" World Consumer Rights Day, Illegal Securities and Futures Activity Awareness Month, "May 15" National Investor Day, World Investor Week, Fair Competition Policy Awareness Month, and Financial Literacy Month.

III. Promoting Commodity Indices

China Commodity Indices held an online ceremony at the debut of the CCI Commodity Futures Index, to both promote it and enhance its influence. The launch was covered by the *China Securities Journal*, *Futures Daily*, Wind, and Xinhua Financial, accompanied by additional information to acclimate investors to commodity indices.

>>> Section V The Futures Trader Protection Fund

The China Futures Market Monitoring Center (CFMMC) fulfills its duties as the designated administrator of the Futures Trader Protection Fund ("Protection Fund") in strict accordance with the *Measures for the Administration of the Futures Trader Protection Fund*, playing a vital role in market development and trader protection. A separate account has been set up by CFMMC for the Protection Fund to ensure accurate and separate accounting and funds safety. CFMMC also prepares annual budget reports and final accounts in accordance with the *Measures for the Administration of Finances of Investor Protection Fund.* Furthermore, CFMMC effectively protected traders' interests and market stability by facilitating the conclusion of the risk resolution process of certain futures companies. As of the end of 2022, the balance of the Protection Fund was RMB 9.932 billion.

>>> Section VI Futures Dispute Mediation

In view of the highly technical nature of futures disputes and new traders' limited understanding of futures trading rules, the CFA is committed to protecting the interests of both traders and futures business organizations in accordance with its mandates under the *Futures and Derivatives Law.* It does this by broadening the channels and improve the efficiency of dispute resolution, and strengthening the mediation mechanism through rule-making,

organization and team building, and coordination enhancement. CFA's mediation program is conducted in strict accordance with the *Opinions of the General Office of the State Council on Further Strengthening the Protection of Lawful Rights and Interest of Small and Medium Investors in the Capital Market* and CSRC's directives on strengthening investor protection, and is a major component of the multi-dimensional dispute resolution services for the futures market. Mediation services for the futures industry are now in place and running smoothly.

I. CFA Mediation Committee

CFA's Mediation Committee, one of its many specialized committees, is responsible for managing mediators and mediating futures disputes between members and between members and traders, as CFA has been charged to do by the *Futures and Derivatives Law*. CFA's Investor Service Department oversees the day-to-day mediation-related activities.

II. Establishing Mediation Rules

On August 19, 2021, CFA consolidated four of its mediation rules into the *Mediation Rules of the China Futures Association.* These *Rules* provide the foundation for the impartial and timely resolution of futures disputes and protect the rights and interests of the mediating parties. For greater efficiency, CFA developed the *Procedures for Handling Investor Complaints and Tips* to streamline the processes for responding to trader questions and complaints, dispute resolution, tips referral, and disciplinary sanctions, providing the institutional foundation for the effective linkage between complaint processing and mediation.

III. Establishing the Mediation Committee for Effective Oversight

The CFA has established a Mediation Committee composed of executives in the futures industry, representatives of local associations, and senior lawyers. In line with the authority granted by the CFA Council, the Mediation Committee is responsible for organizing the pre-service training, continuing training, and sharing of experience of mediators; examining the specialized issues related to mediation of futures disputes; appointing and dismissing mediators; assessing the overall quality and social impact of the mediation program; and advising and making recommendations to the Council on mediation-related matters.

IV. Building a Professional Team of Mediators

CFA has established a growing team of professional mediators in accordance with the *Mediation Rules of the China Futures Association.* The team is currently composed of 142 members from regulatory authorities, self-regulatory organizations, and legal and other relevant

fields and covers 34 regions around the country. Each year CFA invites mediation experts, academics, and practicing lawyers to provide practical training to the mediators.

V. Building an Online Complaint and Request Handling Platform

With the wider use of internet technologies, the CFA has built an online complaint handling platform to be more accessible to futures investors and boost its mediation functions. Its Self-Regulatory Supervision System has been upgraded with a "Complaint & Request" module that consolidates all trader complaints, tips, inquiries, and mediation requests into one place for one-click transmission to the relevant business organizations. A ticket tracking function is in place to ensure these business organizations resolve a case within the specified time limit and inform the CFA of the outcomes. The entire process—from case acceptance and referral to processing, reply, and post-resolution survey—is completed entirely online and fully traceable, creating a more efficient case handling and dispute resolution process.

VI. Engaging in Multi-Dimensional Resolution of Futures Disputes

As one of the mediation organizations for the futures industry and in line with the *Opinions on Comprehensively Advancing the Establishment of a Multi-Dimensional Dispute Resolution Mechanism for the Securities and Futures Industries*, CFA has entered into memoranda of cooperation with the Beijing High People's Court, Zhejiang High People's Court, Beijing Financial Court, Haikou Intermediate People's Court, and Yunnan High People's Court, joining their list of recognized mediation organizations. CFA has also partnered with numerous courts on the National Securities and Futures Mediation Platform and registered 33 mediators with the platform, making it fully ready for receiving futures-related mediation cases that are initially to be tried in the courts.

ABBREVIATIONS

Abbreviation	Full Name
ADR	Alternative dispute resolution
BSKP	Bleached softwood kraft pulp
CCI	China Commodity Indices Co. , Ltd.
CFA	China Futures Association
CFETS	China Foreign Exchange Trade System
CFFEX	China Financial Futures Exchange
CFMMC	China Futures Market Monitoring Center
CGB	China/Chinese government bond
CSRC	China Securities Regulatory Commission
DCE	Dalian Commodity Exchange
FF	Futures firm; futures company
FIA	Futures Industry Association
GFEX	Guangzhou Futures Exchange
IMF	International Monetary Fund
INE	Shanghai International Energy Exchange
IOSCO	International Organization of Securities Commissions
ISC	China Securities Investor Services Center
LSFO	Low-sulfur fuel oil
MT	Metric ton
NDRC	National Development and Reform Commission

Abbreviation	Full Name
NEEQ	National Equities Exchange and Quotations
OI	Open interest
OSBP	Overseas Special Brokerage Participant
OSNBP	Overseas Special Non-Brokerage Participant
OSP	Overseas Special Participant
OTC	Over-the-counter
PCR	Put/Call Ratio
QCCP	Qualifying central counterparty
RR	Polished round-grained rice
SHFE	Shanghai Futures Exchange
SPC	Supreme People's Court
TAS	Trade-at-settlement
WFE	World Federation of Exchanges
YoY	Year-on-year
ZCE	Zhengzhou Commodity Exchange

REFERENCE TABLE OF EXCHANGE TERMS

CFA Yearbook	SHFE	INE	DCE	ZCE	CFFEX
Product; underlying (CFFEX)	Product	Product	Product	Product	Underlying
Contract unit; contract multiplier (CFFEX)	Contract size	Contract size	Trading unit	Trading unit	Contract multiplier
Price quotation	Price quotation	Price quotation	Price quote unit	Price quotation	Unit
Minimum price fluctuation	Minimum price fluctuation	Minimum price fluctuation	Minimum tick size	Minimum price fluctuation	Tick size
Daily price limit	Range of price limit	Daily price limits	Daily price limit range	Daily price limit	Limit up/limit down
Listed contracts	Listed contracts	Listed contracts	Contract months	Contract months	Contract months
Grade and quality	Grade and quality specifications	Grades and quality specifications	Deliverable grades	Grade and quality	/
Delivery venue	Delivery venue	Delivery venue	Delivery point	Delivery point	/
Minimum trading margin	Minimum trade margin	Minimum trading margin	Minimum trading margin	Minimum trading margin	Minimum margin requirement
Settlement type	Settlement type	Settlement type	Delivery form	Delivery method	Settlement method
Strike price	/	Strike price	Exercise price	/	Strike price
Option style	/	Option style	Exercise style	/	Option style
Product code	Contract symbol	Product symbol	Ticker symbol	Product code	Transaction code
Listing exchange	Listing exchange	Listing exchange	Listed exchange	Listed exchange	Exchange
(Designated) delivery facility	Delivery storage facilities	Delivery storage facilities	Delivery warehouses	Delivery warehouses	/

REFERENCE TABLE OF EXCHANGE TERMS

Continued

CFA Yearbook	SHFE	INE	DCE	ZCE	CFFEX
Futures company; futures firm	Futures firm	Futures firm	Futures company	Futures brokerage firm	Futures company
Futures Firm Member (FF Member)	Futures firm member (FF Member)	Futures firm member (FF Member)	Futures company member	Futures brokerage member (FB Member)	Futures-company member
Non-Futures Firm Member (Non-FF Member)	Non-futures firm member (Non-FF Member)	Non-futures firm member (Non-FF Member)	Non-futures company member	Non-futures brokerage member (Non-FB Member)	Non-futures-company member
Futures Risk Disclosure Statement	/	Risk Disclosure Statement	/	/	/
Standard warehouse receipt	Standard warrant	Standard warrant	Standard warehouse receipt	Registered receipt	/
Bonded standard warehouse receipt	Bonded standard warrant	Bonded standard warrant	Bonded standard warehouse receipt	Registered bonded receipt	/
Notice of intent to deliver	/		Notice of intent to deliver	Load-in intention	/
Notice of intent to accept	/	Intention of delivery; delivery intention	Delivery intent declaration	/	/
Clearing agreement	/	Clearing delegation agreement	/	/	/
Deposit	/	/	/	Load-in down payment	/
Bonded delivery settlement price	Bonded final settlement price	Bonded final settlement price	/	Bonded delivery price	/
Import duty rate	/	/	/	Import tariff rate	/