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FOUNDER CIFCO FUTURES

Iron Ore Futures Weekly Report

(Near term: Neutral)

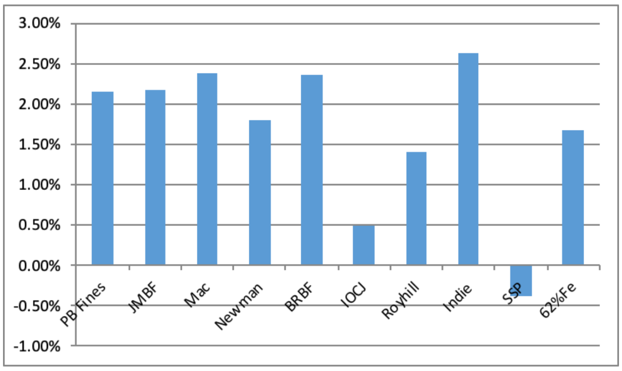
LIANG Haikuan & WANG Jun, Research Institute of Founder CIFCO Futures

Market Outlook and Trading Advice:

The iron ore futures opened low and then nearly climbed back to the level before the Spring Festival. The plummet of crude oil prices early this week has significantly shifted the risk appetite of investors and the price of iron ore futures also plunged. Later, shipment volume from Brazil dropped due to shipment delay that was caused by the local heavy rain. Therefore, iron ore futures price rose and led the gains in the mid of the week. Demand for iron ore was rising as we could observe that ports inventory of imported ore fell below 120 million tons, almost hitting the low over the past years. Over 3 million tons of ore was transported away from ports on a daily basis. Final demand for steel also turned better, leading to increase of operation rate of blast furnace and daily melted iron output. The sound supply and demand of iron ore is the main reason that keeps the price high against the backdrop of volatile market. The fundamentals of iron ore is the best over the year and later would diminish. With high iron ore price and low profit made by steel mills, iron ore price is hardly to remain bullish. With rising shipment from overseas and pick up of iron ore concentrates output in China, supply of iron ore would no longer remain tight. Technically, we wouldn't rule out the possibility of the price reaching the high of last quarter, yet downward pressure remains and investors shall remain cautious and sell the positions once the price hit a high.

1. Iron Ore Market Review

Platts 62% Fe closed at 91 USD per dry metric ton on March 13th, up 1.68%. Spot price at ports also surged. To be specific, MNP and JMBR soared by some 2%. With rising profit, steel mills started to purchase more middle and high-grade iron ore. The drop of shipment from Brazil led to further increase of premiums of high-grade IOCJ Carajas. Therefore, more steel mills purchased middle-grade ores from Australia instead. High-grade IOCJ Carajas rose by only 0.5%, much lower than that of MNP. Low-grade SSP price dropped 0.37%, the weakest one among all mainstream ores. Back in China, iron concentrates supply in Liaoning became tight as some steel mills in Hebei began to purchase here, leading to rising price in cities like Anshan and Benxi by 1.64% and 1.69%, respectively. Iron ore prices remained stable in Hebei province with sufficient supply. Price in Hanxing rose by 1.11%, whereas iron ore concentrates price in Tangshan and Wu'an remained unchanged with last week.



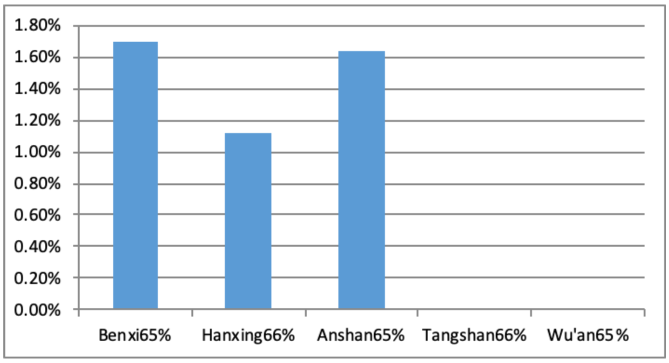


Chart: Up or down of weekly offshore ore prices

Chart: Up or down of weekly onshore ore prices

Source: Mysteel, Founder CIFCO Futures

	Offshore Ore Prices								
	PB Fines	JMBF	Mac	Newman	BRBF	IOCJ	Royhill	Indie	SSP
2020/3/6	650.0	597.0	633.0	667.0	680.0	800.0	637.0	610.0	534.0
2020/3/13	664.0	610.0	648.0	679.0	696.0	804.0	646.0	626.0	532.0
Weekly Up or Down	14.0	13.0	15.0	12.0	16.0	4.0	9.0	16.0	-2.0
	2.15%	2.18%	2.37%	1.80%	2.35%	0.50%	1.41%	2.62%	-0.37%

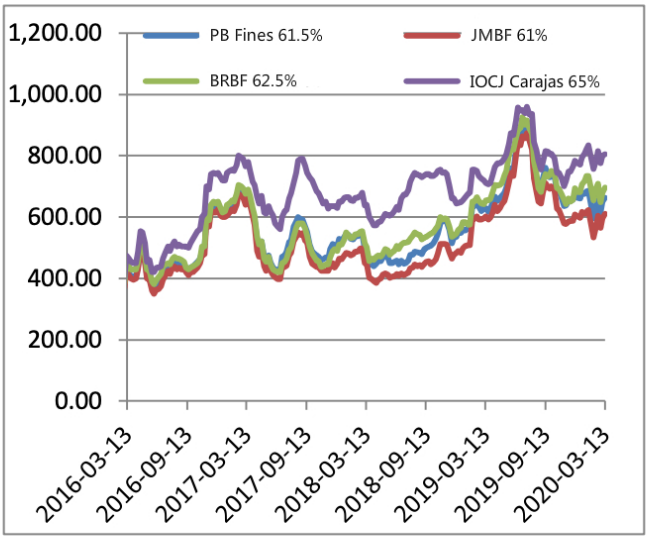
Chart: Weekly offshore ore prices in Rizhao port

Source: Mysteel, Founder CIFCO Futures

	Onshore Ore Prices				
	Benxi65%	Hanxing66%	Anshan65%	Tangshan66%	Wu'an65%
2020/3/6	590.0	809.0	610.0	665.0	710.0
2020/3/13	600.0	818.0	620.0	665.0	710.0
Weekly Up or Down	10.0	9.0	10.0	0.0	0.0
	1.69%	1.11%	1.64%	0.00%	0.00%

Chart: Weekly onshore ore prices

Source: Mysteel, Founder CIFCO Futures



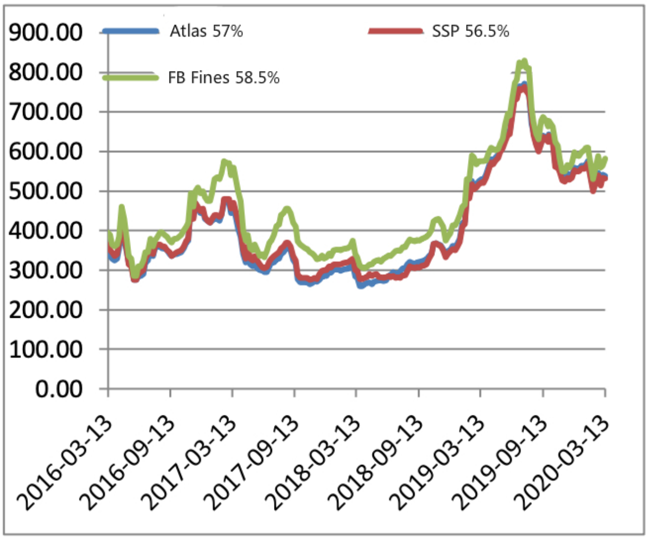
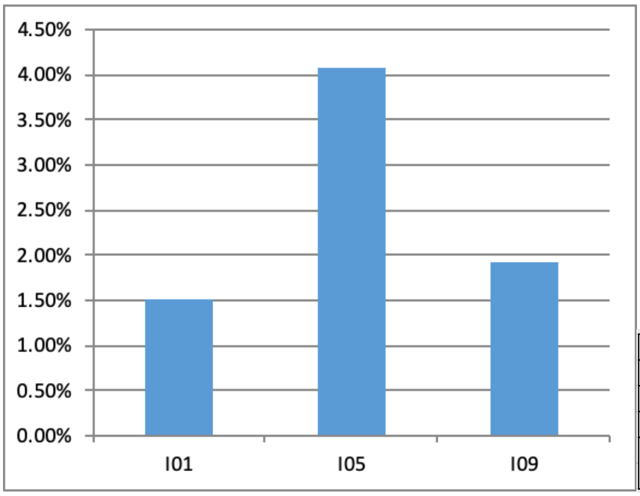


Chart: Medium and high-grade iron ore spot price   Chart: Low-grade iron ore spot price

Source: Mysteel, Founder CIFCO Futures

We've seen surge of iron ore futures prices of both nearby and forward contracts. To be specific, nearby contract price rose much higher than that of forward contract. Contract 05 increased by 4.08% this week. Forward contract prices went up by over 1%. Total trading volume of contract 05 plummeted, whereas forward contract 09 and contract 01 surged by around 40%. Open interests of both forward contract 01 and nearby contract 05 decreased, whereas that of contract 09 slightly increased.



	Close (RMB/ton)		
	I01	I05	I09
2020/3/6	593.5	650.0	621.5
2020/3/13	602.5	676.5	633.5
Weekly Up or Down	9.0	26.5	12.0
	1.52%	4.08%	1.93%

Chart: Up or down of weekly futures prices

Source: Wind, Founder CIFCO Futures

	Trading volume (10,000 lots)			Open interests (10,000 lots)		
	I01	I05	I09	I01	I05	I09
2020/3/6	7.57	550.79	75.69	4.22	73.03	28.28
2020/3/13	10.67	596.61	105.54	3.86	64.06	29.25
Weekly Up or Down	3.10	45.82	29.85	-0.37	-8.97	0.98
	41.03%	8.32%	39.44%	-8.66%	-12.28%	3.45%

Chart: Weekly trading volume of iron ore futures

Source: Wind, Founder CIFCO Futures

Chart: Technical chart of contract 05

Source: Wind, Founder CIFCO Futures

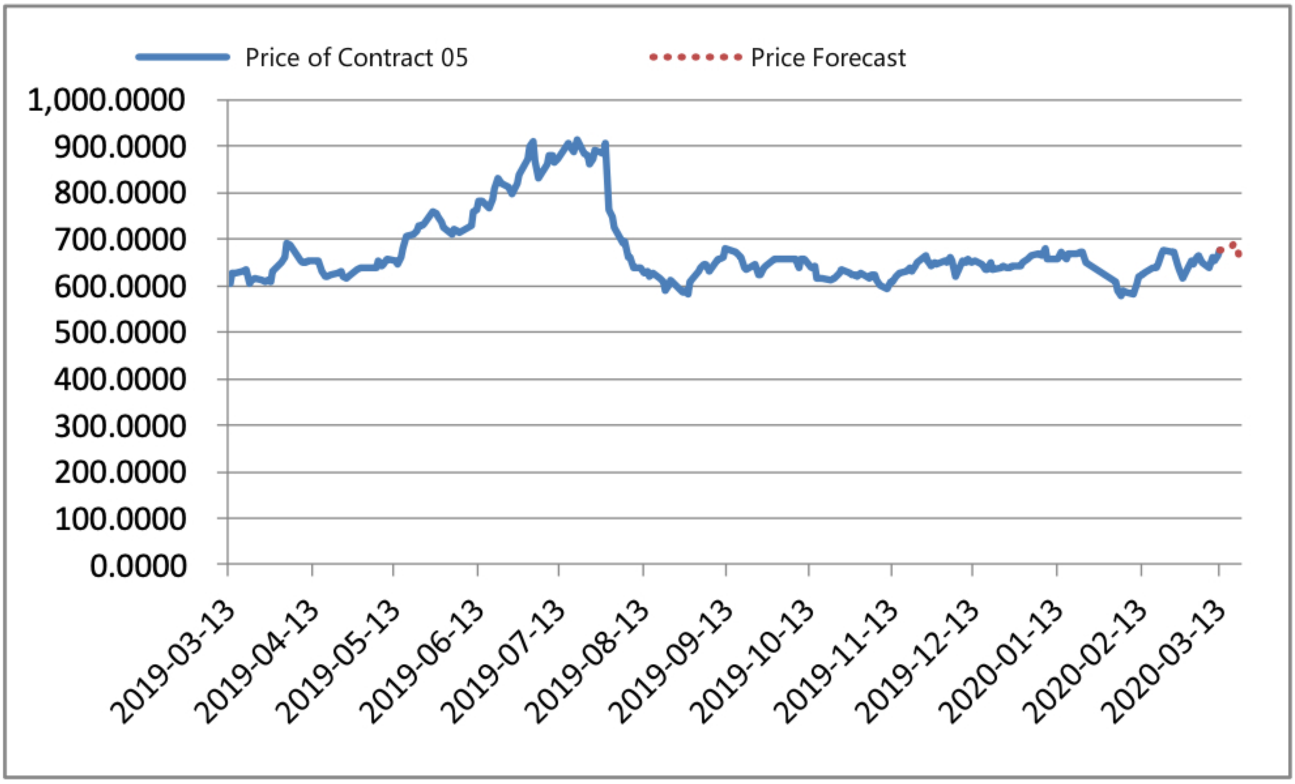
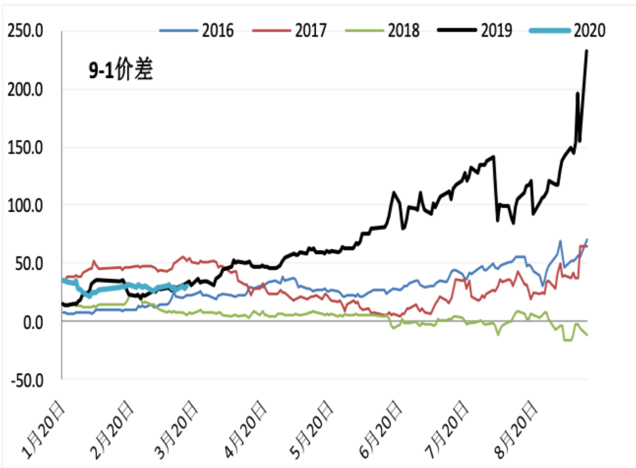


Chart: Price of contract 05 and price forecast

Source: Wind, Founder CIFCO Futures

II. Basis and Spread

Spread of nearby futures contract and forward futures contract varied this week. Contract 05 price went higher than that of spot price, leading to narrowing spread. Spread of forward futures contract went up this week. Basis of contract 05 was 56.2 RMB/ton on March 13th, down 11.3 RMB/ton. In terms of spread, spread of IOCJ Carajas and PB fines slid to 140 RMB/ton, down 10 RMB/ton. Spread of PB fines and JMBF was 54 RMB/ton, up 1 RMB/ton compared with last week. Spread of PB fines and SSP was 132 RMB/ton, up 16 RMB/ton. Overall, premiums of PB fines went higher. Spread of contract 09-01 was 31 RMB/ton, up 3 RMB/ton. Spread of contract 05-09 was 43 RMB/ton, up 14.5 RMB/ton.



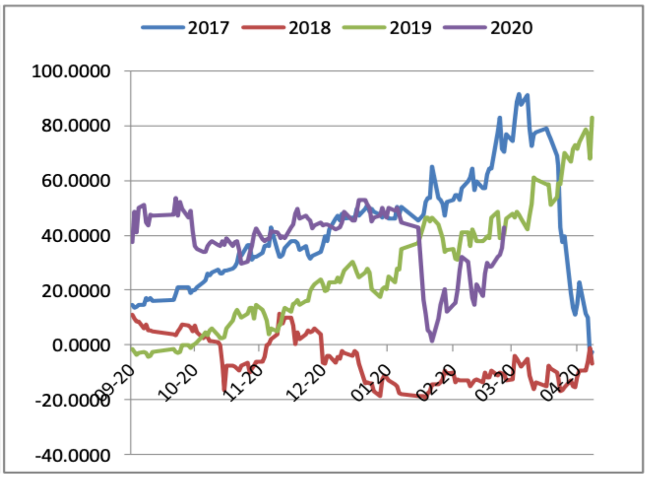


Chart: Spread of contract 09 and 01

Chart: Spread of contract 05 and 09

Source: Wind, Founder CIFCO Futures

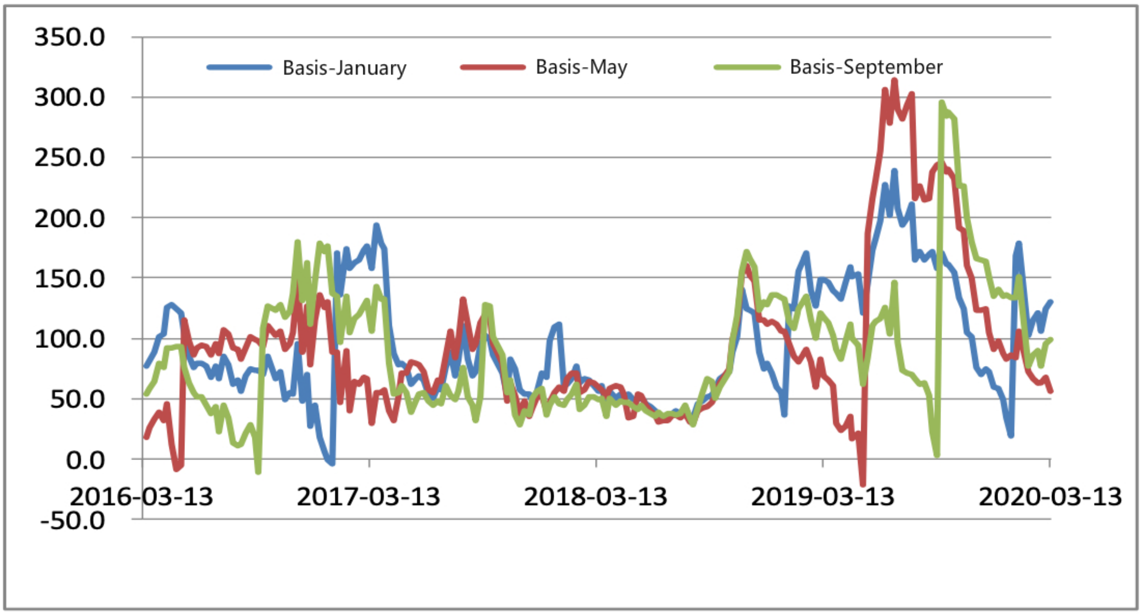
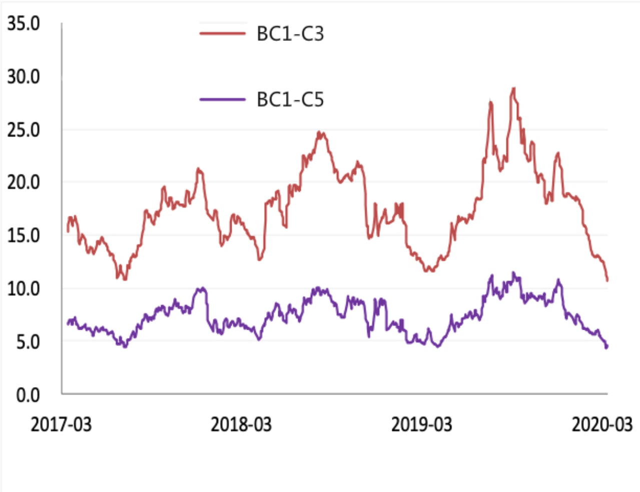


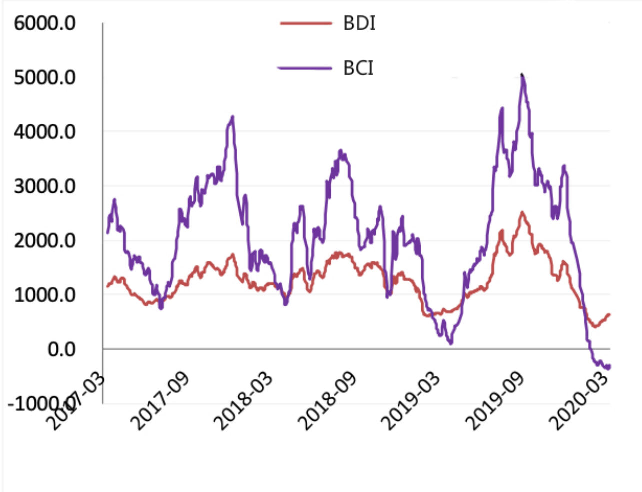
Chart: Basis of spot iron ore (PB fines 61.5%) in Rizhao port

Source: Wind, Founder CIFCO Futures

III. Shipping Market Review

BDI rebound this week. BDI quoted 633 on March 12th, up 34 (5.68%). BCI quoted -355, down 48. Freight from Tubaro to Qingdao port quoted 10.7 USD/ton, down 1.7 (13.43%). Freight from West Australia to Qingdao port quoted 4.5 USD/ton, down 0.5 (10.63%).

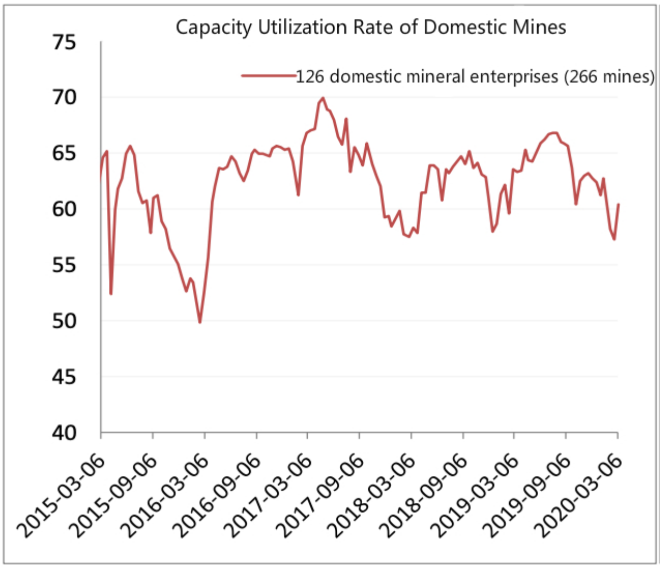


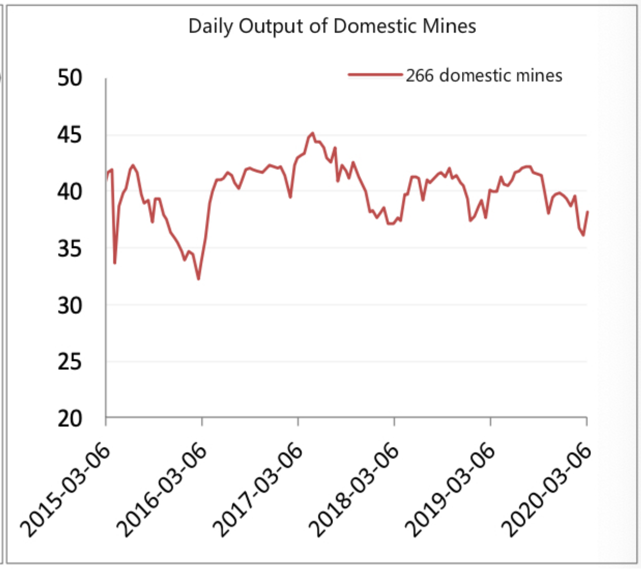


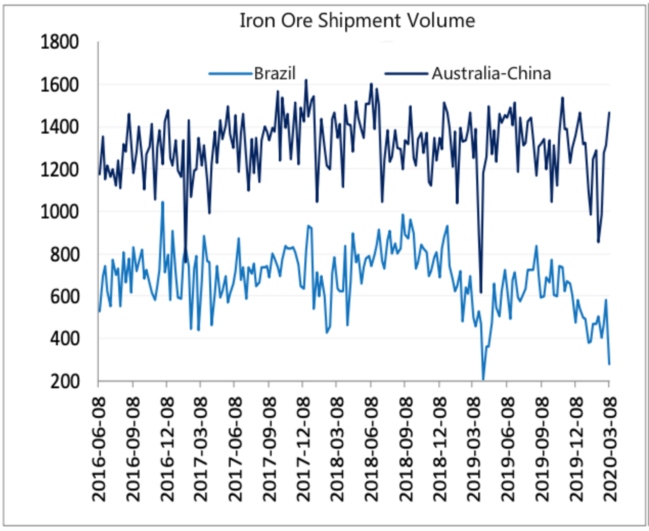
Source: Wind, Founder CIFCO Futures

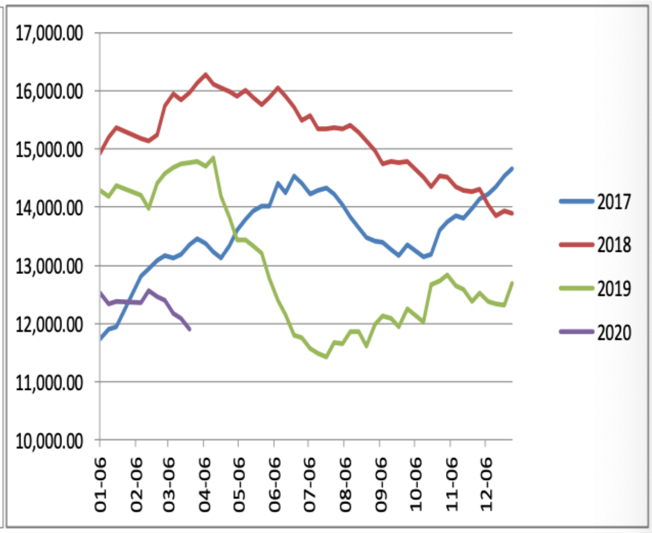
IV. Supply

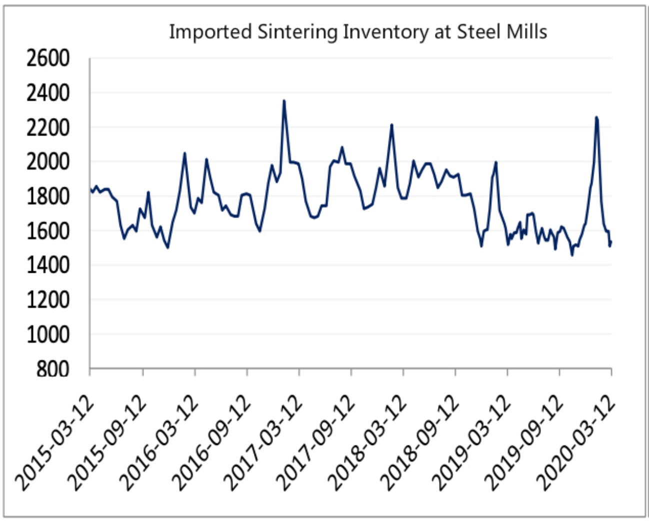
As of March 6th, operation rate of 126 domestic mine enterprises climbed to 60.43%, up 3.14%. Daily average output was 381,200 tons, up 19,800 tons per day. Both output and operation rate dropped. Total shipment volume from Brazil and Australia rose to 21.13 million tons, up 245,000 tons. Brazil shipped only 2.763 million tons, down 3.022 million tons. Australia shipped 18.367 million tons, up 3.267 million tons compared with last week. 14.686 million tons were shipped to China, up 1.554 million tons. 9.26 million tons of cargoes arrived at northern port, up 1.81 million tons. As of March 13th, total port inventory decreased to 1.191113 trillion tons, down 1.6634 million tons, among which 65.5068 million tons of Australian ore were shipped, down 1.2533 million tons, 30.7555 million tons of Brazilian ore were shipped, down 1.12 million tons. Trade ore inventory was 57.7821 million tons, up 836,000 tons compared with last week. Lump ore was 19.069 million tons, down 656,600 tons. Pellet was 4.5588 million tons, down 89,000 tons. Total imported sintering ore inventory was 15.3765 million tons, a historic low.

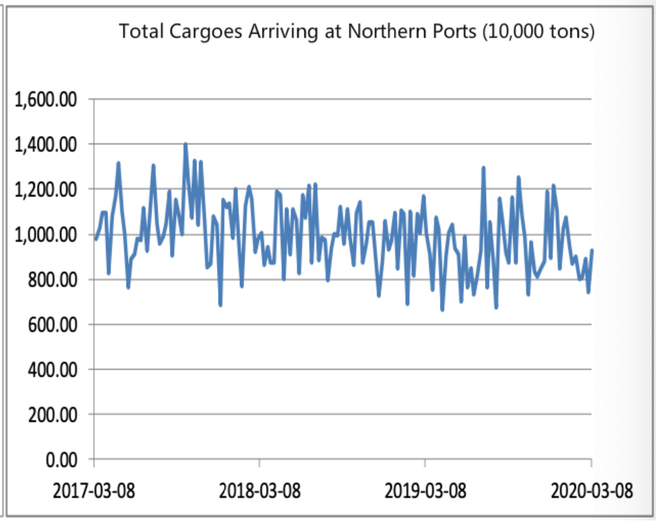








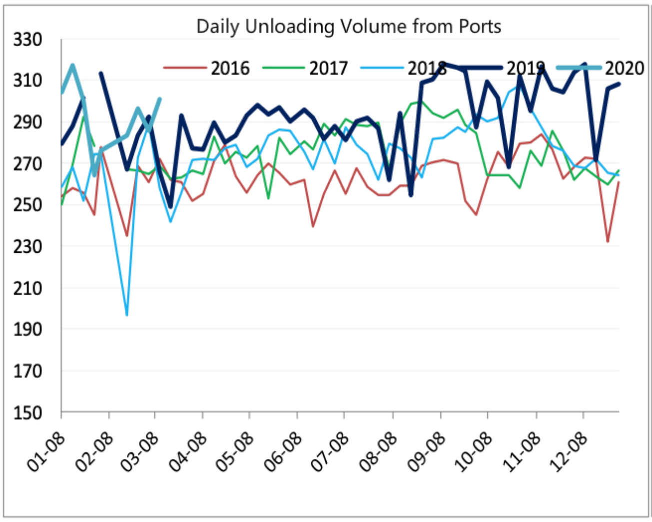


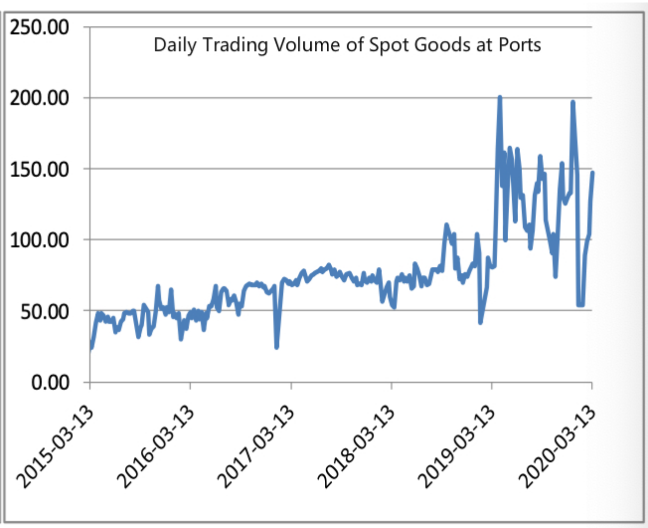


Source: Wind, Founder CIFCO Futures

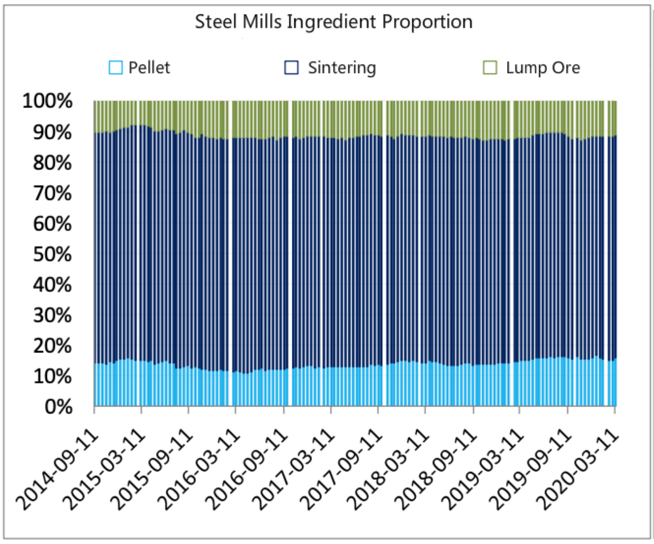
V. Demand

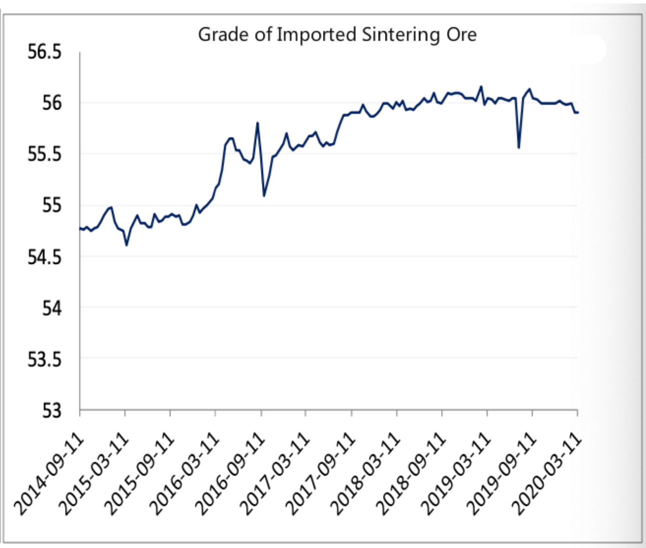
Sintering ore accounted for 55.9% of raw materials before putting into furnace (March 11th), basically unchanged with last week. Pellet, sintering ore, lump ore accounted for 15.66%, 73.25% and 11.08%, the priors were 14.98%, 73.54% and 11.48%. Fewer lump ore was put into furnace yet more pellet was used. Over 3 million tons of cargoes were transported away from ports per day, up 152,100 tons. 1.475 million tons of iron ore were traded each day, up 205,700 tons per day compared with last week, which was the growth in five weeks in a row.





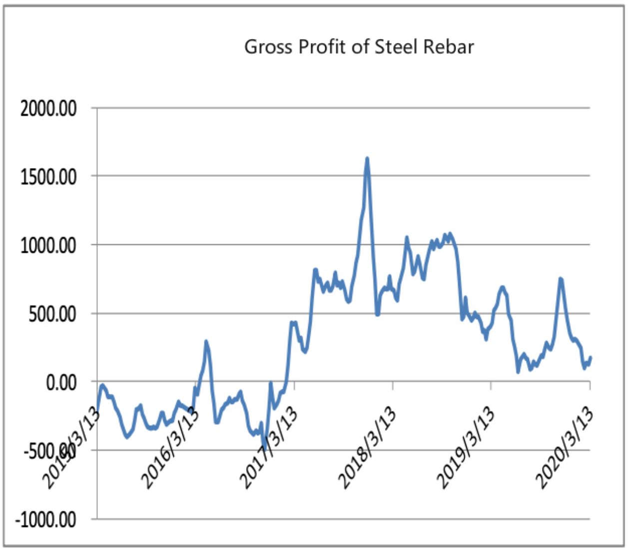
Source: Wind, Founder CIFCO Futures

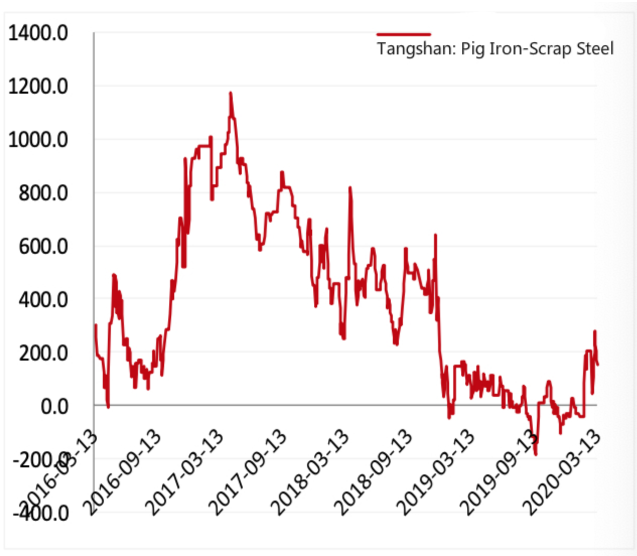




Source: Mysteel, Founder CIFCO Futures

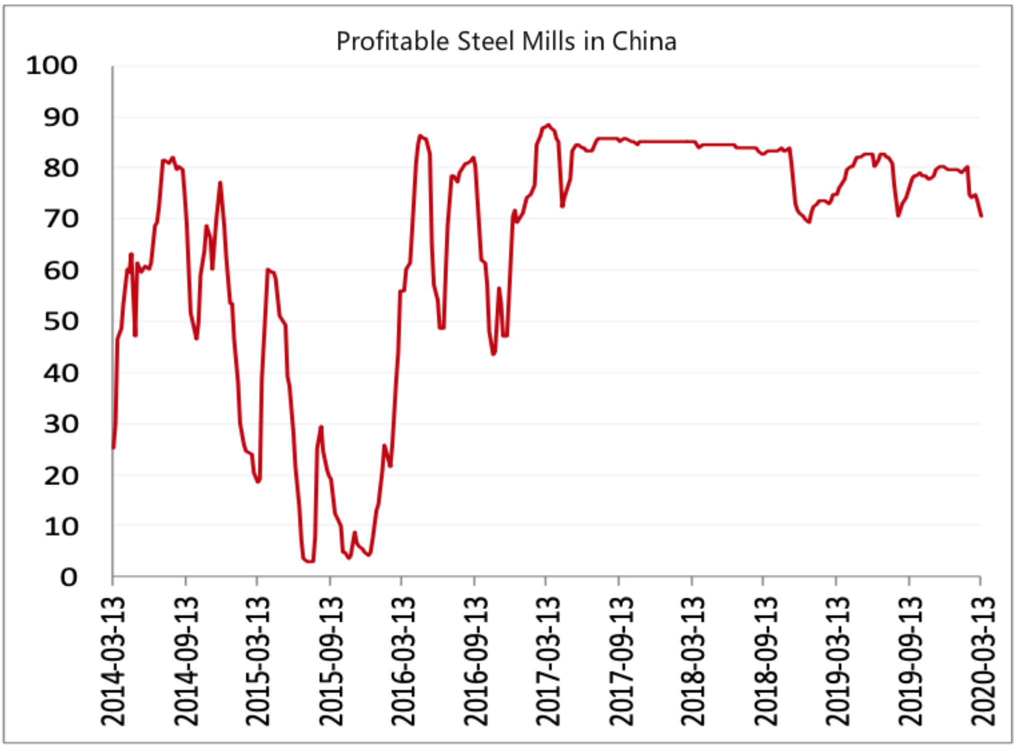
With rising demand from final end, steel products inventory dropped quickly and the price slightly went up. In addition, with the plummet of iron ore price, integrated steels became more profitable. Scrap steel price kept dropping and demand from steel mills slightly picked up. We've seen an increase of operation rate of electric furnace, however, due to tight supply of scrap steel, there's not much increase of output. 13.2% electric arc furnace out of a total of 71 in China resumed work this week, up 5.62%. Weekly output of crude steel was 146,500 tons, up 71,300 tons. More electric arc furnace would resume work if steel products price kept rising. 70.55% of China's steel mills were profitable this week, down 3.07% compared with last week.



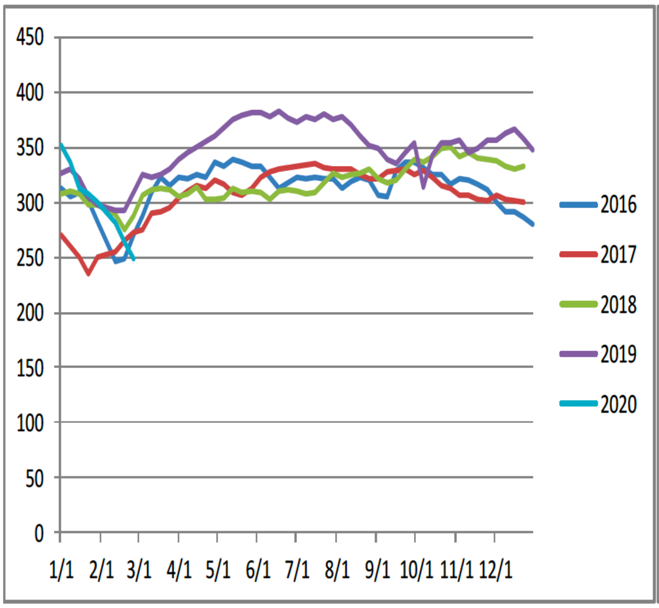


Source: Wind, Founder CIFCO Futures

Operation rate of total 163 blast furnace in China was 64.5%, up 0.97% compared with last week. Total output of steel products decreased by 39,000 tons. Weekly output of steel rebar rose to 2.4875 million tons, up 35,000 tons per week. Daily output of melted iron increased to 2.0664 million tons, up 3,300 ton. Sound demand for iron ore remained in integrated steel mills. Daily consumption of imported sintering ore was 567,600 tons. There'd be more demand for iron ore with rising demand from final end. Imported sintering inventory was 15.3765 million tons (25 days), which was basically the level before replenishment prior to Spring Festival. Steel mills are likely to further restock.



Inventory (10,000 tons)	Steel Rebar	Wire Rod	Hot Rolling	Cold Rolling	Medium Plate
2020.03.06	245.25	112.68	316.44	77.69	116.23
2020.03.13	248.75	111.93	307.24	77.95	118.52
Weekly Up or Down	3.5	-0.75	-9.2	0.26	2.29



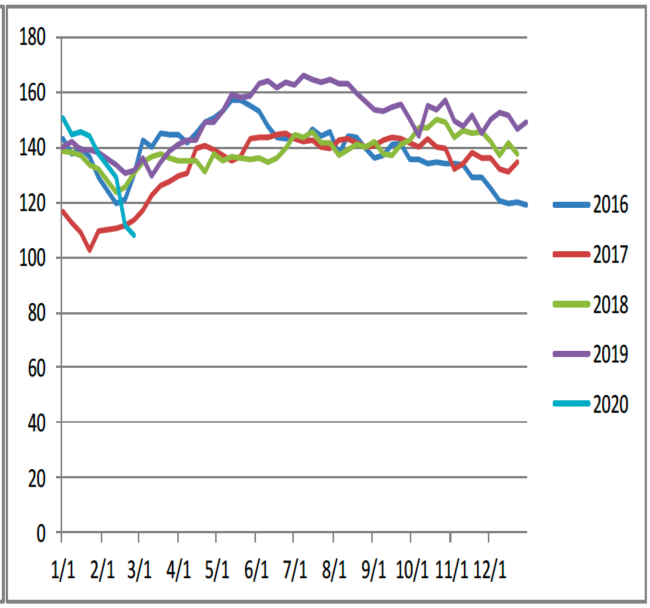
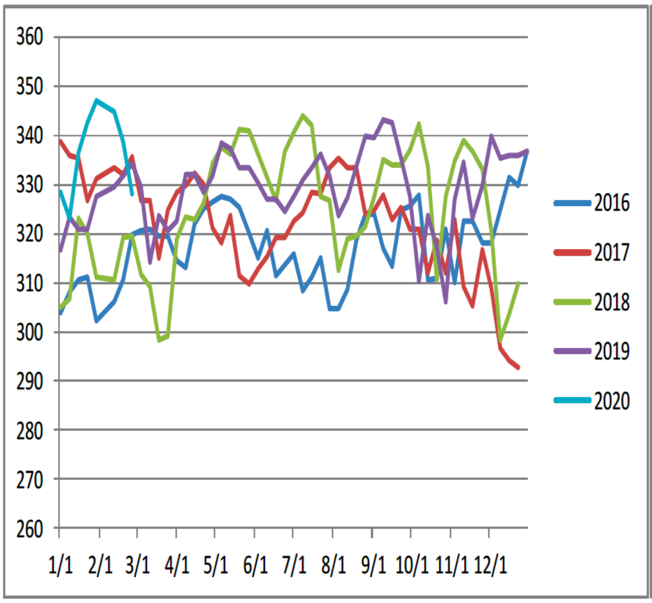


Chart: Weekly output of steel rebar (10,000 tons)

Source: Mysteel, Founder CIFCO Futures

Chart: Weekly output of wire rod (10,000 tons)

Source: Mysteel, Founder CIFCO Futures



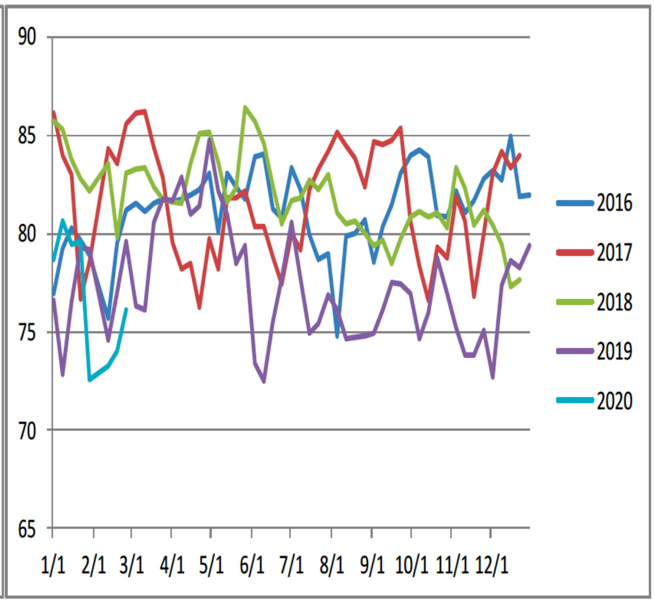


Chart: Weekly output of hot rolling (10,000 tons)

Source: Mysteel, Founder CIFCO Futures

Chart: Weekly output of cold rolling (10,000 tons)

Source: Mysteel, Founder CIFCO Futures

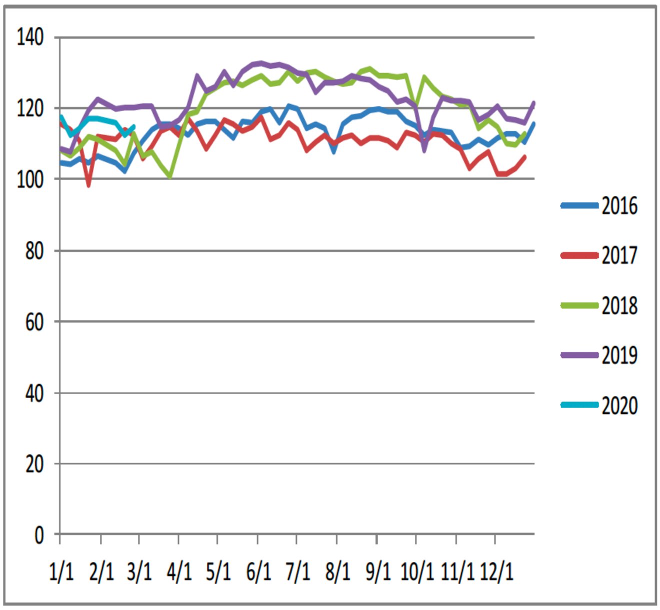


Chart: Weekly output of steel plate (10,000 tons)

Source: Mysteel, Founder CIFCO Futures

Inventory (10,000 tons)	Steel Rebar	Hotrolling	Medium Plate	Wire Rod	Cold Rolling
2020.03.06	1377.81	391.21	149.07	451.08	158.26
2020.03.13	1426.95	412.98	147.79	456.34	154.45
Weekly Up or Down	49.14	21.77	-1.28	5.26	-3.81

Chart: Social inventory (10,000 tons)

Source: Mysteel, Founder CIFCO Futures

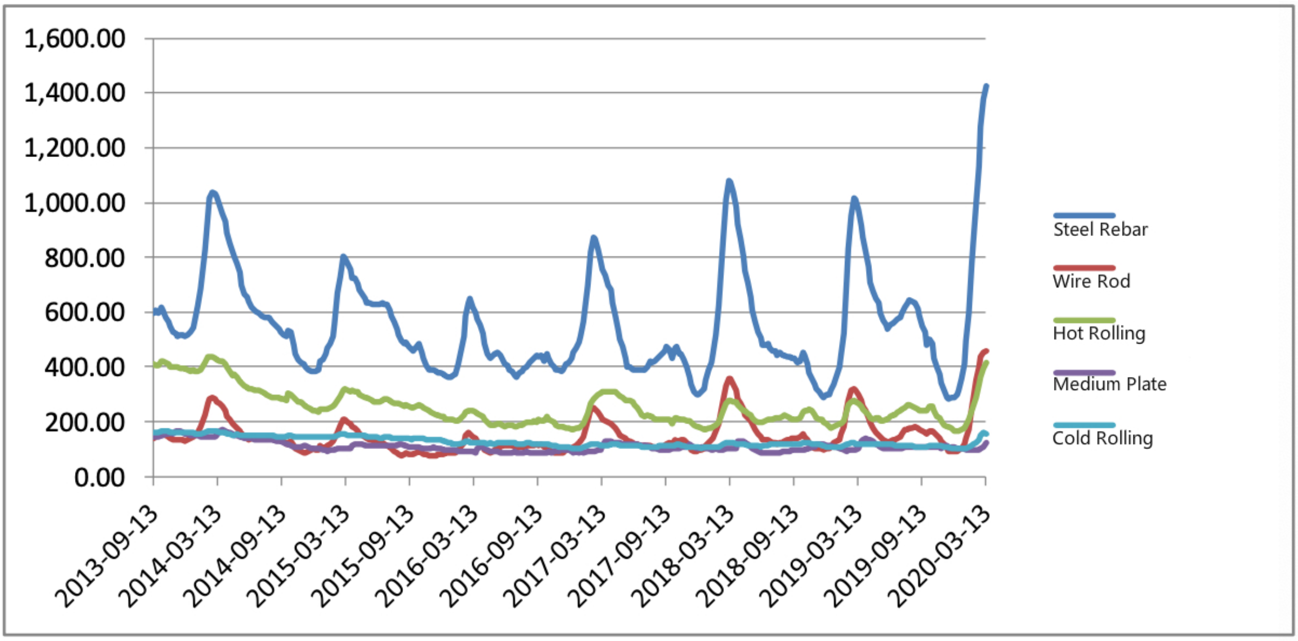
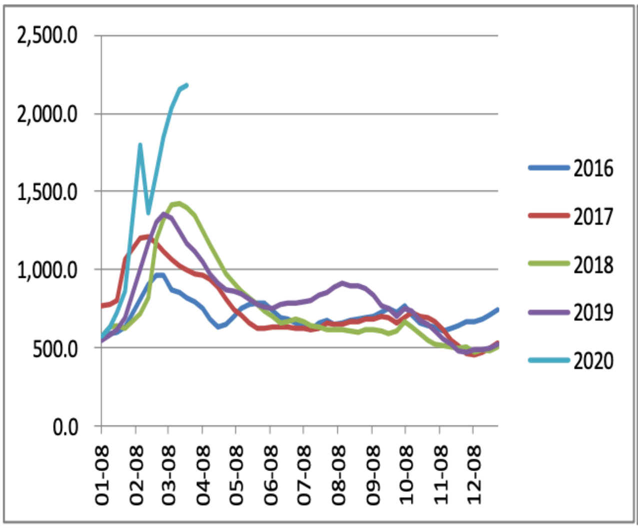


Chart: Weekly social inventory of five steel products

Source: Wind, Founder CIFCO Futures



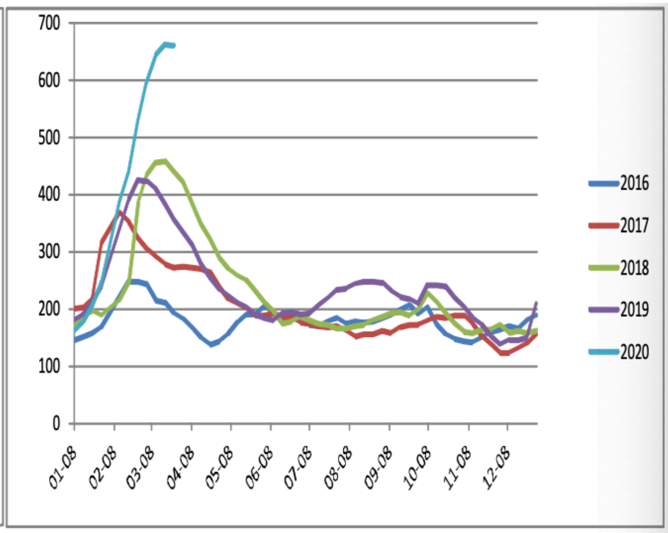
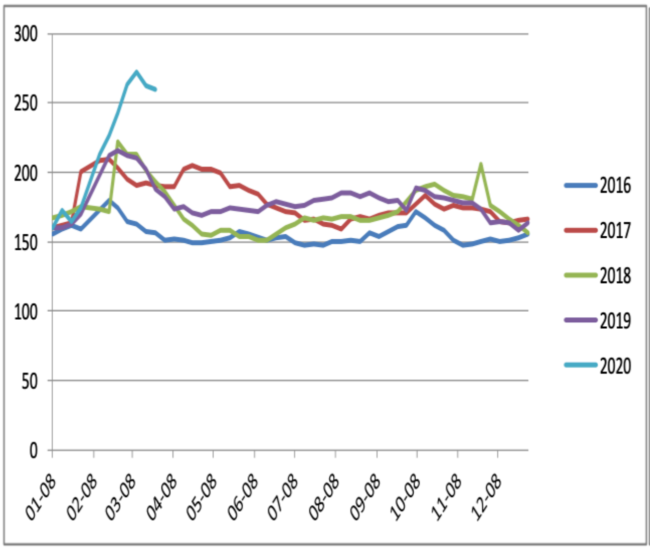


Chart: Total inventory of steel rebar (10,000 tons)

Chart: Total inventory of wire rod (10,000 tons)



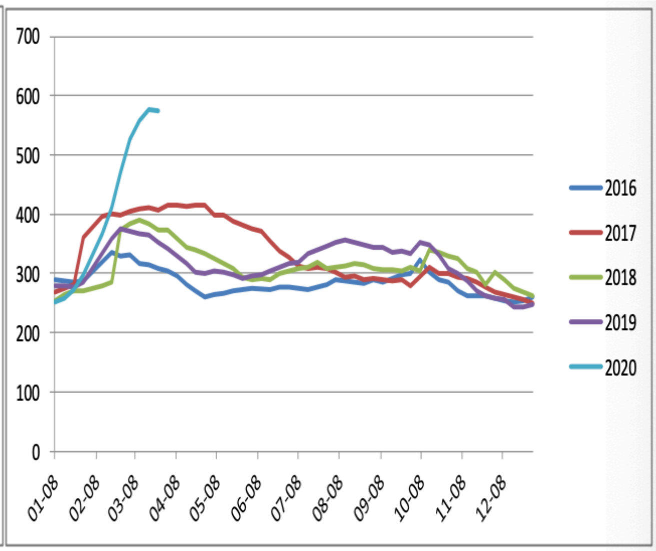


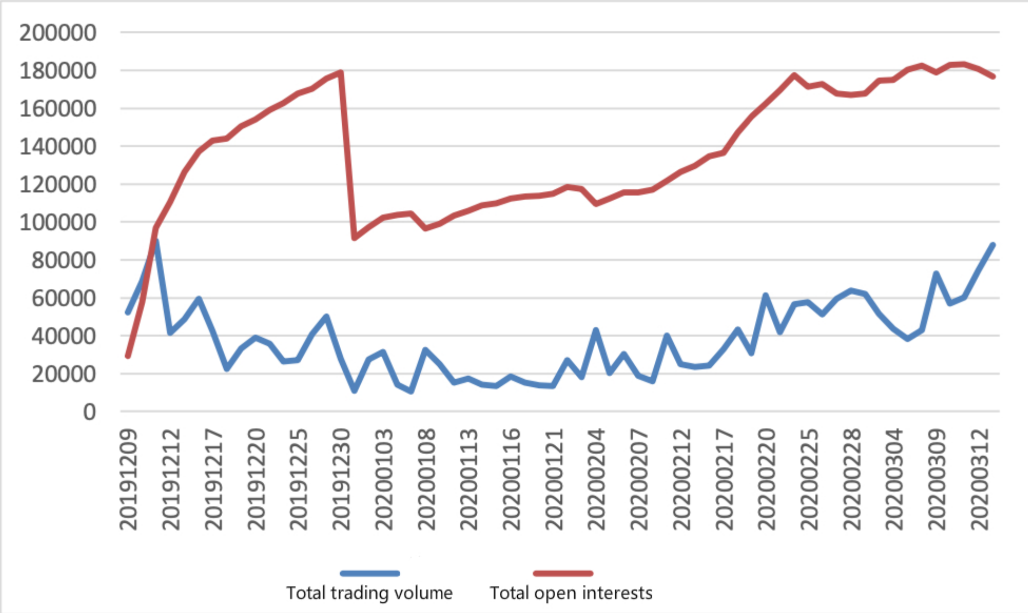
Chart: Total inventory of steel plate (10,000 tons)

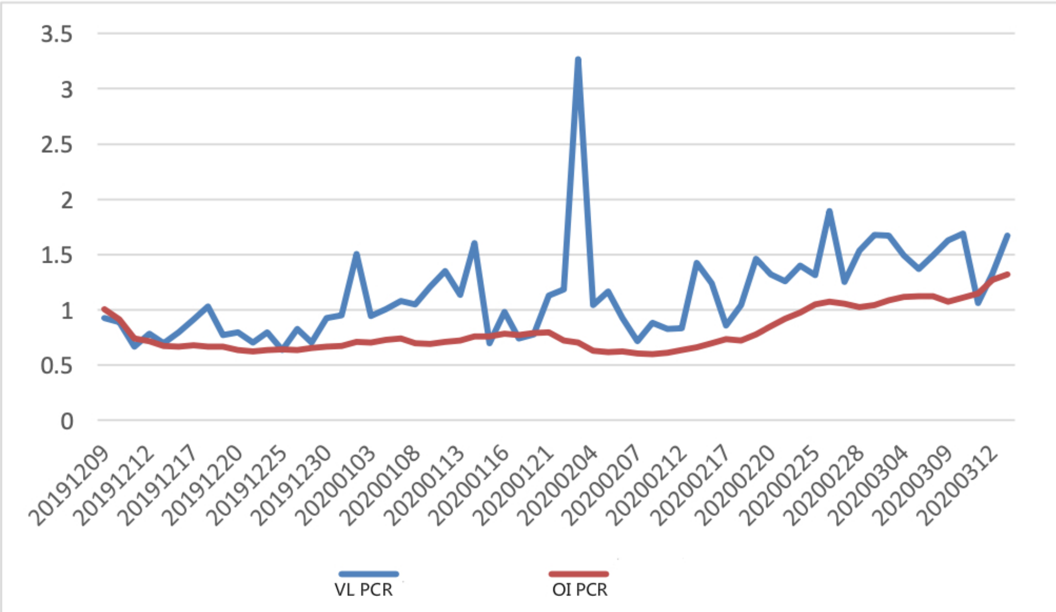
Chart: Total inventory of hot rolling (10,000 tons)

VI. Iron Ore Options

6.1 Options trading and open interests analysis

Daily trading volume of iron ore options were 70,384 lots last week, up 22,720 lots compared with last week. Daily open interests was 180,501 lots per day last week, up 4,498 lots. The put-call ratio of daily trading volume was 1.48, down 0.065. The put-call ratio of open interests was 1.19, up 0.086 compared with last week.





6.2 Volatility analysis

Implied volatility slightly dropped this week with daily average of 44.18%, up 6%.

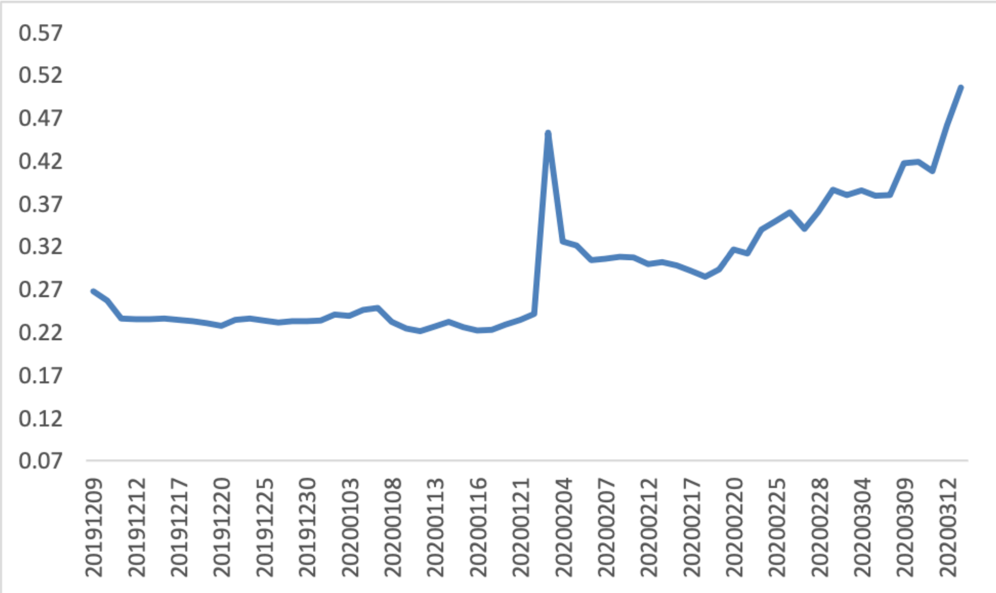


Chart: Implied volatility of iron ore options

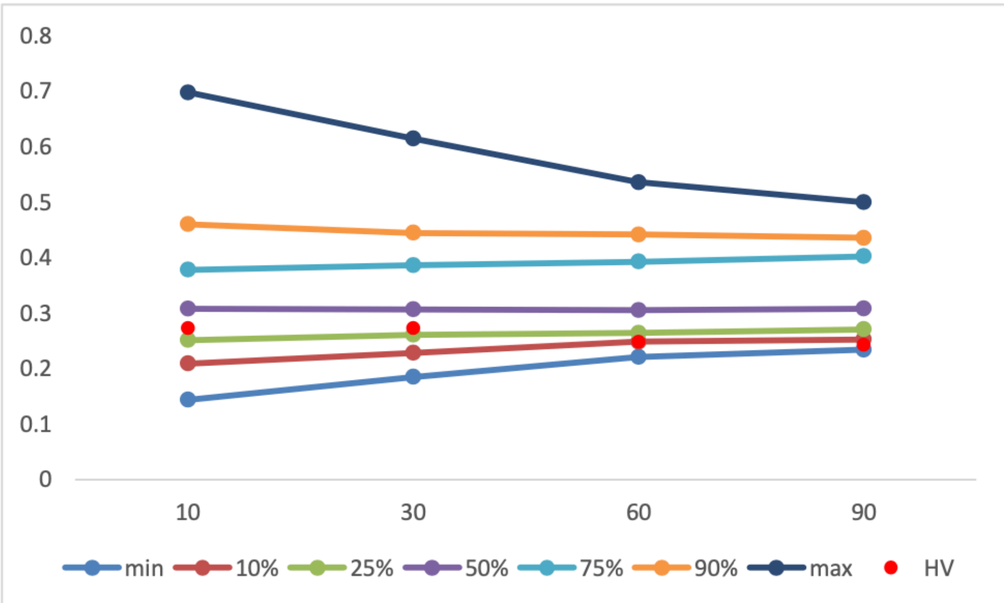


Chart: Volatility cones of iron ore options

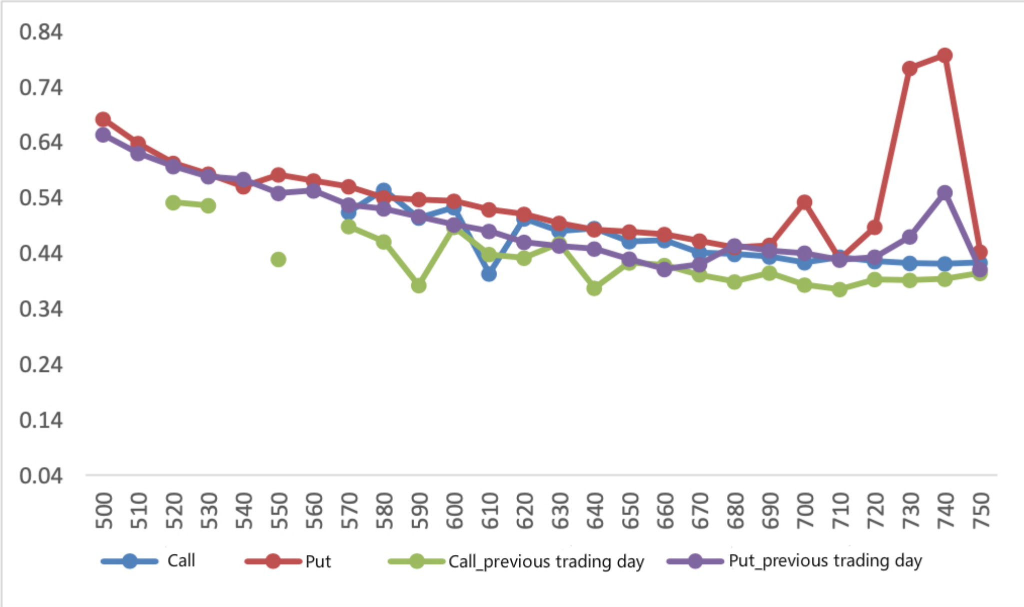


Chart: Implied volatility of nearby contract

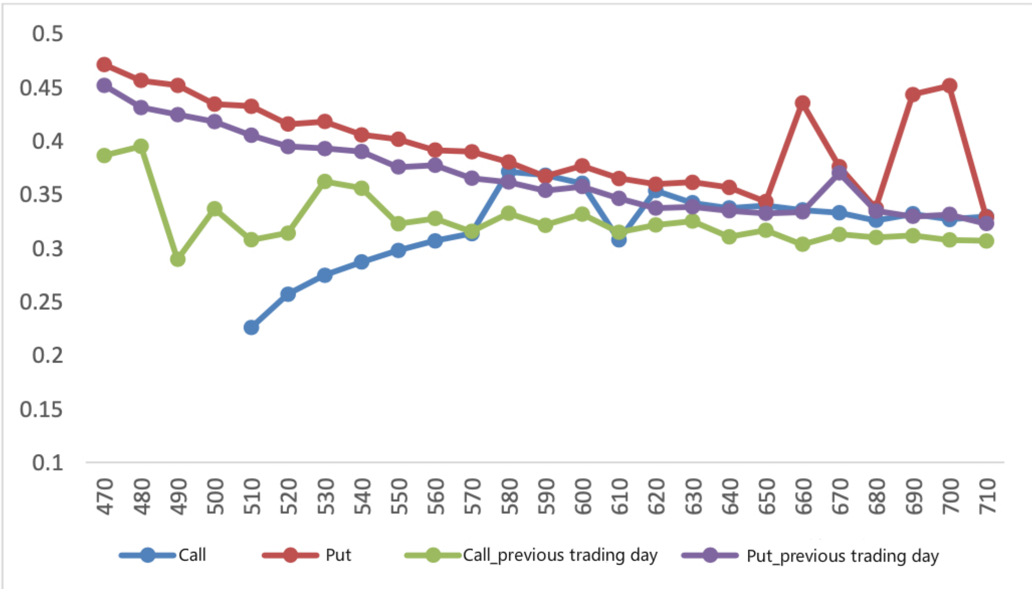


Chart: Implied volatility of forward contract

6.3 Options strategy

Currently, the implied volatility of iron ore options was at a historic high, and is likely to decline. Therefore, it is suggested to short the strangle option, or sell out-of-the-money put options, or buy out-of-the-money call options.

I. Sell strangle options

分析	买卖	名称	手数	价格类型	价格	买价	卖价	隐含波动率	Delta	Gamma	Vega	Theta	合约乘数
√	卖	铁矿石期权I2005-C-60	1	卖价	44.2	42.9	44.2	28.48%	0.6702	0.0048	0.9070	-0.2494	100
√	卖	铁矿石期权I2005-P-59	1	卖价	14.0	13.1	14.0	30.54%	-0.2797	0.0044	0.8305	-0.2328	100

田加入标的　田保存策略

最大收益: 5,820.00　最大亏损: -∞

总Delta: -39.0278　总Gamma: -0.9178　总Vega: -173.7520　总Theta: 48.2615

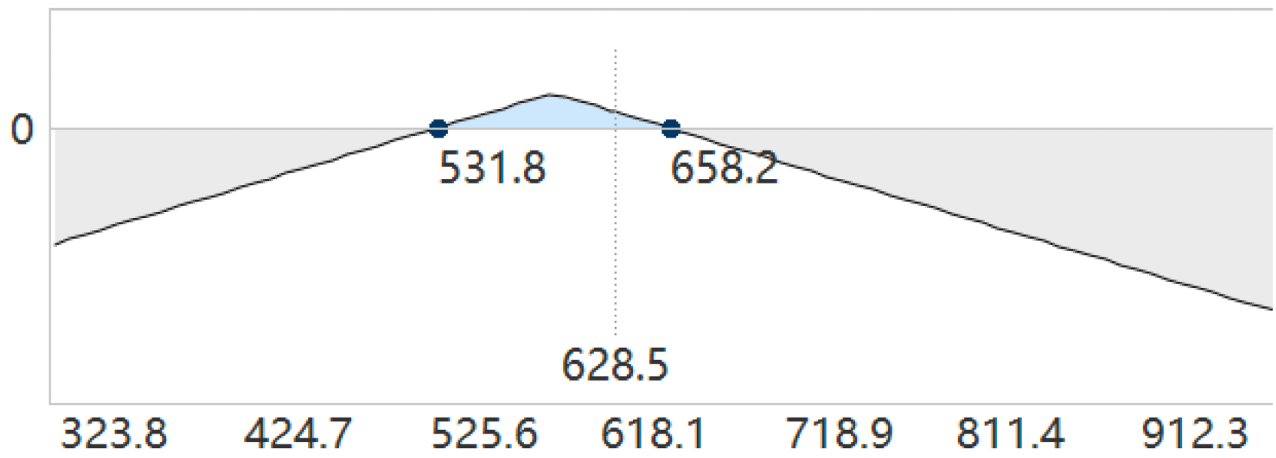


Chart: Break-even balance

II. Sell put options

分析	买卖	名称	手数	价格类型	价格	买价	卖价	隐含波动率	Delta	Gamma	Vega	Theta	合约乘数
√	卖	铁矿石期权I2005-P-600	1	卖价	16.8	16.3	16.8	30.17%	-0.3276	0.0048	0.9073	-0.2506	100

田加入标的　田保存策略

最大收益: 1,680.00　最大亏损: -58,320.00

总Delta: 32.7731　总Gamma: -0.4754　总Vega: -90.7298　总Theta: 25.0759

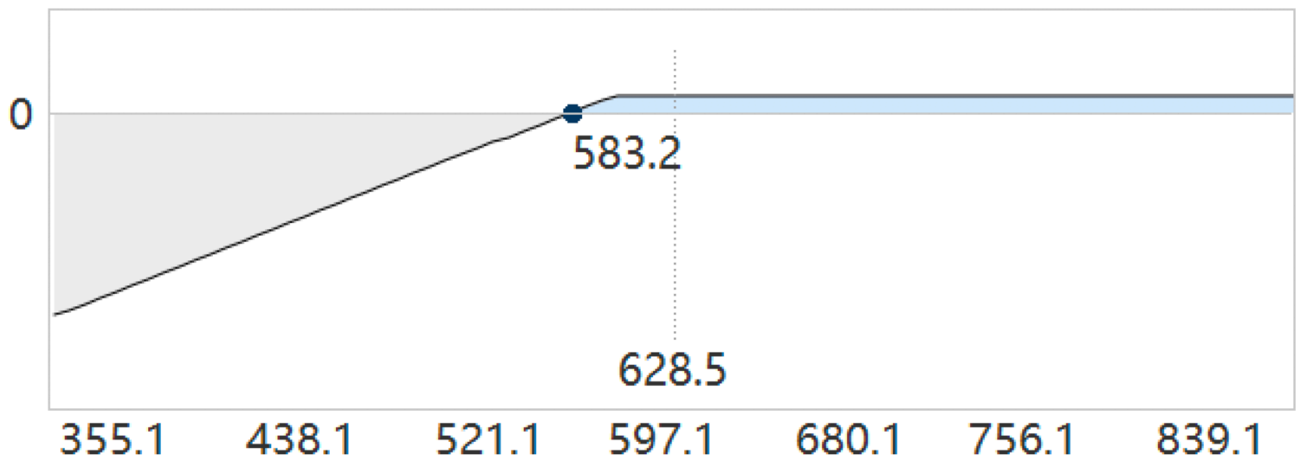


Chart: Break-even balance

III. Buy call options

分析	买卖	名称	手数	价格类型	价格	买价	卖价	隐含波动率	Delta	Gamma	Vega	Theta	合约乘数
✓	买	铁矿石期权I2005-C-630	1	买价	24.4	24.4	25.4	26.40%	0.5152	0.0052	0.9678	-0.2759	100

加入标的 保存策略

最大收益: +∞ 最大亏损: -2,440.00

总Delta: 51.5188 总Gamma: 0.5245 总Vega: 96.7756 总Theta: -27.6071

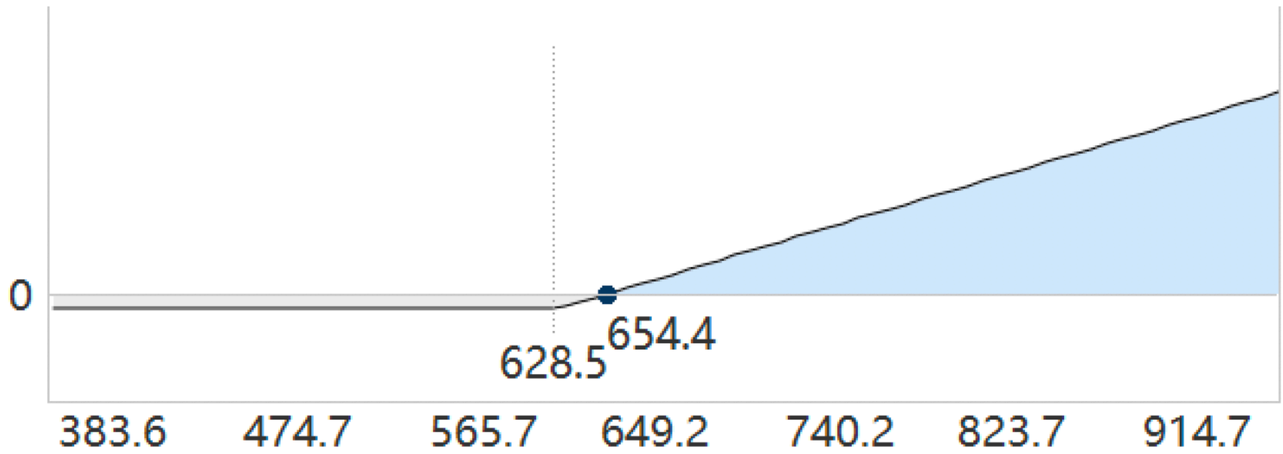
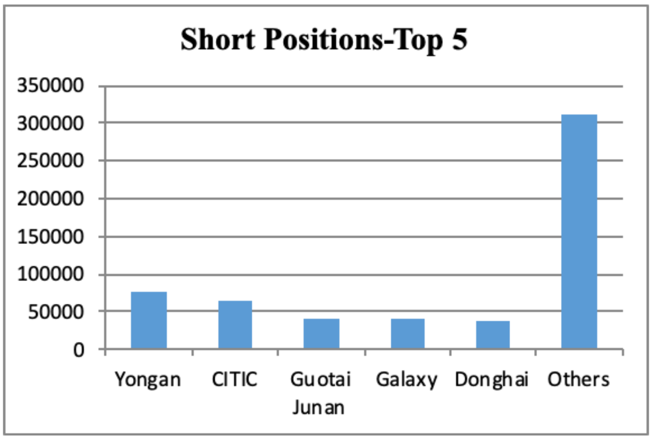


Chart: Break-even balance

VII. Open interests of top futures firms



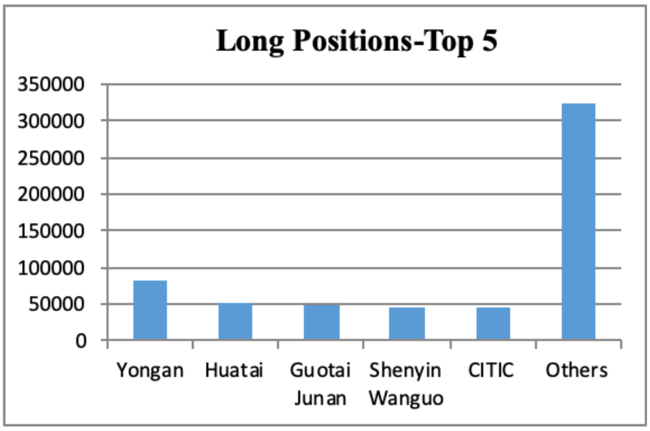
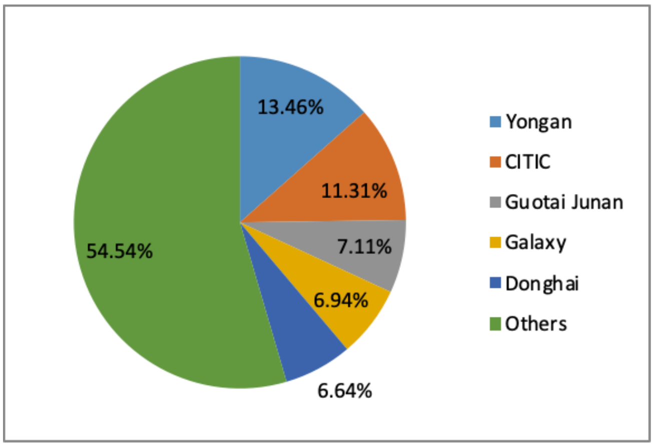


Chart: Top 5 of short positions

Chart: Top 5 of long positions

Source: Wind, Research Institute of Founder CIFCO Futures



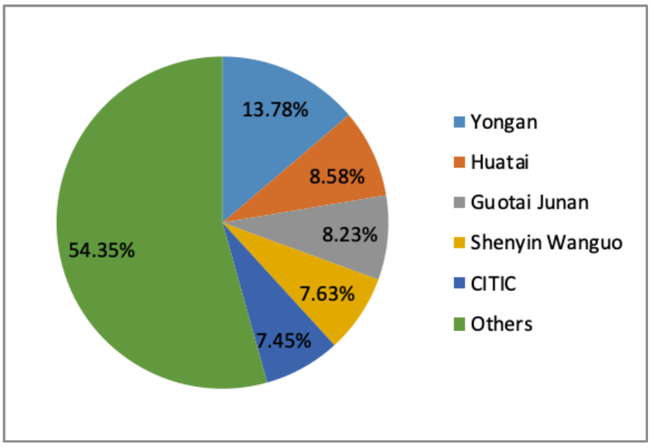


Chart: Short positions proportion

Chart: Long positions proportion

Source: Wind, Research Institute of Founder CIFCO Futures

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