2022

燃料油/低硫燃料油期货市场发展报告

Fuel Oil / Low Sulfur Fuel Oil Futures Market Development Report

上海期貨交易所
SHANGHAI FUTURES EXCHANGE
上海国际能源交易中心
SHANGHAI INTERNATIONAL ENERGY EXCHANGE

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01

Milestones

国际化发展大事记

2004.08.25

燃料油期货（FU）在上海期货交易所挂牌上市
这是贯彻落实国务院《关于推进资本市场改革开放和稳定发展的若干意见》迈出的重大步骤。作为中国期货市场清理整顿以来第一个批准上市的期货交易品种，是当时国内唯一的能源期货品种，是建立我国石油期货市场的切入点。

2008.12.23

燃料油期货成交量达历史新高 90.55 万手（单边统计）

2009

燃料油期货成交量排名 FIA 全球能源类衍生品合约第五

2011.01.14

燃料油期货合约修订
交割品级由工业用 180CST 燃料油调整为内贸 180CST 船用燃料油，交易单位由 10 吨 / 手调整为 50 吨 / 手。

2012

受市场消费结构变化等因素影响，燃料油期货成交持续低迷

2017.06.01

《中国（浙江）自由贸易试验区国际航行船舶保税油经营管理暂行办法》实施

2018.06.26

燃料油期货合约二次修订
交割品级由内贸 180CST 船用燃料油调整为保税 380CST 船用燃料油。
自 2018 年 6 月 27 日起，已挂牌的燃料油期货合约终止交易。

2018.07.16

燃料油期货（FU）在上海期货交易所重新挂牌交易，填补了我国保税船燃市场定价机制缺失的空白
采用“净价交易、保税交割、人民币计价”的交易模式。首日参与集合竞价达成首批交易的企业包括中国石油国际事业有限公司、中石化浙江舟山石油有限公司、中国联合石油有限责任公司、广州市华泰兴石油化工有限公司、上海高英石油化工有限公司、摩科瑞能源贸易（北京）有限公司、杭州哲实实业有限公司、上海海通资源管理有限公司等。首日成交量 59,658 手，成交金额 18.04 亿元，持仓量 10,840 手，其中主力合约 FU1901 成交量 52,616 手，成交金额 15.90 亿元。（双边统计）

2018.10.11

《燃料油（期货）补充检验项目暂行规定》发布
补充检验项目涉及苯乙烯、苯酚等醇类、醚类、酚类 8 项指标，以进一步加强燃料油交割品质管理，保障期货投资者利益。

2018.11.14

首单保税 380 燃料油期货仓单生成
中国石油国际事业有限公司 2,000 吨燃料油入库中化兴中石油转运（舟山）有限公司（中化兴中），注册生成首批保税高硫期货仓单。

2019.06.05

燃料油期货做市商名单发布

2019.06

全国首单不同税号油品调和低硫燃料油业务实施
中国船舶燃料有限责任公司完成国内首单利用国内炼厂低硫调和料和含硫深加工调和料进行不同税号油品调兑低硫燃料油业务，我国低硫资源生产、进口、调合三位一体的供应模式初步形成。

2019.07.24

全国首单保税 380 燃料油期货仓单直供业务实施
存储于中化兴中的 500 吨保税 380 燃料油期货交割品从期货交割罐提货后，由舟山籍加油驳船“国宏 6”轮以一船多供的方式分批加注西班牙籍“赛拉诺瓦”等三艘货轮。期货仓单注销出库后，直接对国际航行船舶进行保税加注的业务模式，为现货企业提供便利。

2019.07 国内多家企业炼厂成功生产低硫燃料油供应船燃市场

2019.10 交通运输部印发《2020 年全球船用燃油限硫令实施方案》

2019 2019 年燃料油期货成交量 1.77 亿手，同比增加 350.02%；成交金额 4.27 万亿元，同比增加 254.49%，年末持仓 46.20 万手，同比增加 121.65%。（单边统计）

2019 燃料油期货成交量排名 FIA 全球能源类衍生品合约第四

2020.01.22 中国保税燃料油出口退（免）税政策落地
财政部、税务总局、海关总署联合发布《关于对国际航行船舶加注燃料油实行出口退税政策的公告》，自 2020 年 2 月 1 日起，对国际航行船舶在我国沿海港口加注的燃料油（产品编码为 27101922），实行出口退（免）税政策，增值税出口退税率为 13%。

2020.04.27 燃料油期货持仓量达历史新高 119.89 万手（单边统计）

2020.04.28 燃料油期货成交量达历史新高 591.91 万手（单边统计）

2020.05.01 商务部下达 2020 年低硫船用燃料油出口配额
商务部、海关总署公布，将低硫的 5-7 号燃料油（硫含量不高于 0.5%m/m，海关商品编码 2710192210）纳入《出口许可证管理货物目录（2020）》。同期，商务部下达 2020 年第一批低硫船用燃料油出口配额的通知，五家石油企业一般贸易出口配额合计 1,000 万吨，中石油 295 万吨、中石化 429 万吨、中海油 86 万吨、中化 90 万吨、浙江石化 100 万吨。

2020.06.22 低硫燃料油期货（LU）在上海国际能源交易中心挂牌上市
采用“国际平台、净价交易、保税交割、人民币计价”交易模式。首日参与集合竞价交易的会员和客户分别为 106 家、650 个，首批成交 1,070 手。其中主力合约 LU2101 首日成交量 130,439 手，持仓量 24,859 手。中国石油国际事业有限公司、中石化浙江舟山石油有限公司、中石油燃料油有限责任公司、中化石油有限公司、华东中石油国际事业有限公司等多家油企参与其中。（单边统计）

2020.07.01 低硫燃料油期货做市商名单发布

2020.08.01 “低硫燃料油期货上市”获中国（上海）自由贸易试验区第十批金融创新案例

2020.08.10 全国首单保税 380 燃料油期货仓单复运出口业务实施
在舟山海关监管下，“MAERSK TACOMA”轮靠泊中化兴中岙山石油基地 2 号泊位，完成约 1.6 万吨保税 380 燃料油期货装船出库作业，复运出口至新加坡，期货仓单复运出口业务成功落地。

2020.10.04 全国首单浙沪跨港区国际船舶供油业务落地洋山港
地中海航运公司 (MSC) 大型集装箱船舶“SANTA VANESSA”在洋山深水港区上港集团尚东码头，接受来自浙江自贸区的浙江海港国际贸易有限公司提供的 1,000 吨低硫保税船用燃料油的跨港区补给，全国首单跨港区国际航行船舶供油试点业务成功开展。

2020.11.02 首单低硫燃料油期货仓单生成
浙江自贸区中石油国际事业有限公司将产自国内中海油舟山炼厂的 4,090 吨出口退税燃料油入库中化兴中，注册生成首单保税低硫期货仓单。

2020.11.23

全国首单低硫燃料油期货仓单直供业务实施

在杭州海关、舟山海关的支持下，加油驳船“浙海油 5”将 1,600 吨低硫燃料油期货交割油品加注至利比里亚籍外轮“SEACON BRAZIL”，完成国内首单低硫燃料油期货仓单直供业务。国产出口退税燃料油从入库生成期货仓单至保税加注的全流程实现了数量可保证、流程可跟踪、风险可防控的创新交割监管模式。

2020.12.14

低硫燃料油期货集团交割、境外提货配套规则发布

《上海国际能源交易中心交割细则》（修订案）、《上海国际能源交易中心集团交割业务管理细则》以及《上海国际能源交易中心低硫燃料油期货境外提货业务指引》发布，低硫燃料油期货引入厂库交割，“境内交割 + 境外提货”的全新业务模式，为中国期货市场高水平对外开放积累经验，服务国内国际双循环新发展格局建设。

2020.12.14

低硫燃料油期货首家集团交割中心、集团交割厂库、集团交割境外交收库设立

中国石油国际事业有限公司成为首家低硫燃料油期货集团贸易商厂库，境外交收点为新加坡、富查伊拉。

2020.12.25-31

低硫燃料油期货首次跨境交收交割业务实施

LU2101 合约完成首次交割 4.66 万吨，交割金额 1.16 亿元。托克、复瑞渤、中基资源三家新加坡公司参与首批跨境交收业务。

2020

近十年中国燃料油首次实现净出口

2020 年中国燃料油出口量 1,549 万吨，同比增加 44.24%。

2020

燃料油期货成交量排名 FIA 全球能源类衍生品合约第二，排名国内期货市场第一

2021.01.22

全国首单燃料油期货仓单保税质押业务实施

上海海关实施洋山保税港区期货保税交割业务功能创新，完成首次期货保税仓单质押业务，推动保税交割从单纯的物流属性向金融属性拓展，为助力上海打造大宗商品规模化市场奠定良好基础。

2021.03

中国燃料油期货价格首度成为境外贸易的定价基准

复瑞渤新加坡与中燃国际石油（新加坡）、招商局能源贸易（新加坡）以及中粮国际船运公司签订了以上海国际能源交易中心低硫燃料油期货合约作为计价基准的船用燃料油供应合同，中国低硫燃料油期货在亚太及全球船用燃料油行业的价格影响力不断提升。

2021.06

《深圳市国际航行船舶保税燃料油经营管理试行办法》实施

2021.06.21

低硫燃料油期货上市一周年暨中国舟山低硫燃料油保税船供报价信息发布仪式在上海成功举行

上海期货交易所与浙江国际油气交易中心（浙油中心）共同推出以低硫燃料油期货结算价为基准的舟山保税低硫燃料油船供加注价格，这是期现合作的重要创新成果，为低硫燃料油期货价格传导至供油终端提供了一条真实、可靠的全新路径，有助于提升舟山保税燃料油现货市场的影响力。

2021.06.21

低硫燃料油期货交割仓库覆盖上海、舟山、青岛等我国重要沿海口岸

山东省港口集团有限公司成为低硫燃料油期货指定交割仓库。

2021.07

2021 年全球航运中心城市综合实力上海排名第一

《2021 新华 · 波罗的海国际航运中心发展指数报告》发布，宁波舟山港首次跻身国际港口十强，在国内排名仅次于上海，位列第二。

2021.09.16 低硫燃料油期货合约修订
自 2022 年 3 月 1 日起，对低硫燃料油交割品级标准及期货仓单有效期设置执行优化。

2021.10.13 “构建保税低硫燃料油船供舟山报价机制”获 2021 年第二批中国（浙江）自由贸易试验区最佳制度创新案例

2021.10.21 中国舟山低硫燃料油保税船供报价卖方报价企业扩增至 5 家
中石化浙江舟山石油有限公司、中国船舶燃料有限责任公司、浙江自贸区中石油燃料油有限责任公司、浙江海港国际贸易有限公司、浙江浙石油燃料油销售有限公司等五家企业参与报价。计价单位为人民币，报价形式为低硫燃料油期货 M（首行）+2 合约的当日结算价加升贴水，直接反映东北亚市场的价格。

2021.10.29 低硫燃料油期货月均结算价发布
上期所、上期能源网站发布月均结算价，为市场提供匹配的价格参考。

2021.11 舟山港跃居全球第六大加油港
中国石油流通协会船用燃料行业委员会发布 2020 年“全球十大船加油港口”，舟山港位居全球第六位。

2021.11.13 “低硫燃料油期货跨境交收”获 2020 年度上海金融创新成果三等奖

2021.12.09 上期标准仓单交易平台与浙油中心报价专区交易互通

2021.12.15 上期标准仓单交易平台上线保税仓单转让报价专区
报价品种为中质含硫原油（SC）、20 号胶（NR）、低硫燃料油（LU）、阴极铜（BC）等上海国际能源交易中心已上市品种。

2021.12.16 《海南自由贸易港船舶保税油经营管理暂行办法》发布

2021.12 2021 年低硫燃料油出口配额共计 1,139 万吨，其中中石化占 61.11%，中石油占 29.68%，中海油占 8.34%

2019-2021 我国保税船用燃料油供应量稳定增长
2019 年我国保税船用油供应量约 1,072 万吨，2020 年为 1,687 万吨，同比增加 57.37%，2021 年为 2,066 万吨，同比增加 22.47%。

2020-2021 燃料油期货成交量连续两年排名 FIA 全球能源类衍生品合约第二

2022.01.25 《上海市国际航行船舶保税油加注管理办法》发布

2022.02.11 《广州市国际航行船舶保税加油管理暂行办法》发布

2022.01.28 低硫燃料油期货第二家集团交割中心、集团交割厂库、集团交割境外交收库设立
中国石化燃料油销售有限公司成为低硫燃料油期货第二家集团贸易商厂库，境外交收库为新加坡。中石油、中石化两大集团公司均成为低硫燃料油期货集团厂库，为境外设库探索奠定基础。

2022.05 商务部下达 2022 年第二批低硫燃料油出口配额
出口配额分别为 650 万吨和 325 万吨，较去年同期增加 21.9%。国产资源在我国保税供油市场中的占比不断提升，2022 年一季度我国低硫燃料油产量达到保税供油量的 68%，全球市场竞争力不断增强。

2022.05 舟山国际航行船舶保税燃料油经营牌照企业达 17 家
舟山保税油经营企业 17 家，其中 5 家全国牌照，12 家舟山区域牌照。

2022.06.09 低硫燃料油期货成交量 25.85 万手，创历史新高（单边统计）

2022.06.21 低硫燃料油期货上市两周年暨中国舟山低硫燃料油保税船供买方报价信息发布仪式在上海成功举行
中国舟山低硫燃料油保税船供报价引入买方报价机制，首批参与报价单位为：海宏轮船（香港）有限公司、大连春安船舶管理有限公司、TRANS POWER CO., LTD.、HG SHIPPING GROUP CO.,LIMITED、ETL SHIPPING (PTE.)LTD.、浙江永航海运有限公司。

待续……

附表 1：

燃料油（FU）和低硫燃料油（LU）期货交易量统计						
	燃料油（FU）			低硫燃料油（LU）		
	成交量（万手）	FIA能源类排名	国内能化类排名	成交量（万手）	FIA能源类排名	国内能化类排名
2018年	3,926.88	16	7	——	——	——
2019年	17,671.94	4	3	——	——	——
2020年	47,719.34	2	1	976.23	27	19
2021年	27,699.38	2	3	1,859.48	25	19

截止时间：2021 年 12 月 31 日

附表 2：

低硫燃料油期货做市商名单	
上海际丰投资管理有限责任公司	上期资本管理有限公司
五矿产业金融服务（深圳）有限公司	中国国际金融股份有限公司
中粮祈德丰投资服务有限公司	长江产业金融服务（武汉）有限公司
迈科资源管理（上海）有限公司	华泰长城资本管理有限公司
招商证券股份有限公司	国投中谷（上海）投资有限公司
国泰君安风险管理有限公司	格林大华资本管理有限公司
浙江物产金属集团有限公司	浙江浙期实业有限公司
豫新投资管理（上海）有限公司	中信中证资本管理有限公司
江西瑞奇资本管理有限公司	

截止时间：2022 年 3 月 4 日

附表 3：

中国国际航行船舶保税油经营牌照商名单		
编号	企业名称	经营资质
1	中国船舶燃料有限责任公司	全国牌照
2	中石化浙江舟山石油有限公司	全国牌照
3	中石化中海船舶燃料供应有限公司	全国牌照
4	中石化长江燃料有限公司	全国牌照
5	深圳光汇石油集团股份有限公司	全国牌照
6	浙江浙石油海洋燃料有限公司	舟山牌照
7	浙江海港国际贸易有限公司	舟山牌照
8	中油泰富船舶燃料有限公司	舟山牌照

中国国际航行船舶保税油经营牌照商名单		
编号	企业名称	经营资质
9	信力石油(舟山)有限公司	舟山牌照
10	华信国际(舟山)石油有限公司	舟山牌照
11	舟山国家远洋渔业基地集团船舶燃料供应有限公司	舟山牌照
12	浙江自贸区中石油燃料油有限责任公司	舟山牌照
13	中石油上港(舟山)能源有限公司	舟山牌照
14	浙江自贸区中石油国际事业有限公司	舟山牌照
15	托克能源(浙江)有限公司	舟山牌照
16	中化石油（舟山）有限公司	舟山牌照
17	浙江神舟能源有限公司	舟山牌照
18	深圳市盐田港集团有限公司	深圳牌照
19	中石化中海深圳船舶燃料有限公司	深圳牌照
20	中海油销售深圳有限公司	深圳牌照
21	广州发展碧辟油品有限公司	广州牌照
22	广州元亨仓储有限公司	广州牌照
23	中石化燃料油（海南）有限公司	海南牌照
24	中石化中海(洋浦)船舶燃料供应有限公司	海南牌照

截止时间：2022 年 4 月 21 日

附表 4：

2017-2021年中国船用燃料油产量					
	2017年	2018年	2019年	2020年	2021年
燃料油产量（万吨）	2,646	2,343	2,466	3,381	4,339
同比变化（%）	2.28	-11.45	5.25	37.08	28.37

数据来源：国家统计局

2017-2021年中国船用燃料油加注量					
	2017年	2018年	2019年	2020年	2021年
船用燃料油加注量（万吨）	1,791	1,881	1,712	2,135	2,570
内贸船用燃料油（万吨）	680	670	640	590	660
保税船用燃料油（万吨）	1,111	1,211	1,072	1,545	1,910

数据来源：海关总署、金联创

2004.08.25

Fuel Oil futures (FU) was listed on the Shanghai Futures Exchange for trading
The listing marks a major progress under the Opinions of the State Council on Promoting the Reform, Opening-up, and Steady Development of the Capital Market. The fuel oil futures was one of the first futures products approved following the overhaul of China' s futures market and the only domestic energy futures product at the time. It was the first step to build up China' s crude oil futures market.

2008.12.23

Trading volume of fuel oil futures reached the historic record of 905,512 lots (Single-counted basis)

2009

Trading volume of fuel oil futures ranked fifth among all energy derivatives in the world by FIA.

2011.01.14

Fuel Oil contract was revised
Deliverable grade was adjusted from industrial 180 CST fuel oil to domestic 180 CST bunker fuel. Contract size was updated from 10 mt/lot to 50 mt/lot.

2012

Fuel oil futures market remained sluggish due to change in consumption structure and other factors

2017.06.01

Interim Measures of the China (Zhejiang) Pilot Free Trade Zone for the Administration of Bonded Oil Sales to International-Route Vessels took effect

2018.06.26

Fuel oil futures contract was revised for the second time
Deliverable grade was changed from domestic 180 CST bunker fuel to bonded 380 CST bunker fuel. Existing contracts stopped trading since June 27, 2018.

2018.07.16

Fuel oil futures contract was relisted on the Shanghai Futures Exchange, the first pricing mechanism for China' s bonded bunker fuel market
The futures product was traded by "net pricing, bonded delivery, RMB denomination." The listing day saw active trading by PetroChina International Co., Ltd., Sinopec Zhejiang Zhoushan Petroleum Co., Ltd., China National United Oil Corporation Ltd., Guanzhou Twinace Petroleum & Chemical Co., Ltd., Shanghai Gaoying Petrochem Co., Ltd., Mercuria Energy Trading (Beijing) Co., Ltd., Hangzhou Zheshi Industrial Co., Ltd., and Shanghai Haitong Resource Management Co., Ltd., among others, during the call auction session. On the first day, trading volume, turnover, and open interest hit 59,658 lots, RMB 1.804 billion, and 10,840 lots, respectively. In particular, FU1901, the main contract, was traded of 52,616 lots at a total value of RMB 1.590 billion on the listing day. (All figures are on a double-counted basis)

2018.10.11

Interim Provisions on Supplementary Inspection Items of Fuel Oil (Futures) was issued
Eight new alcohols, ethers, and phenols, including styrene and phenol, were added to the list of compounds to be inspected, resulting in more effective management of the deliverable grade and better protection of the interest of futures investors.

2018.11.14

The first warrants for bonded 380 CST fuel oil futures were created
PetroChina International Co., Ltd. registered the first warrants for the high-sulfur fuel oil futures after loading 2,000 mt of the deliverable grade into the depot of Sinochem Xingzhong Oil Staging (Zhoushan) Co., Ltd. (Sinochem Xingzhong).

2019.06.05

The list of market makers for fuel oil futures was released

2019.06

Low sulfur fuel oil (LSFO) blending with component oils of different HS Codes started for the first time in China
China Marine Bunker (PetroChina) Co., Ltd. (Chimbusco) completed China' s first LSFO blending from the low sulfur components and sulfur-containing deep-processing components, of different HS Codes, produced by domestic refineries. This signals the inception of a new, "production + import + blending" supply model in China for LSFO

2019.07.24

Direct bunkering service backed by the warrants for bonded 380 CST fuel oil futures debuted in China

Five hundred metric tons of bonded 380 CST fuel oil previously stored in the futures delivery depots operated by Sinochem Xingzhong were loaded out and fueled into three cargo ships including the Spanish vessel CELANOVA by the Zhoushan-based bunker barge Guo Hong 6. This type of bonded bunkering operation, completed for international-route vessels directly following the cancellation of the futures warrants and the load-out of the deliverables, offers convenience to enterprises engaged in spot trading.

2019.07 Multiple domestic refineries have successfully produced low sulfur fuel oil to be supplied to the bunker fuel market

2019.10 The Ministry of Transport issued the Implementation Plan for the IMO 2020 Sulfur Limit

2019 In 2019, the SHFE fuel oil futures contracts recorded 177 million lots in trading volume, 350.02% higher than the year before. Turnover hit RMB 4.27 trillion, up by 254.49%; year-end open interest was 462,049 lots, up by 121.65%. (Single-counted basis)

2019 Trading volume of fuel oil futures ranked fourth among all energy derivatives in the world by FIA.

2020.01.22 China instituted tax refund/exemption for export of bonded fuel oil
The Ministry of Finance, the State Taxation Administration, and the General Administration of Customs jointly issued the Announcement on the Implementation of Export Tax Refund Policy for Fuel Oil Supplied to International Voyage Vessels. Effective from February 1, 2020, the tax refund/exemption policy would apply to fuel oil (HS Code 27101922) supplied at Chinese coastal ports to international-route ships at the VAT refund rate of 13%.

2020.04.27 Open interest in fuel oil futures reached a historic high of 1,198,886 lots (single-counted)

2020.04.28 Trading volume of fuel oil futures reached a historic high of 5,919,090 lots (single-counted)

2020.05.01 The Ministry of Commerce issued the export quota for low sulfur bunker fuel for 2020
The Ministry of Commerce and the General Administration of Customs added LSFO No. 5 to No. 7 (sulfur content not higher than 0.5% m/m, HS Code: 2710192210) to the Catalogue of Goods Subject to Export License Administration (2020). The Ministry of Commerce also announced the first allotment of export quota of low-sulfur bunker fuel for 2020. A total of 10,000,000 mt of export quota was allotted to 5 oil companies: CNPC 2,950,000 mt, Sinopec 4,290,000 mt, CNOOC 860,000 mt, Sinochem 900,000 mt, and Zhejiang Petrochemical 1,000,000 mt.

2020.06.22 LSFO futures (LU) was listed for trading on the Shanghai International Energy Exchange (INE)
LSFO futures is traded on the basis of "international platform, net pricing, bonded delivery, and RMB denomination." Call auction on the day of listing saw 1,070 lots being traded by 106 members representing 650 clients. On the first day, the dominant contract LU2101 registered a trading volume of 130,439 lots and an open interest of 24,859 lots. PetroChina International Co., Ltd., Sinopec Zhejiang Zhoushan Petroleum Co., Ltd., PetroChina Fuel Oil Co., Ltd., Sinochem Oil Co., Ltd., and PetroChina International (East China) Co., Ltd. all took part in first-day trading. (Single-counted basis)

2020.07.01 The list of market makers for LSFO futures was released

2020.08.01 "INE' s listing of LSFO futures" was named among the tenth wave of financial innovations of China (Shanghai) Pilot Free-Trade Zone

2020.08.10 China' s first warrant-based re-export of bonded 380 CST fuel oil futures was completed
Under the supervision of Zhoushan Customs, the ship MAERSK TACOMA anchored at Berth No. 2 of Aoshan Oil Hub of Sinochem Xingzhong completed the load-out of around 16,000 mt of bonded 380 CST fuel oil for transport and re-export to Singapore. This represented China' s first futures warrant-based re-export of commodities.

2020.10.04

China' s first bunkering service to international-route ships cross Zhejiang and Shanghai port areas was completed at the Port of Yangshan

At the Shangdong Wharf of the Shanghai International Port (Group) Co., Ltd. in the Yangshan Port Area, SANTA VANESSA, a large container ship operated by MSC, was supplied 1,000 mt of bonded low-sulfur bunker fuel by Zhejiang Seaport International Trading Co., Ltd., a company based in the Zhejiang Free-Trade Zone. This marked China' s maiden trial of cross-port bunkering of international-route ships.

2020.11.02

The first LSFO futures warrants were created

PetroChina International (Zhejiang) Co., Ltd. registered and created the first warrants for the LSFO futures after delivering 4,090 mt of the fuel (produced by CNOOC Zhoushan Refinery and entitled to tax refund at export) into the depots operated by Sinochem Xingzhong.

2020.11.23

First direct bunkering service backed by the warrants for LSFO futures was completed in China

With the support of Zhejiang Customs and Zhoushan Customs, the bunker barge Zhe Hai You 5 supplied 1,600 mt of LSFO (obtained through delivery against the LSFO futures) to the Liberian vessel SEACON BRAZIL, completing China' s first direct bunkering operation backed by LSFO futures warrants. This operation represented an innovation in delivery supervision, namely, guaranteed quantity, traceable process, and controllable risk throughout the load-in, warrant creation, and bonded supply of domestically produced, tax refundable for-export fuel oil.

2020.12.14

Rules for group delivery and overseas take-delivery of LSFO futures were introduced

The Delivery Rules of the Shanghai International Energy Exchange (Revised), the Group Delivery Management Rules of the Shanghai International Energy Exchange, and the INE Guidelines on Take-Delivery of Low Sulfur Fuel Oil Futures Overseas were released. These rules have made factory delivery and the all-new model of "domestic delivery + overseas take-delivery" available to LSFO futures. These changes would help build experience for the quality opening-up of China' s futures market and support China' s new development paradigm under the "Dual Circulation" strategy.

2020.12.14

The first group delivery center, factory warehouse, and overseas commodity storage facilities for the group delivery of LSFO futures were established

PetroChina International Co., Ltd. set up the first factory warehouses for LSFO futures as a group trader. The overseas delivery locations are in Singapore and Fujairah.

2020.12.25-31

First cross-border take-delivery of LSFO futures was completed

46,590 mt of LSFO, valued at RMB 116,102,280, was delivered against the LU2101 contract. Three companies in Singapore—Trafigura, Freepoint, and China-Base Resource—took part in this first cross-border take-delivery transaction.

2020

China recorded the net export of fuel oil in the last decade

China exported 15,490,000 mt of fuel oil in 2020, up by 44.24% from the year before.

2020

SHFE' s fuel oil futures posted the second-largest trading volume among all energy derivatives in the world (by FIA) and the highest in the domestic futures market

2021.01.22

First pledge of bonded fuel oil futures warrant was completed

The Shanghai Customs processed the first application for pledge of the bonded futures warrants, to support innovation by the Yangshan Bonded Port Area in the bonded delivery of futures. This type of transaction promises to imbue financial functions to bonded delivery in addition to its current logistical functions, thus helping Shanghai build a large-scale commodity market.

2021.03

INE' s LSFO futures served as the price benchmark for overseas fuel oil trade for the first time

Freepoint Commodities Singapore entered into bunker supply contracts with Chimbusco International Petroleum (Singapore), China Merchants Energy Trading (Singapore), and COFCO International Freight, with the contract price linked to the price of INE' s LSFO futures contract. This demonstrates the rising pricing influence of the LU contract in the Asia-Pacific and global bunker fuel markets.

2021.06 The Trial Measures of Shenzhen for the Administration of Sales of Bonded Fuel Oil to International-Route Vessels took effect

2021.06.21 The ceremony celebrating the first anniversary of LSFO futures and the publication of Zhoushan LSFO bonded bunker price was held in Shanghai
SHFE and Zhejiang Mercantile Exchange (ZME) jointly launched the Zhoushan LSFO bonded bunker price, which is anchored to the settlement price of INE's LSFO futures. The price represented a major innovation in the collaboration between the spot and futures markets. It provides a new, proven, and reliable pathway for transmitting the LSFO futures price to the spot suppliers and helps raise the prominence of Zhoushan's spot market for bonded fuel oil.

2021.06.21 Delivery storage facilities for LSFO futures covered major coastal ports in China including Shanghai, Zhoushan, and Qingdao
Shandong Port Group Co., Ltd. was approved as a designated delivery storage facility for LSFO futures.

2021.07 Shanghai ranked first in 2021 among international shipping hubs
For the first time in its history, the Ningbo Zhoushan Port ranked among the top ten international ports, according to the 2021 Xinghua-Baltic International Shipping Centre Development Index Report. Domestically it ranked second, behind only Shanghai.

2021.09.16 The LSFO futures contract was revised
The optimized deliverable grade and validity duration of warrants for the LSFO futures came into effect on March 1, 2022.

2021.10.13 "Building the Zhoushan Quotation Mechanism for Bonded Low-Sulfur Bunker Fuel" was among the second wave of best institutional innovations of the China (Zhejiang) Pilot Free-Trade Zone in 2021

2021.10.21 The number of companies submitting offer quotes for the Zhoushan LSFO bonded bunker price has increased to five
Sinopec Zhejiang Zhoushan Petroleum Co., Ltd., China Marine Bunker (PetroChina) Co., Ltd. (Chimbusco), Zhejiang Free Trade Zone PetroChina Fuel Oil Co., Ltd., Zhejiang Seaport International Trading Co., Ltd., and Zhejiang Petroleum Fuel Oil Sales Co., Ltd. issued offer quotes for the bunker fuel. The quotes are in Renminbi and calculated based on the current-day settlement price of M (first line) + 2 LSFO futures contracts plus premium/discount, to directly reflect the LSFO price in the Northeast Asian market.

2021.10.29 The mean of settlement for LSFO futures was released
SHFE and INE began to release the mean of settlement price of LSFO futures on their websites, to provide price benchmarks for the market.

2021.11 Zhoushan Port became the sixth-largest bunkering hub in the world
The Zhoushan Port leapfrogged to the sixth place on the 2020 list of the World Top 10 Bunkering Hubs released by the Marine Fuel Industry Committee of the China Petroleum Circulation Association.

2021.11.13 "The cross-border take-delivery of LSFO futures" won the Third Prize of the 2020 Shanghai Financial Innovation Award

2021.12.09 Trading interconnectivity was established between the SHFE Standard Warrants Trading Platform and ZME's quotation system

2021.12.15 Bonded warrant transfer and quotation module was launched on the SHFE Standard Warrants Trading Platform
The quotation function was available for INE-listed products including medium sour crude oil futures (SC), TSR 20 futures (NR), LSFO futures (LU), and bonded copper futures (BC).

2021.12.16 The Interim Measures of Hainan Free-Trade Port for the Administration of Sales of Bonded Marine Fuel was released

2021.12 The LSFO export quota for 2021 totaled 11,390,000 mt, of which Sinopec accounted for 61.11%, CNPC 29.68%, and CNOOC 8.34%

2019-2021 China' s supply of bonded bunker fuel grew steadily
China' s supply of bonded bunker fuel hit 16,870,000 mt in 2020, up 57.37% from the 10,720,000 mt in 2019. Supply rose again in 2021, by 22.47% to 20,660,000 mt.

2020-2021 For two consecutive years, the trading volume of China' s fuel oil futures ranked second among all energy derivatives in the world by FIA

2022.01.25 The Measures of Shanghai Municipality for the Administration of Supplying Bonded Fuel to International-Route Ships was released

2022.02.11 The Interim Measures of Guangzhou Municipality for the Administration of Supplying Bonded Fuel to International-Route Ships was released

2022.01.28 A second company established the group delivery center, delivery factory, and overseas commodities storage facility for the group delivery of LSFO futures
Sinopec Fuel Oil Sales Co., Ltd. became the second company to set up factory warehouse for LSFO futures as a group trader, with the delivery location in Singapore. This means both CNPC and Sinopec are operating factory warehouses for the group delivery of LSFO futures, paving the way toward more overseas delivery facilities in the future.

2022.05 The Ministry of Commerce announced the second rounds of LSFO export quotas for 2022
The first and second rounds of export quotas were 6,500,000 mt and 3,250,000 mt respectively, rising by 21.9% from the year before. Domestic products are accounting for a progressively larger share of China' s bonded fuel supply market. In the first quarter of 2022, domestic LSFO output represented 68% of the country' s total supply of bonded fuel, being more competitive in the global market.

2022.05 17 companies obtained license to supply bonded fuel oil to international-route ships in Zhoushan
Zhoushan is now home to 17 bonded fuel suppliers; 5 hold the national license and 12 hold the Zhoushan local license.

2022.06.09 Trading volume in LSFO futures hit a historic record of 258,487 lots (single-counted)

2022.06.21 The ceremony celebrating the second anniversary of LSFO futures and the publication of bid information on the Zhoushan LSFO bonded bunker price was held in Shanghai
The Zhoushan LSFO bonded bunker price now supported bids from buyers. Associated Maritime Co. (Hong Kong) Ltd., Dalian Chun An Ship Management Co., Ltd., Trans Power Co., Ltd., HG Shipping Group Co., Ltd., ETL Shipping (Pte.) Ltd., and Zhejiang Yonghang Shipping Co., Ltd. were the first group of companies to submit the bid prices.

To be Continued…

Annex 1:

Trading Volumes of Fuel Oil Futures (FU) and LSFO Futures (LU)						
	Fuel Oil (FU)			LSFO (LU)		
	Trading Volume (10,000 lots)	FIA Energy Derivatives Ranking	Domestic Energy Derivatives Ranking	Trading Volume (10,000 lots)	FIA Energy Derivatives Ranking	Domestic Energy Derivatives Ranking
2018	3,926.88	16	7	—	—	—
2019	17,671.94	4	3	—	—	—
2020	47,719.34	2	1	976.23	27	19
2021	27,699.38	2	3	1,859.48	25	19

As of December 31, 2021

Annex 2 :

List of Market Makers for LSFO Futures	
Shanghai Jifeng Investment Management Co., Ltd.	Shangqi Capital Management Co., Ltd.
Minmetals Industry Financial Services (MIFS) (Shenzhen) Co., Ltd.	China International Capital Corporation Ltd.
COFCO Qidefeng Investments Co., Ltd.	Changjiang Industrial Financial Services (Wuhan) Co., Ltd.
Maike Resource Management (Shanghai) Co., Ltd.	Huatai Great Wall Capital Management Co., Ltd.
China Merchants Securities Co., Ltd.	SDIC CGOG (Shanghai) Investment Co., Ltd.
Guotai Junan Risk Management Co., Ltd.	Gelin Dahua Capital Management Co., Ltd.
Zhejiang Metals and Materials Co., Ltd.	Zhejiang Zheqi Industrial Co., Ltd.
Yuxin Investment Management (Shanghai) Co., Ltd.	CITIC Securities Capital Management Co., Ltd.
Jiangxi Ruiqi Capital Management Co., Ltd.	

As of March 4, 2022

Annex 3 :

List of Licensed Chinese Suppliers of Bonded Fuel Oil to International-Route Ships		
No.	Company	License
1	China Marine Bunker (PetroChina) Co., Ltd.	Natoinal
2	Sinopec Zhejiang Zhoushan Petroleum Co., Ltd.	Natoinal
3	China Shipping & Sinopec Suppliers Co., Ltd.	National
4	China Changjiang Bunker (Sinopec) Co., Ltd.	National
5	Shenzhen Petroglory Group Co., Ltd.	National
6	Zhejiang Petroleum Marine Fuels Co., Ltd.	Zhoushan
7	Zhejiang Seaport International Trading Co., Ltd.	Zhoushan
8	CNPC & TAFO Marine Fuel Co., Ltd.	Zhoushan

List of Licensed Chinese Suppliers of Bonded Fuel Oil to International-Route Ships		
No.	Company	License
9	Consort Bunkers (Zhoushan) Co., Ltd.	Zhoushan
10	CEFC International (Zhoushan) Petroleum Co., Ltd.	Zhoushan
11	Zhoushan National Pelagic Fishery Base Group Marine Bunker Supply Co., Ltd.	Zhoushan
12	Zhejiang Free Trade Zone PetroChina Fuel Oil Co., Ltd.	Zhoushan
13	PetroChina Shanggang (Zhoushan) Energy Co., Ltd.	Zhoushan
14	PetroChina International (Zhejiang) Co., Ltd.	Zhoushan
15	Trafigura Energy (Zhejiang) Co., Ltd.	Zhoushan
16	Sinochem Oil (Zhoushan) Co., Ltd.	Zhoushan
17	Zhejiang Shenzhou Energy Co., Ltd.	Zhoushan
18	Shenzhen Yantian Port Group Co., Ltd.	Shenzhen
19	China Shipping & Sinopec Shenzhen Suppliers Co., Ltd.	Shenzhen
20	CNOOC Sales Shenzhen Co., Ltd.	Shenzhen
21	BP Guangzhou Development Oil Products Co., Ltd.	Guangzhou
22	Guangzhou Circle Storage Co., Ltd.	Guangzhou
23	Sinopec Fuel Oil (Hainan) Co., Ltd.	Hainan
24	China Shipping & Sinopec (Yangpu) Suppliers Co., Ltd.	Hainan

As of April 21, 2022

Annex 4:

China' s Fuel Oil Output 2017–2021					
	2017	2018	2019	2020	2021
Fuel oil output (10,000 MT)	2,646	2,343	2,466	3,381	4,339
YoY growth (%)	2.28	-11.45	5.25	37.08	28.37

Source: National Bureau of Statistics

China' s Bunker Fuel Supply 2017–2021					
	2017	2018	2019	2020	2021
Bunker fuel supply (10,000 MT)	1,791	1,881	1,712	2,135	2,570
Domestic bunker fuel (10,000 MT)	680	670	640	590	660
Bonded bunker fuel (10,000 MT)	1,111	1,211	1,072	1,545	1,910

Sources: General Administration of Customs and JLC

02

Honors and Awards

获奖情况

获奖情况

“低硫燃料油期货上市”获中国（上海）自由贸易试验区第十批金融创新案例

“低硫燃料油期货上市”入选 2020 年上海国际金融中心建设十大事件

“低硫燃料油期货跨境交收”获得 2020 年度上海金融创新成果三等奖

“构建保税低硫燃料油船供舟山报价机制”获得 2021 年第二批中国（浙江）自由贸易试验区最佳制度创新案例

Honors and Awards

“The Listing of LSFO Futures” was among the tenth wave of Financial Innovations of the China (Shanghai) Pilot Free-Trade Zone.

“The Listing of LSFO Futures” was shortlisted in the 2020 edition of the Top 10 Events of Building the Shanghai International Financial Center.

“The Cross-Border Take-Delivery of LSFO Futures” won the Third Prize of the 2020 Shanghai Financial Innovation Award.

“Creation of the Zhoushan LSFO Bonded Bunker Price” was among the second wave of the 2021 Best Institutional Innovations of the China (Zhejiang) Pilot Free-Trade Zone.

03

Market Operations

运行情况

运行情况

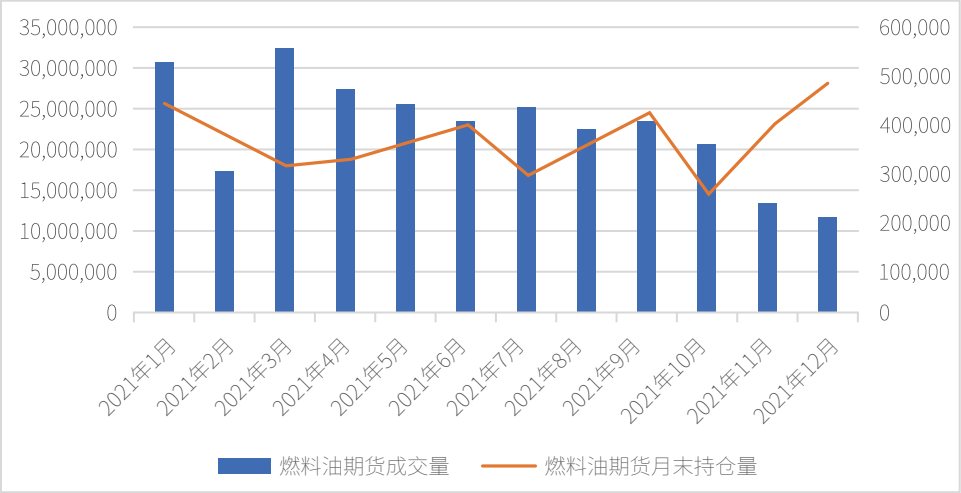
在市场各方的大力支持和积极参与下，高低硫燃料油期货呈现“交易平稳、结算流畅、交割顺利、运用国际化”的良好态势。

（一）市场规模稳步增长，服务实体经济功能持续增强

2020 年全球船用燃油限硫令实施，上海期货交易所（以下简称上期所）顺应行业发展变化，在上海国际能源交易中心（以下简称上期能源）上市低硫燃料油期货。上市以来，高低硫燃料油期货市场交易运行平稳，成交量和持仓量均稳步增长。根据期货业协会（FIA）2021 年统计，燃料油和低硫燃料油期货成交量排名全球能源类衍生品合约第二、第二十五。

2021 年，燃料油期货成交量 27,699.38 万手，同比减少 41.95%；年末持仓量 49.35 万手，同比增加 11.84%。其中，月度成交量最高为 3 月 3,269.72 万手，最低为 12 月 1,206.17 万手；月末持仓量最高为 12 月 49.35 万手，最低为 10 月 25.65 万手。

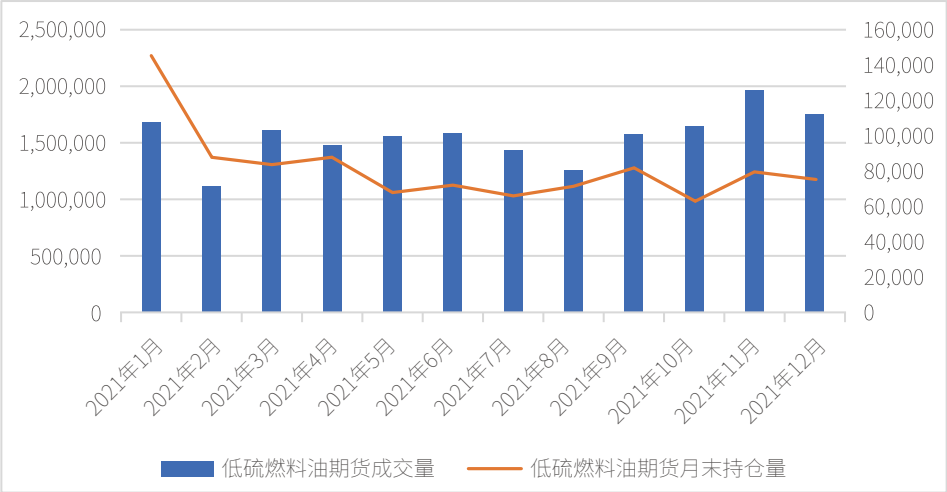
上期所燃料油期货成交量、持仓量统计图　　单位：手



截止时间：2021 年 12 月 31 日

2021 年，低硫燃料油期货成交量 1,859.48 万手，同比增加 90.47%；年末持仓量 7.57 万手，同比减少 46.14%。其中，月度成交量最高为 11 月 195.43 万手，最低为 2 月 111.21 万手；月末持仓量最高为 1 月 14.37 万手，最低为 10 月 6.27 万手。

上期能源低硫燃料油期货成交量、持仓量统计图　　单位：手

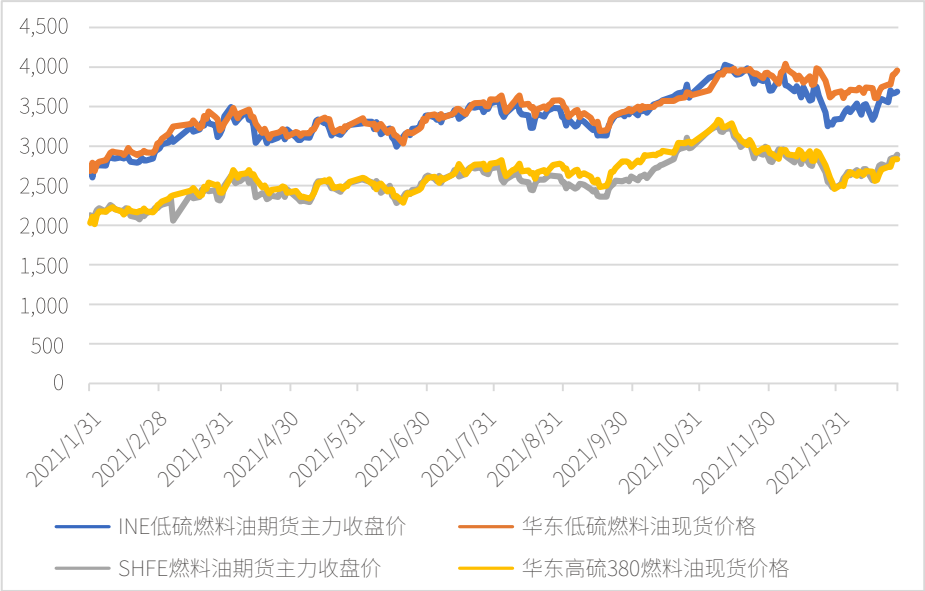


截止时间：2021 年 12 月 31 日

（二）价格发现功能发挥，价格运用场景逐步国际化

上市以来，燃料油期货主力合约收盘价与华东 380 燃料油现货价格、低硫燃料油期货主力合约收盘价与华东低硫燃料油现货价格的相关系数均接近 0.9，期现市场联动密切，期货市场能够较好地反映现货市场变化。

2021 年高低硫燃料油期货价格与现货价格比较　　（元 / 吨）



截止时间：2021 年 12 月 31 日

2021 年 6 月 21 日，上期所与浙江国际油气交易中心（以下简称浙油中心）共同推出以低硫燃料油期货结算价为基准的舟山保税低硫燃料油船供加注卖方报价，该报价以低硫燃料油期货每日结算价升贴水形式发布。

截至2021年底，参与卖方报价的企业有中石化燃料油、中国船燃、中石油燃料油、海港国贸和浙石油五家企业，其供油量占区域市场的84%，全面客观地反映了船供市场的价格走势，得到了市场高度关注。

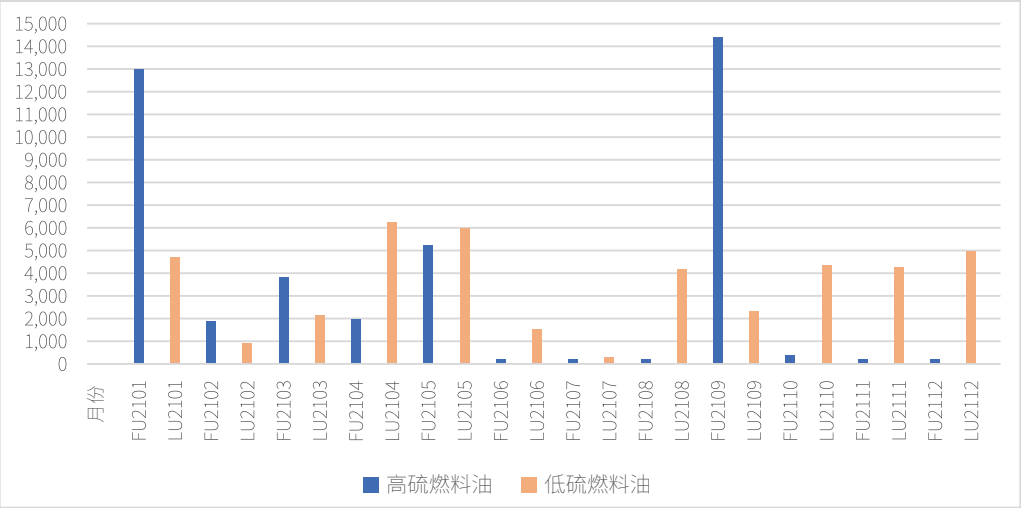
（三）市场结构持续优化，法人客户参与度高

截至2021年底，参与燃料油期货的法人客户成交同比增加接近20%；持仓结构方面，法人客户持仓同比增加约15%。参与低硫燃料油期货的法人客户成交同比增加接近20%；持仓结构方面，法人客户持仓同比增加约15%。

（四）期货交割规模稳定，助力企业套期保值

交割方面，2021年燃料油期货交割总量40,935手折合409,350吨，交割金额9.45亿元。其中，9月交割量最大，为14,389手折合143,890吨；12月交割量最低，为70手折合700吨。2021年低硫燃料油期货交割总量41,089手折合410,890吨，交割金额13.40亿元。其中，4月交割量最大，为6, 220手折合62,200吨；7月交割量最低，为206手折合2,060吨。

高低硫燃料期货交割量　　单位：手



截止时间：2021 年 12 月 31 日

（五）高水平对外开放，助力行业高质量发展

1、首次交割实现跨境交收，引领国内期货市场双向开放

低硫燃料油期货引入“境内交割+境外提货”的全新集团厂库交割业务模式，托克、复瑞渤和中基资源等三家新加坡公司参与了首批跨境交收业务。这是中国期货市场交割路程中的一次里程碑事件，是中国期货品种提升对外开放程度和直接服务“一带一路”互联互通的成果展示，为实体经济拓宽贸易渠道、提升资源配置效率赋能，实现了国内国际、期货现货、线上线下联动的多层次风险管理，有利于行业形成更科学合理的定价机制，助推提升中国重要大宗商品定价影响力。

2、保税船燃行业境外贸易首次使用人民币价格

复瑞渤新加坡、中燃国际石油（新加坡）、招商局能源贸易（新加坡）以及中粮国际船运公司签订以上期能源低硫燃料油期货合约作为计价基准的船用燃料油供应合同，使中国燃料油期货价格首度成为境外贸易的定价基准，提升了燃料油人民币国际定价影响力，为中国期货市场高水平对外开放积累经验，服务国内国际双循环新发展格局建设。

3、打造低硫燃料油保税船供报价，共建长三角期现一体化油气交易市场

上期所与浙油中心共同推出以低硫燃料油期货结算价为基准的舟山保税低硫燃料油船供油企业报价卖方报价，这是首个以国内期货市场价格为定价基础的人民币报价机制，为低硫燃料油期货的价格传导至供油终端提供了一条真实、可靠的全新路径。2022年6月，在卖方报价的基础上继续发布中国舟山低硫燃料油保税船供买方报价，引入五家国际船运公司，实现买卖双方报价模式。

4、期现结合，探索期货市场多元化创新之路

上期所、上期能源首度发布低硫燃料油期货月均结算价，为相关品种市场提供与现货月度均价相匹配的期货价格信息，为企业的持续生产经营提供更多贴合实际需求的价格参考，更好满足产业企业对贸易定价和风险管理的需求。

Market Operations

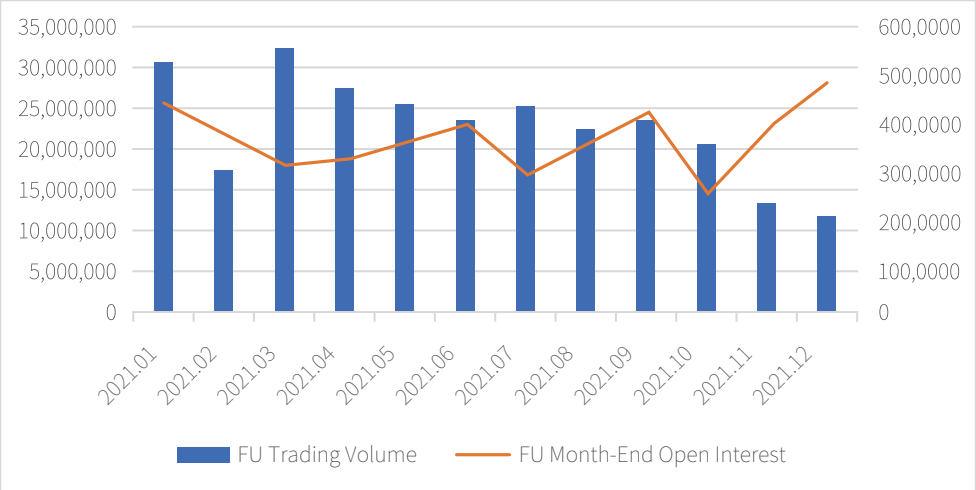
With the strong support and active engagement from market participants, both the fuel oil futures and the LSFO futures markets have shown steady trading activities, smooth clearing, settlement, and delivery processes, and increasing overseas participation.

(I) Growing market size and capacity to serve the real economy

In response to the implementation of the global sulfur cap on marine fuels in 2020 and other industry trends, the Shanghai Futures Exchange (SHFE) listed the LSFO futures on the Shanghai International Energy Exchange (INE). Both the regular fuel oil futures market and the LSFO futures market have been running smoothly since the listing, with steadily increasing trading volume and open interest. The 2021 data of the Futures Industry Association (FIA) show that by trading volume, the SHFE fuel oil futures and the INE LSFO futures were respectively the 2nd and the 28th largest energy derivatives in the world.

In 2021, a total of 276.9938 million lots of fuel oil futures were traded, a decrease of 41.95% year-on-year (YoY). Year-end open interest was 493,500 lots, up 11.84% YoY. The monthly volume reached a yearly high of 32,697,200 lots in March and a yearly low of 12,061,700 lots in December. The highest month-end open interest of 493,500 lots was recorded in December and the lowest of 256,500 lots occurred in October.

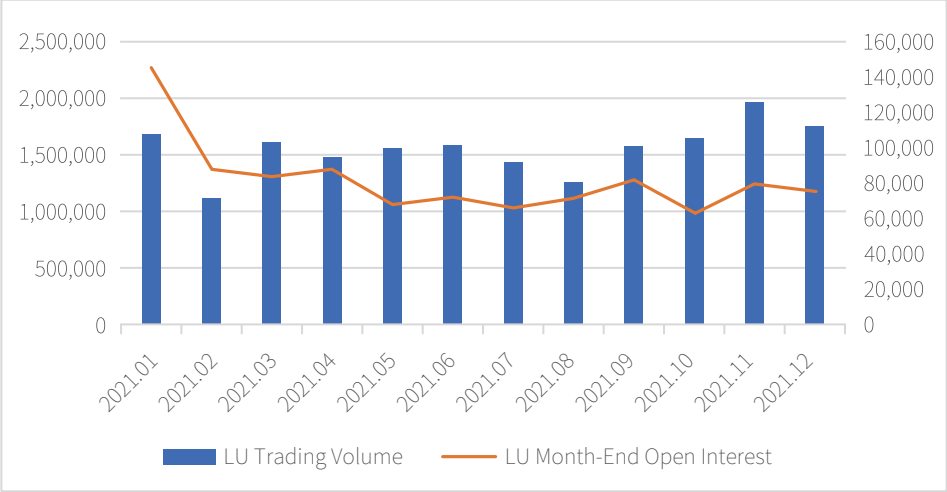
SHFE Fuel Oil Futures Trading Volume and Open Interes (Unit: Lots)



As of December 31, 2021

In 2021, a total of 18.5948 million lots of LSFO futures were traded, an increase of 90.47% YoY. Year-end open interest was 75,700 lots, down 46.14% YoY. The monthly volume reached a yearly high of 1,954,300 lots in November and a yearly low of 1,112,100 lots in February. The highest month-end open interest of 143,700 lots was recorded in January and the lowest of 62,700 lots occurred in October.

INE LSFO Futures Trading Volume and Open Interest (Unit: Lots)

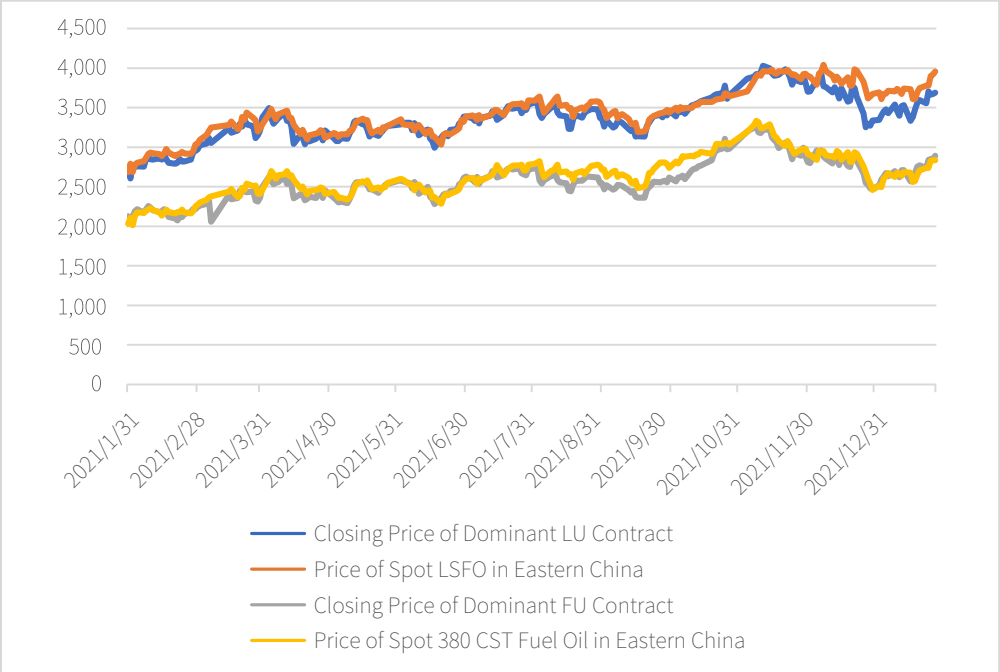


As of December 31, 2021

(II) Effective price discovery functions and widening international application of product price

Whether it' s between the closing price of the most active fuel oil futures contract and the price of spot 380 CST fuel oil in eastern China, or between the closing price of the most active LSFO futures contract and the price of spot LSFO in eastern China, the correlation coefficient has been close to 0.9 since the listing of the two futures products. This shows that the futures markets can effectively reflect the price changes in the spot market.

Fuel Oil and LSFO Futures Price vs. Spot Price in 2021 (Yuan/Metric Ton)



As of December 31, 2021

On June 21, 2021, SHFE and Zhejiang Mercantile Exchange (ZME) jointly launched the Zhoushan LSFO bonded bunker price, which is calculated from the bunker quotes submitted by the major Zhoushan-based bunker fuel suppliers, which quotes are in turn based on the daily settlement price of the LSFO futures contract as adjusted by premiums and discounts. As of the end of 2021, five bunker fuel suppliers— Sinopec Zhejiang Zhoushan Petroleum, Chimbusco, Zhejiang Free Trade Zone PetroChina Fuel Oil, Zhejiang Seaport International Trading, and Zhejiang Petroleum Fuel Oil Sales—were submitting quotes as bunker fuel sellers on ZME. These suppliers together account for 84% of the regional market, which means their quotes can fully and objectively reflect the price trend of the bunker market and are being closely monitored by the market.

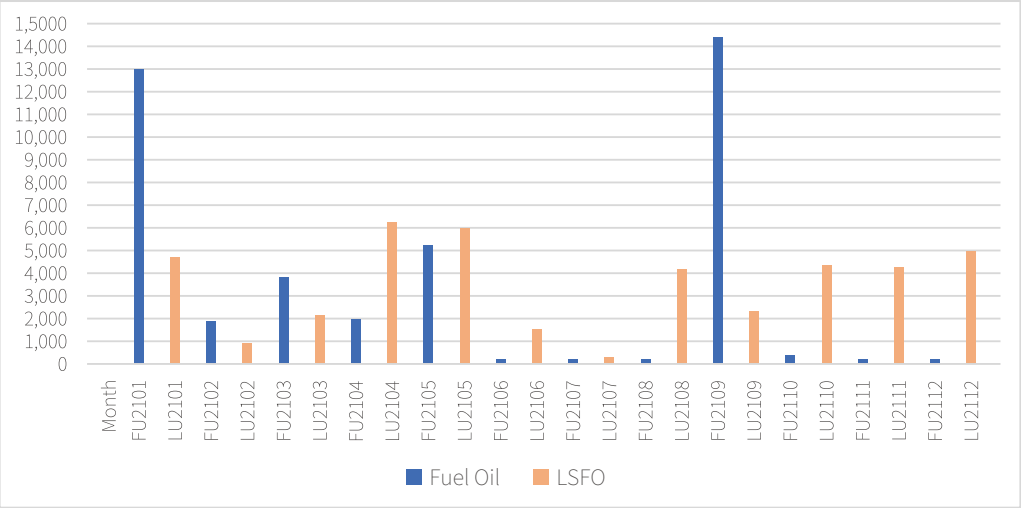
(III) Improving market structure with active participation of institutional clients

As of end-2021, institutional clients showed an approximately 20% increase YoY in trading volume and an approximately 15% increase in open interest in the fuel oil futures, and an approximately 20% and 15% increase YoY respectively in the trading volume and open interest in the LSFO futures.

(IV) Stable physical delivery volume that enables effective hedging functions

In terms of physical delivery, the total delivery volume of SHFE fuel oil futures in 2021 is 40,935 lots (409,350 mt of fuel oil), with total delivery value of RMB 945 million yuan. The highest delivery volume of 14,389 lots (143,890 mt) was achieved in September and the lowest of 70 lots (700 mt) was recorded in December. For the LSFO futures, the total delivery volume in 2021 is 41,089 lots (410,890 mt of LSFO), with total delivery value of RMB 1.340 billion yuan. The delivery volume peaked at 6,220 lots (62,200 mt) in April and reached its lowest point of 206 lots (2,060 mt) in July.

Delivery Volume of Fuel Oil Futures and LSFO Futures (Unit: Lots)



As of December 31, 2021

(V) High-level opening up for high-quality development of the industry

1. The first cross-border take-delivery of LSFO futures completed to lead the two-way opening-up of China's futures market

A new delivery model of "domestic delivery + overseas take-delivery" has been introduced to the LSFO futures, made possible through group factory warehouses. The first overseas take-delivery transaction involved three companies from Singapore: Trafigura Group (Singapore), Freepoint Commodities Singapore, and China-Base Resource Singapore. This is a milestone for China's futures market in taking delivery activities international, which further improves the accessibility of China's futures products and market connectivity under the Belt and Road Initiative. This new delivery model expanded trading channels for industrial enterprises, improved the efficiency of resource allocation, and allowed for multi-dimensional risk management covering domestic and international markets, futures and physicals, and online and offline tools. It helps the industry develop a more sophisticated pricing mechanism and improve China's pricing power in the major commodities.

2. The first use of RMB price for overseas trades in the bonded bunker fuel industry

Freepoint Singapore, Chimbusco International Petroleum (Singapore), China Merchants Energy Trading (Singapore), and COFCO International Freight inked bunker supply contracts which reference the prices of INE LSFO futures as the pricing benchmark. This was the first time that China's fuel oil futures prices served as a pricing benchmark in overseas trades. It has raised the influence of RMB in the global pricing of fuel oil, contributed valuable experience to the high-level opening-up of China's futures market, and supported China's new development paradigm under the "Dual Circulation" strategy.

3. Helping form low-sulfur bunker fuel quotations to build an integrated futures-physicals market for oil and gas in the Yangtze River Delta region

SHFE and ZME jointly launched the Zhoushan LSFO bonded bunker price, which is calculated from the quotes submitted by bunker fuel suppliers based on the settlement price of the LSFO futures contract. This is the first RMB-denominated quotation mechanism in China based on futures prices, providing a new, proven, and reliable pathway for transmitting the LSFO futures price to the spot suppliers. This quotation mechanism was strengthened in June 2022 with the publication of bid prices, submitted by five international shipping companies, for bunker fuel at anchorages in Zhoushan, thus creating a bid-ask quotation model.

4. Futures-physicals market integration to promote functional innovations for the futures market

SHFE and INE began to publish the monthly average settlement prices of the LSFO futures

(“mean of settlement”, MOS), to complement the monthly average prices in the spot market of the corresponding product. This futures price information offers enterprises a more relevant price reference for their ongoing production and operating activities, and can better meet their trade pricing and risk management needs.

04

Fuel Oil / LSFO Futures by the Numbers (2021)

燃料油/低硫燃料油期货2021年度之“最”

高硫燃料油期货

表1.价格表现（元/吨）				
开盘价	最高价	最低价	收盘价	最高期现价差
2,067	3,291	2,021	2,892	1,270

表2.交易情况						
交易					持仓	
累计成交（万手）	累计成交额（亿元）	最高月度成交量（万手）	最低月度成交量（万手）	最高月度成交金额（亿元）	最高月末持仓量（万手）	最低月末持仓量（万手）
27,699.38	70,455.63	3,269.72	1,206.17	8,021.14	49.35	25.65

表3.交割情况		
累计交割（万吨）	累计交割额（亿元）	单月最大交割量（万吨）
40.94	9.45	14.39

低硫燃料油期货

表1.价格表现（元/吨）				
开盘价	最高价	最低价	收盘价	最高期现价差
2,673	4,054	2,566	3,691	1,488

表2.交易情况						
交易					持仓	
累计成交（万手）	累计成交额（亿元）	最高月度成交量（万手）	最低月度成交量（万手）	最高月度成交金额（亿元）	最高月末持仓量（万手）	最低月末持仓量（万手）
1,859.48	6,270.03	195.43	111.21	724.56	14.37	6.27

表3.交割情况		
累计交割（万吨）	累计交割额（亿元）	单月最大交割量（万吨）
41.09	13.40	6.22

(High Sulfur) Fuel Oil Futures

Table 1. Price (yuan/metric ton)				
Opening	High	Low	Closing	Highest basis
2,067	3,291	2,021	2,892	1,270

Table 2. Trading						
Trading					Open Interest	
Cumulative volume (10,000 lots)	Cumulative turnover (RMB 100 million)	Highest monthly volume (10,000 lots)	Lowest monthly volume (10,000 lots)	Highest monthly turnover (RMB 100 million)	Highest month-end open interest (10,000 lots)	Lowest month-end open interest (10,000 lots)
27,699.38	70,455.63	3,269.72	1,206.17	8,021.14	49.35	25.65

Table 3. Delivery		
Cumulative delivery volume (10,000 mt)	Cumulative delivery value (RMB 100 million)	Highest monthly delivery volume (10,000 mt)
40.94	9.45	14.39

Low Sulfur Fuel Oil Futures

Table 1. Price (yuan/metric ton)				
Opening	High	Low	Closing	Highest basis
2,673	4,054	2,566	3,691	1,488

Table 2. Trading						
Trading					Open Interest	
Cumulative volume (10,000 lots)	Cumulative turnover (RMB 100 million)	Highest monthly volume (10,000 lots)	Lowest monthly volume (10,000 lots)	Highest monthly turnover (RMB 100 million)	Highest month-end open interest (10,000 lots)	Lowest month-end open interest (10,000 lots)
1,859.48	6,270.03	195.43	111.21	724.56	14.37	6.27

Table 3. Delivery		
Cumulative delivery volume (10,000 mt)	Cumulative delivery value (RMB 100 million)	Highest monthly delivery volume (10,000 mt)
41.09	13.40	6.22

05

Top 20 Members by Trading Volume

交易量排名前20会员名单

SHFE燃料油期货成交量排名前二十会员（2021）

01 东证期货
02 华泰期货
03 中信期货
04 海通期货
05 国泰君安
06 新湖期货
07 光大期货
08 国富期货
09 银河期货
10 华闻期货
11 招商期货
12 申万期货
13 东方财富
14 中辉期货
15 方正中期
16 兴证期货
17 国投安信
18 徽商期货
19 鲁证期货
20 华安期货

INE低硫燃料油期货成交量排名前二十会员（2021）

01 华泰期货
02 银河期货
03 国富期货
04 中信期货
05 国泰君安
06 兴证期货
07 华闻期货
08 方正中期
09 东证期货
10 五矿期货
11 海通期货
12 国投安信
13 徽商期货
14 浙商期货
15 中银期货
16 新湖期货
17 永安期货
18 光大期货
19 鲁证期货
20 申万期货

Top 20 Members by Trading Volume in SHFE Fuel Oil Futures (2021)

01 Orient Futures
02 Huatai Futures
03 CITIC Futures
04 Haitong Futures
05 Guotai Junan Futures
06 Xinhu Futures
07 Everbright Futures
08 Guofu Futures
09 Galaxy Futures
10 Huawen Futures
11 China Merchants Futures
12 ShenYin & WanGuo Futures
13 Eastmoney Futures
14 Zhonghui Futures
15 Founder CIFCO Futures
16 Industrial Securities Futures
17 SDIC Essence Futures
18 Huishang Futures
19 Luzheng Futures
20 Huaan Futures

Top 20 Members by Trading Volume in INE Low Sulfur Fuel Oil Futures (2021)

01 Huatai Futures
02 Galaxy Futures
03 Guofu Futures
04 CITIC Futures
05 Guotai Junan Futures
06 Industrial Securities Futures
07 Huawen Futures
08 Founder CIFCO Futures
09 Orient Futures
10 Minmetals Futures
11 Haitong Futures
12 SDIC Essence Futures
13 Huishang Futures
14 Zheshang Futures
15 BOCI Futures
16 Xinhu Futures
17 Yongan Futures
18 Everbright Futures
19 Luzheng Futures
20 ShenYin & WanGuo Futures

06

Outstanding Analyst Awards

优秀分析师奖项（名单）

优秀能化产业服务团队（2021年）

国泰君安期货产业服务研究所能化团队
国投安信期货化工组
中信期货研究部能化研究团队

优秀能化分析师（2021）

中信期货　李　青
国投安信　李云旭
中信期货　杨家明
国泰君安　高琳琳
鲁证期货　高　萍
南华期货　顾双飞
东证期货　金　晓
华泰期货　陈　莉
申万期货　倪梦雪
永安期货　姚沁源
徽商期货　刘　娇
广发期货　蒋诗语
天风期货　王佳瑶
国贸期货　叶海文
光大期货　朱金涛

Outstanding Energy and Chemicals Analyst Teams (2021)

Energy and Chemicals Team, Industrial Service Institute, Guotai Junan Futures
Energy and Chemicals Team, SDIC Essence Futures
Energy and Chemicals Team, Research Department, CITIC Futures

Outstanding Energy and Chemicals Analysts (2021)

Li Qing, CITIC Futures
Li Yunxu, SDIC Essence Futures
Yang Jiaming, CITIC Futures
Gao Linlin, Guotai Junan Futures
Gao Ping, Luzheng Futures
Gu Shuangfei, Nanhua Futures
Jin Xiao, Orient Futures
Chen Li, Huatai Futures
Ni Mengxue, ShenYin & WanGuo Futures
Yao Qinyuan, Yongan Futures
Liu Jiao, Huishang Futures
Jiang Shiyu, GF Futures
Wang Jiayao, TF Futures
Ye Haiwen, ITG Futures
Zhu Jintao, Everbright Futures

结束语
Conclusion

2021 年，燃料油期货市场整体运行平稳，风险可控 ，功能有效发挥，期现市场呈现高度联动、相互促进的格局，围绕期货价格开展的一系列创新实践取得重大突破，为推进中国期货市场双向开放、建设长三角期现一体化油气交易市场发挥了重要作用。

下一步，上期所将积极推进以下三方面工作：一是不断提升期货市场运行质量，扩大期货价格应用场景，推动国内炼厂、贸易商、船供企业等更多保税船供油产业链企业使用期货定价，拓展期货功能服务的广度和深度；二是加快推进低硫燃料油大宗商品期现货市场一体化建设，加强期现市场融合，为我国保税船用燃料油市场提供供油价、库提价等更多价格参考，推进产品创新，提供广泛匹配保税船供行业计价需求的风险对冲工具；三是持续推动制度型高水平对外开放，加强与国际组织交流，大力提高“上海油”上海价格在国际金融市场的广泛应用，提升中国燃料油期货国际影响力，助力实体经济高质量发展。

我们期待与市场各方携手，共同推进高低硫燃料油衍生品市场进一步繁荣兴旺。

In 2021, the fuel oil futures market has been running stable overall with the risks well under control. The products have been functioning well, as the futures and spot markets show a high correlation factor and a symbiotic relationship. Major innovations with the fuel oil futures prices were made, greatly contributing to the two-way opening-up of China’s futures market and the creation of an integrated futures-physicals market for gas and oil in the Yangtze River Delta region.

SHFE’s next-phase plan relates to the following three areas. First, SHFE will continue to improve the operations of the futures market, find new applications for futures prices—such as by promoting their use by the domestic refineries, traders, bunker fuel suppliers, and other players within the bonded bunker fuel industry—and expand the breadth and depth of the functions of futures products. Second, SHFE will accelerate the integration of the futures and spot markets for LSFO, by providing more price references, such as supply price and ex-tank price, for China’s bonded bunker fuel market; and promote product innovation to introduce more hedging tools, such as LSFO mean of settlement futures contract, that address the pricing needs of the bonded bunker fuel supply industry. Third, SHFE will continue to promote the high-level and institutional opening-up of the market, strengthen engagement with international organizations, and vigorously encourage the application of “Shanghai Oil” prices in the international financial market to enhance the global influence of China’s fuel oil futures and boost the high-quality development of the real economy.

We look forward to working with all market participants to build a more prosperous market for high and low sulfur fuel oil derivatives.

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