



中信期货有限公司
CITIC Futures Company Limited

**Investment consulting business qualification:
CSRC License [2012] No. 669**

投资咨询业务资格：证监许可【2012】669号

中国股指期货 China Equity Index Futures

基础介绍 Introduction

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1. 期货合约 Introduction

2. 主要参与者 Market Players

3. 套保策略 Hedging Strategies

4. 套利策略 Arbitrage Strategies

期货合约 Index Contract

	沪深 300 CSI 300	上证 50 SSE 50	中证 500 CSI 500	中证 1000 CSI 1000
标的指数 Underlying	000300.SH	000016.SH	000905.SH	000852.SH
合约代码 Symbol	IF	IH	IC	IM
乘数 Contract Multiplier	RMB 300	RMB 300	RMB 200	RMB 200
报价单位 Quotation Unit	Index point			
合约期限 Contract Months	当月、次月、当季、下季 Current Month, Next Month, Current Season, Next Season			
价格变动 Tick Size	¥0.2/ tick			
交易时间段 Trading Hours	9:30-11:30 a.m. 13:00-15:00 p.m.			
交割日 Delivery Day	每月第三周周五，如遇节假日顺延至下一交易日 Third Friday of the Contract's Expiry Month. Postponed to the Next Business Date If it Falls on Public Holiday.			
交割方式 Settlement Method	现金交割 Cash Settlement			
最低保证金 Minimum Trading Margin	8%			

Sources: CFFEX, CITIC Futures

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合约乘数及保证金 Multiplier & Trading Margin

报价 Quote	合约乘数 Multiplier	合约价值 Value	保证金率 Margin Ratio	需缴纳保证金 Initial Margin
IF: 5000	× ¥300	= ¥1.5 Million	× 12%	= ¥0.18 Million
IH: 3600	× ¥300	= ¥1.08 Million	× 12%	= ¥0.13 Million
IC: 6000	× ¥200	= ¥1.2 Million	× 12%	= ¥0.14 Million
IM: 7000	× ¥200	= ¥1.4 Million	× 12%	= ¥0.17 Million

Sources: CFFEX, CITIC Futures

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合约期限 Maturity and Expiry Months

当前月份
Current Month

月份合约
Monthly Contracts

季度合约
Seasonal Contracts

每个股指品种同时上市4个合约，分别为当月、次月、当季、下季。

Each Index Futures has 2 monthly contracts and 2 seasonal contracts, including current month, next month, current season and next season.

3月
March

3月
March

4月
April

6月
June

9月
September

4月
April

4月
April

5月
May

6月
June

9月
September

5月
May

5月
May

6月
June

9月
September

12月
December

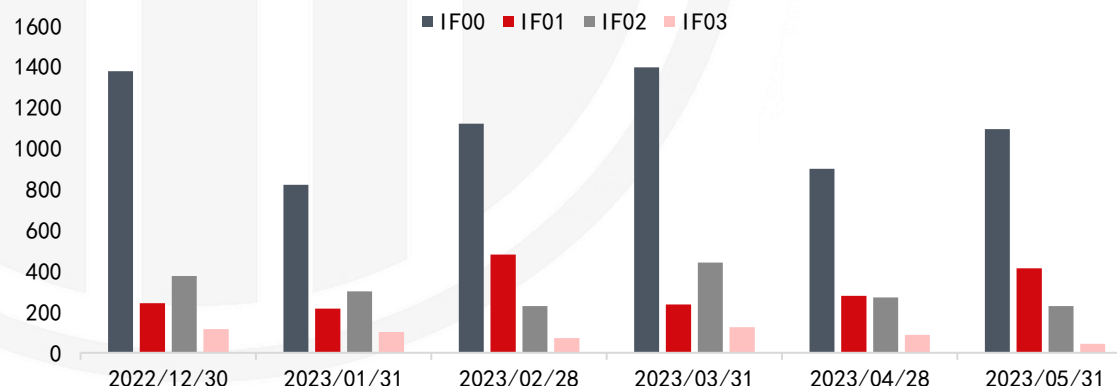
当月合约是最为活跃的合约，投机者倾向于在当月开仓，长期对冲资金倾向于在远月开仓。

每月**第三个周五**当月合约交割，遇法定节假日顺延。

Current-month contract is the most active and preferred by speculators, while the seasonal contracts are more preferred by long-term hedgers.

IF合约月均成交量（单位：千手）

IF Monthly Trading Volume (unit:1000 lots)



Sources: CFFEX, CITIC Futures

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现金交割 Cash Settlement

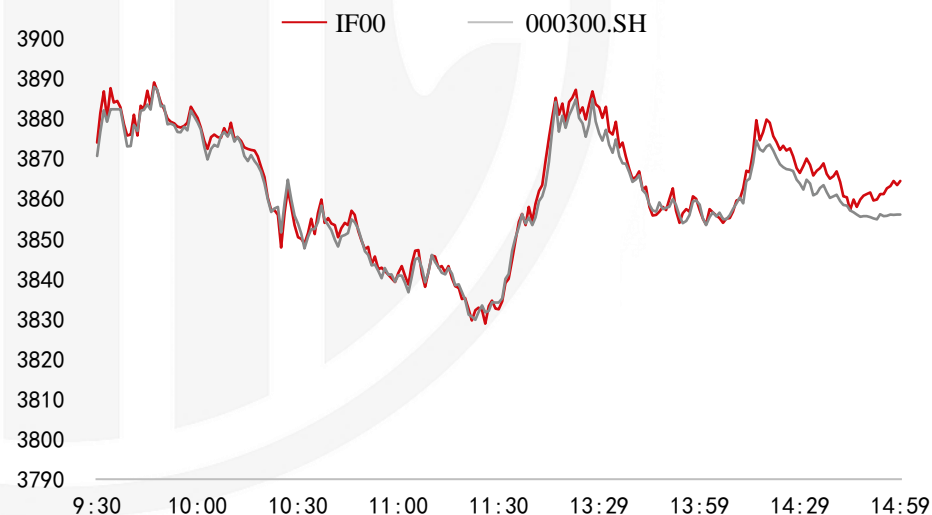
- 股指期货使用**现金交割**，不需要交割一篮子股票指数成分股，而是根据交割结算价进行盈亏结算来了结头寸。因此不存在逼仓风险。
- **CFFEX only allows cash Settlement.** Traders do not have to deliver a basket of stock components. Profit or loss will finally be calculated directly based on the settlement price. Therefore, market corner will not happen.

股指期货交割结算价采用现货指数收盘前2小时的算数平均价。

如果收盘前两小时指数大幅波动，则交割日结算价与收盘价大幅偏离。

Settlement Price will be determined by the **arithmetic average of transaction price** in the last two trading hours before delivery.
If a market shock takes place, the final settlement price can be largely deviated from the spot price.

2019年11月25日IF当月合约交割日当天价格
Price Deviation of IF Current-Month Contract on
Nov.25th, 2019



Sources: CFFEX, CITIC Futures

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股指期货 交易费用 Trading Fees

手续费 Commissions

基础手续费：股指期货开仓、平仓需要缴纳**0.23%**手续费。
例如一手合约100万元，开平仓各需23元手续费。

Basic Commissions: 0.23bp times the total contract value.
E.g. For ¥1mm contract, ¥23 required when open or close a position on different days.

平今仓手续费：当日开仓当日平仓收取**2.3%**平仓手续费。
例如当天开仓并平仓一手价值100万元的期货合约，开仓花费23元、平仓花费230元手续费。

T+0 Close Commissions: 2.3bp times the total contract value. E.g. For ¥1 million contract, ¥230 required if open and close on the same day.

申报费 Submission Fees

报单、撤单，**每次每手合约缴纳1元。**

例如报单5手，撤单3手，共需缴纳5+3=8元申报费。

¥1/order whenever submit or cancel an order.

E.g. If submit 5 and cancel 3 orders simultaneously, ¥8 should be charged in total for the submission fees.

单向大边保证金&锁仓 One-way Margin & Lock Position

单向大边保证金制度 One-way Margin Rule:

Long an IF contract, quoted at 5000
多开一手IF当月合约, 点数为5000

保证金为18万元
Margin=¥18k

两者取较大值, 收取18万元保证金。
¥180k margin required as for the larger side only.

Short an IF contract, quoted at 4000
空开一手IF次月合约, 点数为4000

保证金为14.4万元
Margin=¥144k

当日锁仓后次日平仓 Lock up on T and then Close on T+1

今日 T Day

多开一手IF, 手续费0.23%%
Long an IF. Commission equals 0.23bp

当天平仓, 平今仓手续费2.3%%
Close the position.
Commission equals 2.3bp.

空开一手IF锁仓, 手续费0.23%%
Short an IF to lock it.
Commission equals 0.23bp.

次日 T+1 Day

空平一手手续费0.23%%
多平一手手续费0.23%%
Close both positions,
Fee equals 0.46bp

资金占用更少
Fewer Margins

手续费更低
Fewer Commissions

套保编码 Hedging Code

持仓限额 Restriction on Open Interest

交易限额 Restriction on Trading Volume

套保编码
Hedging
Code

套保空单持仓限额不超过所持有可匹配现货资产市值的1.1倍。

Hedge only allows short position. Maximum holding value should be no more than 1.1 times the fair value of underlying assets.

股指期货、股指期权各产品可匹配现货资产范围包括所有产品标的指数成份股、沪深交易所上市的所有跟踪A股股票ETF和LOF基金（不含混合型、债券型等其他类型）。

Underlying assets: any component stock of the four index futures; any stock ETF and LOF listed in SSE and SZSE (excluding mixed funds and bond funds).

每周交易手数不超过持仓限额的两倍。

Every week, the total trading volume should be no more than twice of the approved open interest quota.

异常交易行为 Abnormal Trading Activities

中金所规定的
异常行为
Abnormal
Activities
Identified
by CFFEX

自成交
Self-Trade

以自己为交易对象，大量或多次进行自买自卖。
Frequent deals on the same contract within a single trading day.

报撤单
Placement &
Cancellation

频繁报撤单；大额报撤单。
Frequently place and cancel trading orders.

关联账户持仓超限额
Overloaded Positions

实际控制关系账户合并持仓超过交易所持仓限额规定。
Aggregate positions held by a group of Actual Control Accounts exceed the approved quota.

异常程序化交易
Abnormal
Programming

通过计算机程序下单可能影响交易所系统安全或者正常交易秩序的行为。
Automated trading system that can cause market disorder.

其他情形
Other Situations

中国证监会规定或者交易所认定的其他情形。
Other abnormal trading activities identified by the CSRC.

Sources: CFFEX, CITIC Futures

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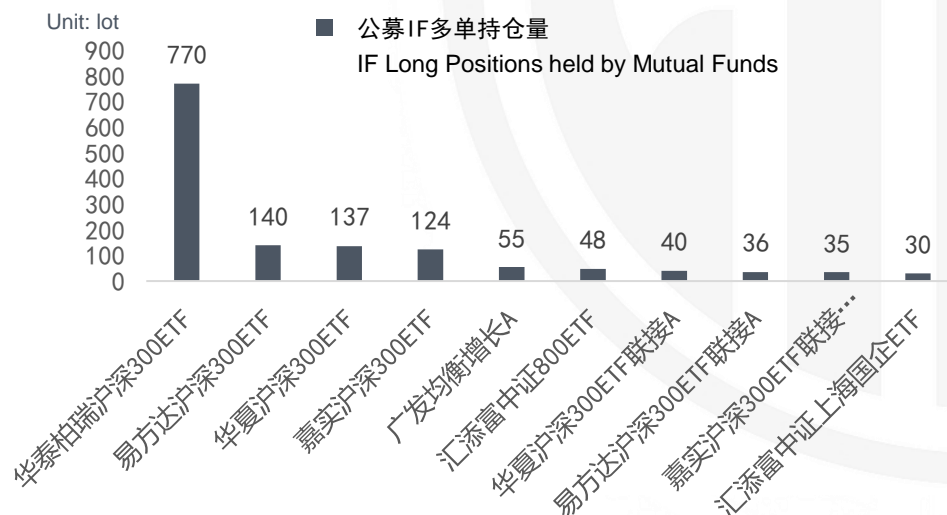
4. 套利策略 Arbitrage Strategies

多头替代资金 Beta Replication (IF/IC)

- 由于期货常年贴水，部分指数型/增强性基金配置期货获取贴水收益。IF多单：集中在华泰柏瑞、易方达、华夏、嘉实等300ETF基金。IC多单：集中在南方、建信、天弘、易方达等500ETF基金
- Due to the persisting backwardation, some passive/enhanced index funds choose to long index futures to replicate underlying assets and enhance their profits.
- IF Long Positions: Mainly held by Huatai-Pinebridge, E-Fund, China AMC, Harvest Funds and related 300 ETFs. IC Long Positions: Mainly held by China Southern Fund, CCB PAM, Tianhong AMC, E-Fund and related 500 ETFs.

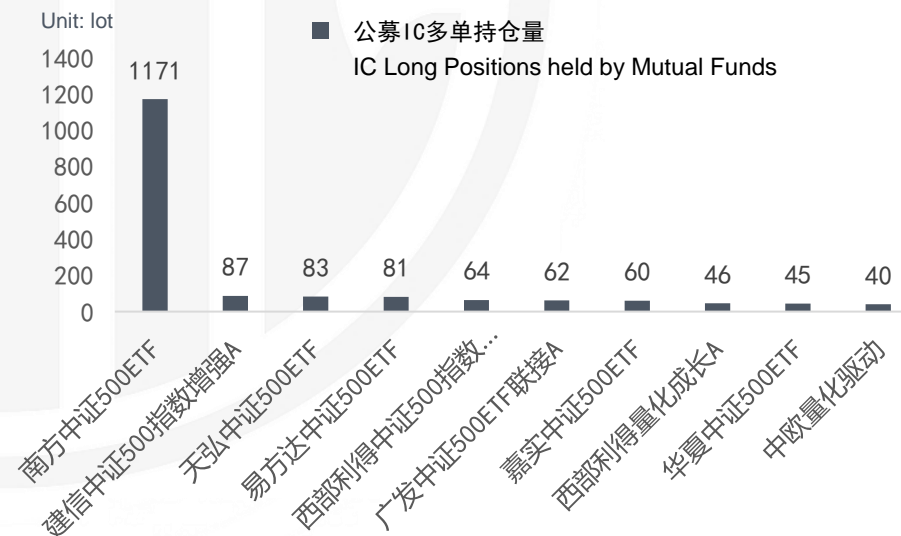
公募IF多单分布（截止2022Q4）

IF Long Positions Held by Mutual Funds (by 2022Q4)



公募IC多单分布（截止2022Q4）

IC Short Positions Held by Mutual Funds (by 2022Q4)



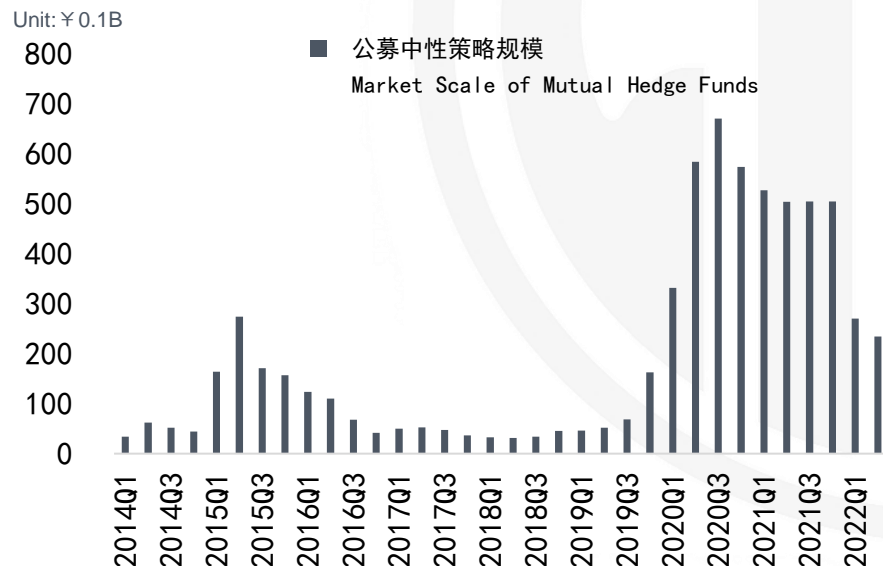
Sources: Wind, CITIC Futures

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- 参与IF长期对冲策略资金主要有两类。第一类是公募类中性策略，2020年后规模萎缩。第二类是打新对冲产品，科创板、创业板注册制落地后，策略盛行，2021年9月后打新收益显著下降。
- Hedgers participating in IF contracts mainly comprise two types of strategies: 1. Market-neutral strategies by mutual funds: the scale declined since 2020. 2. IPO-hedging strategies which were popular when STAR Market and ChiNext came out, the profits shrank after September 2021.

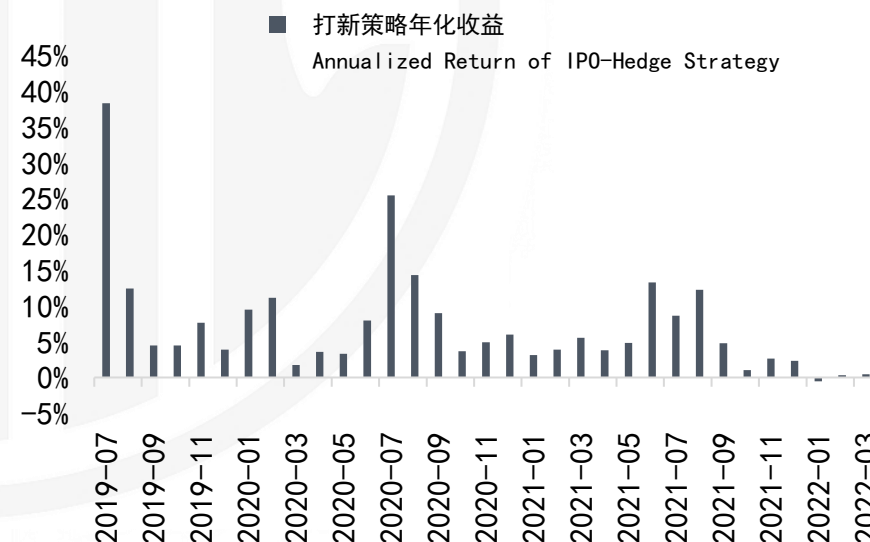
公募中性策略规模变化

Scale of Mutual Funds (Market Neutral)



打新策略年化收益

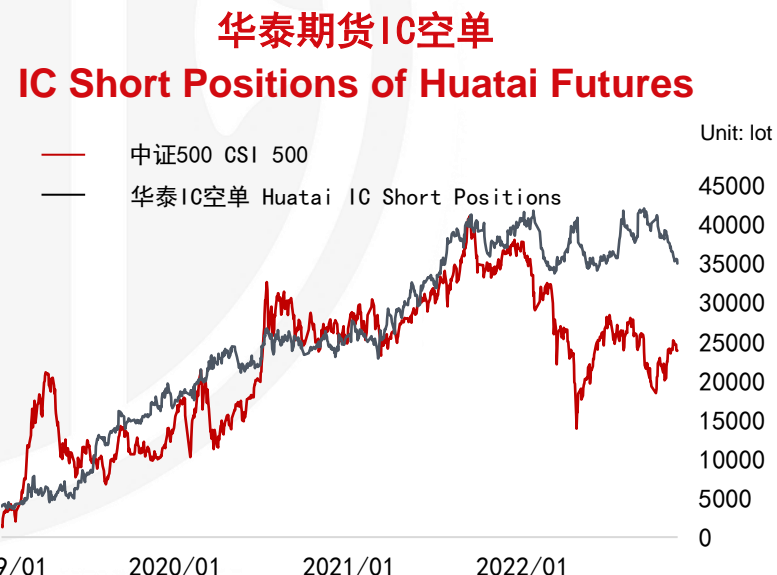
Annualized Return of IPO- Hedge Strategy



Sources: Wind, CITIC Futures

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- 两类指标可以观察私募中性策略规模。1) 近年IC远月对冲成本便宜，故私募仓位多集中在当季下季，当季下季持仓占比可反映私募仓位的相对变化；2) 会员席位IC空单。2020年之后，华泰IC空单从2万手升至4万手，与私募量化扩容时间一致。
- Two indicators can help tracking the scale of market-neutral strategies. 1) Private equities tend to hold short positions in seasonal contracts to benefit from lower hedging costs. Therefore, the proportion of open interests in seasonal contracts can reflect the relative change of their market scale. 2) IC short positions in Huatai Futures, which grew with the expansion of funds quantitative strategies.



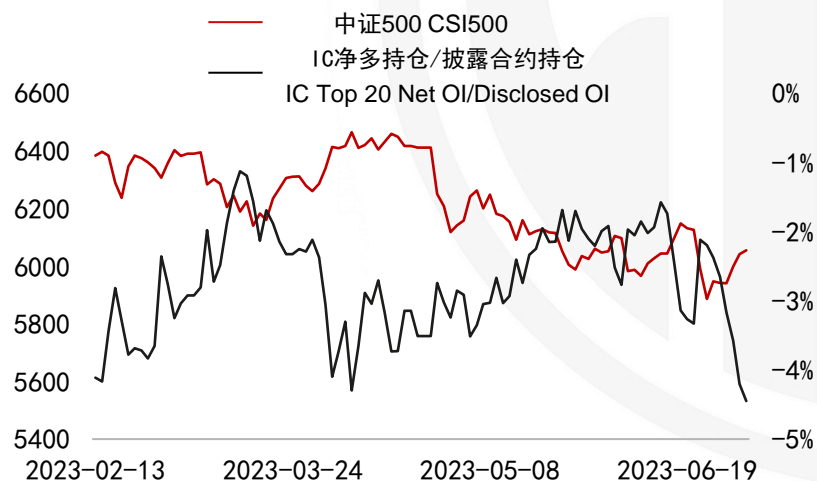
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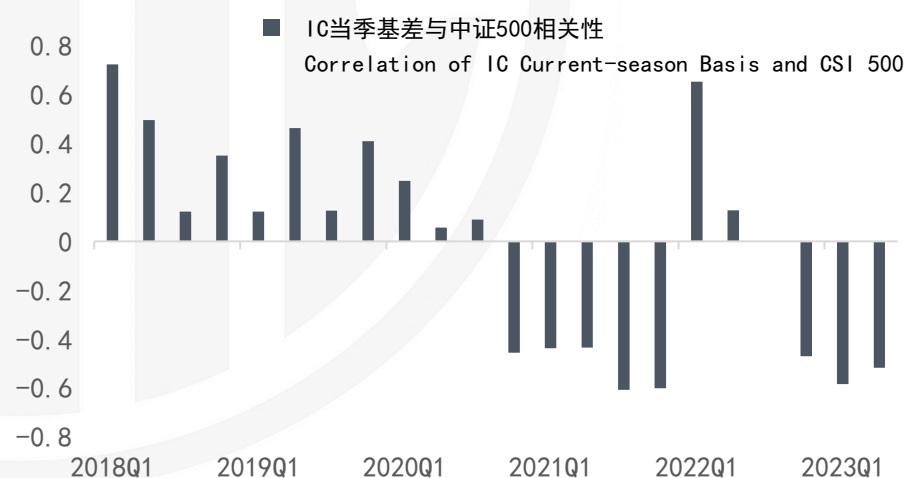
雪球期权 (IC, IM) Snowball Option Traders (IC, IM) 中信期货 CITIC Futures

- 左图：IC前20大席位净多持仓/披露持仓比值，与中证500进行比较，两者2021年后显著负相关。即指数下跌，前20大席位净多持仓更倾向增加，这与雪球期权交易商对冲行为一致。右图：IC当季年化折溢价率日环比变化与中证500日涨跌幅的季频相关系数，同样在2021年显著负相关，显示基差由高抛低吸的资金主导。
- Left chart: the correlation between CSI 500 and IC top 20 net long positions/disclosed OI turns significantly negative since 2021. When the market goes down, the IC net long positions tend to go up, which echoes with the hedging strategy of snowball option traders.
- Right chart: the seasonal correlation between basis of IC current-season contract and seasonal change of CSI 500 turns negative since 2021, implying the behavior of high throw bargain assets.

IC前20大席位净多持仓/IC披露合约持仓
IC Top 20 Brokers' Net Long Pos./CFFEX Disclosed OI



IC当季基差变化与中证500涨跌幅相关系数
Correlation of IC Current-Season Basis and CSI 500



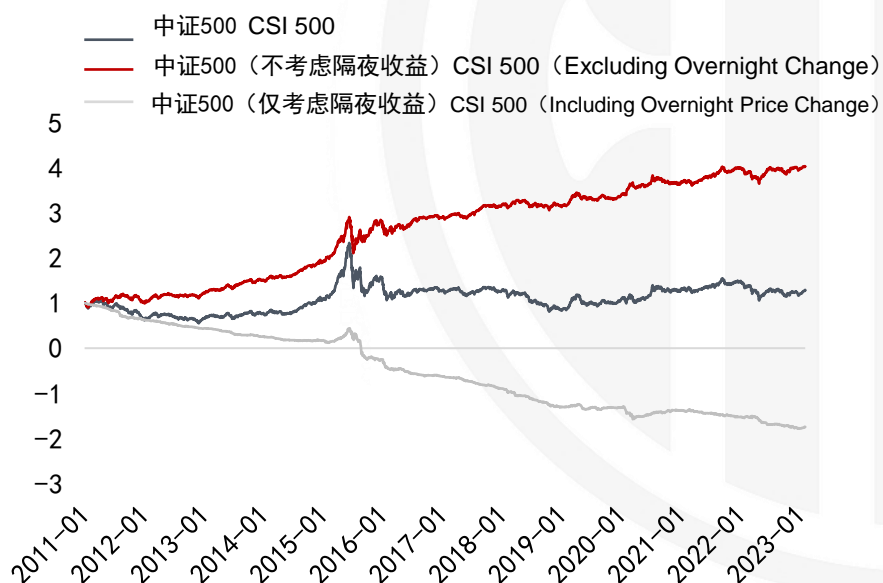
Sources: Wind, CITIC Futures

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- 隔夜交易策略：每日收盘时买入中证500指数，下一日开盘时平仓。
- 鉴于隔夜下行居多的特性，期货市场资金会提前提价这一负面因素，表现为尾盘贴水迅速扩大的特征。
- Overnight Hedgers: Suppose to buy CSI 500 index and sell on the next day at the open price.
- The feature of overnight risk can be forecasted in the futures market, as the backwardation usually deepens near the end of trading hours.

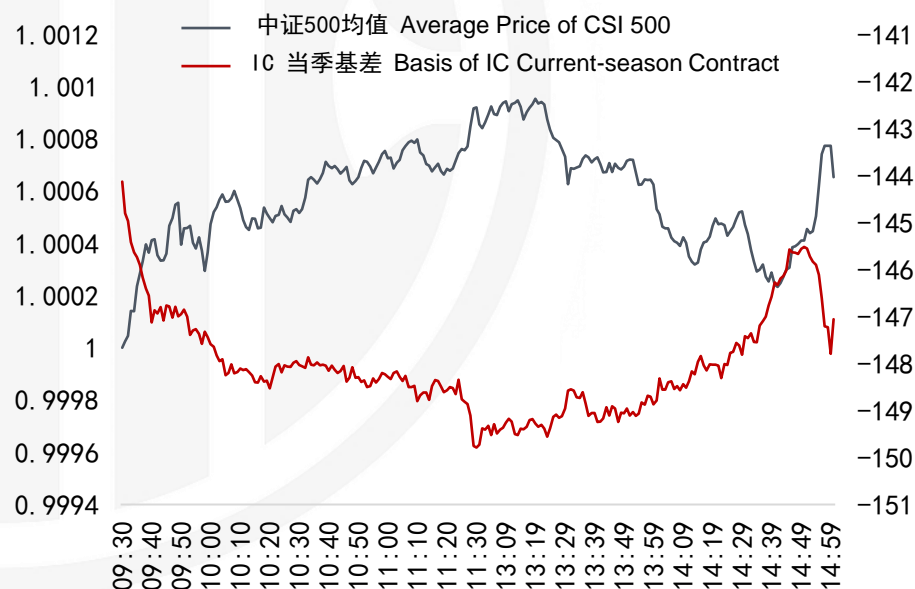
隔夜策略

Overnight Investment Strategy



IC当季日内基差结构

Intra-day Basis of IC Current-Season Contract

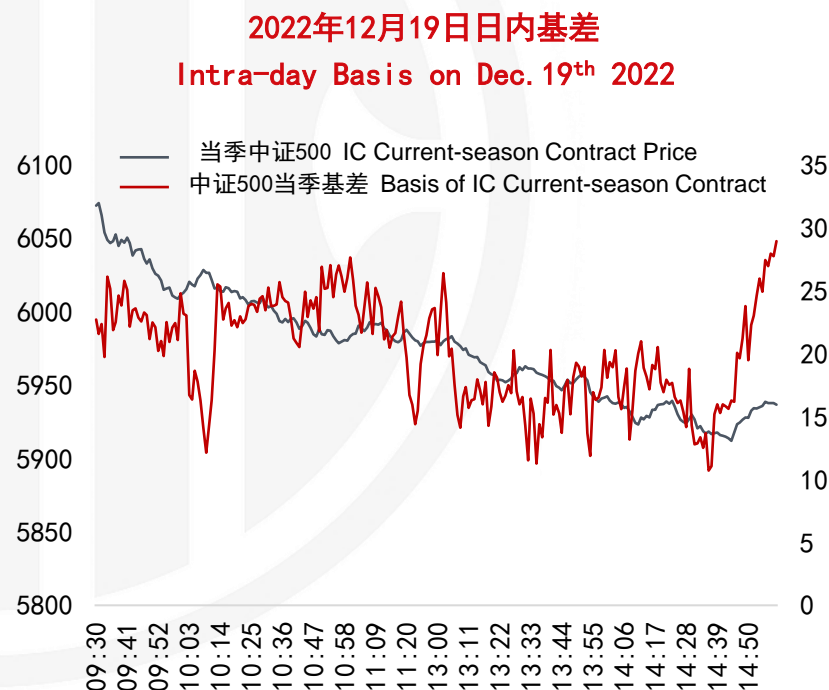
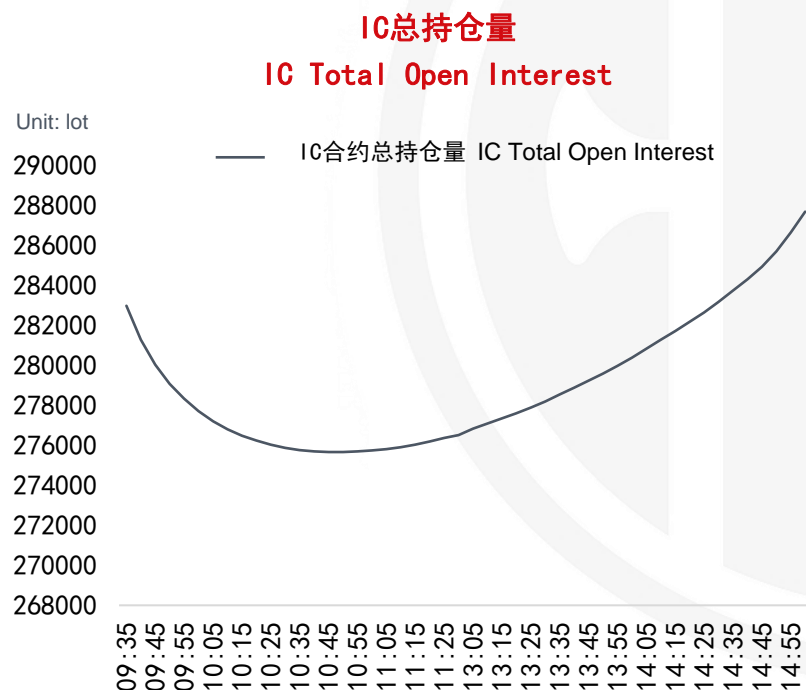


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日内锁仓资金 Intra-Day Lock-up Capital

- 股指平今仓手续费偏高，部分资金选择锁仓回避隔夜风险，故日内持仓量有U型走势。市场大幅上涨（下跌）时，尾盘多方（空方）资金选择锁仓，因此尾盘易出现空开（多开）力量，此时导致基差有下行（上行）动力。
- Due to the high commissions of closing positions in the same day, some traders prefer to lock up positions to avoid the overnight risk, leading to the U-shape trend of open interest for futures.
- When the market plunges(plunges), buyers(sellers) tend to lock up their original positions near the end of the trading hours. The leading short(long) power will pull the basis down(up).



Sources: CFFEX, CITIC Futures

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股指期货标的 Features of Stock Index Futures

中金所股指
期货品种
CFFEX
Stock Index
Futures

上证50 IH
CSI 50

风格上偏向**大盘蓝筹**；行业上集中于食品饮料（23.89%）、非银金融（15.71%）和银行（13.45%）。

Including **50 large-cap blue-chip companies**, represented by Food & Beverages (23.89%), Non-Banking Financials (15.71%), Banking (13.45%).

沪深300 IF
CSI 300

最活跃 Most Active

风格上偏向**大盘蓝筹**；行业上集中于食品饮料（12.63%）、电新（11.76%）和银行（10.94%）。

Including **300 large-cap blue-chip companies**, represented by Food & Beverages (12.63%), New Energy Resources (11.76%), Banking (10.94%).

中证500 IC
CSI 500

空头成本高
Deep Backwardation

风格上相近于**中小盘**；行业分散，医药（15.71%）、电子（12.08%）和基础化工（11.01%）占比较高。

Including **500 mid/small-cap companies, represented by** Pharmacy (10.26%), Chemicals (8.83%) and Electronics (7.31%).

中证1000 IM
CSI 1000

对冲成本最大
Most costly for hedging

风格上偏向**小盘**；行业分散，医药（12.04%）、基础化工（8.43%）和电子（8.36%）占比较高。

Including **1000 small-cap companies**, represented by New Energy Resources (11.01%), Pharmacy (10.61%) and Chemicals (10.42%).

Sources: Wind, CITIC Futures

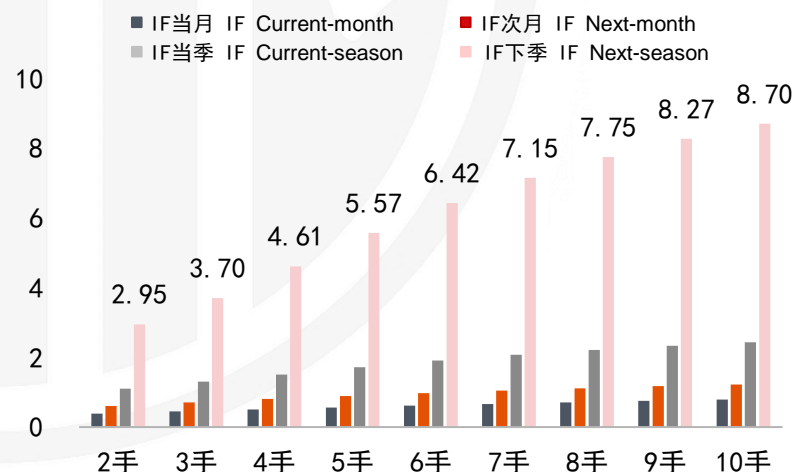
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冲击成本对套保影响 Friction Costs on Hedging

	卖价 Sell Price	卖单 Sell Order	4手合约交易摩擦 Implicit Costs for 4 contracts
卖3 Sell 3	4987.8	5	实际成交1手，冲击成本0.8元 Fill 1 contract, friction costs=¥0.8
卖2 Sell 2	4987.6	2	实际成交2手，冲击成本1.2元 Fill 2 contracts, friction costs=¥1.2
卖1 Sell 1	4987.4	1	实际成交1手，冲击成本0.4元 Fill 1 contract, friction costs=¥0.4
现价 Latest Price	4987.0		

- 该案例下，假设下单4手。对应平均冲击成本每手0.6元。以2021年1月20日IF多头为例，远月冲击成本偏高，下单时建议**拆单**。
- In the case above, suppose to buy 4 contracts. The average friction costs equals ¥0.6/Contract.
- Take Jan.20th 2021 as an example. When friction costs of seasonal contracts become rather high, splitting orders will be more recommended.

IF日内平均冲击成本（多头） Intra-day Friction Costs for IF (Long)



Sources: Wind, CITIC Futures

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如何确定套保比例 How to Identify Hedging Ratio

使用线性回归拆分股票组合收益：
Use linear regression to separate portfolio return:

股票组合涨跌幅
Stock Portfolio Return

=

指数涨跌幅
Index Return

×

Beta

+

Alpha

市场风险
Market Risk

股票Alpha收益
Alpha Return of Stocks

对冲市场风险
Hedge Market Risk

假设 $\text{Alpha} = 0$, $\text{Beta} = 0.5$,
指数期货当日涨2%，股票组合当日涨1%：
Suppose $\text{Alpha} = 0$, $\text{Beta} = 0.5$,
If stock Index futures goes up 2%,
portfolio return will go up 1%.

股票组合 100 万元市值
Market Value of stocks equals
¥1 million

指数期货 100×0.5 万元市值
Market Value of index futures
equals ¥0.5 million

股票组合日涨 $100 \times 1\% = 1$ 万元
Stock Portfolio increases by ¥10k

指数期货日涨 $50 \times 2\% = 1$ 万元
Index Futures increase by ¥10k

套期保值比例 = 指数期货市值 / 股票组合市值 = Beta

Hedging Ratio = Fair Value per Contract / Portfolio Value = Beta

一般在每次移仓时根据滚动250日数据动态调整套保比例。

usually dynamically readjust based on MA250 daily return while rolling the contract.

对冲效果比较 Comparison of Futures/Options

期货 Index Futures

期权 Index Options

长期对冲
Long-term
Hedge

贴水环境下，**当季、下季**对冲成本更为低廉。
In backwardation, **current-season and next-season contracts** are cost-effective

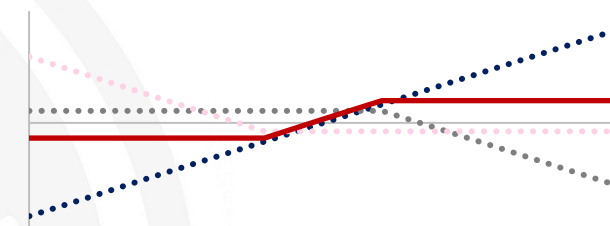
领口策略（次月）成本与期货次月成本相近。
The Hedging costs of **Collar** with next-month option is close to next-month futures contract.

领口策略：买入标的资产+买入认沽期权+卖出认购期权
Collar Strategy: Buy assets + buy put option + sell call option

短期对冲
Short-term
Hedge

急跌环境下，基差大概率下行，期货对冲占优。
When market plunges, basis will probably go down. Hedgers take advantage.

急跌环境下，期权**delta中性对冲**最优。
When market plunges, delta neutral strategies outperform.

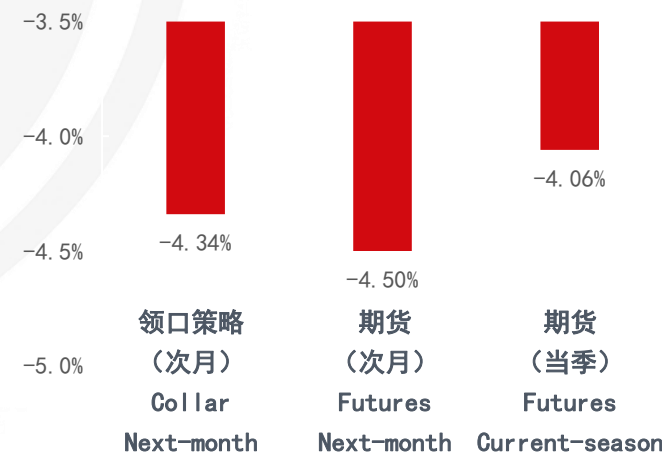


买入套保
Long
Hedging

贴水环境下期货**买入套保**能起到增强效果。
In backwardation, **long hedging** can enhance profits from basis

非急涨情形下，期权**备兑策略**有增厚收益。
If the market does not go up quickly, **covered call** can provided enhanced profits.

期货与领口年化对冲成本（含分红）
Hedging Costs of Futures and Collar (including dividend)



Sources: Wind, CITIC Futures

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1. 期货合约 Introduction

2. 主要参与者 Market Players

3. 套保策略 Hedging Strategies

4. 套利策略 Arbitrage Strategies

期现套利 Arbitrage with Futures & Spot Markets

IH/IF的升水的原因：对冲力量减少

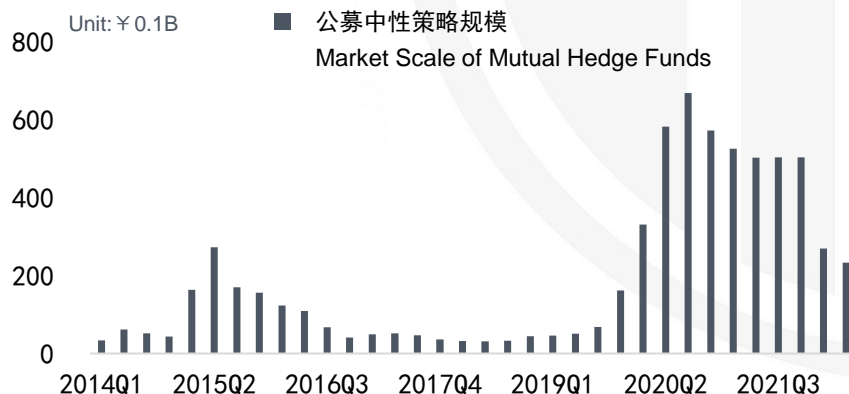
- 1) 前20大席位持仓风格略偏高抛低吸，低位对冲意愿有限
- 2) 公募中性策略容量萎缩
- 3) 打新对冲力量离场
- IF当季年化基差升水幅度近期升至4%附近

Why IH/IF maintains contango? Fewer Hedgers.

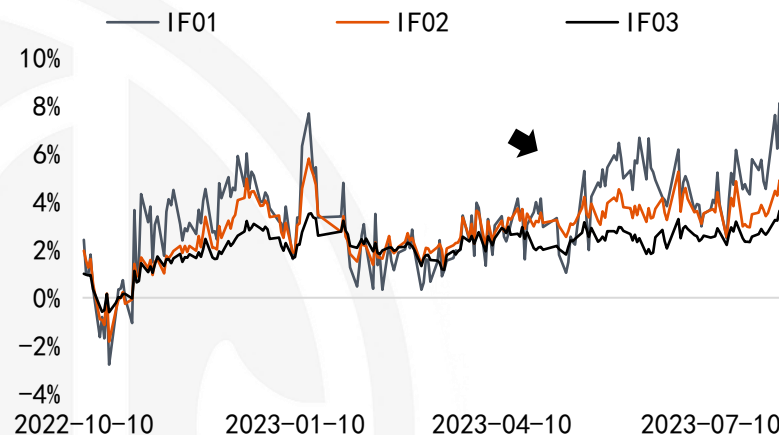
- 1) The behavior of top 20 seats' oi tilts to buy low and sell high;
- 2) Market Neutral strategies shrinks since 2021;
- 3) IPO Hedge Strategies leave in the market;
- The Basis of IF Current-season contract goes up to 4%

公募中性策略规模

Scale of Market Neutral Strategies (Mutual Funds)

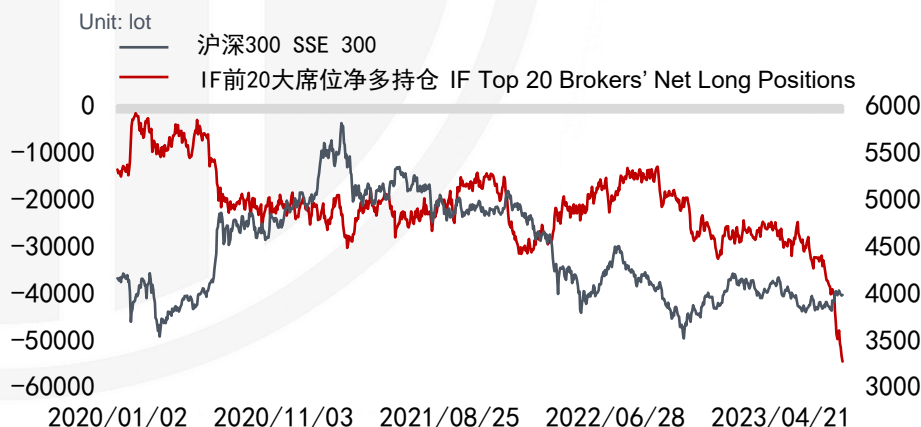


IF合约年化折溢价率
Annualized Basis of IF Contracts



IF前20大席位净多持仓

IF Net Long Positions in Top 20 Brokers



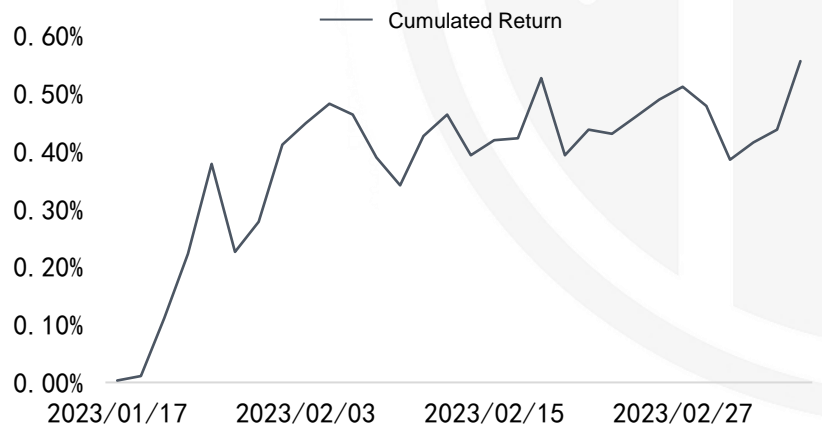
Sources: Wind, CITIC Futures

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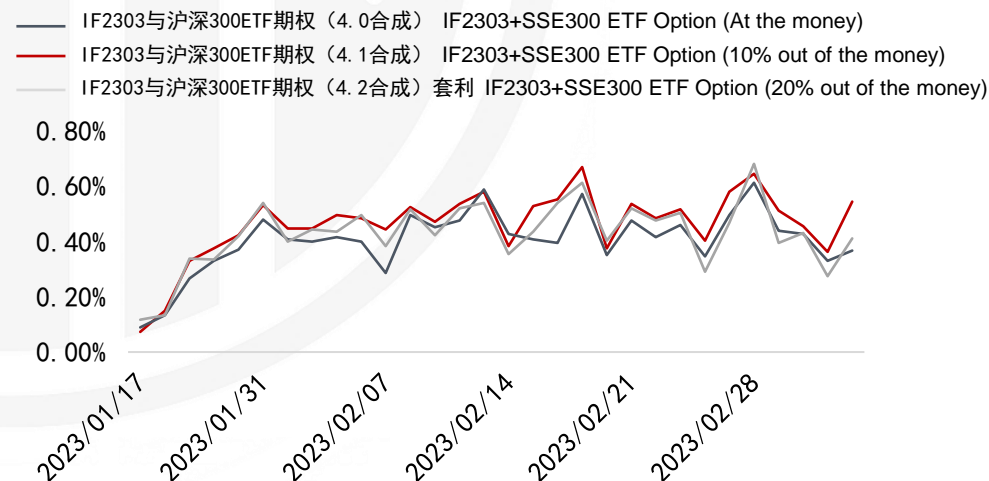
期现套利 Arbitrage with Futures & Spot Markets

- 期现套利的两种模式（以沪深300品种为例）：
- 模式1（搭配ETF）：期货升水至高位时，多300ETF空IF，待升水收敛后平仓，年化收益率4.15%；
- 模式2（搭配期权）：期货升水至高位时，利用300ETF期权合成多头同时空IF，待升水收敛后平仓，年化收益率4.05%（4.0合成）、2.73%（4.1合成）、3.06%（4.2合成）
- “期货+ETF”：摩擦成本较低，资金占用较高。“期货+ETF期权”：摩擦成本较高，资金占用较低
- Two types of arbitrage strategies (CSI 300 as an example):
- Type 1 (ETF + Futures): When futures have super contango, long CSI300 ETF and short IF futures. Not close both positions, until the basis narrows to 0. The annualized return equals 4.15% in 2023Q1;
- Type 2 (ETF + Options): When futures have similar super contango, short put and long call, plus short IF futures. Close both positions when basis narrows to 0. The annualized return equals 4.05% (at-the-money), 2.73% (10% out-of-the-money), 3.06% (20% out-of-the-money).

沪深300ETF与IF2303套利（1.3倍资金）
Arbitrage with SSE300 ETF and IF2303 (1.3 Leverage)



沪深300ETF期权合成多头与IF2303套利（0.6倍资金）
Arbitrage with ETF Option and IF2303 (0.6 Leverage)



Sources: Wind, CITIC Futures

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