Understanding the Container Freight Futures Market

May 2024

The Case for Container Freight Futures

1. Predictability: freight rates are subject to unpredictable factors such as geopolitics, trade wars, weather and climate and accidents at choke points like the Suez or Panama Canals
2. Transparency: carriers, forwarders and BCOs vary significantly in size, pricing power and the amount of information they have about the current market conditions
3. Enforceability: Regulated futures markets rely on a centralised clearinghouse to novate all trades. It acts as the legal counterparty for every buyer and seller, guaranteeing the performance of all contracts.

An Overview of the Container Freight Futures Market

All current container freight futures contracts are financially settled against a third-party index such as the Freightos Baltic Index or the Shanghai Shipping Exchange’s SCFIS.

The contracts differ in terms of their underlying product, i.e. the route covered, index composition and calculation frequency as well as the listing exchange and related aspects, i.e. trading hours, electronic or interdealer trading, liquidity and market participants.

Available Contracts

Shanghai International Energy Exchange (INE)

Shanghai Containerized Freight Index (SCFIS) (Shanghai - Europe) (F)

Singapore Exchange (SGX)

FBX01 China/East Asia to North America West Coast

FBX03 China/East Asia to North America East Coast

FBX11 China/East Asia to North Europe

FBX13 China/East Asia to Mediterranean

Chicago Mercantile Exchange (CME)

FBX01 China/East Asia to North America West Coast

FBX02 North America West Coast to China/East Asia

FBX03 China/East Asia to North America East Coast

FBX11 China/East Asia to North Europe

FBX12 North Europe to China/East Asia

FBX13 China/East Asia to Mediterranean

Underlying Indices

The FBX index is based on rolling short term Freight All Kind (FAK) spot tariffs and related surcharges, with an index price in USD/FEU and 1 contract representing 1 FEU.

The SCFIS reflects the average level of settled rates after departure of voyages from Shanghai, with a final index composed of 20' and 40' rates. The contract value is calculated as RMB 50 x index value.

The SCFIS (Shanghai Containerized Freight Index Settled Rates) was launched in November 2020 at 1,000. The Index is based on all-in FAK freight rates in USD as per the executed bill of ladings, unlike the SCFI, which was based on market surveys. The SCFIS is being published at 15:05 each Monday.

Both FBX and INE EC contracts are cash-settled: buyers will not receive any freight space.

Container Freight Futures in 2024 – What’s different this time?

There were previous attempts at launching ‘exchange-traded’ container freight futures, but unlike the futures contracts covered here they were not regulated futures exchanges. The INE, SGX and NYMEX are all established, regulated exchanges with a strong track record and solid investor protection mechanisms. Through novation the exchanges act as the central counterparty to every buyer and seller.

Past launches also struggled with low liquidity and little trading interest by different market participants. The FBX and SCFIS-based contracts now bring together international and Chinese investors as well as speculators and hedgers.

Having both hedgers and speculators in the market is crucial as for every buyer, there needs to be a seller in the market. Thus, more market participants with different views and expectations provide better liquidity and make it easier for all parties to buy or sell larger quantities at better prices.

Through Overseas Intermediaries like BANDS, traders can access all three exchanges from a single account as well as FX markets to hedge any currency market exposure.

INE EC: Understanding the Contract

The INE EC contract settles against an index composed of 20′ and 40′ container prices. It is not a 1-to-1 reference for container prices – instead, it can be used to hedge the value of a specific cargo.

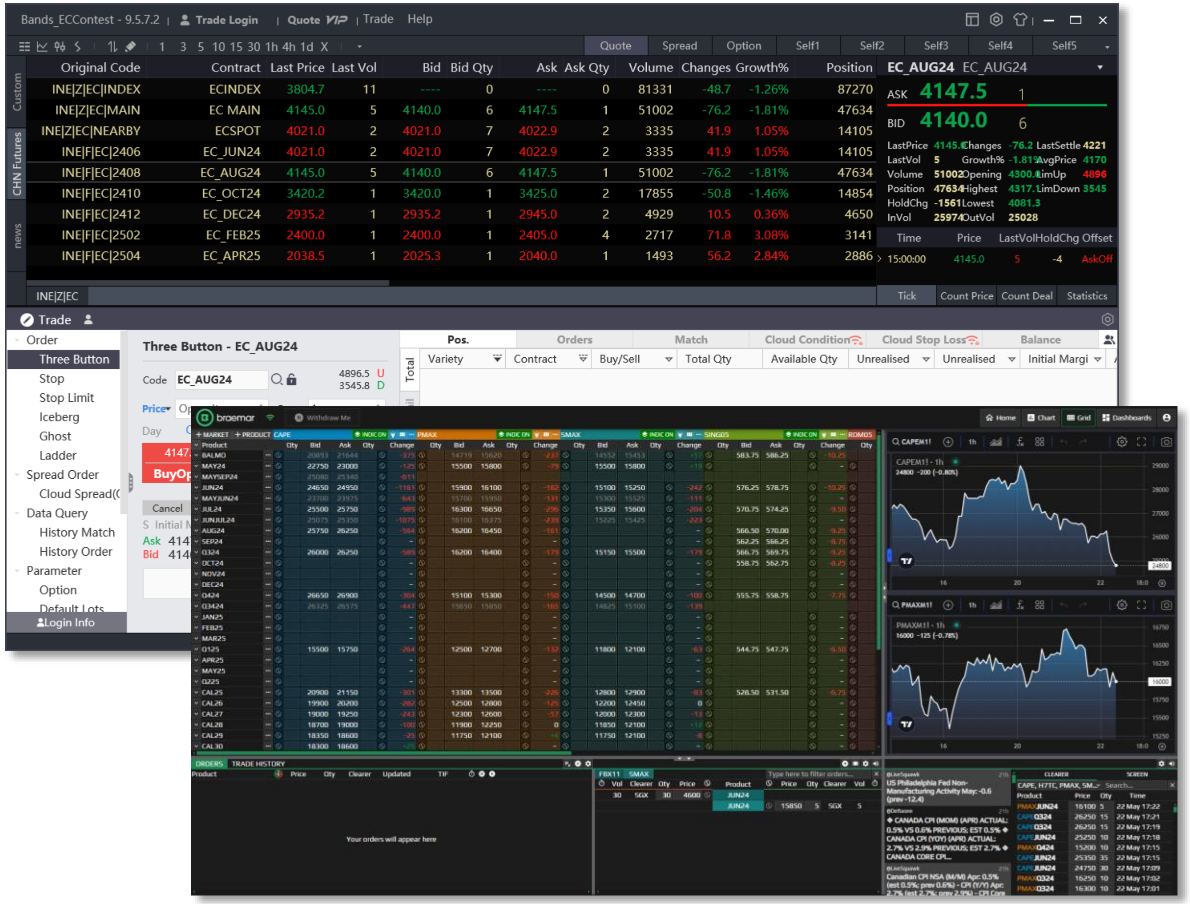
The settlement price is determined by the underlying SCFIS index. Based on bill of ladings, it reflects the actual spot prices of containers leaving the port in Shanghai. It should not be confused with the SCFI index, also published by the SSE.

Each monthly settlement price is the average of the last 3 weekly releases of the SCFIS index that month. In June, the settlement price will be the average of the 10, 17 and 24 June releases.

The INE is a bonded exchange and trading is thus exempt from Chinese taxes. The market is fully electronic and traders use a trading platform on their own computer to execute trades.

Initial Margin is a percentage of the contract value that must be posted by market participants as collateral when opening a position. This money will be returned (+/- any trading gains/losses) upon closing the position out.

The exchange novates all trades, acting as the counterparty to every buyer and seller and ensuring all contracts are honoured.



Product/Market	Product Terms	Illustration/Examples
Underlying	SCFIS - Shanghai (export) Containerized Freight Index on Settled Rates	A product of the Shanghai Shipping Exchange. SCFIS is based on FAK freight rates declared in bill of ladings for shipments departed in the past week
Contract Multiplier	50 Yuan per index point	One lot of CoFIF is worth the index multiplied by 50 E.g. Index = 1,943. One lot is RMB 97,150
Price Quotation	Index Points of SCFIS	Linerlytica estimate: 1 SCFIS index point = $1.6 per 40'dry for the AE route
Trading Hours	Pre-market: 08:55-08:58:59; Trading: 09:00-10:15, 10:30-11:30, 13:30-15:00	
Last Trading Day	The last futures-trading Monday of the delivery month	EC2406's last trading day is 24 June
Contracts Available	EC2406, EC2408, EC2410, EC2412, EC2502	E.g. EC2406 is expiring on 24 June with the settlement price based on the average of the previous 3 weeks' SCFIS in June
Settlement Method	Cash settlement. No physical settlement	E.g. Trader A buys one lot of EC2404 at 1,943 SCFIS on 18 Jan 2024. By 29 April, the SCFIS averaged 2,500 over the last 3 prints in April. Trader A will receive RMB 27,850 (557x50) while another trader, Trader B, who sold to Trader A at 1,943 SCFIS now will have to pay RMB 27,850 on 29 April.
Product Symbol	EC – European Contract	The current CoFIF only has Shanghai-North Europe contracts. Later contracts covering other routes would have other symbols.
Minimum Trading Margin	17-18% of contract value	Subject to change by INE. Take the above example of a RMB 97,150 per lot contract value. Trader A who bought one lot of EC2404 will need to put down RMB 17,487 (18% of RMB 97,150) while Trader B who sold also has to put down RMB 17,487. Subject to change by the INE.
Daily Price Limit	Within ±16% of the settlement price of the preceding trading day	Subject to change by the INE.
Exchange	INE - International Energy Exchange	State-owned enterprise, subsidiary of Shanghai Future Exchange, and regulated by the CSRC. The INE is considered a bonded marketplace where trading returns are not subject to China's onshore tax regime
Future Brokers	INE has a long list of Brokers	BANDS Financial is an Overseas Special Broker Participant of INE

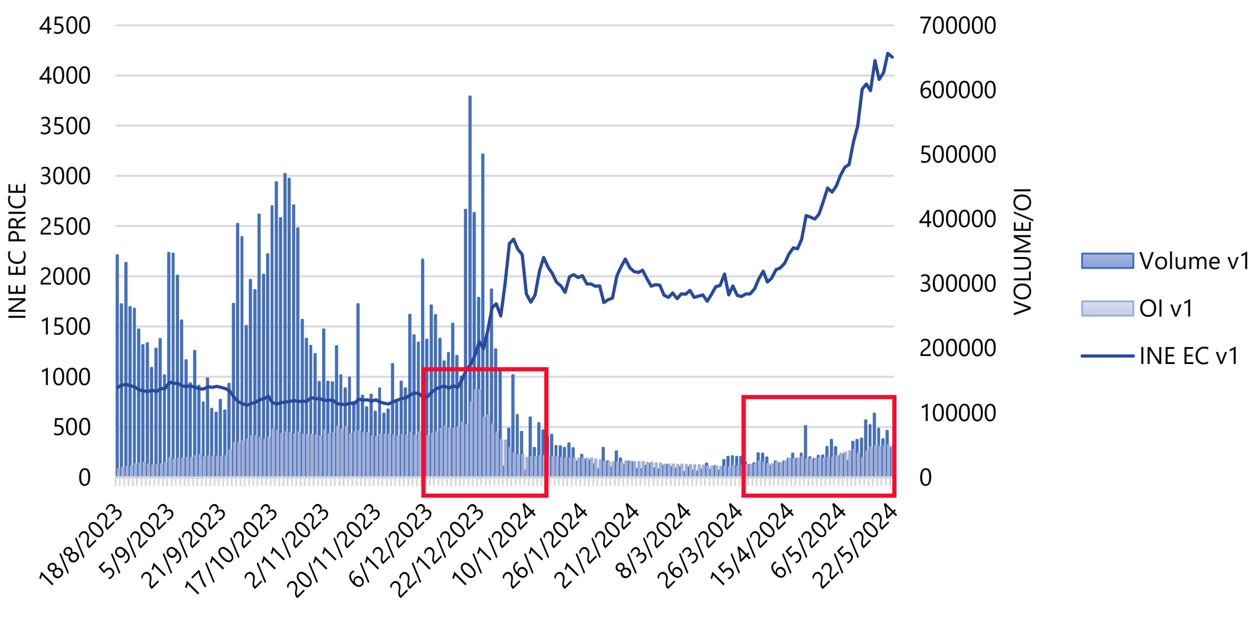
Trading Container Freight Futures

The INE EC market is quick to respond to changes in sentiment as speculative traders are willing to take and hold positions.

Price rises in Dec/Jan and Apr/May have been accompanied by increases in Open Interest (OI).

Trading volumes dropped in Jan and Feb as the INE raised margins in response to an influx of smaller speculative traders ahead of the first contract settlement in April.

Since then, margins and price limits have been relaxed and volumes have picked up again. Daily trading volume now hovers around 100,000 lots.

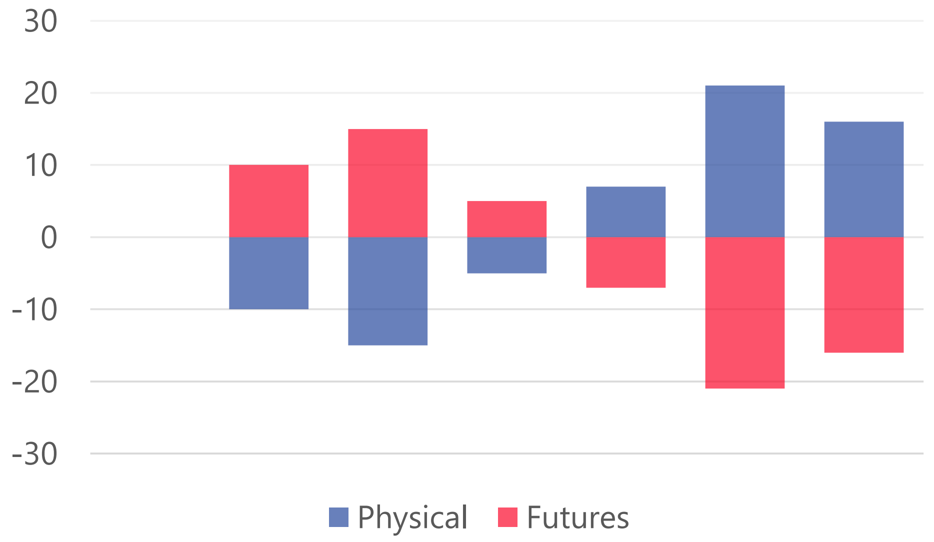


Hedging with Futures

Hedging means offsetting the price risk of a position in the physical market with an equal but opposite position in the financial market. Ideally, any loss in one market will be offset by an equivalent gain in the other market, thereby locking in a fixed price and avoiding the risk of price changes in the physical market.

In reality, the two markets may not fully offset each other, so it is important to treat futures as a risk management tool that can reduce the exposure to price volatility, but not a panacea that can fully avoid all price risk.

When hedging, futures will ideally neutralise any price changes and reduce risk. It is important to differentiate this from prop-trading, which is the deliberate act of taking on additional risk in the futures market in order to increase profits.



Hedging Spot Rate Exposure – Liners I

Liners are naturally long in the physical market, benefiting from higher rates but suffering when rates fall.

Thus, if a liner has a 5,000 FEU spot rate exposure in the physical Shanghai-North Europe market in August, they may choose to lock in a rate using the futures market by selling the INE EC August contract. If the spot price falls, the liner will lose money in the physical market, but earn money in the futures market from their short position.

Assuming a current spot rate at USD 4,900 / FEU, the spot capacity sold by the liner is: 5,000 FEU x USD 4,900 / FEU x 7.24 (RMB/USD) = RMB 177,380,000

To hedge, they would then sell: RMB 177,380,000 / 4,145 (INE EC Aug index pts) / 50 (contract multiplier) = 855.87 lots

Hedging Spot Rate Exposure – Liners II

If the spot market price then falls to 4,700 in August, the liner will make a loss in the physical market. However, since the futures market settles against the SCFIS spot market index, the INE EC contract will also drop and offset this loss.

Date	Spot Market	Futures Market
May	USD 4,900 / FEU	Sold 856 lots INE EC Aug at 4145 pts
August	USD 4,700 / FEU	Bought 856 lots INE EC Aug at 3915 pts
Result	-USD 1,000,000	USD 1,359,669
Net Profit/Loss	+USD 359,669 (Note: in this example the futures market dropped -5.55% while the spot market dropped -4.1% only. While the two are linked, they may not always move equally.)	

Hedging Spot Rate Exposure – Shippers I

Shippers, in contrast to liners, are naturally short in the physical market, benefiting from lower rates but suffering when rates rise.

Thus, if a shipper has a 500 FEU spot rate exposure in the physical Shanghai-North Europe market in August, they may choose to lock in a rate using the futures market by buying the INE EC August contract. If the spot price falls, the shipper will save money in the physical market, but lose money in the futures market from their long position. However, in case rates rise, they will lose money in the physical market while benefiting from their futures market profit.

Assuming a current spot rate at USD 4,900 / FEU, the spot capacity bought by the shipper is: 500 FEU x USD 4,900 / FEU x 7.24 (RMB/USD) = RMB 17,738,000

To hedge, they would then buy: RMB 17,738,000 / 4,145 (INE EC Aug index pts) / 50 (contract multiplier) = 85.58 lots

Hedging Spot Rate Exposure – Shippers II

If the spot market price then falls to 4,700 in August, the shipper will save money in the physical market. However, since the futures market settles against the SCFIS spot market index, the INE EC contract will also drop, losing the shipper money.

Date	Spot Market	Futures Market
May	USD 4,900 / FEU	Sold 86 lots INE EC Aug at 4145 pts
August	USD 4,700 / FEU	Bought 86 lots INE EC Aug at 3915 pts
Result	USD 100,000	-USD 136,602
Net Profit/Loss	-USD 36,602 (Note: in this example the futures market dropped -5.55% while the spot market dropped -4.1% only. While the two are linked, they may not always move equally.)	

Calendar Spreads

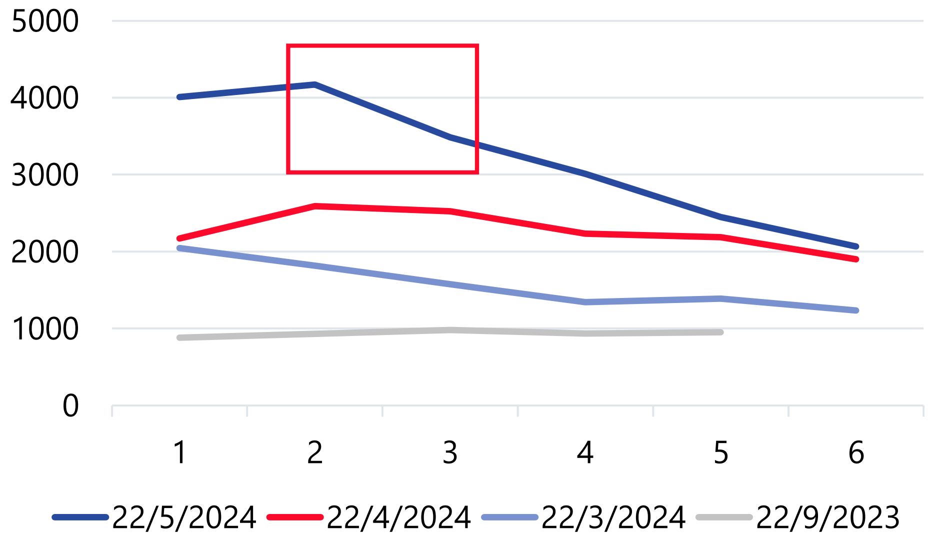
Beyond directional bets on the freight market, calendar spreads offer another way of looking at the market.

At launch, the contract was in a slight contango, reflecting the interest cost of holding a position.

The Red Sea crisis and subsequent pressure on liner capacity moved the market not only higher, but also changed the forward structure.

Ever since the first contract settlement was approaching in late April, the front month was in a discount to the second month as speculators typically bet on freight rates rising faster than the underlying index actually did.

With Oct (3470.8) currently trading at a 700 pt discount to Aug (4170.6), this difference may invert as the Oct settlement date approaches.



Container Freight Trading Competition

BANDS is hosting a virtual container freight futures trading competition starting this June.

Participants will have the opportunity to trade virtual futures contracts using a professional futures trading platform that provides access to real-time market data and advanced trading tools.

All trades will take place in a simulated market environment mirroring the real Shanghai International Energy Exchange (INE).

The competition is free to join and can serve as a tool for industrial and financial market participants to familiarise themselves with the market.

Visit https://bands.financial/cofif-competition-2024/index.html to learn more.

Sign up here to join the competition:
https://forms.gle/4wLCwboxhEJKKW1v5

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