The financial market around seaborne iron ore evolved rapidly, and needed to. Anyone spying the first rogue greys around their temple will remember the risky operating environment of iron ore trading around 2007-10, when fortunes were made and lost and a decades-old pricing system met its end.

Things are calmer now — price risk has been largely tamed, with hedging of cross-border iron ore using 62% Fe futures commonplace. But so much of the past decade was spent with multiple exchanges competing for the 62% Fe crown that innovation in the seaborne space took a back seat.

Fear of diluting liquidity in the main market slowed the roll-out of new products. New ore contracts emerged, but often too late. A much-anticipated 58% Fe “low-grade” iron ore futures contract was launched after the physical market had hitched all lower-Fe sales to the 62% benchmark. High-grade ore futures arrived later, after two blowouts in quality spreads had been and gone.

As the seaborne pricing system ossified, in the background a parallel and potentially rival physical trading system was growing, with small parcels of prompt secondary ore changing hands at China’s ports — the so-called “onshore” market. That has grown alongside a highly liquid, physically settled financial contract launched in China and priced in yuan.

This has been supplemented by a range of formal, and informal innovation, creating a market ecosystem similar, but fundamentally different, to the seaborne market. International futures markets have not kept pace. They need to, not least as portside pricing is looking to emerge beyond China’s borders as a force in pricing.

As risk in iron ore trade surges, forward markets are catching up. International exchanges have long lacked a product to manage operating and basis risk involved in trading ore at the docks of the world’s largest buyer — China. But next month, CME Group will launch two new cleared contracts for portside iron ore at Qingdao port, which will settle against the Argus PCX 62% Fe index. The contracts will offer brand new, and increasingly essential, hedging and trading opportunities to the market’s widest set of participants.

Seaborne (ICX) and portside (PCX) iron ore $/t

Moving on (shore)

Participation in the traded seaborne market in iron ore has thinned out. Several years ago, international trading houses joined Chinese counterparts in buying cargoes on the sea in US dollars, then landing them and selling in Chinese yuan once cleared through customs. This less capital-intensive market has become more dynamic than the seaborne space, which has seen disintermediation leach vibrancy from the secondary market. In a parallel trend, international mining firms looking to get closer to customers have established onshore entities to sell directly to Chinese customers at port in their own currency.

Growing portside dynamism has coincided with a concerted push from China to give greater credence to — more abundant — portside transactions in the seaborne price discovery mechanism. The sophistication and maturity of the onshore “retail” market is on the rise, shown by an increase in onscreen platform trades, index referencing and “basis-trading” linked to futures.
Stuck onshore
Companies with onshore and offshore price exposure currently have options for managing price risk, albeit imperfectly. A quirk of Chinese commodity futures markets means liquidity in the iron ore contract is typically pooled in a single month, corresponding to agricultural seasons. So anyone hedging landed iron ore in China December 2021 would most likely have to use a May 2022 contract. There is plenty of liquidity, but such only offers a directional hedge, not one linked to the arrival date, or the pricing of the seaborne purchase. Cue basis risk.

A further complication lies in the physical settlement mechanism. Grade tolerances for delivery mean prices follow the trend of the lowest-common denominator product that meets the required specification, typically an Australian low-grade ore. This does not always track the price trend of mainstream medium-grade fines. Thresholds have been revised in the past, impacting the value of open positions significantly.

Finally, currency and operational risk are fundamentally different to international offshore markets. Onshore iron ore futures sit in China, where the government has oscillated between supporting home-grown financial markets and trying to tame them during periods of extreme volatility.

Enter PCX portside iron ore futures
This is stoking demand for a more conventional futures contract, akin to those available for the seaborne market, which allows hedging of a mainstream ore across a range of timings. While over-the-counter (OTC) forwards, swaps and options do exist, trading could be cheaper and counterparty risk reduced through a standarised internationally-accessible exchange-cleared contract.

Enter the new CME contracts. They offer a direct proxy for the onshore iron ore market, but cash-settled against the Argus PCX — an index with a mainstream grade specification. It will reflect onshore price trends, but match the Singapore publication schedule of existing seaborne iron ore contracts, avoiding weekend index prints. The underlying specification will also closely match that of offshore futures, making it easier to trade a spread between the two.

Offshore clearing makes the contract accessible to international investors in either US dollars or Chinese yuan. The index will be published from Singapore, a neutral trading hub with a concentration of buyers and sellers operating within a strong regulatory framework.

The two contracts will offer the market slightly differentiated vehicles for hedging and managing risk linked to portside prices:

- The Iron Ore China Portside Fines CNH fut Qingdao futures (CME product code PAC) will be quoted in Chinese Renminbi (CNH) per wet metric tonne, and settle to the Argus PCX Index. This index represents the true portside price assessed daily at Qingdao port.
- The Iron Ore China Portside Fines USD Seaborne Equivalent futures (CME product code PAU) will be quoted in USD per dry metric tonne, and settled to the Argus PCX Seaborne Equivalent Index. This index represents the portside price at Qingdao, adjusted for moisture content, VAT and port fees, and converted into USD — a more like-for-like comparison with existing seaborne iron ore derivatives.

Use cases for the new contract
CME PCX futures could be used in a number of ways. Trading firms purchasing in US dollars and selling at a landed price at Chinese ports could lock in their sales price, as well as their purchase price, in advance. Companies both buying and selling at port could use the contract to hedge trade time spreads. Further, it offers an additional means for non-China based entities to manage risk and take a view on price direction.

Volatility between seaborne and portside prices has been particularly acute, with the spread between the two blowing out to the equivalent of up to $10/t on some days, with monthly spreads varying from -$7.50/dmt to +$8.80/dmt. Now, this can be traded.

The index: Argus PCX 62% Fe
Argus has been assessing the price of iron ore at Chinese ports for nearly eight years. PCX is the portside counterpart to the flagship seaborne ICX index, used in a wide range of long-term supply contracts by the world’s largest mining companies and steelmakers. The specification of PCX is identical to that of ICX, which closely approximates the most liquid Australian medium-grade fines product. The price point also matches ICX, reflecting the landed price of iron ore at Qingdao port.

The price is calculated as a volume-weighted average of transactions for relevant grades at both Qingdao and nearby Rizhao port, supplemented with a market survey of bids, offers and tradeable values. Alongside PCX, Argus publishes prices for a range of common grades, including Newman Fines, PB Fines, Super Special Fines (SSF) and Brazilian Blend Fines (BRBF).