White Paper: 2020: iron ore evolution or revolution?

As the modern seaborne iron ore industry approaches its tenth birthday, is it celebration or reflection time? Old grumbles are resurfacing in the western media, while in China, futures are being promoted on mainstream television as an alternative pricing mechanism. Will it get another decade?

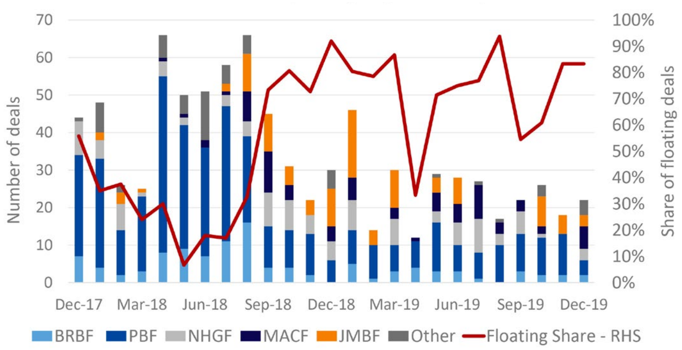
Three trends

The iron ore pricing mechanism is widely considered a success story, with a transition to a spot-based mechanism allowing the industry to adapt to the impact of China's rise. Despite this, some industry participants raise concerns about the size of the spot market or specific index approaches.

This is curious, since the physical medium-grade fines market underpinning 62pc Fe indexes is active, diverse and is served by a range of index providers. In fact, the concerns describe symptoms rather than causes. Yet three trends in iron ore do require attention.

The first is the slide in physical spot transactions (see bar chart). The second interlinked phenomenon is the increased use of floating price sales in index creation, and what that means for pricing (see line chart).

Transactions underpinning Argus ICX 62pc index



The third, and largest trend, is the growing significance of the secondary market at Chinese ports combined with futures on the Dalian commodities exchange (DCE). The north China exchange's price-setting heft is also on the rise as more participants link physical deals to onshore futures.

1+2=3

The first two trends feed the third. Several trading firms previously active in seaborne markets have already shifted onshore, while its pull as a pricing alternative is rising. This is accelerated by symptomatic concerns with the seaborne pricing system that have not been resolved to the industry chain's full satisfaction.

Some mining firms have already made a strategic decision to engage in portside trade and futures-based pricing. Brazilian mining firm Vale makes direct sales at Chinese ports in yuan and links some sales to the DCE. Other producers are also dabbling with portside sales.

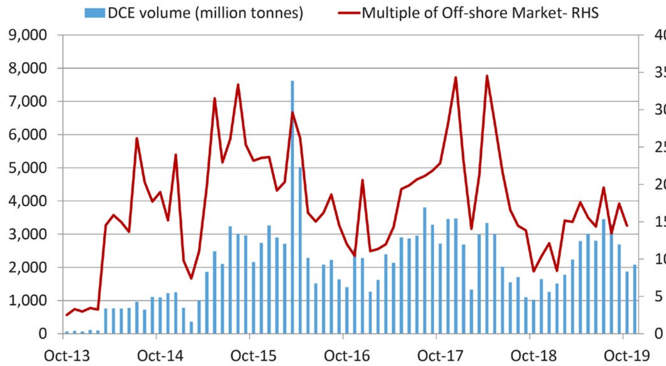
Falling participation in the seaborne mechanism from across the spectrum may hasten this trend. Fixed price spot trade in 2019 is down by 75pc from a year earlier, while floating trades are up by 16pc. Overall spot liquidity in 2019 is down by around 40pc.

But instead of an active choice, there is a high chance of sleepwalking into a whole new pricing mechanism. A wholesale shift from fixed price sales to floating basis in the seaborne market, without concurrent participation in derivatives markets, means parties are giving up active participation in price formation.

The DCE already has a huge impact on the international financial markets against which physical floating trades are valued because of the arbitrage between the two. In 2019 more than 70pc of spot deals used in the ICX 62pc index were on a floating, not fixed, basis. Most of these were against a single index and often without concurrent activity in the futures market. The Singapore futures market is more than 10 times smaller than the Chinese one.

The DCE could become even more impactful. A shift by the exchange towards brand-based delivery next year could see its physical settlement shift to the most cost-effective low-grade ores. These move according to completely different dynamics to the benchmark grades. Seaborne fines could dance to a mainland futures, RMB-priced, lower grade tune.

DCE volumes vs. Off-shore



Recurring themes

The interplay between onshore and offshore markets in iron ore is not new. The two markets can exist in parallel, but active participation in both is required.

The discussion about how best to support seaborne pricing is not novel, either. Multiple generations of teams set up to study and advise on optimal pricing strategies have rotated away from looking at the arguments themselves, often before change can be implemented.

Unless all price discovery is to shift on to the mainland, the retail portside market requires a wholesale seaborne market to function.

To keep the seaborne pricing ecosystem healthy requires two very simple steps: an increase in market participation, from all, and expanded choice in indexes. These respectively address recurrent issues around spot liquidity and specific index methodologies, as well as making the pricing system more inclusive.

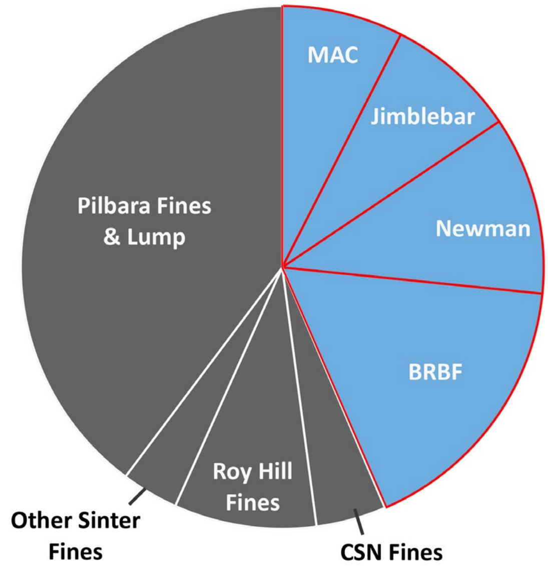
Participation and Model-T indexation

In the physical spot market the largest producers have provided the spot deals underpinning the indexes. To avoid a tragedy of the commons smaller producers also must take part in the physical spot market to support index creation. As should steel producers that buy based on these same indexes.

The China iron and steel association Cisa has long suggested this, as well as advocating "basket" pricing. There are several index providers, all with different methodologies, so "basketising" will remove gripes that are more to do with a point of methodology than the seaborne system as a whole. So, if people are unsatisfied by any element of an index, they can switch index provider, or can they? Henry Ford famously said, "You can have any colour, as long as it's black". Iron ore sales followed a similar pattern, until recently.

UK-Australian firm BHP was the first major producer to use a basket of indexes for medium-grade fines in 2014. Vale a few years later began its shift to a multitude of indexes. This "index fluid" approach hedges between methodologies and has fostered innovation around pricing methodology.

The basketised (red outline) medium grade market



But the increase in diversity is window dressing if the benchmark grade most closely representing index specifications — PB Fines — remains "unbasketised" (see chart), along with a couple of other producer brands. This majority portion of the market is exposed to a single methodology. Worse, increased volumes of floating deals for these products against the same index further reduce the volume of fixed price spot trade supporting alternatives.

A spoonful of medicine

The seaborne system has been built over a decade and has strong overlapping institutions. Index formation remains shared between all market stakeholders. Mining firms, trading firms and steel mills transact bilaterally, over jointly-owned physical trading screens, as well as public financial trading platforms. That is a lot of worthwhile industrial common ground to hold on to. But doing so requires active steps.

Increased participation in both the spot market and offshore futures market from the whole value chain are both crucial to enhance the US$ pricing ecosystem. Hedging via the futures market supports the liquidity required for floating prices, now most spot trade, to be used in forming the index. But fixed price liquidity is still required for index creation and for futures to remain grounded. Otherwise the industry is making an active choice to migrate to mainland futures-driven pricing.

Trading screens are a good venue to trade on to support price discovery, as each transaction generates multiple visible data points. These common "watering holes" are hugely useful as, left to themselves, industries tend to veer towards isolation.

These relatively painless steps ensure the pricing system will continue to be regarded as fair, transparent and well supported, with all parts able to participate in price formation.

China seeks to internationalise not just its financial instrument, such as the DCE, but also the prices discovered at its ports for the iron ore market. The push is co-ordinated and well planned, as it is centralised, as highlighted by a recent broadcast by the state broadcaster.

The evolution of a China-based pricing ecosystem has made a positive contribution to the market and may well be the best fit for China, and indeed others. Although that choice should be deliberate, rather than simply arrived at through inaction.

The window for active choices is shrinking and there needs to be credible systems for parties to choose between. After a decade most systems need a tune-up. Unless some basic seaborne maintenance is done the international iron ore market may well find the price being set in, not just by, China. And without them.

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