

## Argus White Paper: Parlous state of play: the iron ore pricing mechanism



*For years, Argus has highlighted forces fragmentating the mainstream iron ore market. Chief among those was a wish by China to have some choice over the index it used. This has happened, to a degree. But diversification presented a paradox: to avoid chaos, some basic uniformity in that choice was required. Whilst market members investigated the options, execution faltered, preventing the market from coalescing.*

Argus spot sales data offer a snapshot of the current state of affairs. Over the first half of 2021, the sell-side has split into three camps, one exclusively conducts medium-grade fixed-price sales; another trades both fixed price and floating, using baskets; the last supports fixed price and floating using a single index. The convention for primary sales is typically replicated in the secondary market.

Whether this is overt strategy, or lack of strategy, it now risks cracking the paper market, based as it is on a legacy benchmark. The result is an over-the-counter derivatives trade in new basket combinations, such as Argus-Mysteel. This tackles basis risk introduced by baskets, but bypasses brokers and screens, reduces derivatives pricing efficiency and misses the benefits of clearing.

If the offshore physical and paper market continues to fragment, unified onshore markets will exert a greater pull. In that future, seaborne prices could be set by Chinese futures, not physical spot trade. Alternatively, some uniformity could be reintroduced – a uniformity that still respects buyer choice.

Like so much else, pricing evolution in the iron ore space has been stalled by the global pandemic. Industry events, where such things have traditionally been debated, have cancelled or moved to stilted online forums. The result is a state of limbo. But China Inc, which reopened as early as May last year, has been quietly pressing ahead, concerned as it is, with spot prices at well over \$200/t. This makes for a suitable time to revisit the topic.

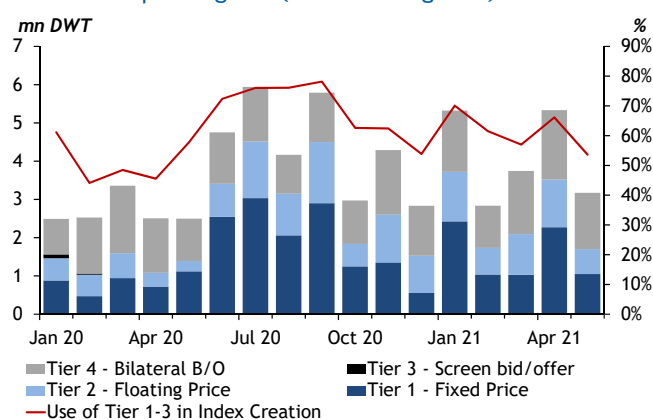
### Spot drives contract

Most iron ore is sold on long-term contracts tied to indexes. This is the “below the waterline” part of the 1.4bn t/yr iron ore iceberg. The visible part is the spot market, which underpins those indexes. Changes to both spot prices and the way the spot market functions drive change below the waterline. A liquid and well-functioning spot market is therefore crucial for contract market confidence.

The chart shows the depth of trade data underpinning the Argus ICX 62pc Fe index.

The spot market falls into two camps: fixed and floating. Fixed trade is just that: a firm price. Floating deals reference an as-yet unknown monthly index average in the future.

### Data underpinning ICX (volume-weighted)



While floating trade was once the favoured route, miners came under pressure to increase fixed-price liquidity as China's industry bodies have greater confidence in this type of data point.

In summary, the spot market is healthy, well supported and well contested, which should provide deep confidence to users.

### So why the long face?

The way in which the global iron ore market trades has been in flux of late. A mere five years ago, almost everything was priced off one index, and hedged against another. The merger of these two in 2018 could have been a unifying moment but was nothing of the sort. If anything, it exacerbated unresolved issues, hastening fragmentation – buyers were still left without choice.

Satisfying consumer demand for index choice while aiding market efficiency is not easy. The subject of iron ore pricing linkage may seem arcane, obscure, or even of fringe interest, yet it is anything but. The way that one of the world's most-traded commodities is priced is of direct shareholder interest. Specifically, whether the (spot) price, which producers transact at, continues to form the (contract) price they are paid for their goods. If the shop is not put in order, that axiom cannot be taken for granted.

The indexes against which floating spot trades take place offer a window into the indexes offered on long-term contracts. During 2018-2021, the spot market has shifted to a range of different combinations, which have gone on to be replicated in long-term contracts: first in China, then elsewhere. For the mainstream products sold by the "Big Three", Argus data show the following breakdown of indexes used in the spot market.

### Vale products

Vale's mainstream medium-grade fines product BRBF rarely trades against an index in the spot market. The miner offers roughly one cargo a week on a fixed-price basis. Argus records limited secondary trade in US\$: when it does trade against

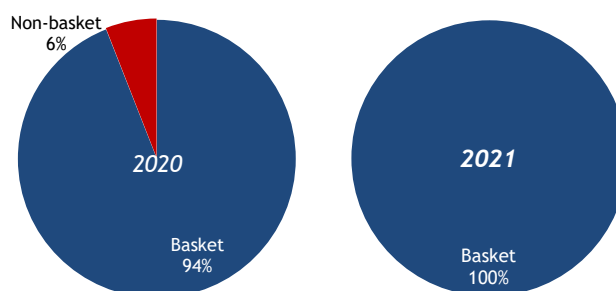
an index, it does so against non-mainstream indexes, which reflect that product's lower alumina.

This means dedicated brand indexes for this product typically use only one weekly BFBR fixed-price trade (one per week), with bids and offers. Argus takes a different approach for its BRBF brand price, using the liquidity of the entire 62pc spot market (18 per week) and bids and offers, and adjusting the BRBF approach using our value-in-market (ViM) normalisations.

### BHP products

BHP products have undergone a huge transition in the basis against which they trade, with a wholesale shift reportedly driven by the miner in the most recent contract year. Since the second quarter of this year, buyers in China and the rest of the Asian region report the producer has fully switched fines long-term contracts to the AMy (Argus/Mysteel) average, though ex-China, a number of mills have requested 100pc Argus linkage. In the spot market, AMy predominates, although its trade kicked in only during the second quarter.

### NHGF, MACF, JMBF: 2020 vs 2021

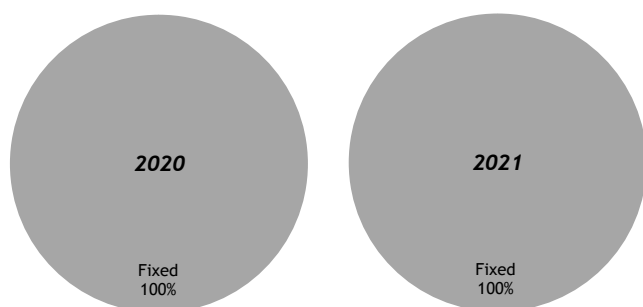


NHGF: Newman High Grade Fines MACF: Mining Area C Fines JMBF: Jimblebar Fines

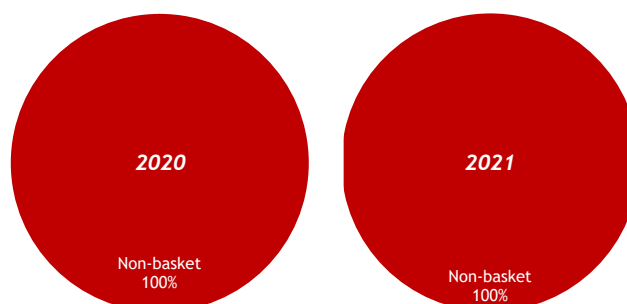
### Rio Tinto products

Rio Tinto's Pilbara Fines is the bedrock of most 62pc Fe spot indexes, being the most-liquid product. However, there has been little movement here. After brief experimentation with a single spot deal against an Argus/Fastmarkets combination in 2019, the miner has moved from mostly selling basis one index to exclusively doing so.

### Brazilian blend fines 2020 vs 2021



### Pilbara Blend fines 2020 vs 2021



H2 2020 saw 152 floating-price deals, while H1 2021 has seen only 89, reflective of a rising market.

### Conclusion

For the world's largest spot market China, miners prioritised most spot trade to a fixed rather than floating basis. As a result, the trade underpinning indexes is in rude health.

Additionally, some have diversified the indexes against which they sell cargoes, providing more choice for customers than ever before about the index they would like.

But some thought should be given to the impact this has on the linkage between physical and futures markets. Physical indexation should march in lock-step with that of the financial price risk management. Letting the financial market fracture would reduce offshore hedging efficiency, undermining offshore price discovery.

Selling seaborne iron ore basis a basket of indexes has now become the norm, not the exception. In the interests of a clear market price, it should become the rule. The current system of "several" prices, or several baskets, at any one time muddies the water and introduces pointless noise. That is unnecessarily sub-optimal.

The question before some of the sell-side is now simply "stick, or twist"? For the mainstream seaborne fines market, leaving things as they are is unsatisfactory. At a minimum, an acceptance of baskets as the defacto state would be helpful, regardless of the components.

It is in every single market participants' interest for seaborne pricing to be optimised. Some conformity in the solution would enable the financial market to transition to reflect any new centre of gravity around index baskets. Otherwise, the "end state" of the seaborne iron ore industry will be splintered, disorderly and likely time-limited.

China's industry bodies continue to relay a desire for changes to the pricing mechanism. Current record prices are doing nothing to sooth these frictions. The combination of one domestic (Chinese) index and one international index uniformly deployed across a swathe of commonly traded grades has helped to a degree, and could serve as the model. Otherwise, expect more fireworks in the second half of this year.

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