



# Illuminating Physical & Financial Market Linkages

Floating trade is deeply embedded in physical iron ore markets, which widely calculates their net present value (spotequivalent price) using derivatives data for future dated cargoes. This is uncontroversial and long established practise.

Argus made major methodology enhancements in December 2017 to formally prioritise physical trade, in tandem with increased transparency. In the next round of improvements, Argus is formalising the existing relationship physical between and financial markets by establishing a clear process floating trade normalisation. Introducing a robust mechanism to derive the forward curve accompanying the ICX62pc Fe benchmark will foster greater confidence around the incorporation of floating price deals and the role of timing in normalisation.

#### The indexation paradox

Almost every iron ore contract in the world is priced off an index derived from spot market transactions. Index usage is so widespread that a large portion of spot trade is now concluded against an

index in "floating-price" transactions. What does this mean for price indices over the longer term? If they have become successful to the point that even the spot market trades against indices, what physical trade data would the indices be based on?

#### **Argus ICX and extensive data depth**

From inception. the indices underpinning global trade in iron ore were derived from fixed-price spot transactions for ore delivered into China, priced in USD. To this day, most indices remain wedded to fixed-price liquidity. But overlooking floating deals means overlooking as much as two thirds of deal data (see chart below). Yes, the share of floating transactions varies from month-to-month, but it is never negligible in today's market with daily trades averaging in the low single figures.

Notwithstanding recent months, the trend has also been towards greater usage of index-linking. And crucially, floating price trades are concluded spot transactions, as opposed to bids or offers. They should be recognised

with greater weighting, by anyone's calculation.

Argus has been using floating price deals in its benchmark ICX<sup>TM</sup> 62pc iron ore index since the December 2017 methodology evolution, making Argus the first major index to include floating price transactions.

The subsequent boost to underlying liquidity has been significant. In addition to the 117 fixed-price transactions recorded by Argus between December 2017 and April 2018, a further 66 floating price transactions were used in the index calculation: an increase of over 50pc.

Did the Argus ICX index need a boost in data points? Absolutely Not! Even prior to the December methodology changes, around 50 deals and 500 bids and offers were captured monthly. The opportunity that Argus is following is to ground the ICX 62% index ever more deeply in transaction data, while reducing the overall weight of bids and offers. The latter are fall-back data points, after all.

### **Argus ICX and data quality**

Price indices with larger data depth instil greater confidence. This justifies the rationale for specification-driven normalisation: ensuring the widest set of data (i.e. brands) on which to base indices. Averaging an extensive dataset also mitigates the differences from cargo-to-cargo which are inevitable in non-standardised markets such as iron ore.

But it is not just data quantity that counts. Quality is equally important...

Argus bases its iron ore price indices on a volume-weighted average of normalised transactions, weighted in a "tiered" system, levying different weightings according to the type and

# Floaters nap amid ample supply and strong mill margins



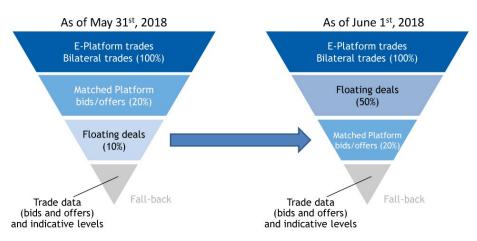
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#### Change in Argus ICX Volume-Weighting Hierarchy



quality of data. The hierarchy closely aligns with the IOSCO principles, giving fixed price transactions the greatest weight in the overall average (see diagram above).

Under the existing ICX<sup>TM</sup> 62pc methodology, floating price trades are given 10pc of their original sales volume. From June, that is increasing to 50pc to reflect their status as actual transactions, and the establishment of a clear and transparent methodological structure for normalisation.

A back calculation of the ICX<sup>TM</sup> 62pc index using revised weightings over a three-month period shows a price spread of less than two cents resulting from the higher weight given to floating deals.

#### What else is changing?

Elevating floating transactions will require the most robust forward curve possible. From June, Argus will work with exchange data to generate a forward curve based on a volume-weighted average of derivatives market prices captured within a defined period.

This will utilise deals, bids and offers on the Singapore Exchange (SGX) captured within the same time window on each and every trading day.

The forward curve will be used for two purposes. The first will be for the normalisation of floating price deals. The second will be to establish a daily time structure to enable Argus to normalise to the four week delivery point: i.e. to eliminate differences in value for cargoes which arise from different estimated arrival dates.

# How can floating prices be normalised?

Normalisation of index-linked deals sometimes leads to questions: "How can an index-linked deal be used?" and "Does that not lead to a circular reference?". But in fact the process is straightforward once there is a liquid futures market, as there is for 62pc iron ore fines.

The futures forward curve is simply an indicator of current market value for an index value in the future. Futures contracts are usually monthly, as is the norm for floating price transactions. Floating trades with a premium/discount can be worked back into a fixed-price equivalent. From here, they are normalised for quality and timing, as with any other deal.

# How does the forward curve relate to delivery times?

Many factors impact price in commodities trading. One of these is timing, with buyers valuing cargoes differently depending on their loading and delivery windows.

Establishing a clear relationship between physical market price and time can be challenging due to the lack of standardisation around quality and terms. However, futures represent a standardised, fungible contract with price differences between contracts entirely time-driven.

Argus therefore uses the futures forward curve to establish a daily time adjustment, normalising cargoes with estimated arrival within eight weeks, to delivery in four weeks. This is done using prevailing average voyage times.

#### Why is this relevant to me?

The seaborne iron ore market has evolved organically for nearly a decade, but lacks cohesive glue. Relationships between physical and financial markets remain fluid and informal. With international exchanges trading more 'paper' than there are physical volumes, and Chinese exchanges internationalising, it is time to incorporate futures instruments in index price formation in the same way that the physical industry is already using them.

Almost every market participant in the iron ore supply chain is exposed to price indices; all are exposed either directly or indirectly to the financial markets for iron ore. Floating trades are often the dominant form of transaction in iron ore. To ignore the role they play in price formation is to ignore a vast pool of liquidity.

The changes Argus has implemented over the past six months aim to produce the very best iron ore index possible. The goal is for Argus ICX<sup>TM</sup> 62pc to be the most well-supported index in terms of data depth, and the most explicable in the way that data is used. Increasing the transparency of the price production process and inputs to provide not only an IOSCO-compliant framework, but an index in which buyer and sellers can simply look at the 'workings' and both agree on the validity and accuracy of the price.

By having a clear relationship between physical and paper markets, we aim



to illuminate, and provide structure around, how paper and physical markets interplay.

#### **Working with the market**

There is rising appetite for diversity in iron ore indices. Argus ICX™ has long been an option on the COREX e-trading platform; globalORE has added it as an option on their platform recently.

These two platforms are structurally important to the market as historically, more than half of iron ore trade occurs across them.

Crucially, Argus believes that price discovery should continue to occur where it always has — on physical trading screens, bilaterally and on futures exchanges and still get full

recognition in the Argus ICX<sup>TM</sup>62pc index. The latest updates make this easier, allowing any type of physical trade done over the course of the day to be accounted for, via a clear and easily explained process. If you know where the physical market trades, you'll know where the ICX<sup>TM</sup>62 will print.

For further information on either PCX (China Portside Iron Ore Prices) or ICX (Seaborne 62% Fe Iron ore, CFR Qingdao), contact:

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