

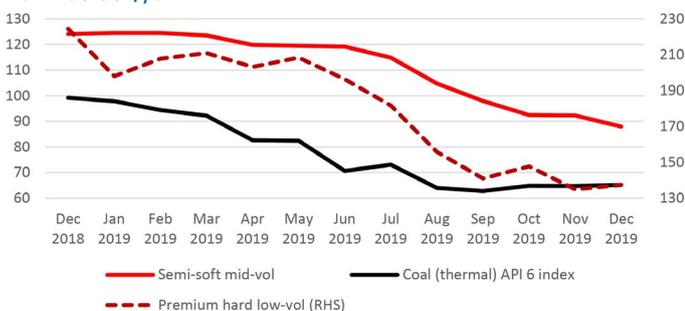
# White Paper: Semi-soft metallurgical coal prices move closer to market settlement

Quarterly negotiations for semi-soft coking coal prices are increasingly fractious. Between the breakdown in relativity with the premium coal indexes, the pull of lower thermal prices, and increased convergence between the quarterly negotiated “benchmark” and published semi-soft indexes, has the time come to embrace indexation?

### The weak become strong

This year has been a negative one for Australian semi-soft price performance. The index lost more than a quarter of its value in the year to 16 December 2019. Remarkably though that made it an outperformer in the coal world because of relatively tighter supply.

FOB Aus US \$/t



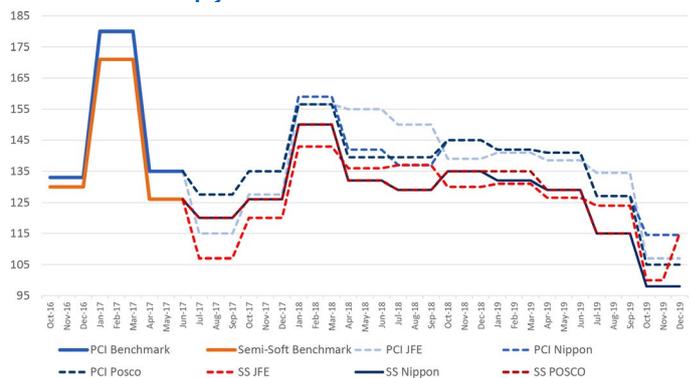
Premium hard coking coal, the “big brother” against which all other metallurgical coal is benchmarked against, fared worse, slumping by almost 40pc. Similarly, API 6 coal, its thermal coal cousin, dropped by 35pc before seeing a slight rebound. This relationship is watched as there is a degree of fungibility between the two, as semi-soft can be redirected to thermal coal markets, if the price is right.

Premium hard coking coal prices are largely set against published indexes. By contrast, semi-soft coal prices remain negotiated quarterly. As a filler in the coking coal battery, the price relativity to premium hard coking coal is important.

### Shattered “benchmark”

The semi-soft industry refers to bilaterally negotiated fixed term contracts as ‘the benchmark’. This used to be set annually but has since broken down to a quarterly tenor. Since the break in the semi-soft quarterly negotiated “benchmark” pricing system midway through 2017, the unified front between buyers has broken. It has instead become a case of every steel mill for itself.

### Go forth and multiply



At any one time there are up to six concurrent quarterly negotiated “benchmarks” agreed for pulverised coal injection grade and semi-soft coking coal. This is confusing, but it is also creating widely different price outcomes for buyers of both metallurgical grades. While Argus tracks both market segments, we can focus on mid-volatile for simplicity.

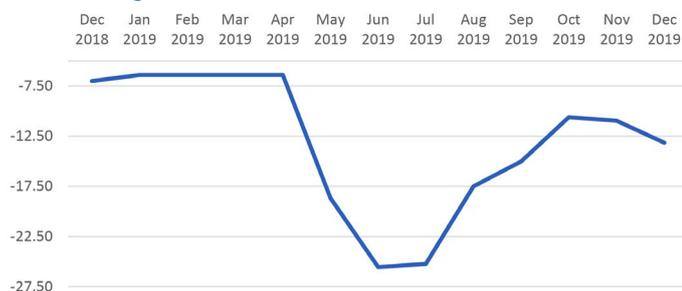
### Big swinging diff

The Australian semi-soft family is not homogenous. The biggest clear split is between Queensland and New South Wales (NSW) semi-soft coal. Typical Queensland coal includes Blackwater Weak and Isaac Plains East, while those from NSW are a Maules, Bulga and Hunter valley type.

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The two families are generally divided by their contained volatile matter (VM). Unwanted moisture, ash and sulphur all attract penalties and fixed carbon, grindability and fluidity attract premiums. But VM is the gulf that separates them.

### Semi-soft high (to mid-volatile) differential USD/t



The differential between the two has been hugely variable over 2019, which suggests that coke producers had a surge of higher volatile coking coal on hand between May and August.

By comparison, looking at semi-soft coking coal as a percentage of premium hard low-volatile prices shows there is no hard and fast rule for pegging it as a percentage cost (see chart ‘no fixed points’). Nor is there a rule for how much of a premium to pay — and it is always a premium — for bilaterally fixing a “benchmark”, rather than simply replicating an index.

### Decision support

Since the breakdown of the “benchmark”, a rotating team of 10 parties now sets individual quarterly prices bilaterally. As we approach the anniversary of the index methodology enhancements showing greater granularity within the semi-soft market, and close correlation with agreed “benchmark” prices, it is worth taking the time to consider whether linking to monthly index averages would have merit.

Argus believes there is merit in doing so, as a premium is currently being paid. A recurring theme over 2019 was the steel producer’s cost curve. It is unlikely that 2020 will see

### Semi-soft coking coal (SSCC) specifications

Grade	Volatile matter (ad)	Total moisture (ar)	Ash (ad)	Sulphur (ad)	FSI	Fluidity	Phosphorus	Fixed carbon
Mid-Vol, fob Australia	25.5	9.5	9.5	0.4	3.5	75	0.065	58
High-Vol, fob Australia	34	9.5	9.5	0.55	6	500	0.015	54
Ranges	25-37	9-11	9-12	0.45-0.6	3-7	1,200 Max	<0.08	50-60

It is important to be able to accurately capture the movements of both mid- and high-volatile coal.

Argus publishes prices for both high- and mid-volatile semi-soft coking coal so that the spot trade and bid/offer liquidity is not split for assessments. This also means companies tracking the performance of each segment, or tying to an index, can independently assess whether that is being done correctly.

### “Benchmarks” increasingly close to index



### Benchmarks looking more like indexes

It used to be the case that indexes and quarterly negotiated “benchmark” prices did not marry up so well. But this has changed, particularly since splitting mid- and high-volatile semi-soft into two indexes. This markedly increased how well they tracked, so much so that over 2019 the correlation is 97.8pc. The “benchmark” price can be predicted to a high degree of confidence by looking at the average of the corresponding period of spot market prices.

cost focus receding in the rear view mirror.

At a minimum, adoption will free up time and remove the timing risk that is evident in individual benchmarks. The reason for retaining a quarterly price is to ensure supplies. Ironically, the difficulty of concluding bilateral “benchmarks” puts that goal at risk.

### No fixed points for negotiation



Indexation guarantees supplies, while ensuring that is done at a market-representative price. By keeping a portion of overall buy available for price discovery, such as 10-15pc, the various buyers can ensure their hand remains very much in the price formation.

It also means prices can move in a smoother monthly fashion, rather than jerkily. As finished steel prices have moved lower, it is helpful to have input costs more closely aligned with regional competitors.

Argus Ferrous Markets services provide price assessments, news and analysis, covering coking coal, iron ore, ferrous scrap and steel.

- 25 daily iron ore prices
- 32 daily coking coal and coke prices
- 13 international scrap prices
- 17 daily finished steel prices



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