We seek asymmetric investment opportunities informed by the coalescence of rigorous fundamental analysis and alternative data discovery.

The Geometrica Fund aims to deliver outstanding returns to unitholders via highly targeted investments in the global mid-cap equity universe.

INVESTMENT PERFORMANCE (NET)[1]

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Fund	Index
2019	--	--	--	--	--	--	--	--	+1.1	+0.8	+0.1	-1.6	+0.5	+6.6
2020	-1.3	-0.3	-5.2	+2.4	+7.9	+3.0	+9.5	+3.5	-1.4	-1.4	+4.8	+2.0	+25.2	+5.9
2021	+4.5	+6.9	+1.2	+3.0	-1.5	-0.7	-1.4	+2.6	+3.1	-0.6	-4.6	-0.4	+12.2	+25.8
2022	-4.1	-1.7	+1.5	+0.5	-2.0	-3.5	+1.4	+4.4	+5.8				+1.8	-15.9
										Since Inception			+43.8	+19.5

30 Sep 2022	Inception pa	2 year pa	CYTD	1 year	6 months	3 months	1 month
Founder[1]	+12.50%	+9.78%	+1.83%	-3.92%	+6.39%	+11.98%	+5.82%

PERFORMANCE ASYMMETRY

Source: Mainstream, ASX Announcements, Geometrica and Bloomberg. Performance is after all fees, from Jan 2015 (excluding the period of Sep 2018 – Aug 2019; Manager left CVF in Aug 2018 and began Geometrica in Sept 2019). MSCI = MSCI ACWI (AUD).

OVERVIEW

The Geometrica Fund returned +5.82% in the month of September, net of all fees and changes.

The MSCI All Countries World Index (AUD) fell -3.6% during the month.

[1] *Founders Class units – Lead Series. Small variations will occur between unit classes and series based on differences in timing and terms. Source: Mainstream Fund Services, the Fund's external administrator and calculation agent.*

The fund is up this year versus all major global indices which are down significantly.

Macro Backdrop

Major equity markets are trading lower as we write, continuing afresh their descent from August.

After several decades of structural declines in developed market interest rates, the worm has turned. Interest rates are doing the previously unthinkable and going up.

Inflation is clearly now the defining policy issue for major central banks globally. Interest rates are rising at both ends of the yield curve because inflation is proving stronger than expected and expectations are being reset.

As interest rates have risen, valuation for all long duration assets has been negatively affected. This is most visible in the listed equity market given listed equities reprice continuously, but the valuation impacts are equally applicable to unlisted assets. Just because an asset isn't marked to market for visible discount rate changes doesn't make an outdated valuation the right valuation.

Depending on how your personal portfolio is positioned, what is unfolding now is either going to be a painful reset or a phenomenal opportunity.

If you step back, what is unfolding in financial asset markets is a very large downward valuation reset. There is *(almost)* nowhere to hide on the long side. This re-set probably has further to run, but once inflation is brought to heel and the Federal Reserve stops hiking interest rates, opportunity will abound.

But there's a catch…

If you've lost material amounts on the way down, the way up is about recouping what you lost. In the alternative, if you haven't lost money on the way down, then the upside opportunity is just that, opportunity to profit.

For now, we are making money on both sides of the ledger but especially on our single stock shorts. <u>Over the last 6 months over 80% of our equity returns have been generated via short selling of single stocks</u>.

Our short selling and risk management process have been crucial in our ability to post a positive return thus far in calendar year 2022.

European Energy Crisis & Implications

We have spent a considerable amount of time studying the European energy situation and building models around key aspects of it. We are presently benefiting from a series of related investments on both the long and short sides.

Russia's decision to reduce gas supply through key European pipelines coupled with trade sanctions against imports of Russian energy have exposed an underlying vulnerability in some parts of the energy complex.

Structurally, the last decade has seen a massive influx of solar photovoltaic (PV) electricity generation capacity globally. Whilst generally laudable in the context of pollution reduction, as intermittent renewable generation capacity increases, a reduction in traditional base load generation capacity (coal and nuclear) has resulted.

Now, when the sun doesn't shine and solar PV cannot generate electricity, the ability to call upon base load capacity is much diminished and gas peaking capacity is required to fill the gap - at a much higher price.

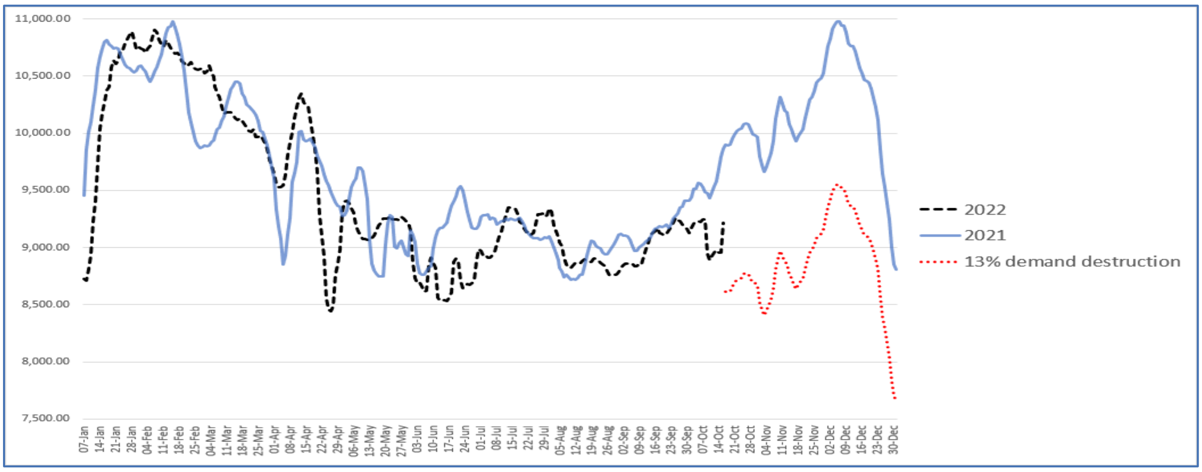
Europe imports around 85% of its gas and around 60% of this used to come from Russia. Sanctions on Russian energy and in turn Russia's rapid reduction in gas exports to Europe have vividly exposed not only Europe's excessive reliance on Russian gas, but also the tightness of global liquid natural gas markets due to structural shifts in electricity generation markets.

Germany and Italy, of Europe's major economies, appear to be most exposed to the risk of having insufficient electricity during the coming winter. Germany is a useful market to analyse due to its size and its capacity to be a significant net exporter of electricity within Europe.

Germany has planned on a 15% reduction in electricity demand and heightened use of gas storage to address this coming winter's gas and electricity crises. Yet this burden of voluntary demand reduction is likely to fall unevenly, be affected by weather and may not ultimately be enough. The dynamics of non-linear gas storage depletion also imply that the crisis will persist into the winter of 2023/24.

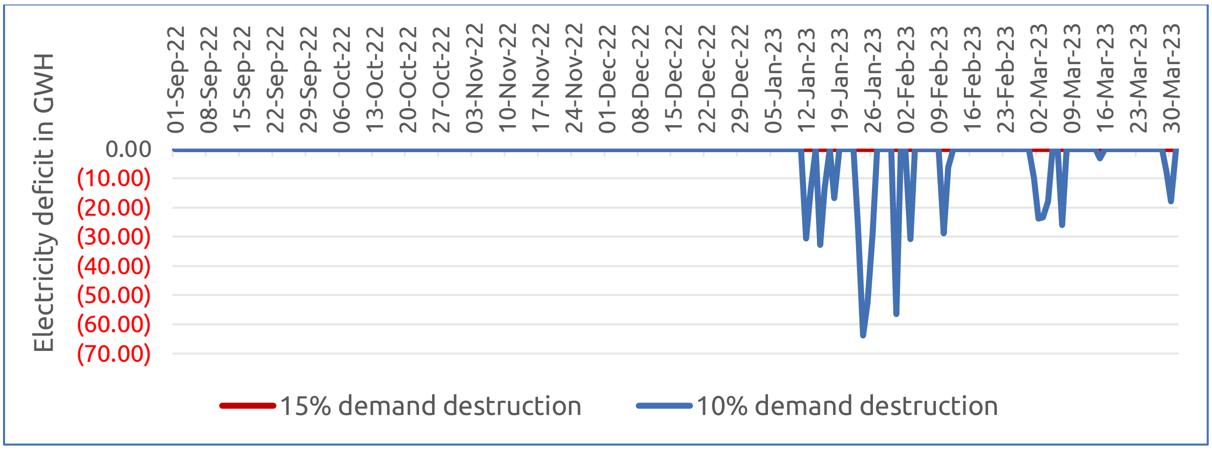
We have spent time simulating electricity market demand, supply, export / re-export and frequency in real time. As a base case for Germany we assume: 1) an increase in LNG imports equal to the current run-rate, 2) a 10% curtailment in cross-border flow, 3) no further nuclear plant closures and 4) an increase in coal power generation equal to all possible mothballed plants. On these assumptions, Germany could face blackouts unless it achieves 13% demand destruction. On the current run-rate demand destruction of ~4.5% throughout October ceteris paribus, Germany could face blackouts starting in the evening on the 29th of December 2023. Winter is coming.

Germany: Trailing 7-day Grid load in Gigawatt hours



Source: Geometrica analysis

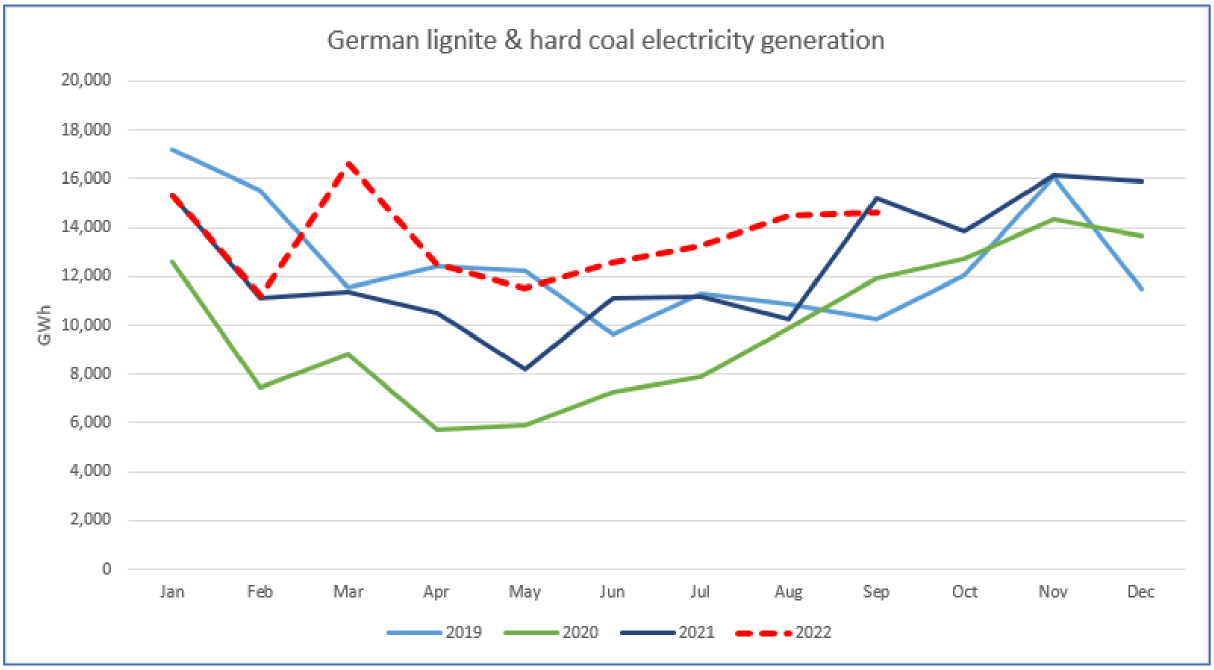
Trailing 15-minute grid load mismatch in GWh



Source: Geometrica analysis

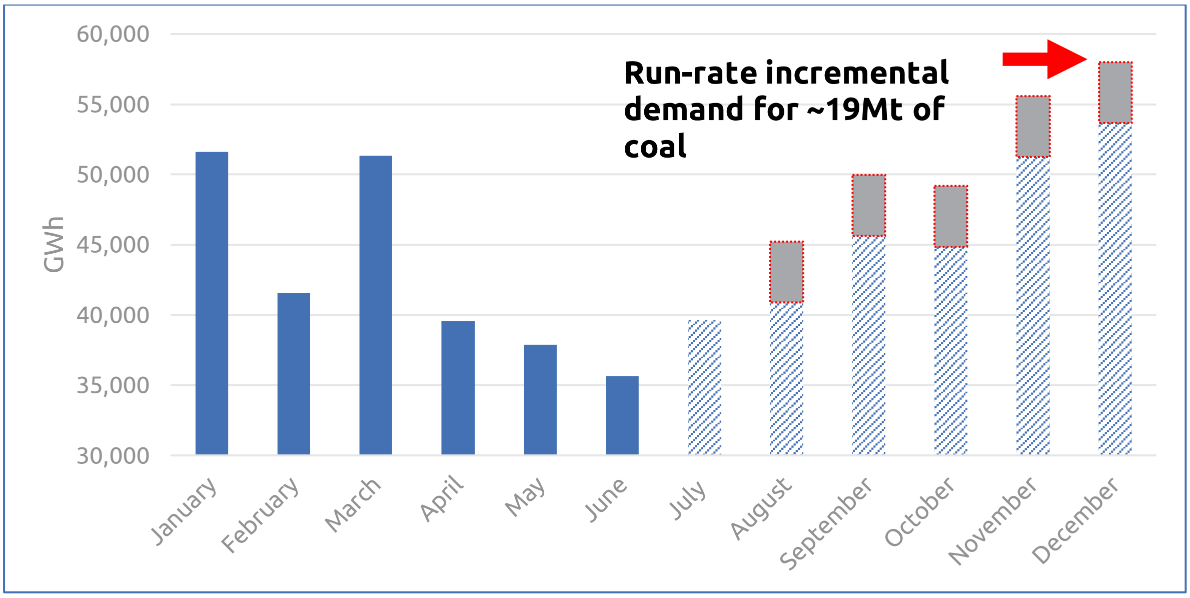
Thermal Coal

There is a large incentive to burn coal to fill this shortfall in generation capacity. The data shows that the German coal burn rate since the war started has increased 33% year over year (see below).



Source: Geometrica analysis

Germany also has the largest fleet of mothballed coal fired generators in Europe and these are generally geared to use high quality (called high calorific value / high CV) coal. They are now restarting.



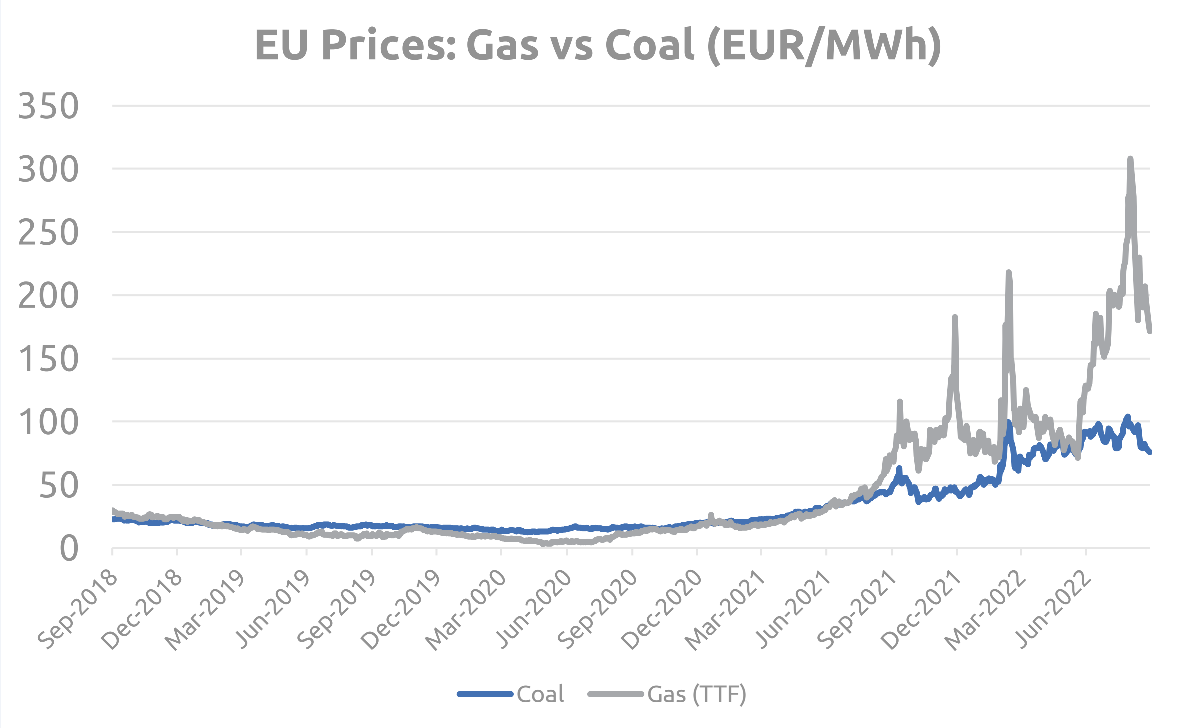
Source: Geometrica analysis

The imperative to pay up for high quality coal is also driven by the fact that a power plant only has so much capacity; using cheaper low-quality coal, aside from increasing pollution, also reduces electricity generation relative to using high quality coal. When high CV coal is half the price per watt of electricity produced with LNG and your entire electricity generation fleet is capacity constrained, using cheap low CV coal makes no sense…it makes no sense to save money to produce less electricity than is demanded.

Asia should also see an accelerating increase in high CV coal demand given Japanese sanctions on Russian coal don't effectively start until 31 December 2022 and thereafter 31 March 2023 (Japan's policy was to honour existing contracts but not renew them on expiry).

Because Russia was ~30% of the high CV thermal coal seaborne market the impact of sanctions on available high CV coal supply has been very large.

Despite this, coal prices on an energy equivalent basis remain significantly below gas prices in Europe, hence the incentive to burn coal.



Source: Geometrica analysis

The reason that gas prices remain so elevated is the increasing importance placed on liquid natural gas (LNG) spot market imports in Europe. The LNG market available for prompt spot sales is very small, which is why LNG spot prices in Europe are the equivalent of around US$280 per barrel of oil equivalent and why gas prices in Europe are a multiple of gas prices in the US.

Unsustainable Coal Prices?

Make no mistake, in the long run current coal prices are unsustainably high.

In the long run, energy storage becomes economic and will benefit from an increasingly large volume overhang of solar PV curtailment in peak production periods.

But for the next 10 years at least, we think it is not possible to eradicate coal fired capacity completely from OECD generation mix without driving electricity prices so high that the energy transition risks the loss of public support.

New coal mines are extremely difficult to develop as most major financiers have ceased lending to new projects and regulatory approvals are extremely difficult, meaning supply is likely to stay significantly below demand. The rationing mechanism in such a situation is price.

In the meantime, companies like Whitehaven (WHC.AU, mkt cap A$9.6bn) are making so much money they can repurchase their entire share count within a few years.

On our numbers Whitehaven is trading on less than 2x EV/EBITDA. This low multiple is largely driven by the markets unwillingness to capitalise such high coal prices.

Another way to view this is that a very low multiple is simply a high cost of capital. A high degree of market-based uncertainty on future coal prices is what is driving this.

We suspect the market is being overly pessimistic in its forward coal price assessment. But we cannot prove this because we cannot reliably forecast the future three or five years out.

This is why we have engaged with a few coal companies, to ask them to, in effect, attempt to “predict” the future of coal prices…with certainty.

With certainty on coal prices, even if they were lower at, say, US$250/tonne for five years versus spot levels of US$400/t, on our numbers a company like Whitehaven would with certainty produce nearly 2x its current enterprise value in cash over 5 years. Imagine a company able to pay, say, a 30% fully franked dividend with certainty for the next five years. We think the market would pay for this.

The Analogues

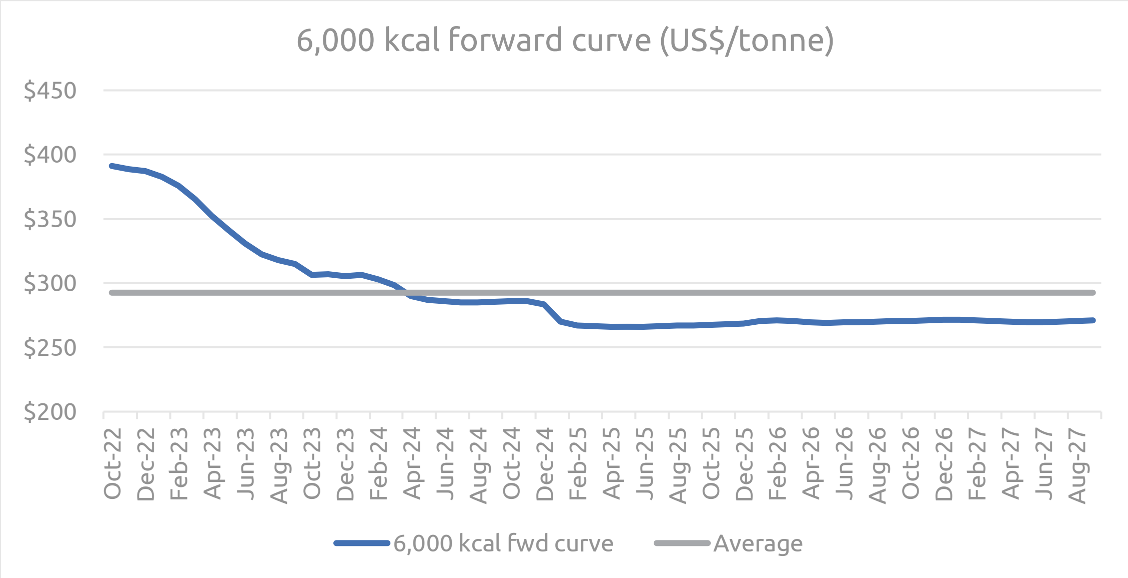
Thermal coal prices are typically traded on a spot or index basis. Lots of variation in practice. Supply contracts tend to exist, but generally they are for fixed volume at variable price based on an index reference and product specific adjustments.

The history of commodity price structures is for long periods of stability and then with demand pressure you get change.

LNG markets came into being with 20+ year contracts typically with price floors to enable financing. In effect the customers paid for supplier revenue downside protection, allowing projects to be financed.

If a company like Whitehaven locked in US$250/t coal for 5 years - which is an ~40% discount to spot prices - they would lock in the capacity to pay a ~30% p.a. dividend yield for the next 5 years. We think this would provide an immediate catalyst for the company’s market valuation.

We note the forward curve is used for hedging, has insufficient depth for a large company to hedge all its production in and involves counterparty credit risk and margining requirements. The forward curve isn’t a solution, but bilateral contracts with creditworthy counterparties might be. Most likely this won’t be possible…but if there’s a chance to see these stocks double from here, it’s worth some ink.



Source: Bloomberg & Geometrica analysis

GrafTech International – A Potential Analogue

Graphite electrodes are used in electric arc furnaces to produce steel. They are a vital consumable in the process.

After a long period of very low prices for graphite electrodes, a perfect storm drove prices from ~US$3,000/tonne to ~US$20,000/tonne a few years ago.

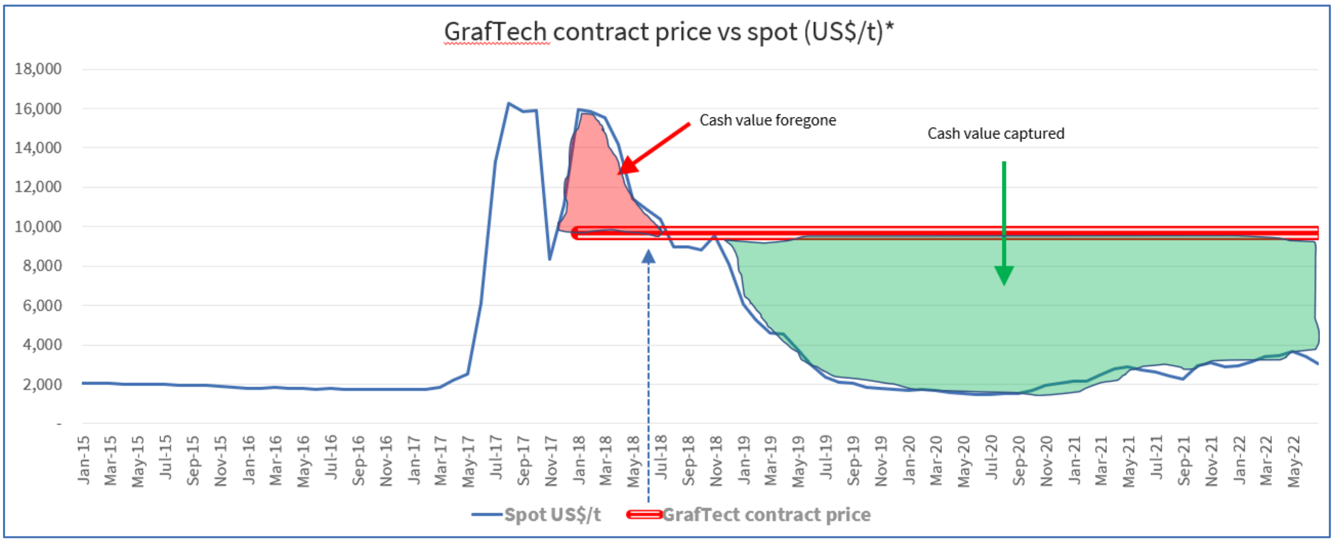
The graphite electrode market had always traded on a type of bilateral spot contract basis. Prices were based on market conditions and pricing negotiated between suppliers and consumers.

In 2017 a surge of demand for graphite electrodes allowed the industry's largest player (GrafTech International) to recut contracts to fixed prices for 3 to 5 years. Analysts were able to value the cash flows with certainty. As a result, the stock in question traded at a dramatic premium to where it previously traded.

When GrafTech orchestrated its revenue model change, it had recently been acquired by Brookfield, who no doubt gleaned that an excessively low valuation multiple was counterpoint to an excessively high cost of capital, driven by material uncertainty about the future prices of graphite electrodes.

GrafTech orchestrated industry change and seized upon the opportunity to drive shareholder value. They dramatically diversified two thirds of their sales volumes and entered into around 100 different contracts for fixed prices over 3 to 5 years.

The contract prices were significantly below prevailing spot prices at the time they were struck, providing customers a significant near-term incentive. Contract prices were around US$10,000 for 3 – 5 years when the spot price was ~$17,000/tonne. Spot prices went as high as ~US$20,000/t but then gradually declined.



Source: Bloomberg, Company reports & Geometrica analysis

GrafTech initially lost some cash flow relative to spot pricing. More importantly, with strong contracts and counterparties, GrafTech gained cash flow certainty. A dramatically lower cost of capital meant a much higher valuation multiple applied by the market.

When Brookfield sold the business via initial public offer in early 2018, they made a multiple of their investment as GrafTech traded at a premium multiple relative to where it historically traded. This was despite GrafTech's contracted prices being below prevailing spot prices…it was revenue and cashflow certainty that drove value at that time.

Before GrafTech fixed prices, lots of people in the industry said "it cannot be done" or "that's never been done before". This of course doesn't mean something new and positive should not be attempted.

Can high CV Coal Producers Fix Prices for 3 to 5 Years?

The crux question is would such a change meet a customer need? We don't know. It is possible. It is we think worthy of an attempt.

A German utility knowing gas and therefore coal prices will likely not return to normal for 3 to 5 years might want to spread the price burden over a 3 to 5 year period at less than spot price levels for part of its volumes.

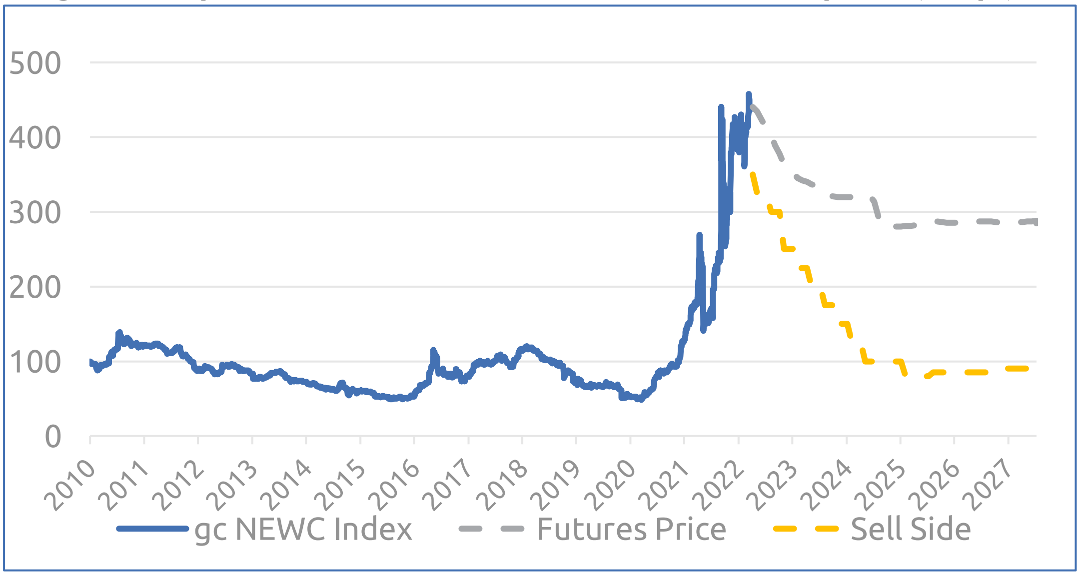
This was the analogous case for GrafTech's customers. GrafTech didn't hedge; they shifted their volumes to new fixed price bilateral contracts.

The below chart shows the disconnect in expectations between energy market participants and share market participants over the level of longer-term high CV coal prices.

We think there is a likely share price rerate available should any of the Australian high CV producers be able to lock in fixed pricing over 3 to 5 years, even if it is at lower than current spot market prices.

Provided any price fixing is above broker forecasts, with certainty by definition it is value additive to equity market-based valuation.

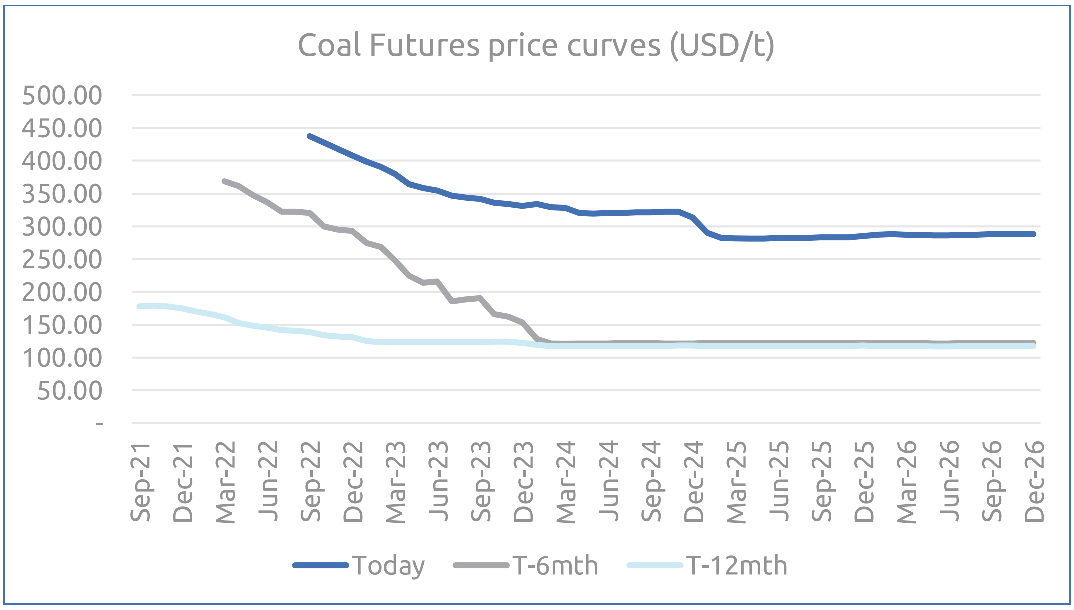
Long run coal prices – broker sell side forecasts vs futures prices (US$/t)



Source: Bloomberg & Geometrica analysis

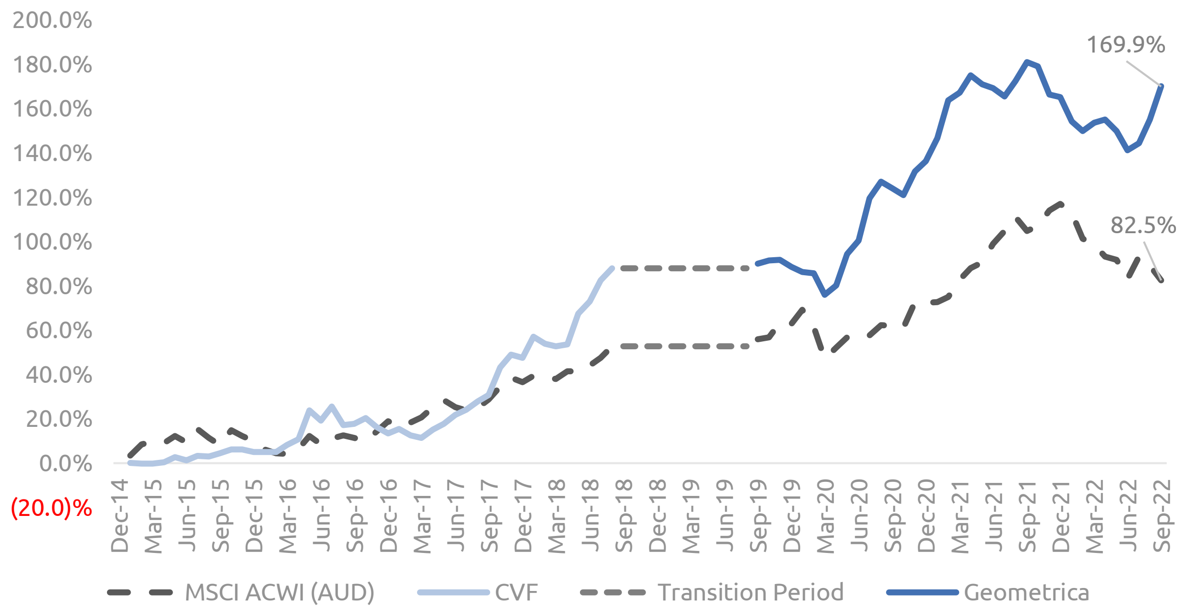
Coal futures continue to show rising future price levels particularly in longer dated contracts.

Coal futures market prices over time (6,000 kcal coal) (US$/t)



Source: Bloomberg & Geometrica analysis

MANAGER PERFORMANCE HISTORY

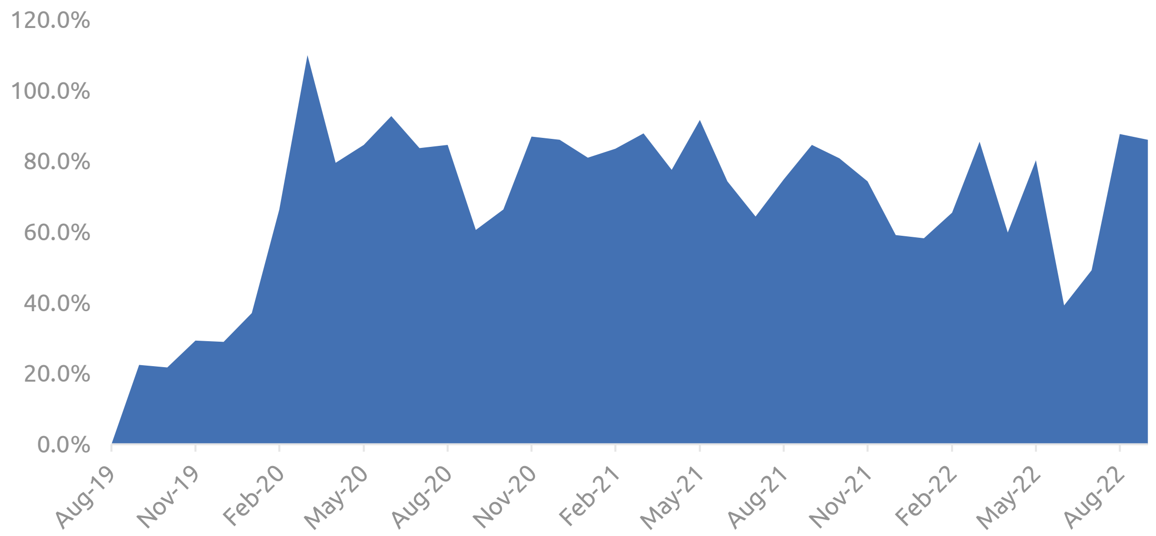


* Manager left CVF in Sept 2018 and began Geometrica in Sept 2019 NB: Performance period is from 5 Jan 2015. Performance is net of all fees.

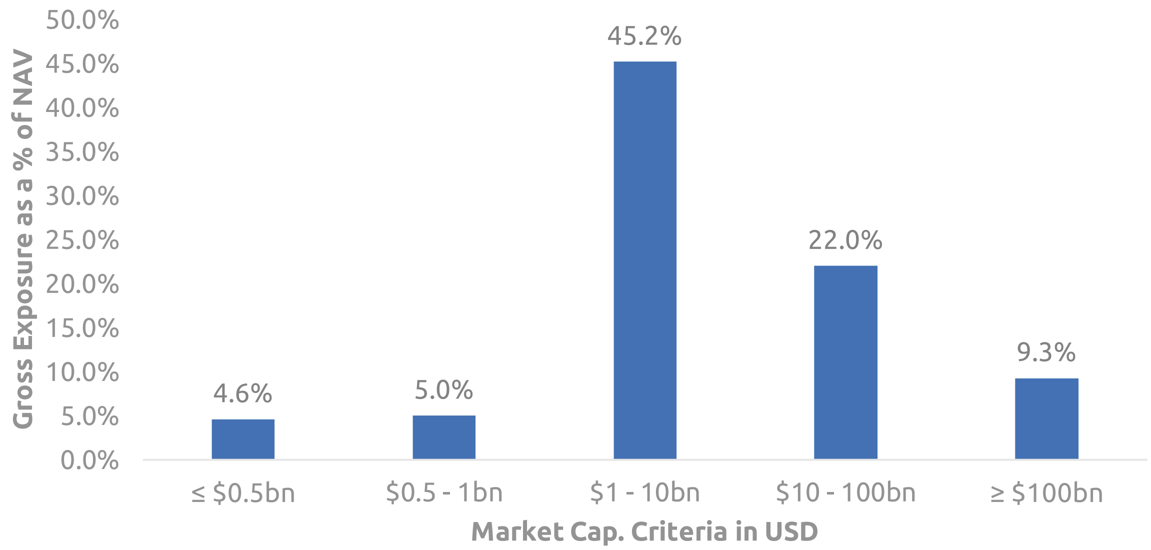
ASSET ALLOCATION

Country	Long	Short	Gross	Net
Australia	39.5%	(8.0)%	47.5%	31.5%
Americas	7.3%	(18.8)%	26.0%	(11.5)%
Asia	0.0%	(6.9)%	6.9%	(6.9)%
Europe	1.1%	(4.6)%	5.7%	(3.5)%
Total	47.8%	(38.3)%	86.1%	9.5%

GROSS EXPOSURE



GROSS EXPOSURE BY MARKET CAPITALISATION



FUND OVERVIEW (ALPHA UNITS)

Fund	Geometrica Fund
Structure	Wholesale unit trust
Mandate	Global long short Mid-cap focus
Gross exposure range	0 - 200%
Net exposure range	up to 100%
Single stock long limit	15% at cost
Single stock short limit	5% at cost
Buy / Sell Spread	Nil / 0.25%
Investor Eligibility	Wholesale only
Platforms	Ausmaq, Hub24, Netwealth
Fees	1.5% management (+GST) 20% performance (+GST)
Benchmark	RBA Cash Rate
High water mark	Perpetual
Liquidity	Monthly
Administration & custody	Mainstream Fund Services