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

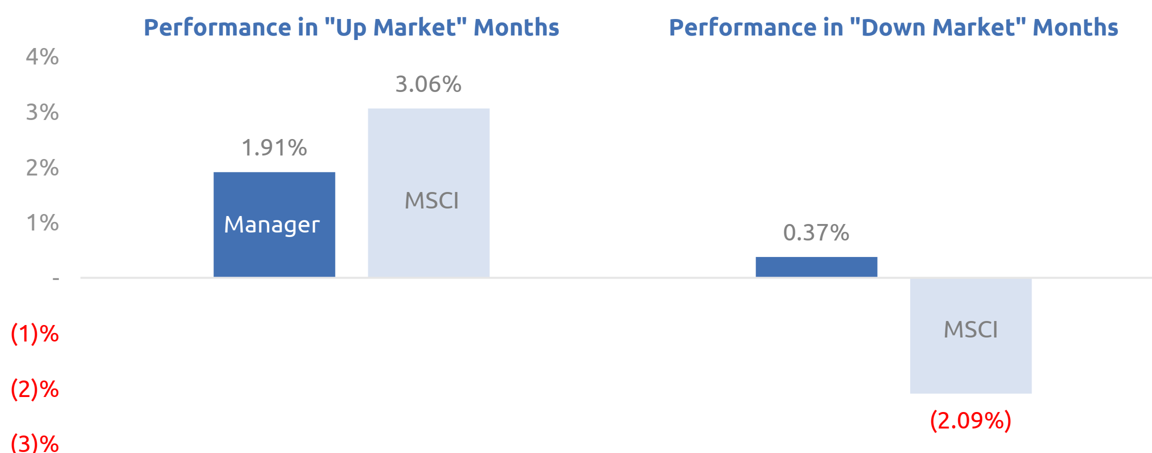
The Geometrica Fund aims to deliver outstanding returns to unitholders via highly targeted investments in the global mid-cap equity universe.

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	+0.7	-0.4		+2.1	-7.7
										Since Inception			+44.2	+31.1

30 Nov 2022	Inception pa	2 year pa	CYTD	1 year	6 months	3 months	1 month
Founder[1]	+11.92%	+8.12%	+2.12%	+1.67%	+8.37%	+6.12%	-0.40%

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 -0.4% after costs in the month of November 2022.

[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.*

Mineral Resources (MIN.AU, mkt cap $16.3b) was the fund's largest contributor in November whilst losses on our short book were the fund's largest detractor to performance.

We have maintained modest net exposure over the last few months. Monitoring single company data points indicates a rapid softening in several areas of US consumption expenditure, a few recent examples below:

- A home builder with housing work completions +20% year over year, but with contracts for new construction down -60% year over year, implying a large activity and earnings decline will occur once their current workload is processed.
- An apparel retailer complaining that their supply chain has improved very suddenly, with shipping times from Asia falling by almost 50% – resulting in a surge in their inventory levels, implying heightened inventory risk.
- In the software area we are seeing slowing corporate expenditure, with several software companies we monitor complaining of slowing sales conversions and increased customer approval processes.

If you broke down a typical bear market into its phases, one might be the valuation multiple de-rate phase and one might be the earnings expectations reset phase.

The de-rate phase is characterised as market participants selling sectors of the market that are vulnerable to rising interest rates before these companies' earnings are actually impacted i.e. anticipation. This phase appears to be largely done and dusted; valuations in most sectors have declined materially.

The earnings expectation resets are still coming. This is what we think we are observing in the above recent datapoints.

We all know that markets don't travel in a straight line. Irrational exuberance is the term du jour following the recent bear market rally in the face of deteriorating fundamentals. Celebrating the US Federal Reserve downshifting from 75bps monthly hikes to 50bps monthly hikes doesn't seem sensible.

But it does make for a rich opportunity set on the short side. Those data points cited above came from a few areas where we are either already short or waiting for our entry point to short.

Longer term the US Federal Reserve's commitment to taming inflation is wildly positive, but we need to traverse the earnings expectations reset first.

Sideways and upwards

Even in the most challenging of market conditions we think we can still make money on the long side, provided we ferret out idiosyncratic situations where fundamental earnings drivers are so strong and there is such large valuation upside that it overwhelms any negative macro pulse.

PORTFOLIO

First Solar (FSLR.US, mkt cap US$16.3bn) may just tick the box. It is the only large scale fully integrated solar module manufacturer in the USA. And we think it will double from here, and then double again in share price over the next two years. Big call.

Several significant changes have led to the stock's recent rapid share price appreciation. But this recent share price performance undercooks what is ahead.

Firstly, and most importantly, solar on an LCOE or levelised cost of energy basis, is highly cost competitive versus typical thermal electric generation (coal, gas or nuclear) and has very broad installation capacity. Solar is the single largest new electricity generation form globally now.

Secondly, the USA recently passed the Inflation Reduction Act ("**IRA**"). The stated purpose of the act is to drive a renaissance in solar (and other renewables) manufacturing capacity in the USA via incentives for manufacturers and also to encourage adoption via incentives for renewable energy developers and asset owners.

The only comparable analogue for solar that we know of was when Germany enacted feed in tariffs in the 2000s, which was roughly when First Solar went from $20/share to $300/share. This puts what is happening today into context.

US solar installations were impacted in 2022 by supply chain constraints and delays, with extra freight costs all but wiping out First Solar's 2022 earnings.

Thereafter, we expect rapid growth in First Solar's earnings, well above 2024 and 2025 consensus levels from a few sources:

- IRA manufacturer bounty of up to 17c/watt. This bounty is stacked based on degree of US vertical integration for solar, from substrate to cell to module. Only First Solar is fully integrated at scale. In context, First Solar's cost per watt are under 25c already, so this alone drives a massive margin step change on US capacity. Due to First Solar's integrated nature, it means the company is lowest cost on a US supplied cost curve.
- Solar developer Income Tax Credit ("**ITC**"). The 30% ITC is extended but it is simplified and increased in 10% increments up to 70% depending on factors such as whether the modules are predominantly US made. This is a massive incentive for US developers to a) install solar and b) source solar modules heavy in US content.
- The US recently passed anti-slavery legislation which targets solar equipment made with forced labour in Xinjiang China. Most solar modules are made using polysilicon. Over 85% of polysilicon globally is made in Xinjiang. This is driving demand for First Solar's modules given they don't use polysilicon as substrate.

On our numbers First Solar is trading at less than 7x 2025 earnings, and yet will grow earnings at an almost nonsensically large percentage rate over the next 3-5 years given the low base. Just like in the 2000s.

Some road signs on the way to explosive earnings growth ahead, way above consensus:

- Selling prices for recent orders from First Solar are rising. Solar is a technology and as such is inherently deflationary. There is even a law called Swanson's law which describes a roughly 20% reduction in costs for every doubling of capacity. That First Solar's prices are being raised speaks to significant margin growth ahead.
- First Solar is passing the risk of rising raw materials onto customers now. This is a typical sign in an industry vertical rent shift.
- First Solar is extracting what it calls "adders" or additional pricing for orders to be delivered in future years if it delivers on its technology roadmap; basically, the price goes up if the modules produce more energy.
- First Solar's orders started booming in 2Q 2022, before the IRA passed. At almost 14GW of orders in 2Q 2022 and again in 3Q 2022, mostly for the USA, this is massive demand compared to First Solar's current capacity. Book to bill even for 2025 when additional capacity comes online is over 5x.
- We expect First Solar to announce additional expansions. These are wildly accretive; on our numbers, payback is achieved in under 2 years. These should, we think serve as catalysts for the stock once the street begins to dimension the upside available.

Solar is a complex industry and one we've followed for many years (First Solar was a short position for a fund we were at about a decade ago) and there is a whole lot of detail we have touched very lightly on or frankly glossed over in the interest of readability. The IRA is also a complex piece of legislation.

More detail is overleaf in an Appendix. A lot more detail is contained in our thesis note and associated presentation materials.

We encourage our clients to reach out if they would like to come into our offices and step through this work product in more detail to dimension the potential upside on offer.

Netflix (NFLX.US, mkt cap US$140.3bn) was a material contributor again this month. The market thought NFLX was toast after its share price plunged around 80% following several subscriber misses, driven largely by what we think was a post-covid hangover (back to work…back to school) and a huge ramp in industry competitive intensity, with multiple competitors absorbing billions of dollars of losses trying to acquire subscribers.

NFLX then changed course and announced an ad-supported tier which the market largely thought would be dilutive, because the subscription price was lower. This of course would ignore the advertising revenue and the fact that the adex plus subscription on a monthly basis for ad supported tiers might be higher than the subscription only tier. We think the ad tier will be subscriber, revenue, and earnings accretive.

Meanwhile, Netflix's competitors, including Disney & Paramount, are now emphatically emphasising profitability over subscriber growth which is likely to reduce competitive intensity going forward as the industry raises prices and cuts content spend.

Overall, we think the combination of self-help and an easing competitive environment will be positive for Netflix.

APPENDIX: FIRST SOLAR

First Solar is an integrated solar photovoltaic (PV) module manufacturer, using an innovative process called “thin film” as opposed to the majority of solar cells which use polysilicon as the substrate material.

We think the value of First Solar’s shares has the capacity to double from here, and then double again.

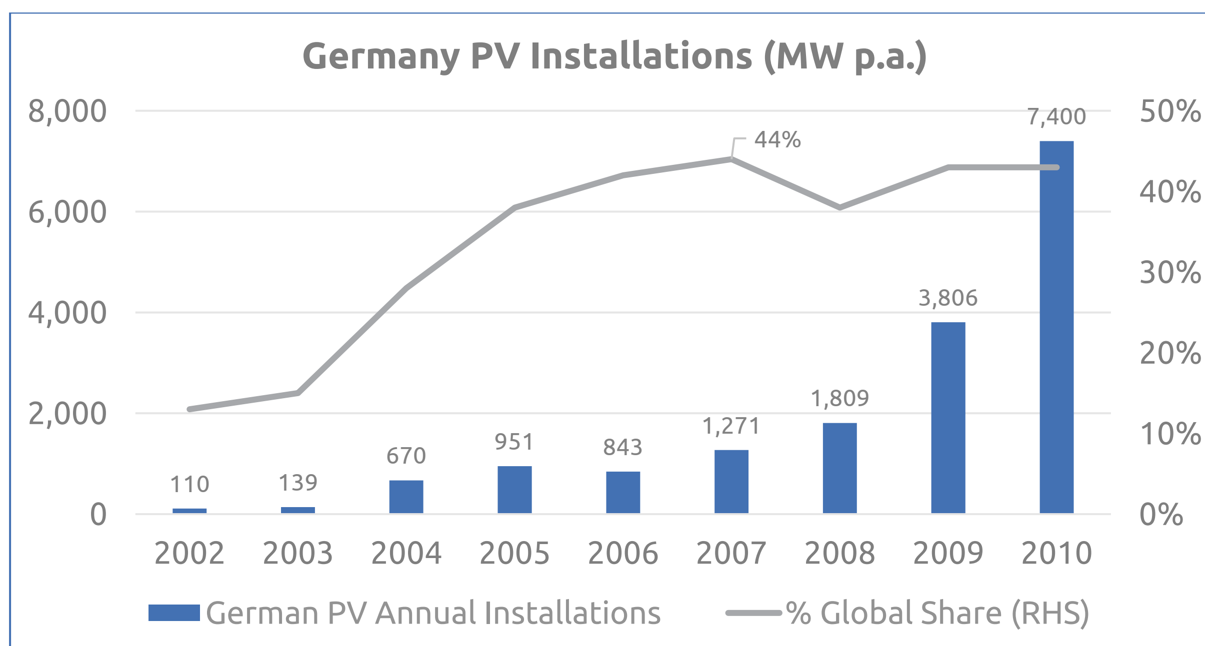
It’s not like it hasn’t happened before. First Solar listed in 2006 at $20/share and in under two years was trading at over $300/share.

To understand what is about to happen, it is helpful to understand what happened back in 2006.

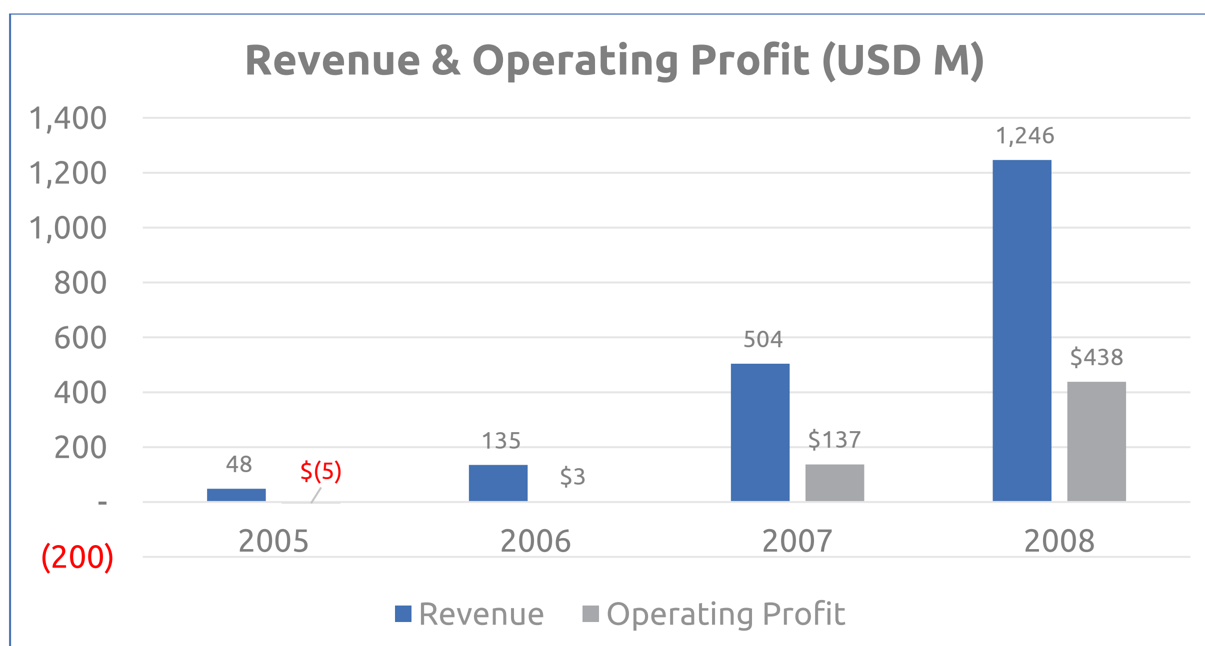
First Solar is based in Tempe, Arizona USA. And yet in 2006, 95% of First Solar’s revenue was from Germany due to regulatory incentives.

Germany decided near the turn of the century it wanted lots more renewables. So, they adopted feed in tariffs (“FIT”). These paid a solar PV owner for producing electricity and selling it into the grid, and the rate by 2003 was very attractive at around 50c/kilowatt hour.

The impact of the German FIT was massive for the solar industry. Germany in a few years became almost half of global solar installations.



As a direct consequence of the German solar FIT, First Solar’s revenues and earnings boomed. In 2008 revenue rose 147% and operating profit rose 220%.



And so, First Solar's share price boomed. This is a useful analogue for what is now playing out if we are cognisant of the time lags between the provision of an incentive and its impact upon behaviour.

Critically the US Inflation Reduction Act ("IRA") passed in the second half of 2022. The legislation's purpose is to accelerate US solar adoption, but also to drive an integrated US based solar manufacturing industry.

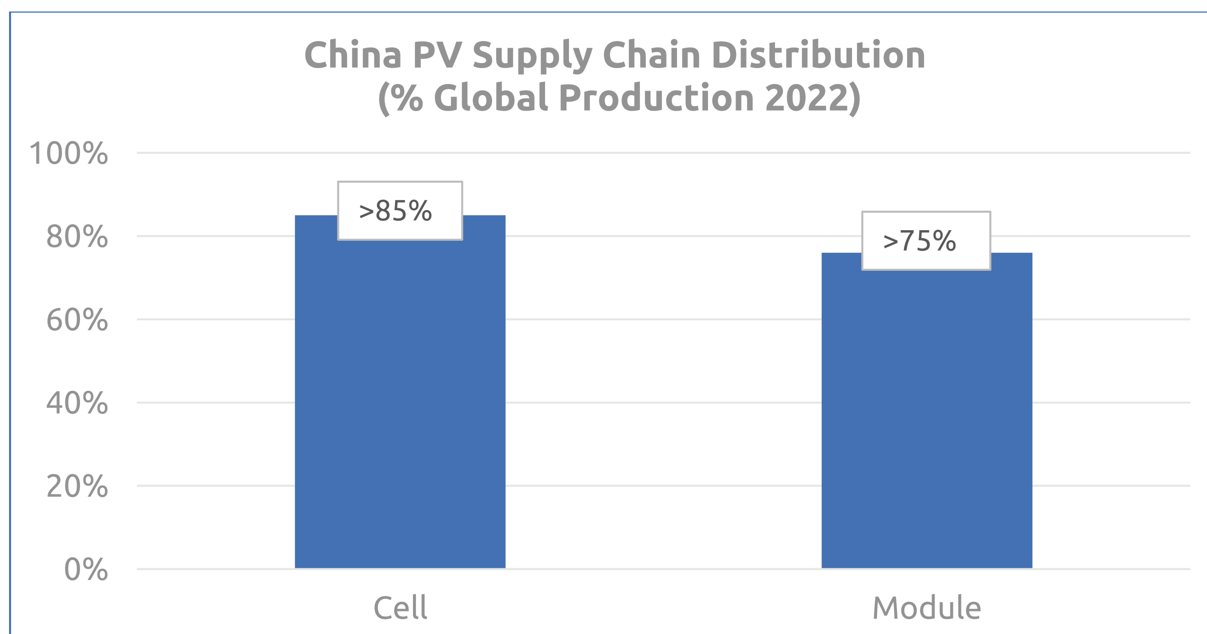
There is broad recognition that via subsidies and other actions that China has stolen a march on the manufacturing of solar modules, electric vehicles, rare earth processing and other areas of strategic importance. The US IRA could be viewed as partly redressing this risk, recognizing that China built its own industrial solar might on heavily directed subsidies whilst also putting another brick in the road to de-globalisation.

For First Solar, the IRA is truly game changing as this law provides a decade or so of subsidies designed to incentivise US manufacturing of solar modules on an integrated basis.

The IRA provides up to 17c/W of cash benefits based on US manufactured content at each stage of manufacture, from substrate to cell to module.

This is wildly impactful for First Solar for two reasons.

Firstly, China over the last 15 odd years has basically wiped out all competition in solar polysilicon, cell and module manufacturing. Of the remaining non-Chinese manufacturers, many use Chinese components (e.g. polysilicon) or have Chinese based processing in their manufacturing. **The only fully integrated scaled player in the USA is First Solar.**



Secondly, the manufacturing bounty of 17c a watt is a massive number given First Solar's manufacturing costs have fallen from $1.40/w in 2006 to below $0.25/W today. To be clear, we think First Solar qualifies for the entire 17c/W on its US capacity. If you do the math on what this means for margins, for years, it's massively impactful.

This 17c/W is harder to access for other US based module assemblers because it is vertically stacked. To get it all, you need to be vertically integrated in the USA. Which means net of the subsidy **First Solar is lowest on the US supply cost curve**.

It gets better. The legislation also provides certainty over the Income Tax Credit or ITC, which basically allows 30% of any eligible solar capex to be paid in cash by the IRS as a tax credit or direct offset against tax payable. The ITC has been around for years but was due to phase out. The IRA extends it to 2032 and improves it by making it easier to claim and also providing "adders" in incremental 10% lots, e.g. for locally made equipment, installations in areas with higher unemployment etcetera, up to 70%. That is, up to 70% of capital cost is subsidized. This is a massive incentive for solar developers.

There is a lot of detail in the IRA – too much for this letter. The big picture is this:

- First Solar gets as a subsidy 17c /W when their US manufacturing costs are under 25c/W, and that 17c runs for the better part of a decade.
- First Solar's customers get 30-70% of the capex cost back, depending on the level of US content and other factors. This ITC at 30% has been around for years, but its extension and improvement is a large incentive for US solar developers to develop, and to source US made product.

The US was a 24GW per annum solar install market in 2021 dropping to ~15GW in 2022 amid supply constraints. From this low in 2022, US solar PV installations are forecast to grow to ~40GW by 2025 and then to ~80GW by 2030.

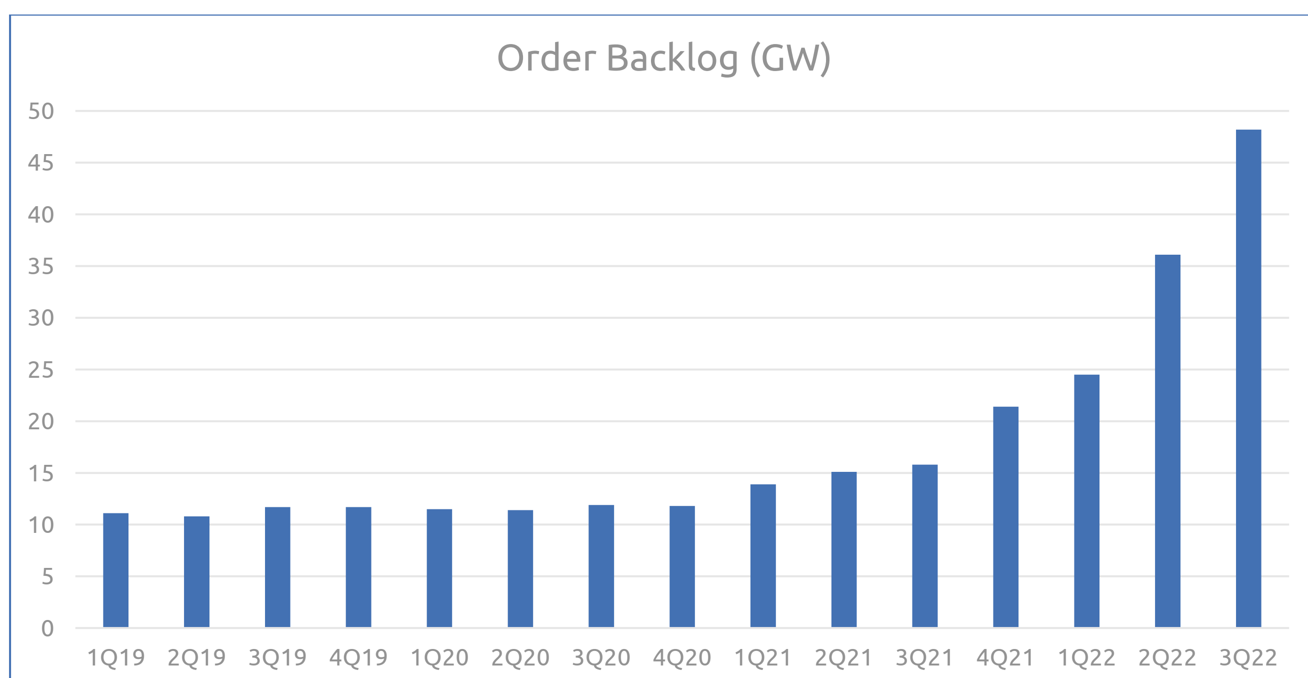
Given the IRA incentives for US made modules, this growth is likely to be driven almost entirely by domestic supply. However, there is currently only ~12GW of nameplate module capacity in the US.

Unlike many competitors, First Solar has an under-levered Balance Sheet – with ~US$1.6bn of net cash which they can deploy to fund capacity expansion to grow earnings.

Ultimately, all of this means **First Solar has significant available capital to deploy into highly profitable projects**. Indeed, we estimate the payback on their recently announced $1.1b manufacturing facility in Alabama will be only ***less than 2 years!***

On our math, First Solar are going to see their operating margins go from zero to north of 40% over the next few years. And their sales are going to boom. How do we know?

First Solar has 3GW of capacity today in the US, in the 2nd quarter First Solar received orders for almost 14 GW of modules and these customers put down cash deposits. In the 3rd quarter First Solar again received another 14GW of orders. Back in 2nd Quarter the IRA legislation had yet to be passed.



This is a book to bill ratio for First Solar's US capacity of around 20x First Solar's US capacity today and 5x its capacity in 2025. We think there are another 2-3 more 3GW type expansions to come, with the bottleneck probably being glass capacity.

The good news is float glass capacity is a lot easier to add than polysilicon capacity, ie the other manufacturing route for solar PV cells.

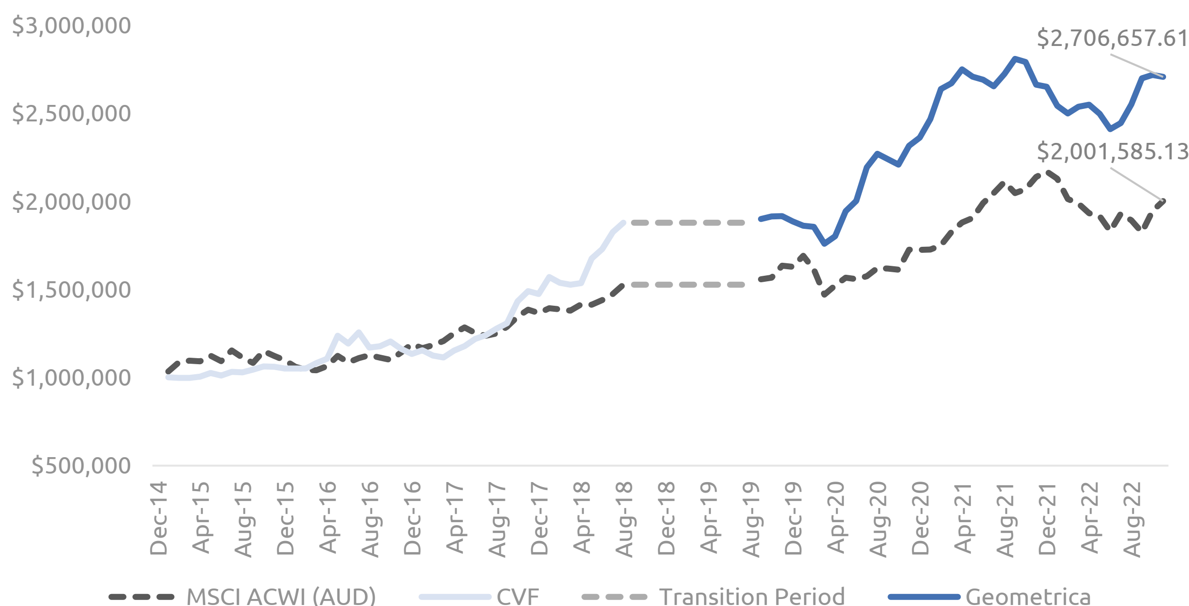
We also think Chinese polysilicon and cell manufacturers are unlikely to fully vertically-integrate in the US. Full vertical integration would involve massive capital expenditure in the USA, unlike dropping in a module assembly line. Given the US so effectively sanctioned Russian businesses after Russia's invasion of Ukraine, Chinese corporates may

be reticent to deploy meaningful capital in the USA whilst their president threatens to invade Taiwan. However, any Chinese module assembly lines in the USA would run into two issues:

- Non integration, so ineligible for the full 17c /W. More likely to qualify for 7c/W. That 10c/W is a big difference when solar modules sell for around 30c/W.
- Xinjiang based polysilicon supply + potential future anti avoidance actions.

We own First Solar. On our numbers without additional manufacturing expansion the stock is trading on under 7x 2025 price to earnings and we think further expansions will grow earnings *materially*. The upside is very large, and the upside is very unlikely to be materially diminished by the state of the US consumer or the next US CPI print.

MANAGER PERFORMANCE HISTORY

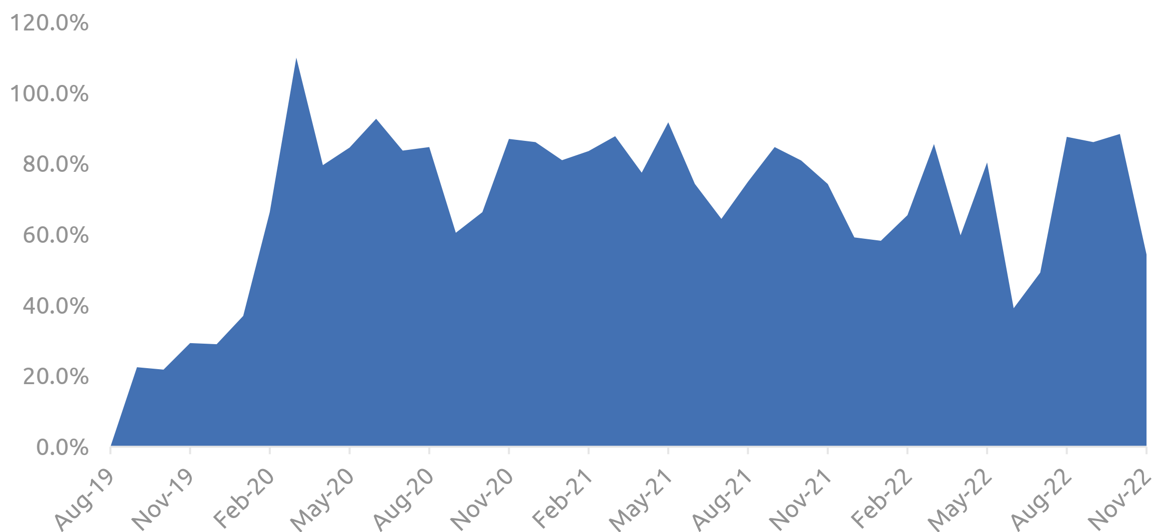


* Manager left CVF in Sept 2018 and began Geometrica in Sept 2019 NB: Performance period is from 5 Jan 2015. Performance is net of all fees.

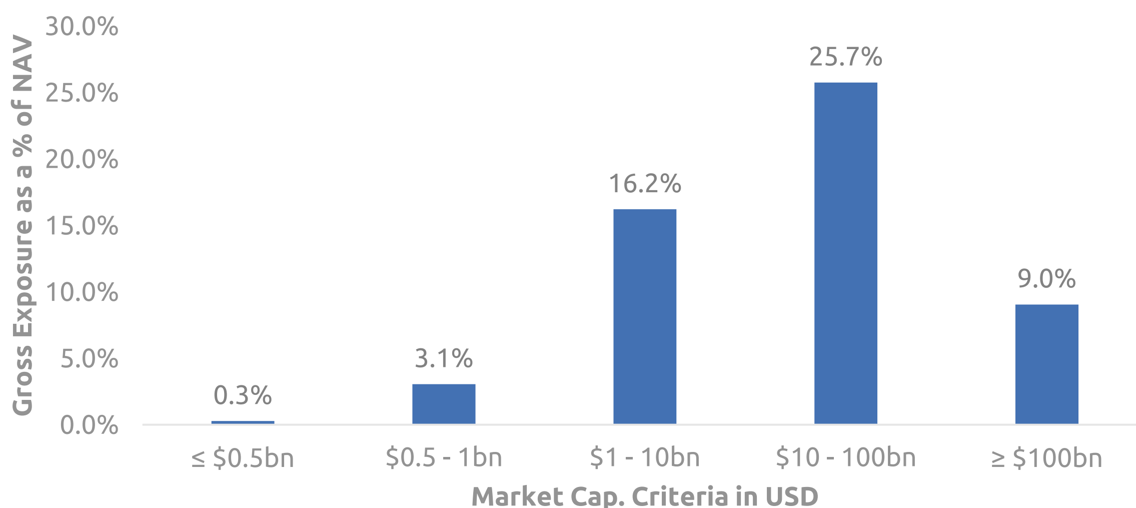
ASSET ALLOCATION

Country	Long	Short	Gross	Net
Australia	8.9%	(4.3)%	13.2%	4.5%
Americas	28.6%	(1.6)%	30.2%	26.9%
Asia	2.3%	(1.2)%	3.5%	1.1%
Europe	6.5%	(0.9)%	7.4%	5.6%
Total	46.2%	(8.9)%	54.3%	38.1%

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% management (+GST) 20% performance (+GST)
Benchmark	RBA Cash Rate
High water mark	Yes
Liquidity	Monthly
Administration & custody	Mainstream Fund Services

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Past performance is not predictive of future performance and no guarantee or representation as to expected future returns is or can be made.