The Bronte Amalthea Fund is a global long/short fund targeting double digit returns over the long term, managed by a performance orientated firm with a process and portfolio that we feel is genuinely different. Objectives include lowering the risk of permanent loss of capital and providing global diversification without the market/drawdown risks typical of long-only funds. We believe a highly diversified short book substantially reduces risk and enables profits to be made in tough markets.

The Bronte Amalthea Fund

The Amalthea fund shed 1.35% in June whereas the globally diverse MSCI ACWI (in $A) was up 2.57%. For the financial year the fund gained 14.75%, outpaced by the ACWI’s 20.78%. It being the end of the fund’s financial year we start by setting out arrangements for the annual distribution.

The fund’s accountant, Ernst & Young, will be calculating the annual distribution the fund will make. (see over)

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The Amalthea Fund – June 2023

Amalthea Cumulative Performance

The Amalthea fund shed 1.35% in June whereas the globally diverse MSCI ACWI (in $A) was up 2.57%. For the financial year the fund gained 14.75%, outpaced by the ACWI’s 20.78%. It being the end of the fund’s financial year we start by setting out arrangements for the annual distribution.

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<table>
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<th>Fund Features</th>
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\(^1\) Performance and analytics are provided only for Amalthea ordinary class units. Actual performance will differ for clients due to timing of their investment and the class of their units in the Amalthea fund.

\(^2\) Sharpe and Sortino ratios assume the Australian cash rate as the applicable risk-free rate.

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The distribution is based on realised gains that are generally taxable whereas the gains that are reported to you each month include unrealised gains. The fund is up for the year and has realised significant gains so, at this stage, we anticipate making a distribution.

In the event that there is a distribution you will receive (we anticipate in early August):

- An annual tax statement;
- A distribution statement; and
- If you have elected to re-invest, a contract note detailing the number of additional units issued in the fund

If a cash distribution is determined and you have elected not to re-invest in the fund, then the payment will be made to your previously nominated bank account within approximately 2 business days of these documents being issued.

Once the distribution is determined the fund will also issue a second June 2023 holding statement. But unlike the one sent with this letter this second one will be “ex-dividend” i.e. it will show your holdings at 30 June 2023 after allowing for the distribution from the fund.

**Commentary on the quarter**

We were slightly negative overall (-1.39%) in what was a strong up quarter for markets and our results are not what we would like. However, we see opportunity from here from both sides of our book.

Let’s break down the performance.

Measured in US Dollars the MSCI was up 6.2%, the S&P was up 8.7%, the Nasdaq was up 11.1% and an index of the most shorted Russell 1000 stocks was up 8.2%.

This was a very strong quarter, and for a shortseller this should be a massively hostile environment. Our short book, however, was up less than 3 percent (in USD). Our performance has several percentage points alpha in the quarter no matter how you count it and we continue to improve our technology and risk management. As we will discuss below short selling remains a contact sport and our extensively diversified book served us well. Our long book, however, was up less than one half of one percent.

**Long performance before and after covid**

Long performance since the covid outbreak has been a source of frustration for us. Prior to covid we had low single digits of consistent alpha on the long book against MSCI World, in line with a good mutual fund, but the turmoil of the last few years has seen more mixed results.
The world as we see it

Coming into 2023 we were cautious and we have been wrong. The first half of 2023 was the strongest first half in markets for forty years. Bronte always runs a slightly levered long book allowed for by the protection of our short book but this year we allowed this leverage to run at the lighter end of our historic range.

A stylized summary of where we are

1. A very weak market for goods as supply chains for goods ease and supply increases but mostly as people freed from lock down go out and party, consuming less goods but more travel and other services. The hottest of services now is ChatGPT, broader AI and its beneficiaries. Unfortunately Nvidia is not amongst our longs.

2. A strong market for services - the other side of the above

3. Still almost universally tight labour markets, partly driven by the fact that services are often highly labour intensive, particularly of low-end labour.

4. A distinct rise in low-end wages relative to high end wages, probably a function of the above, and possibly flattening income distributions for the first time since the 1970s.

5. Inflation that is more stubbornly higher than consensus rhetoric – and no obvious reason why it should go down, leaving real rates negative. Did we mention the tight labour markets?

6. Irrational exuberance is back. The most stupid stocks have risen very hard this year. Fund managers who we thought were going to be liquidated are back raising huge sums at high fees with new, lower, high-water marks.

Numbers 1, 2 and 6 on the above list are important in explaining our returns both historic and future.

Shifts from goods to services

Bronte, for better or worse, has a bias towards companies that make highly engineered consumable goods. The team has two people with engineering degrees, two people with physics PhDs. This has historically been the source of consistent risk adjusted returns somewhat removed from cyclicality and we continue to believe this. On our recent research trip to the UK we spent two weeks picking through the wreckage of post-Brexit govt turmoil to find some wonderful companies.

This leaves us generally overweight goods over services. Our biggest winner during the quarter was Alphabet (Google) which sells advertising services, and Berkshire with its Apple stake. By contrast, five of the six largest negative contributions to our long performance sold goods. (The biggest negative contribution was Regeneron – which we will explain separately.)

One area that hurt was longs in technical products that help the conversion of grain to meat. For instance, we own companies that improve animal genetics (which is all about
We also own companies that supply additives for feedstock (also helping grain conversion).

To illustrate the sort of thing we own (and why it is down) with Genus, a very high-quality company that sells pig genetics (mostly in the form of semen). It’s largest market is China (as the Chinese eat vast quantities of pork) and where the economics is determined in large part by the ratio of pork prices to grain prices.

**Genus**

Genus is an English company that sell “genetically elite” breeding stock to commercial pork, dairy and beef producers. “Elite” simply means animals that convert grain to pork in a piggery or grass to dairy more efficiently.

Genus is the clear world leader in pig genetics. Genus (through the “Pig Improvement Company”) breeds superior pigs using conventional phenotypic selection and genomic prediction in extremely biosecure “nucleus” farms around the world, and disseminate their genetics usually in the form of fresh semen or a live breeding animal. Animals are selected for characteristics such as feed conversion, fertility, disease resistance and meat character.

Every year, the genetic merit of Genus’s animals has improved.

Selling semen as a service (SaaS) turns out to be a wonderful business:

1. The cost of semen is trivial (~$5 per dose) in relation to the total cost of pork production, but radically improves the producer’s economics.
2. It is a sticky business. Unless a competitor offers truly better genetics, there is no reason to risk your whole production.
3. Over 82% of Genus’s porcine volumes globally are sold under royalty agreements, which are less sensitive to the pork production cycle.
4. Genus benefits from several long-term tailwinds, such as global growth in animal protein consumption and technification of protein production.
5. Due to superior genetics, Genus have been taking share in a consolidating breeding stock market.

Unfortunately, China, by far the world’s largest producer (and consumer) of pork and one of Genus’s most important markets, is currently facing a significant but hopefully cyclical downturn. In 2021, the live pig price in China declined sharply and has remained below the cost of production for most producers for the better part of two years. Whilst margins are negative, producers are far less willing to replace/expand their breeding stock, or have decided to exit the market totally. This has suppressed the demand for Genus’s pig genetics.

To illustrate, here is a chart showing the ratio of the hog price to the corn price in China, which is used in the porcine industry as a proxy for production profitability:
Generally speaking, Chinese pork producers are break-even at a hog price 6x the corn price (or roughly 18 RMB/kg). As you can see, producers are still in loss-making territory and have been for most of the last two years.

The downturn has been driven primarily by three factors:

1. Lower consumer demand for pork due to COVID-19 lockdowns, placing downward pressure on the per-kilogram price of pork.
2. An oversupply of slaughter pigs caused by (producers’ fear of) widespread African Swine Fever, placing additional downward pressure on the price of pork.
3. A tight labour market and higher feed (corn) prices, significantly increasing the input costs (and break-even point) for most producers.

In the meantime, Genus have been investing to significantly increase their porcine capacity in China for when the live pig price and the confidence of the piggery owners returns. It seems a fair bet that the Chinese will continue to eat increasing amounts of pork over time.

Genus’s reported profits and cash flows have also been suppressed by a number of long-term strategic investments, including the development of a CRISPR-edited pig resistant to the Porcine reproductive and respiratory syndrome virus, arguably the most devastating disease affecting the porcine industry globally. Genus are expecting to complete their final submissions to the US FDA over the summer.

Between what we think is a cyclical downturn in the Chinese industry and a period of oversized investment in new technology Genus’s profitability has been suppressed. We are
confident that Chinese pig demand will increase. We are less confident that the CRISPR-edited pig will be a great success — though genetically edited corn has been an astonishingly profitable business for decades — and there is a better than even chance that Genus is on the beginning of a multi-decade upturn.

The stock has been a loser — but there is little here other than the share price — to indicate that we are on the wrong path.

We are also long other companies that provide additives or technology to improve grain to meat conversion. They have cyclically low earnings too, but we believe they are also superior businesses.

**Regeneron**

As explained in our June 2021 letter, Regeneron is a drugmaker who combine their ability to humanise the mouse genome and the largest genomic database in the world to develop new medicines, particularly monoclonal antibodies. The general public probably best knows them for the (then) experimental antibody cocktail given to President Trump when he had COVID-19, however their drug development record is far more extensive.

Historically the core drug at Regeneron is EYLEA – a drug injected into the back of the eye to treat wet age-related macular degeneration (AMD), the leading cause of blindness in old people. EYLEA is one of several VEGF inhibitors that have dramatically reduced the cliché of “old-and-blind”. For over a decade, EYLEA has been the preferred anti-VEGF treatment mostly owing to its less frequent dosing vis-à-vis other agents (it is typically taken once every eight weeks). It has been injected nearly 60 million times into peoples’ eyeballs since it was launched. Because blindness in old people is very expensive (think of the care costs), and EYLEA has significantly decreased the treatment burden for patients with wet AMD, Regeneron has been able to charge a lot for the drug. In Australia it is amongst the biggest single costs in our socialised pharmaceutical purchase scheme.

There are however other drugs – most notably Dupixent – a drug discovered by Regeneron, developed largely at Sanofi’s expense and hence half owned by Sanofi. This deals with a wide range of type 2 inflammatory diseases, including atopic dermatitis, and if all goes well will wind up being one of the largest drugs in the world by revenue (probably behind the GLP-1 agonists). Beyond that, there are other important drugs such as Libtayo, which effectively unblocks the immune system’s response to certain types of cancer. Regeneron plan to mix-and-match Libtayo with a wide range of other anti-cancer agents, and expect it to generate lots of revenue as these programs bear fruit.

The last year has been mostly extremely good for Regeneron with several pivotal trials producing very compelling results leading to actual and probable label expansions for Dupixent and other drugs across the portfolio. Perhaps the most important result was in March 2023. Regeneron and Sanofi announced phase 3 results which demonstrate Dupixent’s ability to treat chronic obstructive pulmonary disease (COPD). This is the first new approach to COPD in over a decade and is a potentially enormous market. By some measures COPD is the third leading cause of death worldwide. Dupixent is already a drug with over $10 billion revenue. It can and should be much larger.
However, the overwhelming issue with Regeneron as far as the market is concerned is that EYLEA is nearing the end of its patent/market exclusivity and is expected to face increased competition from various branded/generic agents. In the last decade, many attempts have been made to beat EYLEA’s dosing frequency but have generally not achieved the same visual gains.

Over several years, Regeneron developed a higher-dose formulation of EYLEA (aflibercept 8 mg) with the aim of reducing the treatment burden even further while maintaining the safety and efficacy of the original drug. According to the company, the drug was very difficult to formulate as the protein is viscous and must be injected into the eye.

In two pivotal trials, aflibercept 8 mg demonstrated that the vast bulk of patients on an 8-week EYLEA dosing regimen could be rapidly moved to, and maintained on, a 12 or 16-week dosing regimen using the high-dose formulation, with no change in efficacy or safety. Many of the patients in these trials achieved as low as two doses of the high-dose formulation each year. At this point, aflibercept 8 mg appears to have a truly best-in-class profile with patent protection that could last for many years to come. High-dose EYLEA should reduce the (considerable) costs of administering the drug, increase the overall safety and convenience of an anti-VEGF treatment regimen for a patient (by requiring fewer injections each year), and might improve compliance (thus reducing the number of blind people who need care). Regeneron should be able to charge for that.

Alas not all has gone well. Late in June, the FDA issued a “Complete Response Letter” to Regeneron in relation to high dose EYLEA. A Complete Response Letter is usually, though not always, a total rejection which means the drug will never see the market and stocks fall very sharply on Complete Response Letters. Immediately Regeneron became our biggest detractor in the quarter. This stresses us only a little.

According to the company, the rejection was “solely” due to an ongoing inspection at their contract syringe filler (which is now known to be Catalent), and the FDA did not identify any concerns with the drug substance itself, or the design of the pivotal trials. Our judgement is that Regeneron management have told the truth in the past – both positive and negative - and that they are telling the entire truth in this case.

If it is just a manufacturing issue the drug should be approved this year though we do not know when. Manufacturing issues with syringes that are injected into the eye are serious. Any mistake in sterility or otherwise would likely involve the client going blind – an unacceptable outcome.

Furthermore we believe Regeneron’s profit share from Sanofi will grow quickly, driven by Dupixent. Libtayo’s recent cancer approvals are a bonus.

As long as EYLEA sales don’t fall of a cliff prior to the high-dose version being available then Regeneron’s profits should continue to rise. And that is before a pipeline arrives that we think is very promising.
There is a question as to whether we should buy more Regeneron – but there are two concerns.

a) We are already very large in the stock.

b) There is a nightmare scenario where the manufacturing issues at Catalent for high dose Eylea also infect the current low dose product. This scenario is unlikely but would result in the new competitive products getting a large foothold and would thus sharply reduce medium term Regeneron profits.

The re-emergence of GoGo

The most interesting thing about 2023 is the complete re-emergence of speculative urges. We are short about 500 names, and alas in those 500 are many that have become new objects of speculation. We were short 19 stocks that are up more than 100 percent in the quarter. For the year that number is larger still.

The aggregate short book is not bad though – because we have over 500 shorts and many are down hard over the quarter too. This go-go period is not like early 2021 where almost the entire short book was misbehaving. Instead, there are violent pockets of irrational exuberance. Maybe with the real AI stocks (like NVIDEA) this is rational exuberance – but attached are a bunch of garbage companies touting AI capabilities and their prices are clearly irrational.

Periods of exuberance like this make us wonder how much we should do as George Soros counsels and run towards the bubble. But it is not in our chemistry. We never had the aggression of Stanley Druckenmiller – who recently disclosed he was massively long NVIDIA despite telling us in the same talk that markets were crazily over-valued. We are clearly not as good at this as Stanley Druckenmiller.

What we see now, by contrast, makes us fearful. The exuberance of retail and other more sophisticated investors piling into stocks with very limited substance feels eerily similar to mid-2021. And when we question them on a stock they have been known to retort “okay boomer” as if someone as old (and boring) as us could not possibly understand the wonders of the new technology they tout.

Back in early 2021 we said this:

You, dear clients, however have a choice to make – and we will understand if you make it. Our recent results are not good; but we believe our future will be better, for this period too will end. However, perhaps you possibly know a young manager who has earned well over 100 percent this year. You might want to take your money there. It pains us to say this – but given our results we will understand if you do. And maybe it will work. But it comes with a warning. Of the tens of millions of people who have come to the market in the past year or so and are up big, some will be great – but most will be this cycle’s go-go victims. For them 80-95 percent losses beckon.
March 2021 proved to be a turning point and began 18mths of success in our short book. We continue to see substantial opportunity in our current book despite, and possible due to, these animal spirits and, with the right risk management, it is there to be harvested.

Thank you for your ongoing support.

Bronte Capital