

## Our guiding principles:

- Transparency & alignment of best interests with our fellow shareholders
- Adherence to our investment philosophy and process
- Independence of thought in order to avoid the market herd
- Focus on costs: management fees capped, low stock turnover

## Investing using Mental Models:

*“You can’t really know anything if you just remember isolated facts and try and bang ‘em back. If the facts don’t hang together on a latticework of theory, you don’t have them in a usable form.”* Charlie Munger

Dear fellow shareholders,

The latticework of theory, to which Charlie Munger refers is that of Mental Models. We all use mental models in our daily lives as we are constantly required to make decisions. These models lead us to develop heuristic simplifications, more commonly referred to as ‘rules of thumb’. These can be very useful to help us function as humans and make life easier. However, problems arise when these rules lead to lazy thinking or even point us in the wrong direction. For 3,000 years the practice of blood letting was used to treat a wide variety of ailments based on the four humours of the ancient world. Such blood letting is thought to have led to the demise of both George Washington and King Charles II. The theory, upon which this practice was based, was only disproved during the last couple of centuries. It is easy to look back and laugh at history; but who knows what our descendants will think of our current practices in a hundred years?

This should make us wary of maintaining an unquestioning confidence in our beliefs. In economics, it has consistently been proven that protectionist regimes impact the protector’s economy the most. Indeed, the International Monetary Fund (IMF) has recently produced a paper showing that following the trade war between the US and China, the US trade deficit increased in 2018 by over \$40bn and now stands at over \$400bn. Politically, the President who defends America sits well with many voters. However, the economic reality brings a very different conclusion. Here, the political rule of thumb trumps the economic one, raising prices and lowering the standard of living for the people of America.

Investing is no different to medicine or economic theory. So over the next few investor letters, we will continue to set out our thoughts on how we use mental models when investing. Indeed, the last four investor letters have already covered one of the most important mental models we use in investing—Measuring the Moat. It has proved very useful as it helps us to think how the companies in which we invest manage to earn superior returns and protect themselves from competition. Not only are they doing something different from their peers, they are developing a structure to help maintain their competitive advantage over time.

One mental model used by most of finance is the ‘diversification of risk’. Here virtue is given to increasing the number of companies owned in a fund. The simple theory states that non-systematic risk otherwise known as ‘single-stock’ risk is reduced the more positions a fund holds. Intuitively, this makes sense. Assume a fund is fully invested with ten stocks equally weighted i.e. a 10% weighting for each company. As the number of companies in a fund increases, the weighting to a particular stock reduces. So if another ten stocks were added, again equally weighted, each stock would now represent only 5% of the fund. The logic continues that if something bad were to happen to stock A, then with only a 5% weighting, the fund would be less negatively impacted. This logic is hard to dispute. However, this mental model of diversification is so often taken too far.

Academic research carried out by Edwin Elton & Martin Gruber and published in ‘Modern Portfolio Theory & Investment Analysis’, highlighted that ‘whilst an increase in the number of stocks in a portfolio did reduce volatility, beyond 20 stocks the effect was minimal.’ As an aside, we believe that volatility is a terrible measure of ‘risk’, but that discussion concerns another mental model and is for another day!

Yet, too many investments dilute your best ideas. Competition for capital in a portfolio, we believe, is a critical aspect in managing money successfully over the long term. We appreciate that some diversification can reduce investors’ risks, however there is a point in which increasing stocks to a portfolio can dilute your best ideas. What is more important—owning more companies or knowing more about the companies one owns? It is no co-incidence that we have set our range of companies in our fund between 20-30. This allows us to invest with conviction, whilst reducing stock specific risk.

It is difficult to believe that this letter is our seventeenth letter to our fellow investors, since we launched our fund in January 2015. We really appreciate that our investors understand we are investing in businesses for the long term and not share prices for the short term.

Thank you for your continued support and patience.



**The value of investments can fall as well as rise & you may not get back what you invest.**

**Past performance cannot be relied upon as a guide to future returns. This newsletter should not be construed as investment advice.**

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**Avon Rubber**

Described as a 130 year old business but a 10 year start up, Avon Rubber is a good example of the benefits of simplification and focus in a business. Ten years ago it was struggling, having spread itself too thinly across businesses. A change in approach sees it today focused on two seemingly separate businesses, linked through its rubber polymer technology—Respiratory Protection and Milking products for Dairy cows! This focus has brought many rewards for shareholders, as having developed industry leading positions in both Protection (70% of the business) and Dairy (30% of the business), growth and profitability have both been strong over recent years.



Source: Avon Rubber 2019

As we have explained in previous letters, management teams should prioritise making returns above the cost of making those returns and only then look to grow the business. Eventually there is always a trade off between returns and growth; but where a company can grow strongly whilst creating a positive 'returns spread', investors can do very well indeed! Over the last several years, Avon has been just such a company. So how has it managed to achieve this? Our series of articles on 'Measuring the Moat' highlighted Switching Costs, both real and perceived, as helping to protect businesses from competition.

This appears to be the case particularly for Avon Rubber in its Protection business. It manufactures respiratory protection devices for both the Department of Defense (DoD) in the US and the Ministry of Defence (MoD) in the UK. These devices can protect the user from Chemical, Biological, Radiological and Nuclear threats. The armed services need to be very confident that any respiratory device will provide protection for its personnel against enemy agents in hostile environments. Avon has secured such trust with its clients. In an increasingly uncertain world, demand for Avon's protection products has understandably been strong. Recent contract wins for Avon suggest this situation is unlikely to change soon.

Understanding how contracts are normally awarded also shows how high the switching costs are for Avon's customers. Government agencies normally award contracts on at least a dual source basis. In other words, they tend to prefer to rely on multiple suppliers to ensure both continuity of supply and a competitive pricing dynamic.

However, with some of Avon's contracts with the US DoD they are sole source contracts. This underlines the special relationship that Avon has developed with these agencies. Avon owns the intellectual property for its technology, used in these contracts. The DoD has already admitted that were it to develop such technology on its own it wouldn't get the payback required to make it worthwhile. Such a dynamic can only help to elevate the switching costs in the minds of Avon's customers.

In many ways this is similar to Victrex the speciality chemical manufacturer we mentioned in our last quarterly letter. When customers of both Avon and Victrex come to them requesting they develop further applications, it shows the value these businesses are creating for their customers and how it further protects their competitive positions.

Turning to its finances, Avon has lots of cash on its balance sheet and no debt. Business analysts often term such businesses as being in a 'net cash' position. As we have mentioned, we prefer businesses that don't have to rely on debt to elevate their returns. Nearly half the companies in our Fund maintain more cash than debt on their balance sheets. We like this. It means firstly that these businesses don't need debt to deliver a higher return on equity compared to the market. It also allows them greater flexibility to use debt wisely if required, both opportunistically and in dealing with any bumps in the road. Highly indebted companies have much less 'wiggle room' in this regard.

**Portfolio activity & Quality table**

Given continued political uncertainty in the UK Parliament and Brexit we made the decision to reduce our positions in Serco and Capita which accounted for around 9% of the portfolio value, by half. A Labour government would favour taking many contracts 'in-house' to the detriment of the outsourcers and we reduced our position sizes until there is greater clarity. Victrex has been weak in recent months and we have been actively adding to our position.

The quality table continues to reflect a significant premium in returns of our companies in aggregate compared to the broad market excluding financials. The free cash flow yield of our fund highlights that our portfolio of higher quality businesses is also more attractively valued than the market which contains many businesses we deem sub-optimal from an investment perspective.

Quality Table	Castlebay Fund	Market
Return on Equity	43%	25%
Operating profit margin	23%	14%
Net debt to equity	56%	101%
Cash conversion	105%	101%
Free Cash Flow yield	4.2%	4.0%

Source: Valu Trac 31 MAR19

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