HEPTAGON Capital

Future Trends: Quarterly Update
Q4 2020

The Heptagon Future Trends Fund has a very clear and distinct philosophy: we seek to identify and invest in a diverse range of businesses offering exposure to the key trends which we believe will help shape the future. The strategy has delivered consistent outperformance since inception in January 2016, gaining 135.5% versus a 89.2% return for our MSCI World Index benchmark. Despite exceptionally volatile markets, the Fund gained 29.8% in 2020 and outperformed its benchmark in all four quarters of the past year, placing it over 13pp ahead of the MSCI World. Such outperformance was achieved with limited changes to the portfolio, with no trades in new names executed during the past quarter. Importantly, when we look ahead, we believe that both near- and long-term prospects for our businesses remain more attractive than ever.

Willing to hear the future

Did anyone see the global coronavirus pandemic coming? What about its impact on global economies, the response from policymakers and how we have all had to adapt to the new reality of lockdowns and heightened health risks? The key point here is that ***it is very hard to predict the future.*** We claim no particular expertise in this respect, but are reminded regularly of the line from the late David Bowie that "the future is coming… to those willing to hear it." Where we try and differentiate ourselves is in trying hard to *listen*. The more you listen, the more you learn. Consider also the famous line of Socrates (another of your manager's heroes): "the unexamined life is not worth living."

In practical investment terms we can translate the above as follows: we have always had (and will continue to have) **a diversified pan-thematic approach to investing.** We can't predict the future, but in making more 'bets', we are increasing the chances of getting things right, we believe. Further, we are of the view that many of the trends about which we write naturally overlap, and as they do so, they become mutually reinforcing. The other crucial point is that we never stop learning. To this end, we published five new pieces of thematic work in 2020 (on solar, 5G, hydrogen, edtech and data), as well as our annual piece on the key trends to watch for the year ahead. Additionally, 50 posts were added to our Future Trends Blog.

The key take-away from 2020 was, in our view, that when the facts changed investors also needed to. Consider that *almost every conventional economic norm was broken* as evidenced by the speed of both the decline and the subsequent recovery. From a Future Trends perspective, we made two notable pivots. First, in March 2020 – when virus fears were at their most elevated – we added two new names to the portfolio. One of these – Chegg, a leading player in online education – proved to be our best-performing investment in 2020, while the other (Avast) delivered a solid 37% return from our initial purchase. Fast-forward to November and the news of the first vaccine proving effective for coronavirus. Within days of this announcement, we had rotated the portfolio, taking profit in some of our best-performing names and reallocating to businesses which we felt would be well-placed from the gradual reopening of economies such as MOWI (a salmon producer geared to the restaurant and hospitality trade) and Mastercard (a beneficiary of cross-border travel among other factors).

Importantly, to reiterate, throughout the course of 2020 (and indeed since inception), the Fund has always emphasised the importance of pan-thematic diversification. Regular readers of our commentaries will be familiar with the mantra that **we invest in everything from wind to cloud and fish to (semiconductor) chips. It is this diversification, we believe, that has enabled us to outperform in most market conditions**. A review of either the top-performers in Q4 or 2020 would speak to the benefits of such an approach. During the past quarter, our best-performers were Zebra, First Solar, Keysight, Vestas and TomTom. These businesses operate, respectively, in the fields of automation, solar power, 5G network testing, wind turbines and mapping databases. Vestas and First Solar both also feature in our list of top-performers for 2020, along with Chegg, PayPal and Daifuku, which operate in the fields of online education, digital payments and automation.

In a year such as 2020, the benefits of truly active management were also highlighted. We were pleased to see that the Fund lost less money than its benchmark did during the worst month of the year (March; -10.7% vs -13.2%) and then outperformed in the subsequent month (11.2% vs 10.9%). Further, despite the massive shift from 'growth' to 'value' that occurred in November – the largest since 2009, per Bloomberg – the Fund captured over 85% of the market's upside during this period. As we will discuss in more detail later in this commentary, **the Fund succeeded in outperforming in all four quarters of 2020** and has only witnessed two quarters of underperformance relative to its MSCI World benchmark since the start of 2017.

We are also pleased that **we have been able to deliver consistent outperformance *without* having any major exposure to the FAANG complex of mega cap tech stocks**. The Future Trends Fund has *never* owned Apple, Facebook, Netflix or NVIDIA, and exited from both Alphabet (Google) and Amazon during the 2018/19 period. We retain some (a less than 4% weight) exposure to Microsoft and note that the business is now both cheaper and better positioned than it was two decades ago. It is not the case that any of the other above cited businesses are 'bad', simply that we are wary of investing in 'popular' stocks just for the sake of it (i.e. following the herd), particularly when there are many other exciting comparable investment opportunities available. Beyond being pan-thematic, **the Future Trends Fund has a very high active share**, equivalent to over 95%. Looking forward, we expect this to remain the case.

Recent thematic work: Beyond the Digital Rubicon

Proprietary thematic work represents one of the key differentiators in our investment process. We have published over 50 pieces of thematic work since 2011, all of which may be found on Heptagon's website. During Q4, we published our latest thinking on the evolution of our core data deluge thesis (which we first discussed in March 2011) as well as our key themes for 2021 and beyond. Rather than repeating these commentaries, we thought it worthwhile to reproduce our 'bigger picture', or longer-term perspective on the future, which appeared first in our seventh annual thematic compendium in November 2020. For readers who have not received a copy of this, please ask your Heptagon representative.

The COVID-19 pandemic has changed how we look at the world. Maybe it was just a matter of time, but the unforeseen events of the past months have served only to accelerate the inevitable. We have all been compelled to rapidly learn and adapt. 2020 has served as an effective crash course in working from home, e-learning and telemedicine among countless other activities. Necessity, long acknowledged as the mother of invention, has been a crucial driving force.

Consider that demand for Microsoft Teams expanded from 32m daily users to 44m in the first week of lockdown was enforced in March. Meanwhile Zoom reported in April that the peak number of users of service use was 30 times the level it had witnessed in December 2019. In the annual 'what happens in an Internet minute' infographic (which can be viewed courtesy of Visual Capitalist), every 60 seconds some 208,000 participants are currently hosted in Zoom meetings while Teams connects more than 52,000 users. Despite these impressive statistics, what perhaps is more interesting is the observation made by IBM that some **79% of companies say that the disruption of coronavirus has underscored the immaturity of their digitalisation**.

We have long argued **that information technology can transform industries by making scarce resources (more) plentiful,** forcing customers to rethink the value of established (and often physical) products. In May 2020 we issued our Digital Rubicon thesis. Once Julius Caesar had brought his 13th legion over the Rubicon river – at the time, the northern boundary of Italy – *there was no turning back*. In a similar vein, we doubt there will be much turning back from the behaviours that 2020 has induced. Habits formed in the past months will become (or may have already become) so entrenched that they will be difficult to undo. **We are digital by default.** Or, as Daniel Zhang, Chief Executive of Alibaba recently put it, "being online is no longer an option… it is a necessity… the new normal."

Our key consideration that logically follows is to contemplate what may happen when we go *beyond* the Rubicon. Think of it as an extension to our thesis; a full-scale shift, or more profoundly, a novel way of how we look *forward* rather than think back to the past; an abandonment of more traditional ways of thinking.

Context is important. We are reaching the limits of what is currently possible as we seek to extract ever more from finite resources. Future systems or scenarios, therefore, need to embrace new modes of production. Put simply, **the world needs to shift from extraction to creation**. We are by no means the first to make this observation, but consider perhaps a new paradigm based around *building up* from the likes of DNA and other molecular structures - the antithesis of *extracting resource* from fossil fuels, materials, animals and even humans. **The future may be built around the exchange of knowledge**; or, knowledge as the crucial commodity.

In this future world view, **technology is crucial**. As we have argued previously, **as different technologies overlap, they coalesce and become mutually reinforcing**. When such outcomes are applied to meta-problems or mega-trends, they become even more powerful. Consider batteries as just one case study. As they improve (and costs fall), so demand for, and investment in, electric vehicles should rise. Similarly, when batteries become competitive in the electricity storage market, this should boost the outlook further for solar and wind energy. In turn, this would increase demand for more grid storage, driving further improvement in battery capabilities at a lower cost. This would correspondingly improve the competitiveness of electric vehicles relative to their fossil fuel counterparts. And so, it is easy to see how a virtuous circle is created.

If ever there were a time for such developments to accelerate then it would be now. **"You have to be willing to be misunderstood if you want to innovate"**, as Jeff Bezos Chief Executive of Amazon once famously said. Do not forget that a third of the planet is under 20 and half under 30. All are digitally native. The young are a proxy for the future. **Disruption is about creating new markets from scratch. Tomorrow's winners *may not even exist yet.***

Many 'experts' and insiders have traditionally been dismissive of opportunities. Luddites could not conceive of how the automobile might replace the horse drawn carriage. Remember also the scepticism that greeted the launch of the first iPhone in 2007 (and contemplate also Nokia's subsequent fall from grace). To the extent that we are in the business of making predictions, if the 2010s was the iPhone decade, then **the 2020s may be marked by artificial intelligence** (AI). Even if this *may* sound as unimaginable to us now as working remotely on an iPhone did a decade ago, AI will almost certainly play an increasing role in our lives. It will be gradual but expect it to become more and more embedded. **The future may be 'BASIC'**, comprising the combined and interlinked power of **blockchain, AI, security, IOT (the Internet of Things) and cloud**.

The uses to which these technologies can be applied are almost endless. Steven Pinker, the well-known academic and psychologist, has long and forcibly argued that the application of new insights to science and medicine should have the power to deliver increments of understanding that would lengthen and enrich all our lives. Self-learning algorithms may spot connections that would otherwise go unnoticed by manual human analysis, allowing for better decision making.

While the world has undoubtedly made much progress in recent years, **there is still a lot to be done.** The proportion of people living globally in extreme poverty has halved in the last 20 years. At the same time, deaths from hunger are down 98% in the last 100 years, despite the world's population being four times larger. This is admirable, but do not forget that over 2bn people still do not have access to safe drinking water. At the same time, more than 250m continue to face food insecurity. The United Nations – the source for the above statistics – estimates that to achieve its 17 Development Goals by 2030, some $5-7tr will need to be spent annually.

It all, therefore, comes back to innovation. We note the forecast by Microsoft that **technology spend as a percentage of GDP is projected to double over the next decade**. What matters most? Different surveys, perhaps unsurprisingly, point to varying factors when trying to capture the world's most innovative countries/companies. To the extent that there is common ground, we would highlight research and development intensity as being crucial. What this means practically is a combination of advanced tertiary education and high-quality universities producing researcher concentration and patent activity (enshrined in an established and accepted regulatory framework).

Do not forget that in a (fully) digital world, globalisation, urbanisation and the sharing economy *may* go into reverse, simply because **digitalisation knows no boundaries**. Logically, then, **key industries such as technology and healthcare will likely become increasingly important national security concerns** in both the West and the East. In terms of direction of travel, we note China already holds three times as many blockchain patents as the United States and is the world leader in terms of the number of AI patents filed, venture capital invested and academic research papers cited (per 13D Research). As we highlighted earlier, tomorrow's winners may not be today's current leaders. The onus is on big companies to demonstrate that they can successfully sustain their current pace of innovation.

To the extent that all the above translates into actionable investment views, two crucial points emerge in our view. First, **a diversified pan-thematic way of getting exposure to the future makes the most sense**. Even if trends do increasingly overlap, they will likely develop at different speeds. Second, **the businesses that will most likely prosper will be those that are able to out-innovate most successfully**. If nothing else, the future will certainly not be dull.

Fourth quarter performance

Future Trends gained 15.9% during the fourth quarter of 2020, beating the MSCI World's 14.0% rise. The Fund has therefore outperformed in all four quarters of 2020, a very strong demonstration of its robustness across highly varied market conditions. More importantly, **in the 20 quarters since the Future Trends Fund has been live in its UCITS format, the Fund has outperformed in 15 of these.** Further, as the table below highlights, since the start of 2017, the Fund has only witnessed two quarters of underperformance (Q4 2018 and Q3 2019). For the record, 2020 saw the Fund gain 29.8% (vs 15.9% for the MSCI World) and since inception, Future Trends is up 135.5% (vs 89.2%).

Period	Future Trends	MSCI World	Relative
Q1 16*	3.8%	6.1%	-2.3%
Q2 16	-2.4%	1.0%	-3.4%
Q3 16	10.4%	4.6%	+5.8%
Q4 16	-6.9%	1.9%	-8.7%
Q1 17	10.8%	6.4%	+4.5%
Q2 17	12.0%	4.0%	+7.9%
Q3 17	7.5%	4.8%	+2.7%
Q4 17	6.2%	5.5%	+0.7%
Q1 18	0.0%	-1.3%	+1.3%
Q2 18	2.7%	1.7%	+1.0%
Q3 18	5.4%	5.0%	+0.4%
Q4 18	-14.5%	-13.4%	-1.1%
Q1 19	16.1%	12.5%	+3.6%
Q2 19	5.8%	4.0%	+1.8%
Q3 19	-1.2%	0.5%	-1.7%
Q4 19	9.5%	8.6%	+1.0%
Q1 20	-16.6%	-21.1%	+4.5%
Q2 20	24.0%	19.4%	+4.6%
Q3 20	8.3%	7.9%	+0.4%
Q4 20	15.9%	14.0%	+1.9%
From launch	**135.5%**	**89.2%**	**+46.3%**

**From Fund launch to end of quarter (12/1/16-31/3/16)*

Source: Heptagon Capital, Bloomberg. As of 31 December 2020. All figures shown are net of fees for the C USD share class.
Past performance is no guide to future performance, and the value of investments and income from them can fall as well as rise.

During both the fourth quarter and since the start of the year, **there has been strong alpha within the Future Trends portfolio**, with 15 of the 23 businesses currently in the Fund placing ahead of the MSCI World (assuming we had held them from 1 January 2020). As ever, there has been significant dispersion across the portfolio, with three of our names (Chegg, PayPal and Vestas) all gaining over 100%, and four businesses closing down in absolute terms, although none by more than 17%. Importantly, the fact that Chegg, PayPal and Vestas operate in very different industries (online education, digital payments and wind turbines) speaks to the pan-thematic nature of the Fund.

Chegg was the Fund's stand-out performer, gaining 138.3% in 2020 (and 149.1% since our initial purchase). The business benefited from strong demand for its services and Chegg raised its financial guidance three times during 2020. Despite the strong outperformance from the business, the runway ahead for Chegg is significant, particularly as it expands its footprint internationally and moves up into the market segment of adult skills-based learning. Similar to Chegg, PayPal consistently raised its financial guidance during the course of 2020. The business continues to be at the forefront of innovation and has benefited from its pioneering expansion into areas such as Bitcoin ahead of other peers. For Vestas, outperformance was a function not only of consistent operational execution, but also growing expectations that it (and other renewable businesses) would be a beneficiary of increased 'green deal' and other related initiatives as part of government expenditure packages.

Vestas and Chegg were also among the best-performers of the Fund during Q4, gaining 39.8% and 26.4% respectively, although the stand-out performance went to Zebra Technologies, which added 52.2%. Zebra, the market leader in the field of automatic data identification and capture reported an exceptionally good set of results in early November and raised its financial guidance. We caught up with the company's CEO at two investor events in December and its messaging on the outlook remains highly positive. Overall, 11 of our 23 businesses outperformed the MSCI World in Q4.

At the opposite end of the spectrum, Alibaba was the Fund's worst performer during Q4, losing 15.6%. For context, however, the business closed 2020 up 12.3% and so only slightly underperformed the MSCI World (15.9% higher). The operational performance of Alibaba has been at least in-line with our and other investors' broad expectations, with the main reason for underperformance attributable to the increasing concern that regulators may intervene more actively in the running of Alibaba's business going forward. The past quarter provided strong evidence in this respect, with the IPO of Ant Financial (where Alibaba is the largest shareholder) blocked by the regulator. Subsequent to this, the Chinese government announced plans to implement a broader review of the company's competitive practices. Even if regulator does become more stringent (and we expect Alibaba to cooperate more with the government going forward), we see Alibaba's growth prospects at both the revenue and EBITDA level as being superior to its international peers, with its valuation currently more compelling. Position sizing is also key, with Alibaba currently at a 3.1% weight in the Fund.

Portfolio changes

The philosophy of the Future Trends Fund emphasises low turnover. To this end, we made no name changes to the portfolio during Q4. As mentioned earlier, the major change we did implement over the past quarter was to rotate *within* the Fund, adding to names that had underperformed on a relative basis and could benefit from a potential reopening of economies globally, while simultaneously taking profits in our best-performing businesses. For context, MOWI – our worst-performer in 2020, down 16.3% - is currently our fourth-largest position in the Fund. MOWI re-entered the top-five in November, having last featured in the Fund's top-five in January 2020.

By way of recap, the major portfolio changes we made during 2020 were –

- **We added Avast (cybersecurity) and Chegg (online education) to the portfolio in March 2020 at the nadir of the pandemic.**
- **We sold out of FANUC and Jungheinrich in June 2020 and added Daifuku as a replacement.** We see Daifuku as a superior way of gaining access to the same themes (automation and robotics). Daifuku added 42.5% relative to our initial purchase.
- **We sold out of Illumina in September 2020 and replaced it with Thermo Fisher.** Our concerns over Illumina related to its proposed acquisition of Grail, a cancer business, which we felt made little business/financial sense. Thermo is a business we had followed for some time and offers broad exposure across the life sciences sector.

A more detailed rationale for these trades (and the others made) can be found in our previous quarterly commentaries issued over the course of 2020. For the record, the Fund currently has 3.3% cash, having averaged ~3% over the past quarter.

SRI considerations

A policy of responsible business investment is integral to the investment philosophy and process of the Future Trends Fund. Integrating ESG principles into our investment process enhances our ability to understand existing and potential risks and opportunities for potential portfolio companies. The businesses we invest in naturally align with the United Nations Sustainable Development Goals. Examples of trends to which the Fund is exposed include alternative energy, food innovation and healthcare solutions. At the same time, the Fund will not invest in areas such as fossil fuel extraction, tobacco, adult entertainment, gambling, civilian firearms, weapons and nuclear power. From a governance standpoint, the Fund also avoids businesses with questionable accounting and/or governance practices, favouring transparent boards and non-dual share class structures. We published our latest ESG report in October 2020 and our next edition is due later this month.

ESG considerations constitute a crucial discussion topic in almost all our management meetings and we believe it behooves us as a responsible manager of assets to push our businesses on how and where they should be improving their strategies. The final quarter of the year marked a continuation of our ongoing interaction with company management teams. Over the three-month period ending 31 December 2020, we met virtually with 19 management teams, including 13 from within our portfolio. **During the past year, we partook in over 70 meetings,** slightly more than in 2019. As a sign of the times, however, just 7 of our 2020 meetings took place in person relative to over 50 in the prior year; the remainder were virtual. Importantly, we have met live and/or spoken with all of our portfolio holdings over the past 12 months with the exception of Alibaba (although we attended its virtual capital markets day in September 2020).

Of particular note from our interactions with businesses during the past quarter was our conversation with Thermo Fisher, our newest addition to the Fund. In our conference call (with senior Investor Relations), Thermo highlighted that ESG is “deeply embedded” in its culture, even if this is not always enunciated formally and externally. Some of this disconnect stems from the decentralized nature of the organization, which means that not all data (for example, on employee diversity) is collated. However, going forward, Thermo emphasized that we should expect to hear more on its ESG progress and that it had indeed recently completed its first materiality survey.

Conclusion

The approach we continue to take in managing assets within the Future Trends Fund emphasises a focus on the long-term. This enables us to step-back from more immediate noise, however uncertain and concerning the impact of COVID-19 continues to be from both a human and economic perspective. We derive reassurance from the fact that **our businesses have above-average growth prospects, markedly higher free cashflow-generating potential and more robust balance sheets relative to the overall market**.

As of 31 December, the weighted average three-year compound annual growth rate of revenues for the businesses within the Future Trends Fund is 8.5%. This is markedly ahead of the estimate for the MSCI World (of 3.5%, per Bloomberg) and also slightly higher than a quarter prior (8.2%). A similar differential is revealed when analysing free cashflow growth, with the growth rate of the Future Trends Fund being approximately double that of the MSCI World. Our businesses also have markedly healthier balance sheets, averaging net debt/EBITDA of 0.6x, versus an average of 1.9x for the MSCI World.

We believe these metrics help both explain and justify the valuation premium the Future Trends Fund commands relative to the MSCI World. Our businesses trade on 30.0x forward earnings (using a weighted average multiple, once again), which compares to a figure of 19.8x for the MSCI World. This is equivalent to a 10.2 percentage-point premium. While this implies more elevated valuation levels than a quarter prior (where the premium stood at 7.2pp), the Fund has traded at over a 10-point premium to the market at other periods since inception (December 2017 to February 2018 and May 2018 to August 2018). One final comment on valuation, which is especially pertinent when considering a strategy such as Future Trends. The next couple of quarters matter markedly *less* than what may be implied for 2021, 2022 or even on a 10-year view. On this basis, our average business is ~20% undervalued using discounted free cashflow analysis.

Overall, we remain pragmatic and opportunistic, constantly conducting research into new themes and businesses while continuing to assess current ones. Our aim – beyond delivering consistent returns – is to strike a strong balance in all respects of our portfolio through diversified thematic exposure to industry leaders benefiting from future trends.

Thank you for your interest in and support of the Heptagon Future Trends Equity Fund.

Alexander Gunz, Fund Manager

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For all definitions of the financial terms used within this document, please refer to the glossary on our website: https://www.heptagon-capital.com/glossary

Risk Warnings

The Fund is subject to special risk considerations including geographic concentration risk, portfolio concentration risk and operational risk. The investment return and principal value of an investment will fluctuate so that the investor's shares, when redeemed, may be worth more or less than their original cost. Any investor should consider the investment objectives, risks and charges and expenses of the fund carefully before investing. Where an investment is denominated in a currency other than the investor's currency, changes in rates of exchange may have an adverse effect on the value, price of, or income derived from the investment.

Heptagon Capital LLP, 63 Brook Street, Mayfair, London W1K 4HS
tel +44 20 7070 1800
fax +44 20 7070 1881
email london@heptagon-capital.com

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