BB Healthcare Trust

Monthly News
January 2021

Marketing document

As at 01/31/2021	Value	1 Month (January)	YTD	Since Launch (ITD)
Share	181.50	2.3%	2.3%	96.4%
NAV	179.53	2.5%	2.5%	97.9%

Sources: Bloomberg & Bellevue Asset Management (UK) Ltd., 31.01.2021, NAV and share price returns are adjusted for dividends paid during the period (but not assuming re-investment). Full performance data is on page 7.

Note: Past performance is not a guide to future performance. The value of an investment and the income from it may fall as well as rise and is not guaranteed.

Welcome to our January update. Here in the UK, the national mood broadly reflects the weather; overcast and somewhat changeable. Inasmuch as one could dwell upon the many negatives, there are some positives to take away: the pandemic is again in abeyance and vaccinations continue to roll out smoothly.

The picture elsewhere continues to be mixed, but California is opening up again and the US overall looks to be moving in the right direction. Early data from Israel supports the idea that normalisation is possible; a question of 'when' rather than 'if'? On timing, there does seem to be a little more circumspection on that topic than four weeks ago, which has dampened investor sentiment in the latter days of the month. Will the market persist with its exculpating tendencies, or will we see a material re-basing of expectations?

Summary

BB Healthcare Trust Ltd is a high conviction, unconstrained, long-only vehicle invested in global healthcare equities with a max of 35 stocks. The target annual dividend is 3.5% of NAV and the fund offers an annual redemption option. BB Healthcare is managed by the healthcare investment trust team at Bellevue Asset Management (UK) Ltd.

Monthly review

The wider market

The MSCI World Index' seemingly endless rise finally came to an end in January, with the Index closing down 1.1% in dollars. However, this cursory statistic belies the reality; the Index made another all-time high on 8 January and again on 21 January, rising as much as 3% above the 2020 year end. However, this momentum stalled in the third week of the month and then reversed.

One could attribute this reversal of momentum to any number of factors and, in all probability it is their confluence that tipped sentiment negatively; the pandemic is doubtless slowing, but not at the pace many hoped for and lockdown easing is not imminent in most places. Vaccine rollouts are patchy and supply looks like a major constraint for months to come. In addition, we have seen mixed initial trading updates/outlook statements for Q4 2020 and FY21.

Finally, there is the great Reddit pile-on, where a day trading flashmob has scoured 13-F filings and decided to teach some big hedge funds a few lessons, beginning with a failing retailer called Gamestop that has become a household name and millionaire minting factory literally overnight. This has rightly scared many a rational investor and we have seen significant de-grossing on the hedge fund side, which leads to popular shorts (i.e. generally lower quality companies) outperforming as the funds look to close out those positions.

It is a weird market dynamic indeed when the Automobiles and Components lead the charge amidst a pandemic (most of it was Tesla to be fair, but Ford and GM climbed 20% this month as well). This month's laggards were Consumer and Professional Services (-5.6% and -4.3% respectively) and Food, Beverage and Tobacco (-4.6%). After Autos, it was Semiconductors and Energy in the green. What happens next is anyone's guess. Will the Reddit pile-on continue? Is risk on or off in this market? It feels more uncertain than ever.

Healthcare

Healthcare was not immune to the de-grossing phenomenon and we saw a few stocks reverse their recent shorter term trends. The sector overall was a safe port in this volatility storm. Although some of the strong gains seen early in the month faded, the end result was nonetheless positive, with the MSCI World Healthcare Index rising 0.6% in sterling terms (+1.0% in dollars).

The sub-sector performance is summarised in Figure 1 below. Interestingly, the defensive Tools names performed very well, as did Diagnostics. This was driven mainly by positive Q4 20 pre-announcements and better than expected (for the market at least) guidance for 2021. As we have noted before, the COVID-testing boon will abate, but not in the current year. The lower acuity settings in Med-Tech and Dental underperformed, as did Facilities amid growing some circumspection around the pace of normalisation.

BENCHMARK SUB-SECTOR PERFORMANCE AND WEIGHTINGS

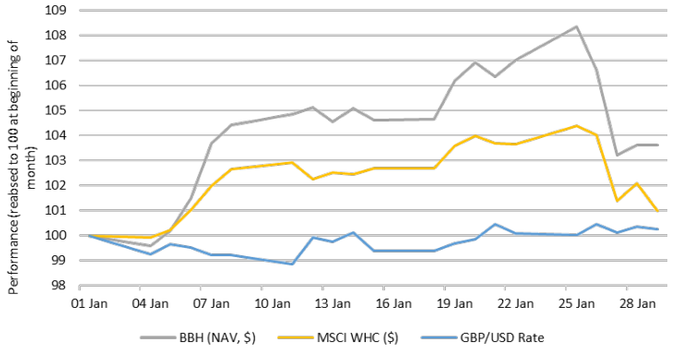
Sub-Sector	Weighting	Perf. (USD)	Perf. (GBP)
Diagnostics	2.4%	9.4%	8.1%
Tools	7.8%	6.4%	6.0%
Conglomerate	12.0%	5.6%	5.1%
Healthcare IT	1.9%	3.1%	2.6%
Healthcare Technology	0.8%	2.4%	2.0%
Distributors	1.2%	2.3%	1.8%
Services	2.6%	2.2%	1.7%
Generics	0.6%	-0.2%	-0.6%
Diversified Therapeutics	33.9%	-0.1%	-0.6%
Facilities	1.1%	-1.4%	-1.7%
Dental	0.8%	-2.4%	-2.9%
Med-Tech	16.2%	-3.5%	-3.8%
Managed Care	8.9%	-3.8%	-4.2%
Other HC	1.4%	-6.3%	-6.7%
Index perf.		**1.0%**	**0.6%**

Source: Bloomberg/MSCI and Bellevue Asset Management (UK) Ltd. Weightings as of 31-12-20. Performance to 31-01-21.

Managed Care has been a laggard, which is frustrating. There continues to be some reservations around the political outlook and company guidance has been conservative. Provisions for this, that and the other are well and good, and may well prove justified. A cursory glance at a cash flow statement shows the reality. These companies have done well through the pandemic and slower than expected normalisation could well boost profits again in 2021.

The Trust

The keen reader would expect the overall narrative described in the preceding paragraphs to be a positive one for our relative performance, and this was indeed the case. The Trust's NAV rose 2.5% to 179.53p, outperforming the MSCI World Healthcare Index by 1.9%. The evolution of the NAV over the month is illustrated in Figure 2 overleaf. Like the wider market, we gave up a significant amount of both relative and absolute performance in the closing days of the month. The FX environment was very benign.



Source: Bloomberg and Bellevue Asset Management (UK) Ltd.

Excluding the Alder ADR, the investment portfolio increased from 27 stocks to 29, with additions in both the medical devices and healthcare IT spaces. We continue to stick to the upper end of the acuity curve (i.e. emergency or high priority procedures) with respect to our medical device exposure. We actually deployed a significant amount of capital over the month, but a combination of fund inflows and the reduction in the value of the invested assets over the final week of the month (due partly to profit taking and partly to the overall market dynamic of negative price developments) somewhat unwound the impact of this activity on the leverage ratio; our cash pile only declined to 8.9% at month end, versus 10.3% at the end of January. We issued 5.4m shares via the tapping programme.

The evolution of our sector weightings is illustrated in the table below (Figure 3). As noted previously, there was a significant amount of active re-allocation, with the overwhelming theme being additions to Healthcare IT and Med-Tech and re-allocating within our Focused Therapeutics holdings. The decline in Diagnostics was driven by profit taking, whereas the reduced exposure to Diversified Therapeutics and Managed Care resulted from their lagging relative performance versus other sub-sectors.

EVOLUTION OF PORTFOLIO WEIGHTINGS

	Subsector end Dec 20	Subsector end Jan 21	Change
Diagnostics	8.4%	7.6%	Decreased
Diversified Therapeutics	16.4%	15.9%	Decreased
Focused Therapeutics	36.4%	36.2%	Decreased
Healthcare IT	2.4%	3.6%	Increased
Managed Care	12.9%	11.5%	Decreased
Med-Tech	13.8%	15.3%	Increased
Services	6.1%	6.3%	Increased
Tools	3.5%	3.7%	Increased
	100.0%	**100.0%**	

Source: Bloomberg/MSCI and Bellevue Asset Management (UK) Ltd. Weightings as of 31-12-20. Performance to 31-01-21.

In last month's missive, we commented that we were in something of a holding pattern ahead of the annual JP Morgan healthcare jamboree. Overall, this was a less interesting affair than we had hoped and really served to reinforced entrenched sell-side opinions. To our minds, the narrative was broadly "don't worry about Q4 or even Q1; normalisation is coming in Q2 and it's gonna be great".

There were a few Cassandras of course, and also a number of CEO's unwilling to put their head above the parapet and provide a forward-looking prognostication. These were generally dismissed as 'overly cautious' or some-such. In summary then, we got what we expected, which was more of the same positive narrative and we will thus continue to move forward with caution, paying considerable attention not just to valuations, but also to where consensus expectations lie for the companies that we are invested in or are considering adding to the portfolio.

Managers' Musings

Barnum and Bailey

It was allegedly PT Barnum, whose exploitation of other people's human frailties for his own ends would surely not be tolerated today, who wryly observed there is no such thing as bad publicity. Despite compelling evidence he was an abhorrent and exploitative little man, he was recently eulogised in a successful and popular musical film.

Regardless of the fact that Barnum is now rehabilitated in the minds of millions, we are not convinced this saying is really true. As such, we have never sought to be intentionally controversial. We have though always intended to be candid with our investors and our readers. Sometimes, the latter can lead to a perception of the former. Some of our recent comments around vaccinations, testing and the wilful reduction of complex and uncertain scientific data into apparently black and white "facts" by our political and media classes have caused consternation.

As festive as the season may have been, we were not intentionally seeking to emulate an enunciating pasquinade of Dicken's ghost of Christmas yet to come. Rather, we wished to convey our heartfelt belief that the current situation in which we find ourselves will persist for some time to come. Moreover, the decisions we must make as a society to move forward are neither easy, nor necessarily backed by clear scientific road signs as to the obvious course of action.

With that being our view, we have not shared the ebullient tone of many other market participants and it does rather feel that the consensus opinion is gradually moving in our direction, although we derive no satisfaction from the pessimist triumphing over the optimist.

Rather like the re-imagining of Barnum's life story, the current situation still feels as if the media and politicians are engaged in a dissonance-driven smorgasbord approach, choosing to talk down or even ignore things that are less supportive of the overall narrative that someone is seeking to convey, be it positive or negative.

We shall thus revisit a selection of previously discussed topics in additional detail below, in the hope it will allow readers to further refine their own view on some of these matters as they look to navigate through the next few months. Rarely has it seemed more necessary to be well informed and to rise above the cacophony of 'noiseflow'.

"The noblest art is that of making others happy"

Let us begin with vaccines. Many controversies have swirled in recent weeks, most acutely around the efficacy of the UK's dosing approach prioritising the maximisation of first doses administered and thus delaying the second dose of the Pfizer and AstraZeneca vaccines in use beyond the recommended 21 days for Pfizer and at the upper end of the 4-12 weeks allowed for the Astra/Oxford vaccine under its UK approval.

The controversy around this was heightened in January by data from Israel suggesting real-world efficacy from a single dose of the Pfizer vaccine may be lower than expected and also some stories in the German media suggesting the EU Medicines Agency might have an issue with the apparent effectiveness of the Astra/Oxford vaccine in the elderly (i.e. the people the UK is giving it to at this time).

In the December 2020 factsheet, we questioned the wisdom of the changes to the Pfizer dosing schedule, whilst noting there was some evidence from the Astra/Oxford trials that spacing of up to 12 weeks could prove effective. At the time, the UK Government suggested that the vaccine efficacy ('VE') of the Pfizer jab from a single dose could be 89%, whereas Pfizer itself quoted an efficacy figure of 52%. "Who is right?" was an incoming question, as was the veracity of the Israeli data and the comments in the German media.

Before we seek to explain the above and hopefully add some clarity, we will also demonstrate that, perhaps confusingly for the lay reader/lazy journalist, all of the above statements are true. As the Trump administration was want to point out, there may be alternative facts. Such is the nature of science.

How can this be so? Figure 4 below reproduces the pivotal data from Pfizer's phase 3 study of its vaccine (known then as BNT162b2) in the New England Journal of Medicine. Most obviously, one can see where the Pfizer data point of 52% comes from ("after dose 1 to before dose 2").

The important point though is made in the last line of the table: absolute efficacy was measured at least seven days after the second dose because vaccines take time to 'switch on' their effect. The 52% figure thus includes the seven day period after the first dose, when the vaccine is expected to convey no benefit whatsoever. Readers will be familiar with UK government advice, which is included in the NHS information leaflet regarding vaccination: "*It may take a few weeks for your body to build up protection from the vaccine*".

Efficacy End-Point Subgroup	BNT162b2, 30 μg (N=21,669)		Placebo (N=21,686)		VE (95% CI)
	No. of participants	Surveillance time person-yr (no. at risk)	No. of participants	Surveillance time person-yr (no. at risk)	percent
Covid-19 occurrence					
After dose 1	50	4.015 (21,314)	275	3.982 (21,258)	82.0 (75.6–86.9)
After dose 1 to before dose 2	39		82		52.4 (29.5–68.4)
Dose 2 to 7 days after dose 2	2		21		90.5 (61.0–98.9)
≥7 Days after dose 2	9		172		94.8 (89.8–97.6)

Source: Polack et al. NEJM, Vol 383, No 27, 31-12-20.

Is it possible to adjust for this period and look at the efficacy of the Pfizer vaccine between day 7 post first vaccination and day 21, when the second dose should be given per the trial protocol? This is exactly what the UK Joint Committee on Vaccination and Immunisation (JCVI), which advises UK health departments on immunisation, did. The data from their paper is reproduced below (Figure 5). Here we now also see where the UK Government figure of 89% is derived from:

	Pfizer vaccine		Placebo		VE (95% CI)
Post dose 1 interval	N	N	N	N	
15-21 days	2	20481	18	20366	89% (52-97)
22-28 days	2	20481	24	20366	92% (65-98)
15-28 days	4	20481	42	20366	91% (74-97)

Source: assets.publishing.service.gov.uk: "Report to JCVI on estimated efficacy of a single dose of Pfizer BioNTech (BNT162b2 mRNA) vaccine and of a single dose of ChAdOx1 vaccine (AZD1222)"

Why then did we respond as we did to the UK Government's decision stating that there was no evidence supporting these decisions? Our main concern relates to the error around the point estimate, as defined by the confidence interval ('95% CI'). The 89% VE sits within an error range of 52-97%.

Regular readers will recall that the notional herd immunity threshold for this virus is around 75% (this is the level of population immunity at which the spread is certain to decline because the virus cannot find enough vectors of transmission, i.e. unvaccinated people, to continue to spread) and simply put, you won't get to that threshold level even if you vaccinate everybody with a programme that has less than 75% efficacy. The error bars suggest it is possible that the real-world efficacy may be below such a level, even before we factor in the reality that vaccination will not reach 100% of the population.

Regardless of the real-world risks to the healthy majority being small, COVID-19 is now feared to such an extent that we really do need to minimise ongoing transmission to get everyone on board with a full re-opening; one only need look at the debate around schools being closed to see that reality.

In addition, one cannot argue with the clear premise that stronger viral suppression is better than partial suppression. Attacking a virus in a weak manner, so it is able to mutate its way out of trouble is the route to more strains and potentially the emergence of one that could evade current vaccinations entirely. This is a point that has been made by Pfizer and Dr Fauci, the COVID Tsar in the US. As Tsung Tzu observed, it is unwise to attack your enemy and then leave them able to retaliate.

How concerned should we be about mutations evolving in this 12 week period? In truth, it is probably a very small risk, as all the vaccines are very effective. Coming back to the JCVI paper, one could reasonably argue that the 91% efficacy figure is a more appropriate yardstick, since the recipients will be waiting much longer than even 28 days to get their second dose.

It is also comforting that the error range spans 74-97% at 28 days. This is above the range of effectiveness of the seasonal flu vaccine, and we do not worry about mutant strains with that. In conclusion, the risks here are probably very low, but science does have a habit of throwing us curve balls. As we noted last month, this is a big experiment based on incomplete data.

We must also acknowledge the realpolitik. The NHS is overwhelmed right now and there isn't enough vaccine to go around. This is especially true if you live under the bureaucratic yolk of Brussels; it hasn't taken long for vaccine nationalism to rear its ugly head and this too will have ramifications beyond the pandemic itself.

"Fortune always favours the brave, and never helps a man who does not help himself"

Why is the situation vaguer for the Astra/Oxford vaccine? Simply put, the published data is all over the place. The original proposal was for this to be a single shot vaccine and, in the end, we saw three different initial (i.e. phase 1/2) trials carried out in three countries (UK, Brazil, South Africa) with three different approaches (one dose that became two doses for some up to 12 weeks later, two doses four weeks apart and then a 12 week trial with a low dose and a high dose). The divergent approach was born of expediency because the prevalence of the virus ebbed and flowed over the year and the investigators went where the infected were readily available.

The UK approval was based on an interim analysis including two different doses up to 12 weeks apart and the Brazil cohort where the target was 4 week dose spacing but allowing up to 12 weeks. The main finding of interest here is that a sub-group analysis of those in the UK who received their jabs >8 weeks apart was no different to those who received in less than 8 weeks and in Brazil, those who waited more than six weeks saw better efficacy (Figure 6). This is the basis for approving dose intervals of up to 12 weeks:

	Total number of cases	ChAdOx1 nCoV-19	Control	Vaccine efficacy (95% CI)	p value for interaction
COV002 (UK), age 18–55 years*	..	..	..	..	0·019
LD/SD recipients	33	3/1367 (0·2%)	30/1374 (2·2%)	90·0% (67·3 to 97·0)	..
SD/SD recipients	49	14/1879 (0·7%)	35/1922 (1·8%)	59·3% (25·1 to 77·9)	..
COV002 (UK), age 18–55 years with >8 weeks' interval between vaccine doses*	..	..	..	..	0·082
LD/SD recipients	33	3/1357 (0·2%)	30/1362 (2·2%)	90·0% (67·3 to 97·0)	..
SD/SD recipients	34	8/1407 (0·6%)	26/1512 (1·7%)	65·6% (24·5 to 84·4)	..
All SD/SD (UK and Brazil)†	..	..	..	..	0·557
<6 weeks' interval between vaccine doses	28	9/1702 (0·5%)	19/1698 (1·1%)	53·4% (−2·5 to 78·8)	..
≥6 weeks' interval between vaccine doses	70	18/2738 (0·7%)	52/2757 (1·9%)	65·4% (41·1 to 79·6)	..

Cohorts are all subsets of the primary efficacy population. SARS-CoV-2=severe acute respiratory syndrome coronavirus 2. LD/SD=low-dose prime plus standard-dose boost. SD/SD=two standard-dose vaccines given. BMI=body-mass index. *Models adjusted for BMI (<30 vs ≥30 kg/m²), health-care worker status (yes vs no), and ethnicity (white vs non-white). †Model adjusted for BMI (<30 vs ≥30 kg/m²), health-care worker status (yes vs no), ethnicity (white vs non-white), age (<56 years vs ≥56 years), and study (COV002 vs COV003).

Table 3: **Subgroup comparisons of efficacy against SARS-CoV-2 more than 14 days after a second dose of ChAdOx1 nCoV-19 vaccine in the primary efficacy population**

Source: Voysey et al. Lancet Vol 397. 8-12-20.

What do we think of this data? Per Figure 6, the error bars are wide and the P-values are high. As a reminder, P-values illustrate the quality of an observation from the perspective of statistical robustness: a p-value that is less than 0.05 is considered to be a statistically significant result. Counter wise, a p-value higher than 0.05 is considered not to be statistically significant and thus could be due to the play of chance.

High p-values can arise in interim readouts of trials because there are not yet enough patients who can be evaluated. Regardless, the robustness of results can justifiably be questioned when the p-values are high. In conclusion, this is not the most robust of data and we would like to see more.

It may well be that the vaccine does not work as well as the point estimates suggest, but it could also work better; we simply cannot say one way or the other yet. We are not surprised at all that AstraZeneca has not sought a US EUA approval based on this data and is waiting for the results from a separate US trial cohort.

There are relatively small numbers of patients in the interim analysis and their disposition by age, geography and ethnicity is sub-optimal too. We can understand why it is easy to suggest that it may not work as well in certain groups, as Germany seemingly has decided to do, although the EMEA has chosen to license the product for all adults, including the elderly. One should not lose sight of another question though, which is who is best served by all the polemics and hyperbole regarding AstraZeneca, when they are doing all of this on a non-profit basis. It is always politically convenient to have a scapegoat.

Tying this all together: if your managers wanted to get vaccinated today and we had a free choice of product, we would elect for the Moderna jab given per protocol. If that were not an option, we would go for Pfizer per protocol. We favour Moderna because we think the data on efficacy versus new variants is more robust and the vaccine is easier to handle and thus has less risk of losing any potency before reaching our arms. However, this vaccine is not yet available in the UK.

If we had to choose between Astra/Oxford and Pfizer given over 12 weeks, we would struggle but probably in the end go with Pfizer. This view may change as more data emerges. As we go to press, there is very positive-looking headline data from Novavax (including 85% efficacy against the so-called Kent strain in its UK trial), and headline data for the Johnson & Johnson (JNJ) vaccine as well, but we have yet to see a journal write-up with all of the data laid out for these two before we can reach any views on their relative merits.

JNJ is already undertaking a two-dose protocol, which is likely to materially improve on its initial single dose efficacy data. The Novavax product can be stored at room temperature and there is a manufacturing site for it here in the UK. Furthermore, JNJ has very substantial production capacity available, which is welcome given current worldwide shortages.

"There's a sucker born every minute."

Let us end the vaccine discussion with some consideration of the comments from Israel. This small country of ~9 million people is a leader in healthcare technology and has very high penetration of electronic medical records. It is collaborating with Pfizer in what amounts to a giant post-marketing study, in exchange for preferential access to the vaccine. This will, over time, generate a treasure trove of data that will hopefully help everyone better manage this (and other) pandemics moving forward.

The first bounty from this trove was somewhat unwelcome. On 13 January 2021, a preliminary analysis by the Clalit Research Institute compared infection data in a matched cohort totalling 400,000 people aged 60+ who were monitored for at least 11 days from the date of initial vaccination.

Based on the pivotal trial data discussed previously, one would expect the efficacy of the single dose of the vaccine to gradually improve from day 7 to day 21 and even beyond if one were allowed to go further without receiving a booster shot. The authors reported a VE of 33% at day 14 based on PCR testing for SARS-CoV-2 across the cohorts and this efficacy metric remained the same at day 17.

The data is immature and further updates will doubtless be provided in due time. This is obviously well below the 52% efficacy reported by Pfizer at even further below the 89% measure for days 15-21 in the JCVI report. How can it be so different? There are several potential contributing factors:

Firstly, the primary endpoint in the Pfizer study reported in the NEJM was confirmed COVID-19 as defined by FDA criteria. This includes at least one recognised symptom combined with a positive PCR test result within four days of the aforementioned symptoms. Simply put, you would not be tested if you were asymptomatic and so PCR positive cases could well have been missed. Multiple studies have shown that around a third of PCR-positive COVID-19 cases are asymptomatic, so the FDA primary endpoint will be missing positive cases in both arms of the study. Epidemiology is like fishing; if you cast a bigger net, you will catch more stuff.

Secondly, we also know that the vaccines offer little protection for the first seven days and that PCR tests can pick up positive cases well past the infectious stage. Without seeing the so-called Ct values (think of this as a score from 1-50, one being highest, of how much virus you have at the point you were tested. A positive sample with a Ct value of 50 could well arise from an asymptomatic infection present before vaccination and where the patient has largely or completely recovered), we cannot really say if these positive cases should be taken seriously from transmission point of view or not.

These two factors could make a huge difference to the VE quoted, even for the same data set, as the following example illustrates: Pfizer's 52% data point is derived from 39 symptomatic cases in the vaccine arm and 82 in the placebo arm from ~21,000 patients. If we simplistically assumed an additional third of cases being asymptomatic were counted, this would become 51 and 107. The effectiveness ('VE') of the vaccine would thus be:

(51/21314)/(107/21258) = 0.002393/0.005033 = 47.5%.

This is a simplistic illustration again of how you could get a different (i.e. worse-looking) outcome by changing the endpoint (i.e. PCR vs. symptomatic) and thus why it is important to compare apples with apples. We should bear this in mind when comparing death rates and infection rates between countries as well. A second data-set from Israel's Maccabi Healthcare Services (which of course has received less publicity, suggests that real-world vaccine efficacy in a matched cohort of those who have received the second dose of Pfizer's vaccine (measured at day 10) is in the 90% range, in line with that seen in the clinical studies. Good news is seldom as popular in the press.

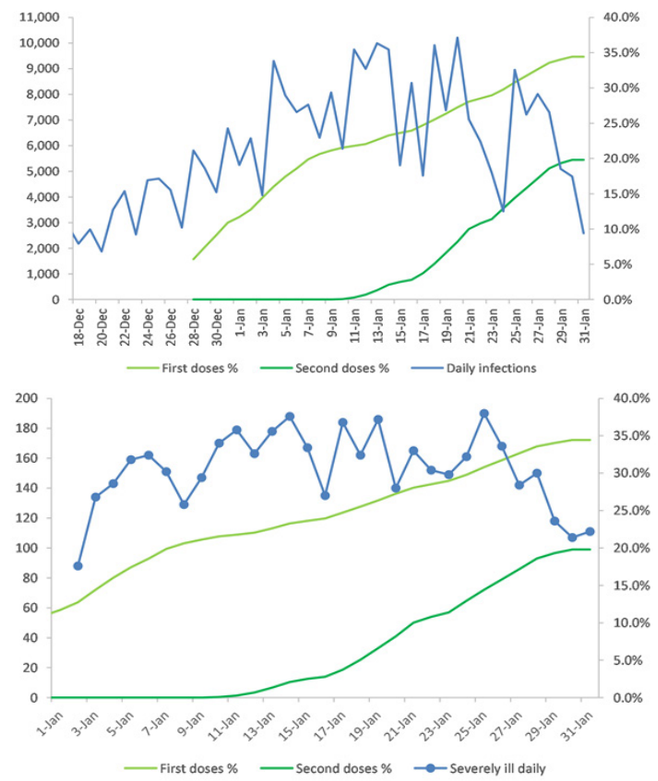
With the important caveat about interpreting the early data having been made, what, if anything, could we conclude from the Clalit Israeli data? To our minds, the 33% value suggests there are more asymptomatic cases in the vaccinated arm than one might have initially imagined despite the lockdown in Israel. Asymptomatic COVID-19 does not hurt you, so does this matter?

Well, if you have it then you can probably spread it and thus, as a minimum it argues that we should be cautious in thinking that vaccination reduces transmission until we have clear data in that respect one way or the other. This is a point we have made many times but we continue to be surprised by the pervasive belief amongst the majority of the public (and many people in the media) to reflexively state that vaccinated people cannot transmit the virus.

Notwithstanding the potential concern that vaccination's effect on transmission is uncertain, the combination of aggressive vaccine rollouts and a national lockdown is working in Israel (Figure 7 overleaf).

Whether it is the second dose rollout or the lockdown that is primarily responsible, there is a lot in this data to give us all cause for optimism, as long as vaccination rates can stay ahead of escape mutation emergence

(more on this below). Again though, we would emphasise that the real-world impact of this in terms of morbidity burden is not yet so positive (Figure 8).



Source: Israel government, worldometer, J.P. Morgan estimates.

"In what business is there not humbug?"

Another of our recurring themes has been the undeniable observation that fear of COVID-19 is greater than reality. We do not wish to trivialise anyone's suffering or personal loss, but the data continues to show that it is harmful to a narrow cohort in terms of age, obesity and pre-existing health status. If you are not in these categories, you are very unlikely to be seriously unwell and so-called 'long-COVID' (defined as symptoms beyond 12 weeks) remains thankfully rare (quite how rare is still unclear).

The UK Government wants to re-start the economy. No economy means no tax revenues and no government can function without funds. A balance must thus be struck between keeping people safe and allowing the economy to function. In order to have the population feel comfortable with any re-opening, there needs to also be a balance struck around the language used to describe the state of the pandemic.

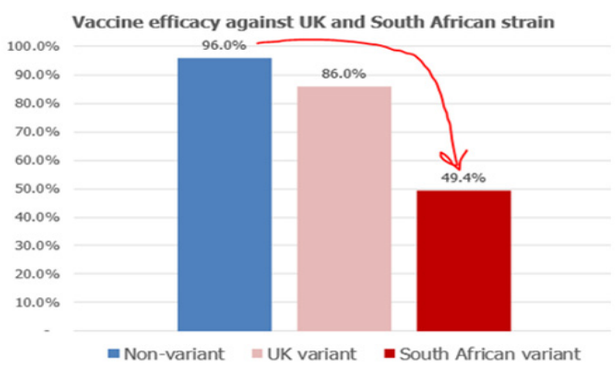
In recent weeks this has focused on new strains, referred to as "variants of concern" (VoC) in the scientific community and "mutant COVID" in the more hysterical corners of the mainstream media. There are really only three attributes of any strain worth discussing: 1) Is it more virulent, i.e. does it spread more easily from one person to another. 2) Does it have a higher degree of morbidity or mortality, as defined by the infection fatality rate (IFR) and infection hospitalization rate (IHR) and 3) Has it mutated in such a way that current vaccines or treatments may prove ineffective against it?

There are currently three VoCs on the epidemiological radar, from Kent UK, South Africa and Manaus Brazil. Unhelpfully, scientists can refer to these variants by different nomenclatures, but they are most commonly referred to as B.1.1.7, 501Y.V2 and P.1 respectively. Our understanding of the facts at this moment is that all three are more virulent, which is why they are classed as variants of concern, so this point need not be discussed further.

Vaccine efficacy

501Y.V2 and P.1 have significant enough changes to their 'spike' proteins that they warranted evaluation as an 'escape mutation' that might mean prior infection or vaccination may offer less protection than otherwise hoped. So far, the data does suggest there is some attenuation of efficacy from convalescent sera and from vaccines with respect to B.1.1.7, but it is not material; the Pfizer and Moderna vaccines will still work very well. Novavax and JNJ have clinical data on efficacy against both the B.1.1.7 and 501Y.V2 variants (the P.1 variant is too new and rare for there to be clinical data as yet). There is more uncertainty about the Astra/Oxford jab, but this is more because the relevant challenge studies have yet to be published.

The ongoing South African study should help with respect to clinical data on Astra/Oxford's efficacy vs. 501Y.V2. The UK health minister has been quoted as saying that the VE of the Astra/Oxford may be reduced by as much as 50% against 501Y.V2, whilst caveating that the data is very preliminary and may not be accurate. This may turn out to be the reality; the Novavax data suggests significantly lower efficacy against the South African variant (Figure 9). JNJ reported overall efficacy of 66% against non-variant SARS-CoV-2 and 57% against 501Y.V2, which looks promising.



Source: Novavax, Evercore ISI

Morbidity and mortality

As noted above, it is really too early to conclude anything about the P.1 variant. The 501Y.V2 variant has rapidly become the prevalent strain in South Africa. This is probably because of the differences described above; there are documented cases of people who are symptomatic with COVID for a second time and have positive antibody titres against 'non-variant' SARS-CoV-2 who nonetheless got re-infected with 501Y.V2. However, per the WHO website: "at this stage, there is no clear evidence of the new variant being associated with more severe disease or worse outcomes".

On 22 January, during the daily UK COVID briefing, the Prime Minister decided to opine on the B.1.1.7 'Kent' variant, that is prevalent in the UK. He suggested it could be 30% more deadly. This was of course picked up by virtually every media channel on the planet and rapidly spread around the world like, well, a virus. Admittedly, Mr Johnson added a lot of caveats around the evidence but, as ever, that soon got lost in translation.

Patrick Vallance, the Government's chief scientific adviser, was more cautious, describing the available data "not yet strong" and stressed "that there's a lot of uncertainty around these numbers and we need more work..."

It was around 24 hours before we saw mainstream media articles really asking what evidence supported Johnson's statement. The answer lies in the document "NERVTAG note on B.1.1.7 severity", which can be found on assets.publishing.service.gov.uk. We would agree with the assessment it was preliminary; perhaps even saying that is a generous description.

What the paper says, summarising a number of studies with what we would describe as huge shortcomings and skewed datasets (as you would expect when comparing a newly emerged strain with what amounts to every other case of COVID-19) is this: "based on these analyses, there is a realistic possibility that infection with VOC B.1.1.7 is associated with an increased risk of death compared to infection with non-VoC viruses". To our mind, the most important and robust information in the report is that the hospital fatality rate (HFR) is not higher.

In keeping with our comments at the beginning of the factsheet; you are all free to decide for yourselves if you think it is right for people in positions of power and influence to distil arguably equivocal evidence (a "realistic possibility") to a point estimate that they must know will be picked up by the media as "30% more deadly" without the caveats, or make foolishly optimistic pronouncements as to when a sufficient number of people will be vaccinated as to allow life to return to normal, when the science is immature and the logistics of delivery not fully within their control. It feels like marketing spin and we are sadly all in 'the thick of it', although it does not feel anything like as amusing as the TV show more than 10 years back.

Prevalence

Given all the noise about the "Kent mutant", one could be forgiven for thinking it has run rampant through the UK and now accounts for the majority of cases. Those of you keen enough to have stepped away to read the aforementioned NERVTAG paper will see the phrase 'dominant strain' used in the first bullet point. What does this mean? After all, language and context are everything in life...

The regular reader will recall our previous point that thousands of strains of SARS-CoV-2 have already emerged through the natural process of genetic variation and mistakes during reproduction. This is the way of life: we are all mutants of the first hominins, in our many and glorious variations. However, few of us are gifted with supreme athleticism, intellect or murderous sociopathic tendencies (the latter would clearly be a "variant of concern").

The same is true of SARS-CoV-2. As such, the dominant strain can be so whilst accounting for a small percentage of total cases. Last week for instance, only 1.4% of UK cases were the B.1.1.7 variant and even at the peak of concern back in December, it has not been above 2% nationally. We would again argue this context should have been front and centre of any comments regarding *potential* lethality.

The Greatest Showman

In the end, we must acknowledge that life is full of people whose actions are not solely well intentioned or who perhaps do not think about the impact those actions might have on others, failing to see the wood for the trees. This obliges us all to check every pronouncement and prognostication. When it comes to the pandemic, this is clearly easier for some than others, being as science and statistics are not the primary focus of human existence.

PT Barnum was not a nice person; he pretty much said so himself. He never denied his opportunistic nature and the information about his life can be readily found. And yet, he is viewed by some with kindness and has been whitewashed in celluloid more than once as some sort of latter-day saint. Moreover, he prospered greatly during his own lifetime through a willingness to bend the truth or mislead the public with fakery.

We will always try to be as candid as we can, but we must ourselves recognise that science seldom allows for absolute truths; sometimes there can be more than one right answer to a question and it would do no-one any harm to acknowledge this fundamental reality more readily.

Everyone is muddling through this as best they can and, hopefully, vaccinations can get us to the point where this pandemic ceases to be the dominant narrative of our lives. However, we must sadly reiterate our considered view this remains a distant prospect for now.

We always appreciate the opportunity to interact with our investors directly and you can submit questions regarding the Trust at any time via: shareholder_questions@bbhealthcaretrust.co.uk

As ever, we will endeavour to respond in a timely fashion. We thank you for your support of BB Healthcare Trust.

Paul Major and Brett Darke

B|B Healthcare Trust

Monthly News
January 2021

Marketing document

Standardised discrete performance (%)

12-month total return	1 year Jan 20 - Jan 21	2 years Jan 19 - Jan 21	3 years Jan 18 - Jan 21	since inception
NAV return (inc. dividends)	32.4%	43.0%	71.4%	97.9%
Share price	26.0%	37.0%	55.1%	81.5%
Share price (inc. dividends)	29.5%	44.0%	66.3%	96.4%
MSCI WHC Total Net Return Index	12.1%	28.7%	42.0%	63.4%

Sources: Bloomberg & Bellevue Asset Management (UK) Ltd., 31.01.2021

NAV return and share price returns are adjusted for dividends paid during period where started (but not assuming reinvestment)

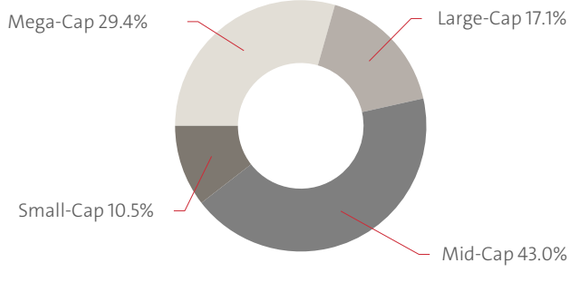
Note: Past performance is not a guide to future performance. The value of an investment and the income from it may fall as well as rise and is not guaranteed

TOP 10 HOLIDINGS

Bristol Myers Squibb	7.4%
Vertex Pharmaceuticals	6.9%
GW Pharmaceuticals	6.2%
Insmed	5.4%
Hill-Rom Holdings	5.4%
Anthem	5.1%
Alnylam Pharmaceuticals	5.0%
Jazz Pharmaceuticals	4.9%
Bio-Rad Laboratories	3.7%
Amgen	3.7%
Total	**53.4%**

Source: Bellevue Asset Management, 31.01.2021

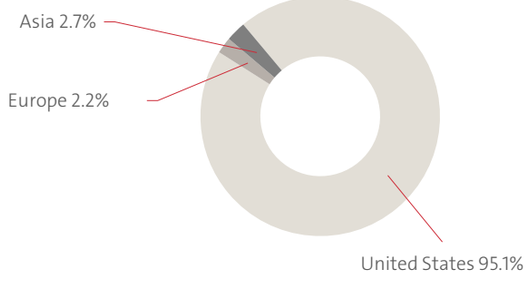
MARKET CAP BREAKDOWN



Source: Bellevue Asset Management, 31.01.2021

"Mega Cap >$50bn, Large Cap >$10bn, Mid-Cap $2-10bn, Small-Cap <$2bn."

GEOGRAPHICAL BREAKDOWN (OPERATIONAL HQ)



Source: Bellevue Asset Management, 31.01.2021

BB Healthcare Trust

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Marketing document

INVESTMENT FOCUS

- The BB Healthcare Trust invests in a concentrated portfolio of listed equities in the global healthcare industry (maximum of 35 holdings)
- Managed by Bellevue group ("Bellevue"), who manage BB Biotech AG (ticker: BION SW), Europe's leading biotech investment trust
- The overall objective for the BB Healthcare Trust is to provide shareholders with capital growth and income over the long term
- The investable universe for BB Healthcare is the global healthcare industry including companies within industries such as pharmaceuticals, biotechnology, medical devices and equipment, healthcare insurers and facility operators, information technology (where the product or service supports, supplies or services the delivery of healthcare), drug retail, consumer healthcare and distribution
- There will be no restrictions on the constituents of BB Healthcare's portfolio by index benchmark, geography, market capitalisation or healthcare industry sub-sector. BB Healthcare will not seek to replicate the benchmark index in constructing its portfolio

DISCLAIMER

FIVE GOOD REASONS

- Healthcare has a strong, fundamental demographic-driven growth outlook
- The Fund has a global and unconstrained investment remit
- It is a concentrated high conviction portfolio
- The Trust offers a combination of high quality healthcare exposure and targets a dividend payout equal to 3.5% of the prior financial year-end NAV
- BB Healthcare has an experienced management team and strong board of directors

MANAGEMENT TEAM

Paul Major

Brett Darke

GENERAL INFORMATION

Issuer	BB Healthcare Trust (LSE main Market (Premium Segment, Offical List) UK Incorporated Investment Trust
Launch	December 2, 2016
Market capitalization	GBP 906.8 million
ISIN	GB00BZCNLL95
Investment Manager	Bellevue Asset Management (UK) Ltd.; external AIFM
Investment objective	Generate both capital growth and income by investing in a portfolio of global healthcare stocks
Benchmark	MSCI World Healthcare Index (in GBP) - BB Healthcare Trust will not follow any benchmark
Investment policy	Bottom up, multi-cap, best ideas approach (unconstrained w.r.t benchmark)
Number of ordinary shares	499 614 689
Number of holdings	Max. 35 ideas
Gearing policy	Max. 20% of NAV
Dividend policy	Target annual dividend set at 3.5% of preceding year end NAV, to be paid in two equal instalments
Fee structure	0.95% flat fee on market cap (no performance fee)
Discount management	Annual redemption option at/close to NAV

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