EDISON

The Biotech Growth Trust

Performance setback may provide an opportunity

The Biotech Growth Trust (BIOG) is managed by Geoff Hsu of OrbiMed Capital, which is a specialist healthcare investor with 11 offices across the globe including in Hong Kong and Shanghai. The manager remains very positive on the outlook for the biotech sector primarily due to the current elevated level of industry innovation that he refers to as a 'golden era'; the number of late-stage pipeline products increased by 50% between 2015 and 2020. He also believes that biotech stocks will be supported by ongoing merger and acquisition (M&A) activity, levels of which have remained robust despite the pandemic as there is high demand from larger-cap healthcare companies seeking to boost their pipelines.

BIOG's 2021 AGM video with Geoff Hsu

Source: The Biotech Growth Trust

The analyst's view

BIOG offers investors exposure to a wide range of opportunities within the worldwide biotech industry. While the majority of the portfolio is held in North American equities (c 70%), which reflects that region's global dominance, it also has a meaningful exposure to China (c 15), a country that is becoming a more important player within the industry. The trust also actively participates in initial public offerings (IPOs) and crossover deals (the last round of financing prior to an IPO). BIOG has a positive medium- and long-term relative performance record and has generated absolute NAV and share price total returns of 22.1% pa over the last decade. While the trust is experiencing a significant period of underperformance this year, primarily due to the manager favouring emerging rather than large-cap biotech stocks, Hsu is convinced that this is the correct strategy as he believes that these companies offer the best opportunities and that it is only a matter of time until investors refocus on the positive fundamentals of these businesses.

Scope for a higher valuation

BIOG's shares are currently trading at a 7.5% discount to cum-income NAV, which compares to a range of a 3.5% premium to an 8.4% discount over the last 12 months and is wider than the 0.6% to 5.2% range of average discounts over the last one, three, five and 10 years. There is potential for a narrower discount if the trust's FY22 performance improves or if there is an increased focus on the biotech industry's positive fundamentals.

NOT INTENDED FOR PERSONS IN THE EEA

Investment trusts
Biotech equities

8 September 2021

Price		**1,258.0p**
Market cap		**£525m**
AUM		**£590m**
NAV*		1,360.7p
Discount to NAV		7.5%
*Including income. As at 6 September 2021.		
Yield		0.0%
Ordinary shares in issue		41.7m
Code/ISIN		BIOG/GB0000385517
Primary exchange		LSE
AIC sector		Biotechnology & Healthcare
52-week high/low	1,736.0p	1,152.0p
NAV* high/low	1.715.4p	1,208.8p
*Including income		
Net gearing*		8.9%
*As at 31 July 2021		

Fund objective

The Biotech Growth Trust seeks capital appreciation through investing in the worldwide biotechnology industry. Performance is measured against its benchmark index, the NASDAQ Biotechnology Index (sterling adjusted).

Bull points

- The biotech sector has delivered above-average returns for shareholders.
- BIOG has generated attractive absolute and relative returns over the long term.
- OrbiMed is a global leader in healthcare research and investment.

Bear points

- The biotech sector can be volatile.
- Periodic concerns about US drug pricing.
- Rich valuations.

Analysts

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Edison profile page

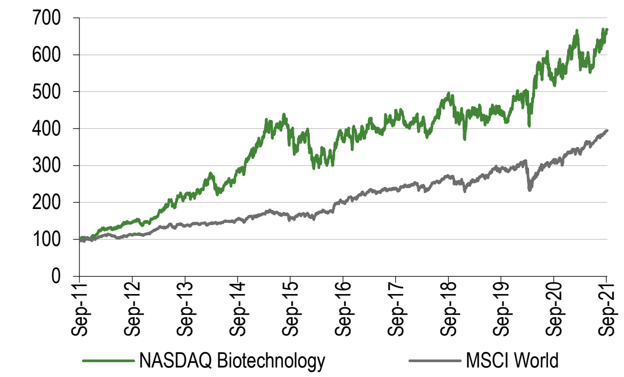
The Biotech Growth Trust is a research client of Edison Investment Research Limited

Market outlook: Positive fundamental backdrop

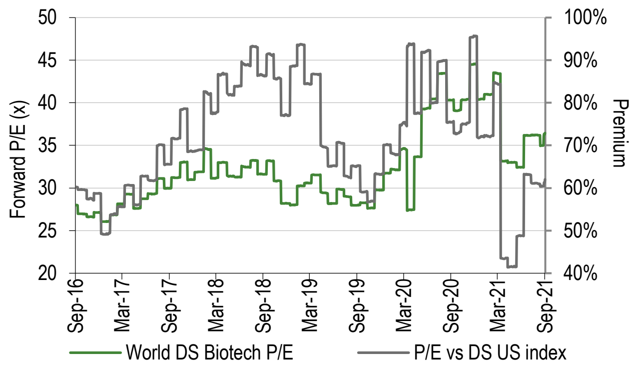
As shown in Exhibit 1 (left-hand side), long-term biotech investors have been richly rewarded, although there have been bumps along the way. Industry fundamentals remain positive including positive demographic trends, high levels of innovation, a supportive regulatory environment and ongoing M&A activity. However, valuations look somewhat stretched meaning investors may benefit from waiting for a potential market correction. This would not be a surprise given the protracted length of the US bull market, economic uncertainty due to the ongoing coronavirus pandemic and rising inflation expectations. The Datastream World Biotech Index is currently trading at a forward P/E multiple of 36.4x, which is modestly higher than the five- and 10-year averages of 32.4x and 30.3x respectively. On a relative basis the index is trading at a 62.0% premium to the broader Datastream US Index, which is less rich than the 71.8% and 80.8% premiums over the last five and 10 years respectively.

Exhibit 1: Biotech index performance and valuation

NASDAQ biotechnology and MSCI world indices (10 years, £-based)



DS World Biotech Index P/E and relative to DS US Index (past five years)



Source: Refinitiv, Edison Investment Research. Note: Valuation data at 7 September 2021.

The fund manager: Geoff Hsu

The manager's view: Positive fundamentals will win out

Notwithstanding periodic weakness, Hsu says that the biotech industry has been a good place in which to invest over the long term. He explains that innovation is the principal driver of the sector's performance, and we are currently in a 'golden era' as the industry's pipeline is as full as it has ever been. There has been an acceleration in the number of late-stage products (+50% between 2015 and 2020) across multiple therapies. Oncology is c 30% of the late-stage pipeline and several novel technologies have come to the fore over the last five years such as cell therapy, gene therapy/editing, therapeutic vaccines, multivalent antibodies and cell engagers, and nucleic acid therapies. So far, there are only a handful of marketed products in these areas and there are hundreds of additional candidates in clinical trials. Hence, the manager believes that we are still in the early stages of the biotech industry achieving the potential of novel technologies. Hsu highlights some notable new drug approvals that address large markets including Vertex Pharmaceuticals' trikafta for the treatment of cystic fibrosis ($9.5bn pa consensus peak sales estimate) and Biogen's aducanumab for the treatment of Alzheimer's disease ($9.4bn pa consensus peak sales estimate). Some companies have been acquired following product approvals such as Immunomedics by Gilead Sciences, Alexion Pharmaceuticals by AstraZeneca and Acceleron Pharmaceuticals by Bristol Myers Squibb.

The manager expects the US regulatory environment to remain favourable. Former president Trump supported the expedition of drug approvals to increase competition and manage drug pricing. While it is unclear when the new Food and Drug Administration (FDA) commissioner will be appointed, the new head is expected to be industry friendly. There have been some unexpected rejections for new drugs and delays due to the large volume of applications and COVID-19 related inspection slippages. However, Q121 saw the largest number of first quarter approvals by the FDA and followed four years of record approvals for new molecular entities (46 in 2017, 59 in 2018, 48 in 2019 and 53 in 2020); Hsu is hopeful that this positive trend will continue.

Historically, M&A has also been an important driver of the biotech sector's positive performance; transactions and licensing deals have continued throughout the pandemic. It has also been a constructive environment for fund-raising, with more than 200 biotech IPOs since the beginning of 2018, meaning that the worldwide investible universe now exceeds 1,500 companies. BIOG has actively participated in a large number of IPOs, with many of these businesses providing access to cutting-edge technologies.

The manager explains that China is now the number two global pharma market and is increasingly innovative; in 2020, 12% of the industry's early-stage pipeline was developed in the country, a meaningful increase from 3% in 2015. The Chinese government is committed to a biotech ecosystem as part of its 'Made in China 2025' plan: reforms introduced include expedited approval of new drugs and more relaxed listing requirements (pre-revenue companies can now go public). Multinational companies are focusing on China as a growth market and have been licensing Chinese drugs, which was unheard of 10 years ago. Hsu says that this shows how biotech has come of age in China and he believes that OrbiMed's local research team provides a competitive advantage versus its peers.

COVID-19 is being brought under control, opines the manager, due to the rollout of vaccination programmes and treatments. More than half of the US adult population has now been jabbed and second-generation vaccines to protect against variants are being developed. Sales of biotech drugs have largely been sustained during the pandemic, although promotion-sensitive products have been the most negatively affected as salespeople were unable to visit doctors. Hsu explains that the bulk of innovation is outside COVID-19 and the industry has benefited due to its vaccine work, which has caused public sentiment towards healthcare companies to improve over the course of the pandemic and should ensure that any changes to drug price will not be egregious. While the market's reaction to the easing of COVID-19 restrictions has hurt the relative performance of the biotech sector, particularly smaller-cap companies, the manager expects this to be transitory given the industry's positive fundamental attributes.

Current portfolio positioning

Exhibit 2: Top 10 holdings (as at 31 July 2021)

Company	Country	Sector	Portfolio weight %	
			31 July 2021	31 July 2020*
Vertex Pharmaceuticals	US	Major biotech	4.3	4.0
Horizon Therapeutics	US	Emerging biotech	4.2	2.9
Neurocrine Biosciences	US	Emerging biotech	3.9	3.9
Guardant Health	US	Emerging biotech	3.1	N/A
GH Research	Ireland	Emerging biotech	3.0	N/A
Singular Genomics Systems	US	Emerging biotech	2.9	N/A
Yisheng Biopharma**	China	Emerging biotech	2.9	N/A
Biogen	US	Major biotech	2.7	4.4
Gilead Sciences	US	Major biotech	2.5	N/A
ImmunoGen	US	Emerging biotech	2.4	N/A
Top 10 (% of portfolio)			**31.9**	**35.8**

Source: BIOG, Edison Investment Research. Note *N/A where not in end-July 2020 top 10. **Unquoted.

At end-July 2021, BIOG's top 10 positions made up 31.9% of the portfolio, which was a lower concentration compared with 35.8% a year earlier; four positions were common to both periods. This list illustrates the manager's preference for emerging over large-cap biotech stocks.

In FY21, BIOG invested in 39 IPOs, hence the number of portfolio names has increased to 92 at end-July 2021 versus 67 at end-July 2020. It participated in 12 crossover deals, seven of which went public and, in aggregate, the manager initiated positions in 11 Chinese companies. While there is no formal investment limit, BIOG's emerging markets exposure is likely to be maintained in a range of 15–20%.

Exhibit 3: Portfolio geographic breakdown (%)

Sector	End-July 2021	End-July 2020	Change (pp)
North America	69.2	76.4	(7.2)
Continental Europe	12.0	8.0	4.0
China (quoted)	9.4	8.1	1.3
Unquoted*	5.1	4.4	0.7
UK	2.8	0.6	2.2
Singapore	0.9	N/S	N/A
South Korea	0.6	N/S	N/A
Other	N/S	2.5	N/A
Total	**100.0**	**100.0**	

Source: BIOG, Edison Investment Research. Note: Adjusted for gearing. N/S is not stated. *Unquoted is 4.7% China and 0.4% Asia.

The trust's geographic breakdown is shown in Exhibit 3. Notable changes over the 12 months to the end of July 2021 are a lower North America weighting (-7.2pp) and higher weightings to continental Europe (+4.0pp) and the UK (+2.2pp).

Performance: Long-term record of outperformance

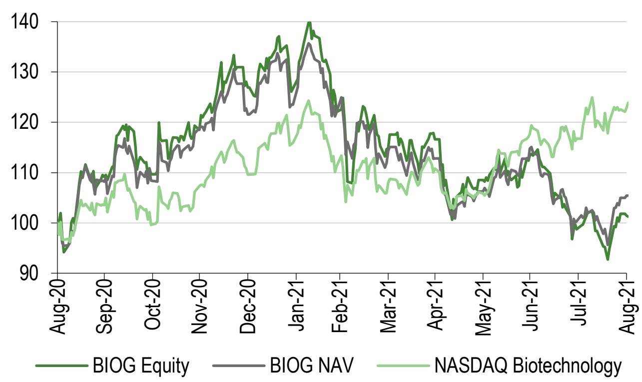
Exhibit 4: Five-year discrete performance data

12 months ending	Share price (%)	NAV (%)	NASDAQ Biotech (%)	World-DS Pharm & Bio (%)	MSCI World (%)
31/08/17	20.4	23.3	21.3	11.2	18.8
31/08/18	1.0	(1.3)	9.6	10.5	12.7
31/08/19	(8.1)	(6.9)	(9.7)	4.2	7.6
31/08/20	60.5	50.8	20.6	14.0	6.8
31/08/21	1.4	5.4	22.8	15.0	26.8

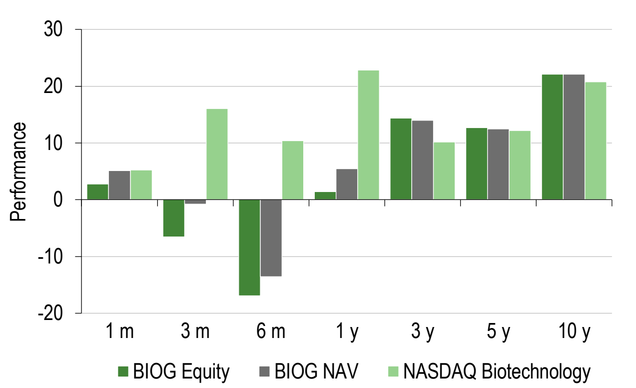
Source: Refinitiv. Note: All % on a total return basis in pounds sterling.

Exhibit 5: Investment trust performance to 31 August 2021

Price, NAV and benchmark total return performance, one-year rebased



Price, NAV and benchmark total return performance (%)



Source: Refinitiv, Edison Investment Research. Note: Three-, five- and 10-year performance figures annualised.

In FY21 (ending 31 March), BIOG delivered a very strong performance in both absolute and relative terms, its net asset value (NAV) and share price total returns of +55.1% and +75.2% respectively were considerably ahead of the benchmark's +25.1% total return. The outperformance was helped by the trust's overweight exposure to emerging biotech stocks; M&A activity including Gilead's acquisition of Immunomedics ($21.0bn at a 111% premium), Merck's acquisition of Pandion Therapeutics ($1.9bn at a 196% premium) and AstraZeneca's acquisition of Alexion Pharmaceuticals ($39.1bn at a 36% premium); and strong performance from BIOG's crossover investments and Chinese holdings.

Exhibit 6: Share price and NAV total return performance, relative to indices (%)

	One month	Three months	Six months	One year	Three years	Five years	10 years
Price relative to NASDAQ Biotechnology	(2.3)	(19.5)	(24.7)	(17.4)	11.9	2.3	12.0
NAV relative to NASDAQ Biotechnology	(0.1)	(14.5)	(21.7)	(14.2)	10.6	1.2	12.1
Price relative to World-DS Pharm & Bio	(1.6)	(16.7)	(28.3)	(11.8)	9.6	8.5	75.2
NAV relative to World-DS Pharm & Bio	0.7	(11.5)	(25.5)	(8.3)	8.4	7.3	75.3
Price relative to MSCI World	(0.8)	(14.6)	(29.7)	(20.0)	2.7	(6.7)	87.8
NAV relative to MSCI World	1.5	(9.3)	(26.9)	(16.8)	1.6	(7.7)	88.0
Price relative to CBOE UK All Companies	0.3	(9.3)	(26.7)	(20.2)	35.8	38.4	252.3
NAV relative to CBOE UK All Companies	2.6	(3.6)	(23.8)	(17.0)	34.3	37.0	252.6

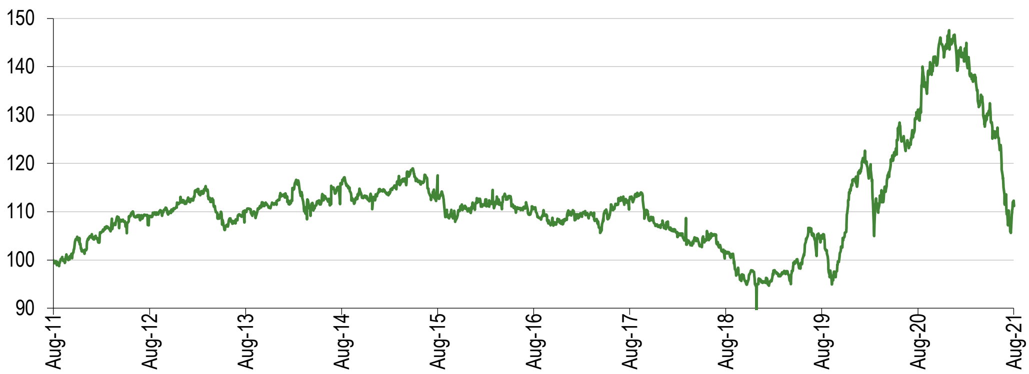
Source: Refinitiv, Edison Investment Research. Note: Data to end-August 2021. Geometric calculation.

Fast forward to FY22, and the performance picture paints a different story. The biotech sector has underperformed the broader market and within this group large caps (where BIOG is underweight versus the NASDAQ Biotechnology Index) have performed better than smaller-cap biotech stocks. Hsu believes that the poor performance of emerging biotech stocks is due to market conditions and not a result of weak company fundamentals; hence, he suggests that the drawdown is largely played out and that these stocks should perform relatively better for the balance of 2021.

In July 2021, BIOG's NAV lagged the benchmark by c 12%. A third of this underperformance was due to the trust's underweight exposure to Moderna and BioNTech (on valuation grounds). These companies are the two originators of the authorised mRNA COVID-19 vaccines and their share prices have continued to rise on continuing investor optimism in response to a surge in delta variant coronavirus cases in the US.

The trust's underperformance in recent months has affected its long-term record, although it remains ahead of the NASDAQ Biotechnology Index over the last three, five and 10 years in both NAV and share price terms. BIOG has outpaced the performance of the MSCI World Index over three and 10 years, while it is significantly ahead of the broad UK market over the last three, five and 10 years.

Exhibit 7: NAV performance versus benchmark over 10 years



Source: Refinitiv, Edison Investment Research

Peer group comparison

BIOG is a member of the AIC Biotechnology & Healthcare sector. In Exhibit 8 we also include two Switzerland-listed funds (BB Biotech and HBM Healthcare Investments) to provide a broader comparison. Due to a tough period of relative performance this year because of its large weighting to emerging biotech stocks, BIOG's NAV total return now ranks sixth out of eight funds over the last 12 months. The trust has an above-average performance over three and 10 years ranking second out of eight funds and third out of six funds respectively. BIOG's NAV total return is below the mean over five years ranking second out of seven funds (the average is skewed by the significant outperformance of HBM Healthcare Investments). The trust currently has a below-average valuation, a competitive ongoing charge, ranking third, and an average level of gearing. BIOG is one of two funds in the selected peer group that does not pay a dividend.

Exhibit 8: Biotech and healthcare investment companies, as at 7 September 2021*

% unless stated	Market cap £m	NAV TR 1 year	NAV TR 3 year	NAV TR 5 year	NAV TR 10 year	Discount (ex-par)	Ongoing charge	Perf. fee	Net gearing	Dividend yield
Biotech Growth Trust	525.0	12.9	55.3	86.1	662.9	(6.8)	1.1	Yes	104	0.0
BB Biotech	3,932.3	29.4	36.8	73.6	696.1	20.7	1.2	No	109	4.0
BB Healthcare	1,108.2	34.1	54.5			(0.1)	1.1	No	100	2.7
HBM Healthcare Investments	1,975.6	25.6	111.1	186.2	674.4	4.0	1.3	Yes	106	2.7
International Biotechnology Trust	300.4	12.2	29.2	66.3	486.7	(5.6)	1.3	Yes	106	3.9
Polar Capital Global Healthcare	356.5	28.7	41.8	72.4	288.9	(10.3)	1.1	Yes	106	0.7
Syncona	1,226.8	(7.9)	1.5	62.7		(5.6)	1.6	No	100	0.0
Worldwide Healthcare Trust	2,486.4	13.3	39.2	85.6	480.7	0.0	0.9	Yes	105	0.6
Average	**1,488.9**	**18.5**	**46.2**	**90.4**	**548.3**	**(0.5)**	**1.2**		**104**	**1.8**
Trust rank in sector (eight funds)	**6**	**6**	**2**	**2**	**3**	**7**	**3**		**6**	**7=**

Source: Morningstar, Edison Investment Research. Note: *Sterling performance to 6 September 2021 based on ex-par NAV. TR = total return. Net gearing is total assets less cash and equivalents as a percentage of net assets.

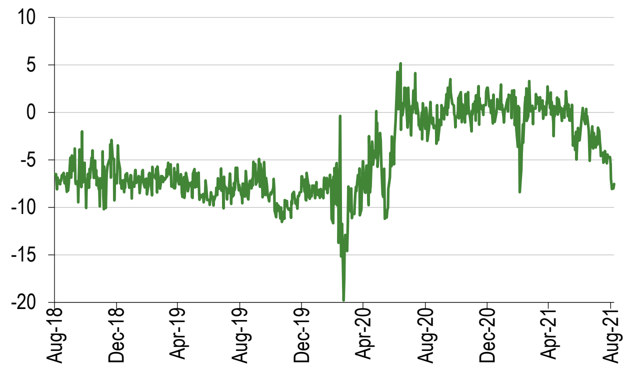
Dividends

BIOG aims to generate long-term capital growth rather than income and a large proportion of the fund is invested in early-stage companies that invest for future growth rather than returning cash to shareholders. In FY21, the trust's revenue return was -0.2p per share, compared with 1.0p per share in FY20. No dividend has been paid since 2001 (0.2p per share).

Discount: Recent widening

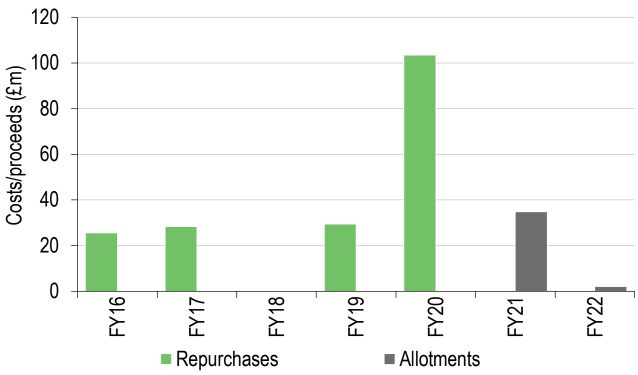
BIOG is currently trading at a 7.5% discount to cum income NAV, which compares with a range of a 3.5% premium to an 8.4% discount over the last 12 months. The trust's average discounts over the last one, three, five and 10 years are 0.6%, 4.8%, 5.2% and 4.8% respectively. A recent widening of the discount may be due to BIOG's relative underperformance this year. Renewed annually, BIOG has authority to purchase up to 14.99% and allot up to 10% of issued share capital. The board remains committed to limiting the discount to 6% in normal market conditions. In FY21, c 2.3m shares were issued at an average premium of 1.1%, which raised c £35.5m.

Exhibit 9: Discount over three years (%)



Source: Refinitiv, Edison Investment Research

Exhibit 10: Buybacks and issuance



Source: Morningstar, Edison Investment Research

Fund profile: All-cap, global biotech exposure

BIOG was launched in June 1997 and is listed on the Main Market of the London Stock Exchange. The trust is managed by Geoff Hsu at OrbiMed Capital, which is a global healthcare specialist investor with c $20bn of assets under management. OrbiMed operates from 11 offices around the globe and has a team of around 100 investment professionals, of whom 30 hold PhD or MD qualifications and 15 are former CEOs or company founders.

Hsu aims to generate long-term capital growth from a diversified portfolio of global biotech equities and related securities. BIOG's performance is measured against the NASDAQ Biotechnology Index (sterling-adjusted), and its currency exposure is unhedged. The trust's investment guidelines state that at the time of investment, a maximum of 15% of gross assets may be held in a single stock; up to 10% may be in unquoted securities (excluding a maximum $15m in private equity funds managed by OrbiMed and its affiliates); and swaps exposure is permitted up to 5% of gross assets. Hsu may employ gearing up to 20% of net assets; net gearing was 8.9% at end-July 2021.

Investment process: Bottom-up stock selection

Hsu aims to generate long-term capital growth from a globally diversified portfolio of biotech companies across the market cap spectrum. He is able to draw on the broad resources of OrbiMed's experienced investment team; their scientific expertise is deemed critical in terms of evaluating potential investments. Stocks are selected on a bottom-up basis following thorough in-depth fundamental research, which includes financial modelling, an assessment of research pipelines and identification of potential catalysts; company meetings are a very important element of the research process. Reasons to initiate a new position include whether an early-stage company is approaching profitability, ahead of anticipated positive clinical data, or if a business is considered a potential takeover target.

While the manager seeks out the best potential opportunities across the globe, the majority of the portfolio is held in US companies, reflecting its current dominance in the biotech industry, although BIOG has a notable double-digit exposure to China. The trust's holdings are regularly reviewed to ensure the original investment theses are still valid and positions are sized correctly. Hsu notes that BIOG's portfolio turnover is relatively high as a result of its emerging biotech exposure, where stocks can be volatile around news about clinical results. The manager continues to invest in unquoted companies (c 5% of the fund at end-July 2021).

BIOG's approach to ESG

OrbiMed believes that there is a high congruence between companies seeking to act responsibly and those that succeed in building long-term shareholder value. To the extent that it is practicable and reasonable, OrbiMed takes into account applicable environmental, social and corporate governance (ESG) factors when evaluating a prospective or existing investment. On a quarterly basis, the company's valuation and risk committee conducts a proactive screening of these across its holdings. Firms with potentially concerning ESG factors, as provided by third-party data services, are highlighted for discussion and potential referral to investment team members for further action if appropriate. OrbiMed may seek to engage with portfolio companies to promote changes in their conduct or policies and could ultimately decide to sell the investment in these firms. In some cases, it may adopt an 'activist' approach to encourage change at investee companies, which may include a proxy campaign or through seeking representation on their boards of directors.

The manager seeks to invest in reputable management teams and is especially cognisant about corporate governance in emerging markets, as company credentials in these regions may not be as high as those of firms in developed regions. He suggests that the biotech sector does not have the same concerns as within other industries given biotech companies are providing a social good.

Gearing

Gearing of up to 20% of NAV is permitted and is employed via a loan facility with JP Morgan Securities, priced at 45bp above the US Federal Funds rate. At the end of July 2021, the trust's net gearing was 8.9%, which compares with the typical range of 5–10%.

Fees and charges

OrbiMed is paid an annual management fee of 0.65% of BIOG's NAV. It is also entitled to a performance fee of 15.0% of outperformance versus the benchmark if the cumulative outperformance since the commencement of the arrangement on 30 June 2005 gives rise to a total fee greater than the total of all performance fees paid to date.

Frostrow Capital is the trust's alternative investment fund manager, providing company management, secretarial, administrative and marketing services. From 1 April 2021, it receives a tiered annual fee of 0.3% of BIOG's market cap up to £500m, 0.2% between £500m and £1bn and 0.1% above £1bn. Previously Frostrow received 0.3% of the trust's market cap, plus a fixed fee of £60k pa and a performance fee was payable (1.5% of outperformance versus the benchmark).

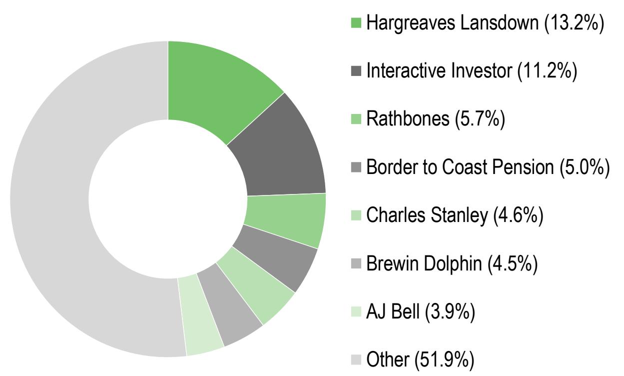
In FY21, BIOG's ongoing charges were 1.1%, which was in line with FY20. Including performance fees, the trust's ongoing charges were 1.3% (no performance fee was payable in FY20). A provision of £17.7m has been made in the event that BIOG's outperformance is maintained.

Capital structure

BIOG is a conventional investment trust with one class of share. There are currently 41.7m ordinary shares in issue and the average daily trading volume over the last 12 months is c 97k shares. At the end of FY21, BIOG's shareholder base was split as follows: 71.4% retail investor (an increase from 64.4% at the end of FY20); 11.0% pension funds; 9.1% mutual funds; and 8.5% other.

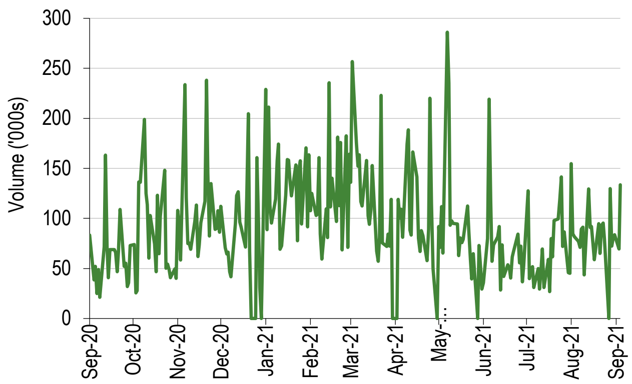
The trust has a five-year continuation vote – the last was held at the July 2020 AGM when the resolution was passed by a significant majority (99.9% of votes were in favour).

Exhibit 11: Major shareholders



Source: BIOG, as at 31 July 2021

Exhibit 12: Average daily volume



Source: Refinitiv. Note: 12 months to 7 September 2021.

The board

Exhibit 13: BIOG's board of directors

Board member	Date of appointment	Remuneration in FY21	Shareholdings at end-FY21
Andrew Joy (chairman since 2016)	15 March 2012	£37,000	55,000
Professor Dame Kay Davies	15 March 2012	£28,500	3,500
Steve Bates	8 July 2015	£28,500	10,000
Rt Hon Lord Willetts	11 November 2015	£26,000	Nil
Julia le Blan	12 July 2016	£28,500	7,000
Geoff Hsu	16 May 2018	Nil	Nil
Dr Nicola Shepherd	18 January 2021	£5,333	Nil

Source: BIOG

As Hsu is a partner at OrbiMed, he is considered to be a non-independent director. Professor Dame Kay Davies retired from the board at the conclusion of the 14 July 2021 AGM; Steve Bates has succeeded her as the senior independent director.

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