EDISON

The Biotech Growth Trust

Correction provides value opportunity

The Biotech Growth Trust (BIOG) aims to achieve growth by investing in biotechnology companies around the world, though in practice it is heavily weighted to North America (86%). A recent change to its investment mandate has allowed it to invest more in larger companies, reflecting both the growth in the sector and the managers' view that many major biotech firms have a more attractive growth and valuation profile than earlier-stage companies, although it continues to have a significant weighting (c 34% of the portfolio) in emerging biotech. A sharp correction in biotech stocks since March may present an attractive entry point for investors, with BIOG shares moving to a discount after trading at a premium for much of 2013.

12 months ending	Share price (%)	NAV (%)	NASBIOT Index (%)	DS World Pharma & Biotech (%)	FTSE World Index (%)
31/05/11	15.2	17.3	19.9	15.1	20.4
31/05/12	36.5	31.4	21.0	6.2	(8.0)
31/05/13	66.7	52.5	48.8	41.2	30.1
31/05/14	11.6	23.9	21.1	12.7	8.9

Source: Thomson Datastream. Note: Total return basis.

Investment strategy: Growth through innovation

Following an amendment to its investment policy in October 2013, BIOG's portfolio ended the financial year (31 March) with roughly equal weightings (c 34%) in large-cap and emerging biotech, and the balance in speciality pharmaceuticals and life science tools. The portfolio, which is heavily tilted to North America, but has a global mandate, aims to benefit from attractively valued growth opportunities present in the biotech sector, where areas such as cancer immunotherapy have the potential to change lives, as well as generating significant sales.

Sector outlook: Favourable drivers and lower P/Es

Biotech stocks sold off in March and April as investors took profits across higher-growth areas of the market. However, favourable demographic factors from ageing populations worldwide and increasing prosperity in emerging markets should continue to support innovation in biotech, with greater understanding of the human genome and disease processes leading to rapid development of new targeted therapies. With biotech valuations on a 12-month forward P/E basis 14% below the one-year average at mid-June, and at a below-average premium to 'big pharma', the correction may represent a buying opportunity for growth-orientated investors.

Valuation: At a discount after market correction

BIOG's shares traded at a premium to NAV for much of the mid-2012 to mid-2013 period, with demand managed through an active programme of share issuance. A new prospectus was issued in December giving the trust authority to place up to a further 50m shares. However, a market correction in the biotech sector at the end of Q1 has seen BIOG's shares move to a discount of 4.0% at 24 June, having traded in a range from a 10.3% discount to a 3.5% premium over the preceding 12 months. Share buybacks are used to cap the discount close to 6% and over three years the average discount is 3.5%.

Investment trusts

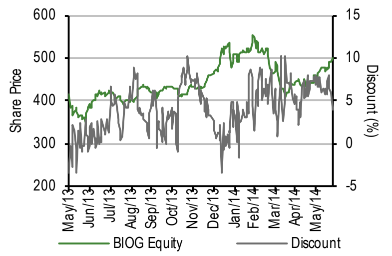
25 June 2014

Price	**500p**
Market cap*	**£339m**
AUM	**£370m**
NAV*	520.66p
Discount to NAV	4.0%
Yield	0.0%

*Excluding and including income. Data at 24 June 2014.

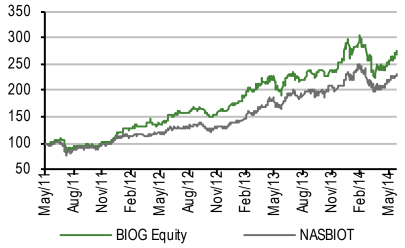
Ordinary shares in issue	67.9m
Code	BIOG
Primary exchange	LSE
AIC sector	SS: Biotech/Healthcare

Share price/discount performance



*Including income. Positive values indicate a discount; negative values indicate a premium.

Three-year cumulative perf. graph



52-week high/low	551.5p	349p
NAV* high/low	580.73p	358.22p

*Excluding income.

Gearing

Gross	5%
Net	7%

Analysts

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Edison profile page

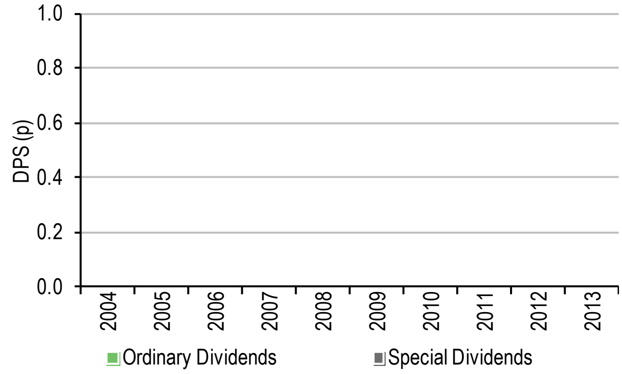
The Biotech Growth Trust is a research client of Edison Investment Research Limited

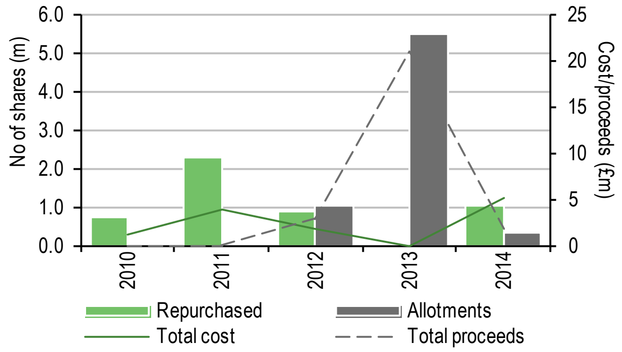
Exhibit 1: Trust at a glance

Investment objective and fund background	Recent developments
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).	22 May 2014: Annual results for the year ended 31 March. NAV TR +34.2% versus +34.7% for benchmark NASBIOT index. 28 April 2014: Placing programme suspended as sufficient shares in treasury to satisfy demand. 12 Feb 2014: IMS for three months ended 31 Dec. NAV TR +8.2% versus 5.6% for benchmark.

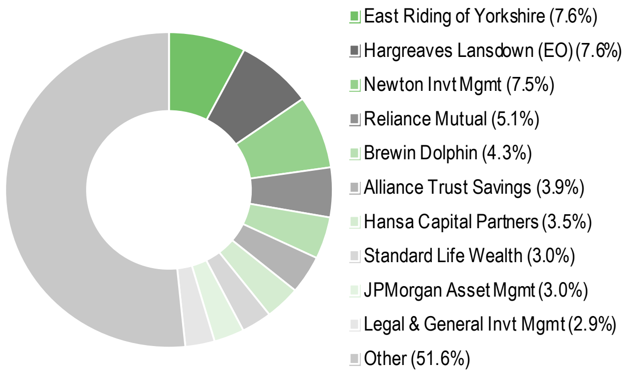
Forthcoming		Capital structure		Fund details	
AGM	July 2014	Ongoing charges	1.2%	Group	Frostrow Capital LLP
Half-year results	November 2014	Net gearing	7.0%	Manager	OrbiMed
Year end	31 March	Annual mgmt fee	See Page 7	Address	25 Southampton Buildings, London, WC2A 1AL, UK
Dividend paid	N/A	Performance fee	See Page 7		
Launch date	June 1997	Trust life	Indefinite	Phone	+44 (0)20 3008 4910
Continuation vote	Every 5 years – next 2015	Loan facilities	See Page 7	Website	www.biotechgt.com

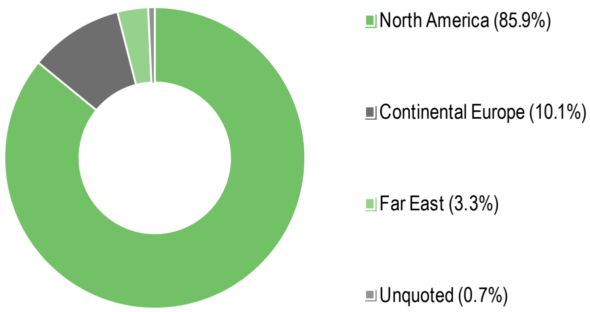
Dividend policy and history	Share buyback policy and history
Reflecting the capital appreciation objective, dividends are paid only as required to maintain BIOG's investment trust status. Dividends, if any, are expected to be small (last dividend of 0.2p paid in 2001).	Renewed annually, the trust has authority to purchase up to 14.99% and allot up to 10% of issued share capital. There is a discount control mechanism in place with a target level of no more than a 6% discount to NAV.





Shareholder base (as at 31 May 2014)	Distribution of portfolio (as at 30 April 2014)





Top 10 holdings (as at 30 April 2014)

			Portfolio weight (%)	
Company	**Country**	**Sector**	**30 April 2014**	**30 April 2013**
Gilead Sciences	US	Biotech	11.9	9.0
Biogen Idec	US	Biotech	10.7	6.8
Alexion Pharmaceuticals	US	Therapeutics	5.5	4.5
Illumina	US	Life science equipment	4.9	N/A
Incyte	US	Biotech	4.5	4.7
Ono Pharmaceutical	Japan	Speciality pharmaceuticals	3.3	N/A
Mylan	US	Generic pharmaceuticals	3.3	4.0
Impax Laboratories	US	Generic pharmaceuticals	3.2	N/A
InterMune	US	Biotech	3.1	N/A
Actelion	Swizerland	Biotech	3.1	N/A
Top 10			**53.5**	**61.6**

Source: The Biotech Growth Trust, Edison Investment Research, Morningstar, Bloomberg. Note: N/A = holdings not in the top 10 on specified date.

Sector outlook: More compelling valuations

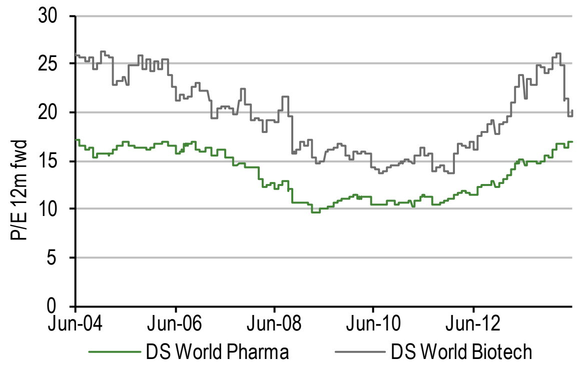
Increased life expectancy, greater prosperity in emerging markets and a more favourable regulatory environment are all supportive factors for healthcare and biotech companies. As people throughout the world live longer and are treated more successfully for acute conditions such as heart attacks, greater numbers have to contend with long-term chronic illness. At the same time, understanding of the human body and disease processes has advanced rapidly, leading to the development of more targeted therapies for various cancers and other diseases, as well as treatments for 'orphan conditions' that have a large impact but affect a relatively small number of patients.

The risk with development-stage drug companies is often binary: either the medicine being developed works (and works safely, without unacceptable side effects), or it does not. However, the potential rewards from research-led biotech investments if the drug under development becomes a blockbuster (such as Gilead Science's Sovaldi, which became the biggest ever drug launch based on sales for its first quarter after it was shown to cure hepatitis C in a majority of patients) are far greater than from mature pharmaceutical firms where risks are more diversified and likely to centre on patent expiries and competition from generic drug makers.

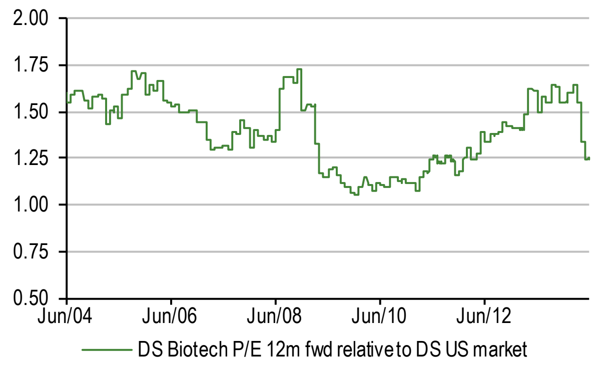
Given the greater growth prospects of biotechnology versus 'big pharma', biotech companies tend to trade at higher P/E multiples, as can be seen in Exhibit 2 below. Over 10 years the average 12-month forward P/E ratio for the Datastream World Biotech index is 19.7x, compared with 13.6x for the Datastream World Pharma index. However, following the sell-off in biotech in March and April the gap has closed, with the biotech index on a P/E of 20.2x at 12 June (2.5% above the 10-year average and 14.4% below the average over one year) and the pharma index on a P/E of 17.0x (25% above the 10-year average and 8.3% above the average over one year). Current valuations may thus represent a favourable entry point for investors who continue to believe that biotech innovation will drive future earnings and share price gains.

Exhibit 2: Healthcare sector valuations

World-DS Pharma, and World-DS biotech, P/Es over 10 years



World-DS Biotech P/E relative to US-DS P/E over 10 years



Source: Thomson Datastream

Fund profile: New policy allows more focus on majors

The Biotech Growth Trust was launched in 1997 as Finsbury Life Sciences and has been run since May 2005 as a specialist biotechnology trust by dedicated healthcare investment manager OrbiMed, initially under the name Finsbury Emerging Biotechnology Trust, becoming The Biotech Growth Trust in 2007. The portfolio has been co-managed by Richard Klemm and Geoffrey Hsu since the appointment of OrbiMed. BIOG aims to achieve capital growth by investing in biotech companies worldwide, although in practice it is heavily weighted to the US, which is the international centre of the biotech sector. In October 2013 the trust amended its investment mandate, under which it had previously been required to invest the majority of its assets in companies likely to have market capitalisations of US$3bn or below that have not yet achieved sustained profitability. The removal of this requirement reflects growth in the biotech sector since the mandate was originally put in place, and will allow the trust to have a greater exposure to major biotechnology companies.

The fund managers: Richard Klemm and Geoffrey Hsu

The manager’s view: Fundamentals still sound after sell-off

While the biotech sector sold off sharply in March and April 2014, BIOG’s managers view the correction as having been technically rather than fundamentally driven, pointing to a parallel decline in internet stocks as investors took profits after a period of strong performance. Hsu says the correction has removed some froth from the sector and that smaller biotech stocks, where valuations had begun to look stretched, are now more reasonably priced. However, the managers feel larger biotech stocks still offer more compelling valuations versus both emerging biotech and large pharmaceutical firms (Exhibit 3).

The regulatory environment in the US currently favours biotech, with the implementation of ‘Obamacare’ providing up to 30 million newly insured patients and the FDA speeding up approval of new drugs and supporting treatments that address unmet medical needs or represent major medical advances. The launch of Sovaldi, a hepatitis C treatment developed and marketed by Gilead Sciences, has been the highest-grossing drug launch of all time, although Gilead has been criticised over the pricing of the drug. BIOG’s managers see potential for further ‘blockbuster’ launches in 2014 focusing on solid tumours (Bristol-Myers Squibb and Ono Pharmaceutical’s PD-1 inhibitor), blood cancers (another Gilead product, idelalisib) and multiple sclerosis (Biogen Idec’s Tecfidera, which has been approved in the US since 2013 and is currently being launched across Europe). M&A activity is another driver for the market, with tax-driven mergers (often US firms re-domiciling to a lower-tax country after an acquisition) giving an immediate uplift to earnings.

Exhibit 3: Large-cap biotech and pharma P/E multiples, as at 13 June 2014

Top biotech	IBES LT EPS CAGR (%)	Current P/E	Forward P/E	2016 P/E	2017 P/E	Forward PEG	Top pharma	IBES LT EPS CAGR (%)	Current P/E	Forward P/E	2016 P/E	2017 P/E	Forward PEG
Amgen	7.8	14.4x	13.3x	12.3x	11.1x	1.7x	Pfizer	2.0	12.7x	13.4	12.9	12.4	6.8x
Gilead	25.5	11.8x	9.7x	8.4x	7.3x	0.4x	JNJ	7.3	16.1x	14.9	13.9	13.1	2.0x
Biogen-IDEC	20.0	24.6x	19.8x	16.1x	13.3x	1.0x	Merck	4.7	15.3x	14.6	13.4	12.9	3.1x
Celgene	25.7	22.6x	17.2x	13.3x	10.6x	0.7x	Abbvie	4.1	15.9x	13.1	11.4	10.5	3.2x
Alexion	34.5	26.9x	23.4x	18.3x	15.2x	0.7x	Bristol Myers	12.4	31.0x	32.1	25.6	23.0	2.6x
Regeneron	28.9	27.6x	22.3x	20.2x	16.2x	0.8x	Lilly	4.3	18.7x	16.4	13.6	12.5	3.9x
Median	**25.6**	**23.6x**	**18.5x**	**14.7x**	**12.2x**	**0.7x**	**Median**	**4.5**	**15.2x**	**14.7x**	**13.5x**	**12.7x**	**3.1x**

Source: IBES, Bloomberg.

Asset allocation

Investment process: Balancing science and commerciality

BIOG’s investment manager, OrbiMed, is entirely focused on the healthcare sector, and fund managers Klemm and Hsu are able to draw on the expertise of a 70-strong team with backgrounds in science, medicine, finance and the law. The OrbiMed process centres on bottom-up stock selection driven by intensive proprietary research and company visits. Companies will be assessed for their commercial prospects, as well as the development programmes of individual drugs. The managers build financial models for all potential holdings, taking account of the need for funding for research and development, but Hsu says that in choosing development-stage companies in which to invest, the primary driver of the thesis will always be their assessment of the viability of the lead compound, as a successful drug will ensure future funding is available.

The investment universe for BIOG numbers c 600 companies globally, with OrbiMed actively covering around two-thirds of these, but only c 40 stocks make it into the portfolio. Holdings will be reassessed and may be sold where the managers feel there has been a significant change to the investment case.

Current portfolio positioning

BIOG's portfolio is relatively concentrated, with 41 holdings at 30 April 2014, the largest 10 of which accounted for 53.5% of assets. The two largest holdings, Gilead Sciences and Biogen Idec, together make up 22.6% of the portfolio, although this high weighting is largely due to extreme share price gains (+56% and +45% over one year to 17 June respectively) following successful drug launches. Geographically, the trust is heavily weighted to North America (85.9%), with a handful of European stocks adding up to 10.1% and a single listed holding, Japan's Ono Pharmaceutical, accounting for the 3.3% equity position in the Far East (there is also a 0.7% holding in an unquoted OrbiMed venture capital fund that invests in Asian healthcare companies). In terms of sector split, at 31 March 2014 (the latest date at which a full portfolio is available) 34.5% of the portfolio was in large-cap biotech, 34.3% in emerging biotech, 19.2% in speciality pharmaceuticals and 12.1% in life science equipment. (These figures exclude the effect of gearing.)

Since the change to the investment mandate allowing a greater proportion of assets to be invested in larger companies, the managers have tilted more towards companies with products already on the market, with only 17% held in firms that are not yet generating revenue.

The managers have positioned the portfolio to benefit from three key themes. First, they see valuation multiples on larger biotech companies as compelling relative to their growth prospects (see Exhibit 3 on page 4), and are particularly focused on firms that have new products at an advanced stage of development, rather than relying on revenues from existing products. In the emerging biotech space, Klemm and Hsu are increasingly concentrating on companies with products that are close to market. An example is the Swiss-listed Actelion, which published encouraging Phase III data on its heart/lung drug Selexipag in mid-June, leading to an immediate 15% rise in the share price. The managers are also positioned to benefit from increased M&A activity in the emerging space. The third area is new treatments such as cancer immunotherapy. While much of the work on targeting cancer through the immune system is being done by big pharmaceutical companies, the portfolio has exposure through holdings such as Ono Pharmaceutical and Incyte, both of which have partnered with Bristol-Myers Squibb to develop new cancer treatments.

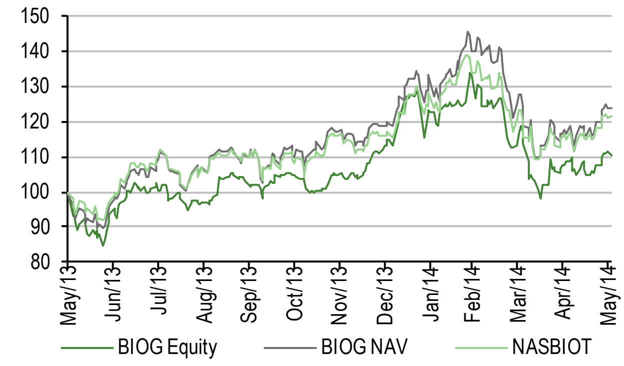
While overall performance of the portfolio has been positive in both absolute and relative terms, two holdings illustrate the risks in pharma and biotech at both ends of the product cycle. Infinity Pharmaceuticals' share price is down 31% over 12 months to 17 June because of uncertainty over its lead compound, blood cancer drug IPI-145, which reported discouraging Phase I safety data in June 2013. Celgene, meanwhile (a former top 10 holding), is fighting a patent battle with generic drugmakers over its cancer drug Revlimid, which Hsu says will hold back the stock in the medium term, although it has bounced back since the March sell-off and is now flat year to date.

Performance: Strong record of outperformance

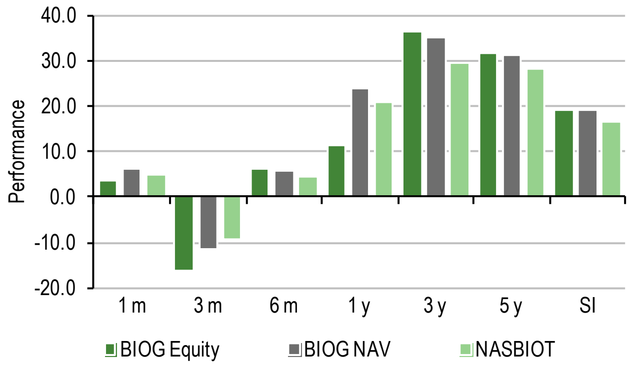
A sharp correction in the biotech market during March saw BIOG's share price dip further than its NAV or the benchmark NASDAQ Biotech index, although returns over six months and longer remain in positive territory (Exhibit 4). Emerging biotech names generally fell more than the market during the sell-off but also rebounded further, which helps explain BIOG's NAV underperformance over three months but outperformance over one month. As the chart on the right in Exhibit 4 shows, BIOG has delivered annualised outperformance on both a share price and NAV basis over the period since OrbiMed began managing the portfolio in May 2005. Exhibit 5 shows performance relative to the broader Datastream Pharma & Biotech index as well as the FTSE World and FTSE All-Share indices. With the exception of the three-month figures, which encapsulate the period of the correction, BIOG has outperformed most measures over nearly all timeframes. Exhibit 6 points to occasional spells where the trust has underperformed the benchmark, either in a rising market (as in April/May 2013) or a falling one (as in March/April 2014), although there has been a general trend of outperformance versus the NASDAQ Biotech index.

Exhibit 4: Investment trust performance to 31 May 2014

Price, NAV and benchmark total return, one year rebased



Price, NAV and benchmark total return performance (%)*



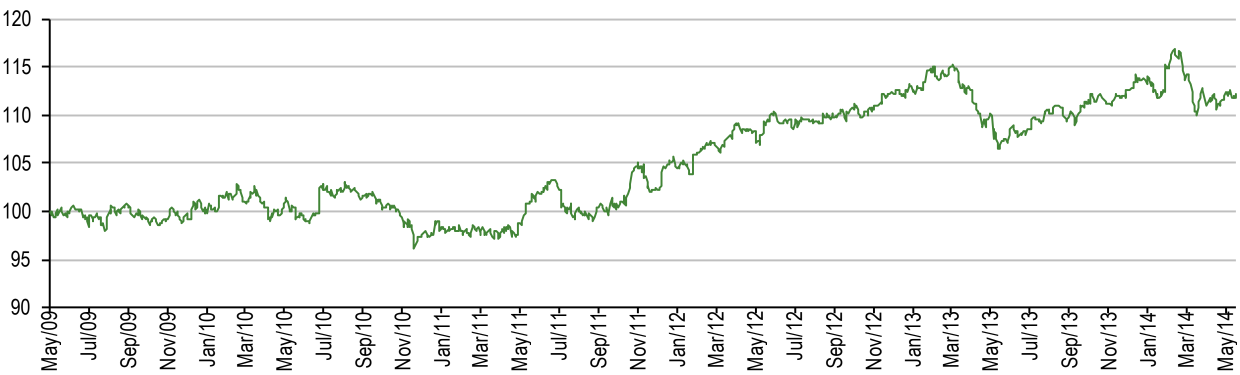
Source: Thomson Datastream, Edison Investment Research. Note: *Three and five years and SI annualised. SI = since OrbiMed managed.

Exhibit 5: Share price and NAV total return performance, relative to benchmarks (%), to 31 May 2014

	One month	Three months	Six months	One year	Three years	Five years	OrbiMed*
Price relative to NASBIOT	(1.1)	(7.6)	1.7	(7.9)	16.5	14.7	20.5
NAV relative to NASBIOT	1.3	(2.3)	1.2	2.3	13.8	12.4	22.4
Price relative to World-DS Pharma & Bio	2.2	(15.6)	(0.8)	(0.9)	50.3	68.2	80.9
NAV relative to World-DS Pharma & Bio	4.6	(10.8)	(1.3)	10.0	46.9	65.0	83.8
Price relative to FTSE World index	2.4	(17.0)	1.5	2.5	94.9	107.0	141.3
NAV relative to FTSE World index	4.8	(12.3)	1.0	13.8	90.5	103.0	145.2
Price relative to FTSE All Share index	1.0	(19.3)	2.2	4.3	94.0	110.1	130.0
NAV relative to FTSE All Share index	3.4	(14.7)	1.7	15.8	89.6	106.0	133.7

Source: Thomson Datastream, Edison Investment Research. Note: *OrbiMed measurement period is from 19 May 2005 when OrbiMed Capital was appointed as BIOG's manager.

Exhibit 6: BIOG NAV total return vs NASBIOT total return, five years to 31 May 2014

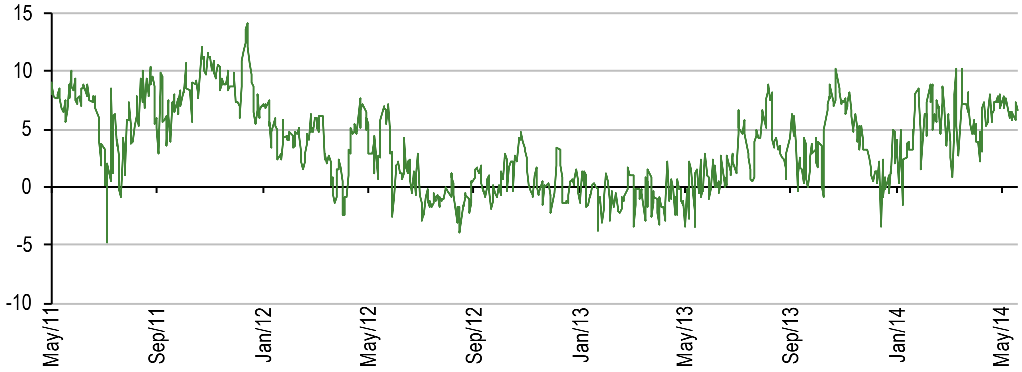


Source:Thomson Datastream, Edison Investment Research

Discount: Market correction erodes premium

BIOG traded at a premium to net asset value for much of the period from mid-2012 (Exhibit 7), buoyed by strong performance. In the year to mid-January 2014, the trust issued 5.8m new shares, raising £22.8m. However, the market correction that hit the biotech sector in March and April has seen this premium reverse, and since mid-January the trust has bought back into treasury 1m shares at a cost of £5.1m to maintain the discount close to or below 6%. At 16 June the shares stood at a discount to NAV of 6.6%, compared with an average discount over the past year of 4.0%; by 24 June the discount had narrowed to 4.0%. Over one year the valuation has ranged from a discount of 10.3% to a premium of 3.5%. Over three years the average discount is 3.5%.

Exhibit 7: Discount over three years



Source: Thomson Datastream, Edison Investment Research. Note: Positive values indicate a discount; negative values indicate a premium. NAV with debt at fair value.

Capital structure and fees

BIOG is a conventional trust with one class of share. At 17 June there were 67.9m shares in issue, including 1.04m held in treasury. The trust has authority to buy back up to 14.99% of its shares, and regularly conducts buybacks to maintain the discount to NAV close to or below the target level of 6%. It may also allot shares equivalent to up to 10% of its share capital to manage a premium (see Discount section, above). BIOG has an indefinite life, but is subject to a five-yearly continuation vote, with the next one due at the 2015 AGM. The trust can use gearing up to a maximum of 10%. It has a revolving loan facility with Goldman Sachs, of which £27.9m was drawn at the 31 March year-end. Gearing stood at 7% at 30 April, down from 8.3% at the year end.

The investment manager, OrbiMed, receives a fee of 0.65% of NAV per year, with Frostrow Capital, which provides company secretarial, administration and marketing services, receiving a fixed fee of £60,000 plus 0.3% of market capitalisation per year. A performance fee of 16.5% of outperformance of the NASDAQ Biotech index (15% to OrbiMed and 1.5% to Frostrow) may be paid if the portfolio has outperformed the index since 30 June 2005. To avoid rewarding a period of performance that is not sustained, the fee calculation is based on the lower of the cumulative outperformance at the quarter end and at the same quarter end a year previously. Performance fees are only paid to the extent that the value of 16.5% of the cumulative outperformance exceeds the total value of performance fees already paid. No performance fee was paid for the year ended 31 March 2014. Ongoing charges for the year ended 31 March 2014 were 1.2% (2013: 1.3%).

Dividend policy and record: Focus on growth

As a specialist in growth-focused biotech investments, BIOG receives comparatively little income (1.3p per share for the year ended 31 March 2014, which was offset by other expenses charged to income) and has not paid a dividend since 2001.

Peer group comparison

Exhibit 8: Biotech and healthcare investment trusts

Percentage unless stated	Market cap £m	TR one year	TR three years	TR five years	Ongoing charge	Perf. fee	Discount (-) /Premium	Net gearing	Yield	Sharpe NAV 1 year	Sharpe NAV 3 years
Biotech Growth Trust	**329.1**	**38.3**	**164.9**	**296.5**	**1.2**	**Yes**	**-7.1**	**106.0**	**0.0**	**0.9**	**1.6**
BB Biotech AG	1336.2	30.4	152.7	192.7	1.5	Yes	-21.1	91.0	0.0	0.7	1.1
International Biotechnology	162.1	21.6	98.8	153.3	1.7	Yes	-15.1	102.0	0.0	0.8	1.4
Polar Capital Glb Healthcare	185.0	13.8	62.8	--	1.2	Yes	-4.9	98.0	2.3	1.4	1.8
Worldwide Healthcare	607.1	26.8	79.9	166.1	0.7	Yes	-4.0	110.0	1.2	1.3	1.5
Sector weighted average		**28.8**	**127.6**	**197.5**	**1.2**		**-13.8**	**98.5**	**1.4**	**0.9**	**1.3**
BIOG rank in sector	**3**	**1**	**1**	**1**	**3**		**3**	**2**	**3**	**3**	**2**

Source: Morningstar, 19 June 2014, Edison Investment Research. Notes: TR = NAV total return. The Sharpe ratio is a measure of risk-adjusted return. The ratios we show are calculated by Morningstar for the past 12- and 36-month periods by dividing a fund's annualised excess returns over the risk-free rate by its annualised standard deviation. Net gearing is shown here as total assets less cash/cash equivalents as a percentage of shareholders' funds. BB Biotech is Switzerland-listed and not part of the AIC peer group.

The AIC's specialist Biotech & Healthcare sector contains four trusts, two biotech and two healthcare specialists. The table in Exhibit 8 also includes Switzerland-listed BB Biotech; this fund and International Biotechnology Trust are more comparable with BIOG than the more generalist Polar Capital and Worldwide Healthcare funds. In the group, BIOG has the highest net asset value total return over one, three and five years, while its discount to NAV is below average and its level of gearing is above average for the sector. None of the biotech specialist trusts has a yield. BIOG has the lowest ongoing charges of the three biotech specialists, while its risk-adjusted performance as measured by the Sharpe ratio ranks it third overall in the sector over one year and second over three years.

The board

BIOG has seven board members, all except one of whom are independent of the investment manager. The Rt Hon Lord Waldegrave of North Hill is chairman and has served on the board since 1998. Peter Keen, Paul Gaunt and Dr John Gordon were appointed in 1997. Sven Borho, a founding partner of the investment manager OrbiMed, joined the board in 2006, while Professor Dame Kay Davies and Andrew Joy were appointed in 2012.

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