

# BB Biotech AG

## Profit from clinical innovation

BB Biotech AG (BION) is a Swiss specialist biotech investment company, with a bias towards mid-sized and larger companies generating revenues. The company targets double-digit annual returns and outperformed its NASDAQ Biotech benchmark in 2014 in what was a very strong year for the sector, posting a total return (in Swiss francs) of 75.1% versus 50.3% for the index. Inclusion in the Stoxx Europe 600 index from December 2014 reflects strong capital performance and increased liquidity. This will increase the fund's visibility to investors, while buying from passive funds may have helped the discount to narrow to its current level of c 14%.

| 12 months ending | Share price (%) | NAV return (%) | NASBIOT Index (%) | MSCI World HealthCare (%) | FTSE All-Share index (%) |
|------------------|-----------------|----------------|-------------------|---------------------------|--------------------------|
| 29/02/12         | 19.5            | 10.7           | 22.3              | 7.3                       | (3.4)                    |
| 28/02/13         | 42.2            | 46.5           | 29.4              | 27.1                      | 12.3                     |
| 28/02/14         | 81.7            | 75.5           | 69.7              | 28.7                      | 18.0                     |
| 28/02/15         | 67.2            | 55.2           | 37.7              | 26.8                      | 4.8                      |

Source: Thomson Datastream, Morningstar. Note: CHF total returns.

## Investment strategy: Where science and finance meet

BION aims to achieve total returns of c 15% a year over a medium- to long-term horizon by investing in high-growth biotechnology firms that are developing and marketing new products to address areas of unmet medical need. Its investment team brings together scientific and investment professionals to enable evaluation both of complex clinical issues and company financials, filtering down a universe of c 800 stocks to a portfolio of 20-35 holdings. The managers, based mainly in Zurich and New York, are supported by an executive board of directors with significant industry experience, who have the final say on portfolio construction.

## Outlook: Bulls still running despite price criticism

The biotech sector has continued to perform strongly over the past year, shrugging off market reversals in March and October 2014 and January 2015. Increasing criticism of drug pricing has been a factor in all three corrections, but the resumption of the bull market on each occasion suggests there are at least as many investors who see the sector as offering high growth at relatively attractive valuations, as those who fear that price pressure could spell an end to the bull run. Investors should be mindful of macroeconomic and geopolitical worries, however, as in the past, rises in risk aversion have tended to hit high-growth sectors such as technology and biotech more than markets as a whole.

## Valuation: Discount narrower since index inclusion

BION's discount to net asset value has narrowed since its inclusion in the Stoxx Europe 600 index in December 2014, and stood at 13.6% at 10 March, compared with an average of 21-22% over the past one, three and five years. The discount remains wider than UK-listed peers, but could narrow further through a combination of buying from index-tracking funds and discount-targeting measures such as a 5% annual buyback policy and a relatively high yield (3.7% at 10 March), funded by capital distributions.

## Investment companies

11 March 2015

**Price** CHF312.8  
**Market cap** CHF3,706.1m  
**AUM** CHF4,288.3m

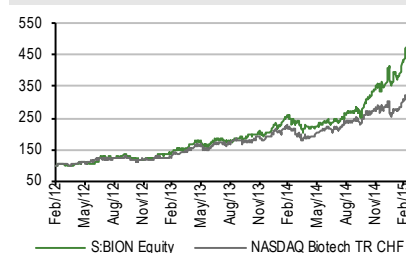
|   |          |
|---|----------|
| NAV*                                      | CHF361.9 |
| Discount to NAV                           | 13.6%    |
| *Including income. Data at 10 March 2015. |          |
| Yield                                     | 3.7%     |
| Ordinary shares in issue                  | 11.85m   |
| Code                                      | BION     |
| Primary exchange                          | Zurich   |
| AIC sector                                | N/A      |

## Share price/discount performance\*



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

## Three-year cumulative perf. graph



|                  |          |          |
|------------------|----------|----------|
| 52-week high/low | CHF285.0 | CHF133.7 |
| NAV* high/low    | CHF345.2 | CHF162.7 |

\*Includes income.

## Gearing

|       |      |
|-------|------|
| Gross | 0.9% |
| Net   | 0.6% |

## Analysts

|                 |                     |
|-----------------|---------------------|
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**Exhibit 1: Investment company at a glance**
**Investment objective and fund background**

BB Biotech (BION) is a Swiss-domiciled investment company, targeting long-term capital growth from biotechnology companies that are developing and marketing innovative drugs. At least 90% of the portfolio is invested in listed companies, primarily large and mid-cap names that are already profitable. It is benchmarked against the NASDAQ Biotech Index, but is managed bottom-up with a concentrated 20-35 stock portfolio.

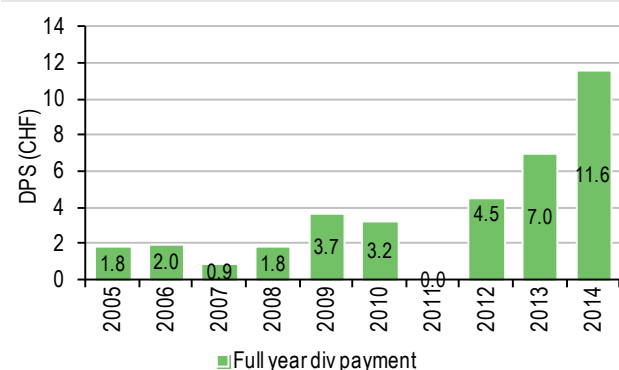
**Recent developments**

23 January 2015: Release of results for the fourth quarter of 2014. NAV increased by 26.3% in CHF (26.7% in €; 21.4% in US\$) and share price increased 27.0% in CHF (28.4% in €; 22.0% in US\$) compared with 11.2% for the benchmark NASDAQ Biotech index (in US\$).

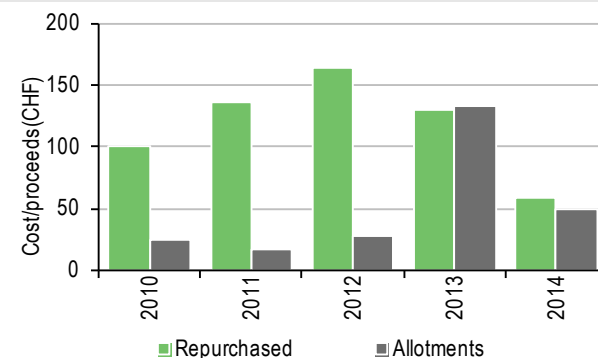
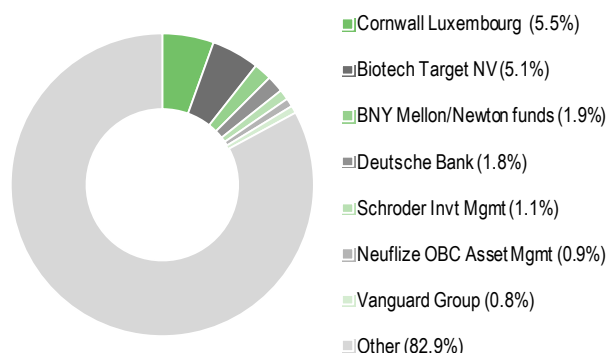
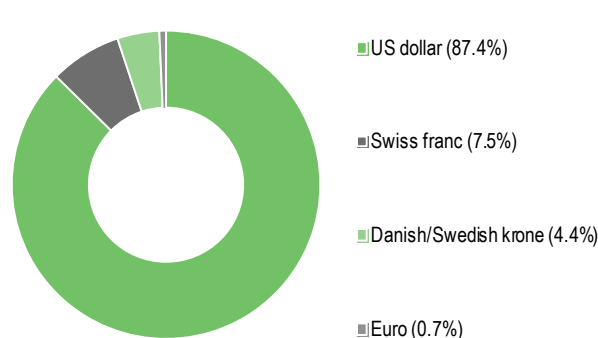
| Forthcoming       |                             | Capital structure |                    | Fund details |  |
|-------------------|-----------------------------|-------------------|--------------------|--------------|--|
| AGM               | March 2015                  | Ongoing charges   | 1.1%               | Group        | Bellevue Asset Management                                |
| Quarterly results | 17 April 2015               | Net gearing       | 0.6%               | Manager      | Team-managed   |
| Year end          | 31 December                 | Annual mgmt fee   | 1.1% on market cap | Address      | Seestrasse 16, 8700 Kusnacht, Switzerland                |
| Dividend paid     | March (part capital return) | Performance fee   | None               | Phone        | +41 (0)44 267 6700                                       |
| Launch date       | November 1993               | Company life      | Indefinite         | Website      | <a href="http://www.bbbiotech.com">www.bbbiotech.com</a> |
| Continuation Vote | None                        | Loan facilities   | See page 7         |              |  |

**Dividend policy and history**

A new distribution policy was put in place from the year ended 31 December 2012, whereby BION makes a cash distribution equivalent to approximately 5% of its share price at the year end.


**Share buyback policy and history**

BION has authority, renewed annually, to repurchase up to 10% of its issued share capital. As part of the new distribution policy announced from the year ended 31 December 2012, BION has also committed to returning 5% of its share price, at the year end, via the share buyback programme during the year.


**Shareholder base (as at 16 January 2015)**

**Analysis of portfolio by currency (as at 31 December 2014)**

**Top 10 holdings (as at 31 December 2014)**

| Company                 | Country     | Primary area                   | Portfolio weight % |              |
|-------------------------|-------------|--------------------------------|--------------------|--------------|
|                         |             |                                | 31 December 2014   | 30 June 2014 |
| Celgene                 | US          | Oncology/inflammatory diseases | 11.7               | 13.2         |
| Isis Pharmaceuticals    | US          | RNA interference               | 10.4               | 8.4          |
| Incyte                  | US          | Orphan diseases/cancer         | 8.4                | 8.6          |
| Gilead                  | US          | Infectious diseases            | 7.8                | 10.5         |
| Actelion                | Switzerland | Cardiovascular                 | 7.5                | 11.5         |
| Agios Pharmaceuticals   | US          | Oncology/orphan diseases       | 5.9                | N/A          |
| Vertex Pharmaceuticals  | US          | Orphan diseases                | 4.5                | 4.8          |
| Medivation              | US          | Oncology                       | 3.9                | 4.2          |
| Alexion Pharmaceuticals | US          | Orphan diseases                | 3.5                | 4.1          |
| Radius Health           | US          | Osteoporosis                   | 3.0                | N/A          |
| <b>Top 10</b>           |             |                                | <b>66.6</b>        | <b>72.5</b>  |

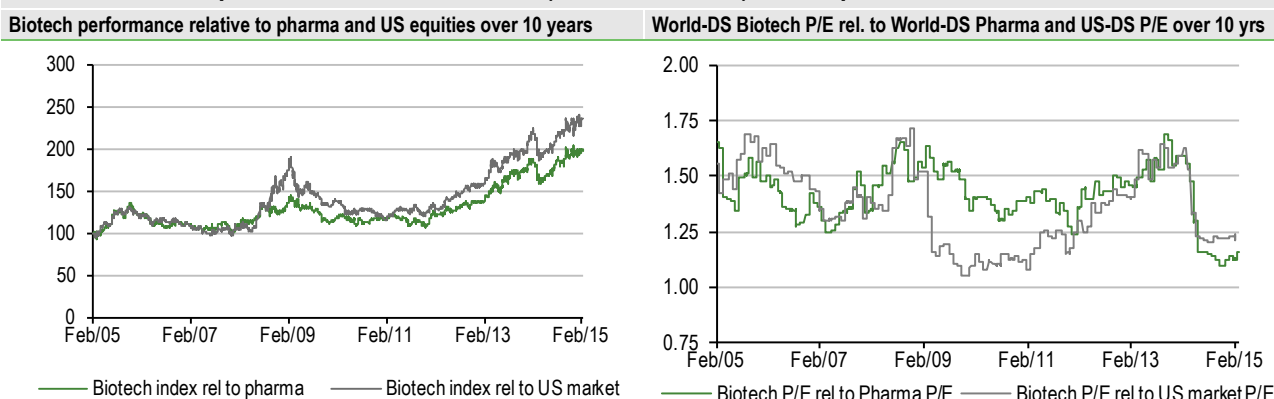
Source: BB Biotech AG, Bloomberg, Morningstar, Edison Investment Research. Note: N/A where not in top 10 at 30 June 2014.

## Outlook: Maturing market sees more scrutiny on price

The past three years have seen a significant bull market in biotechnology stocks: the benchmark NASDAQ Biotechnology index posted a total return of 202% from 29 February 2012 to 31 January 2015 (in CHF terms; 197% in sterling). The gains have taken place against the backdrop of a strong US market, although as shown in Exhibit 2 below (left-hand chart, using Datastream indices), biotech has outperformed both the US market as a whole and the more general healthcare sector. Biotech stocks have benefited from a more accommodative regulatory regime, as well as clinical success driven by major advances in the understanding of disease processes and human biology. This has fed through into increased revenues and profits, driven by blockbuster products such as Gilead Sciences' Sovaldi/Harvoni treatment for hepatitis C, which has been shown to provide an effective cure for the majority of patients. However, the sector (exemplified by Gilead) has attracted criticism on the pricing of treatments, particularly in the US.

In spite of strong share price rises, valuations seem undemanding. Biotech stocks tend to trade at a premium (on a 12-month forward P/E basis) to the wider healthcare sector and the US market as a whole, but as shown in the right-hand chart below, this premium declined significantly in 2014 and investors may feel the higher growth potential of biotech justifies continued optimism even in the face of record highs for the index. The ability of the sector to combine innovation and profitability in an increasingly price-sensitive environment will have a bearing on future market direction, although ageing populations and increasing prosperity in emerging markets will continue to bolster demand, perhaps leading to a more volume-driven pricing model for some less niche therapies.

**Exhibit 2: Biotech performance and valuations (12m forward P/E) versus pharma sector and US stock market**



Source: Thomson Datastream, Edison Investment Research. Uses Datastream indices (World DS-Biotech, World DS-Pharma and US-DS)

## Fund profile: Long-established sector specialist

Launched in 1993, BB Biotech (BION) is a Swiss-listed investment company (with secondary listings in Germany and Italy) that invests in the fast-growing biotechnology sector. It has a concentrated portfolio of 20-35 stocks with a focus both on companies with products already in the market, and those with promising drug candidates in advanced stages of development. BION can invest globally although there is a significant bias (c 87% at 31 December) towards the US, where the majority of biotech companies are listed.

BION is managed by a team of industry specialists (biochemists, molecular biologists, doctors and economists) at Bellevue Asset Management and is overseen by an executive board (see page 8) with extensive experience in the sector. The management team is led by Dr Daniel Koller and is based mainly in Zurich and New York. During 2014 Dr Tazio Storni left the firm and was replaced by Dr Christian Koch. BION was admitted to the Stoxx Europe 600 index of leading European stocks in December 2014.

## The fund manager: Bellevue Asset Management

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### Managers' view: Growth trajectory will outweigh pricing debate

With more and more biotech companies turning profitable as a supportive regulatory regime aids the introduction of innovative therapies, a greater focus on pricing is dominating the sector debate. BION's managers forecast significant year-on-year gains in firms' net income as the sector matures, but accept that a new balance needs to be found between suppliers and buyers, particularly in the US. "We don't want to put our trust in marketing muscle or rebate discussions," says investment team head Dr Daniel Koller. "We want to find molecules with clear differentiation that have a multi-year lead at least. Price is an important driver but the key will be who has interesting assets."

Koller says the fund is geared towards oncology and orphan diseases (c 67% at 31 December), where drugs command higher prices and are less exposed to the kind of criticism that has been levelled at Gilead for the price tag on its relatively mass-market hepatitis C (HCV) treatments Sovaldi and Harvoni. "There is headline risk from pricing and competition, but whenever markets react on fear and sentiment [as seen in the mid-January dip following Gilead's admission that it would have to offer discounts in return for patient access], that is an opportunity that we can use to trade. We think the fundamentals are solidly intact," says Koller.

BION's portfolio has significant mid-cap exposure (see Exhibit 3, below) but this is not indicative of a bias towards very early-stage companies; more than 90% of the portfolio at 31 December was in companies generating revenues, with c 44% already profitable. Koller says the portfolio's revenue growth trajectory is twice the industry average because of the bias to mid-caps, where P/E multiples are higher but growth rates are far in excess of the average. While achieving the forecast growth rates will depend on product approvals, Koller says the biotech sector is in the middle of a very substantial innovation cycle, with a lot of late-stage products making it to market. Furthermore, an increase in the number of biotech companies having full ownership of their assets, rather than licensing relationships with big pharma, is also supportive of revenue growth projections.

## Asset allocation

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### Investment process: Focused portfolio of novel therapies

There are four stages to BION's investment process. To filter the global universe of c 800 biotech stocks, the managers begin by developing themes, identifying disease areas where major progress is being made and looking at technological advances that could underpin future therapies. BION's managers are specialised in different disease areas and stay informed through meetings with analysts, doctors and specialists, reviewing scientific literature and attending industry conferences.

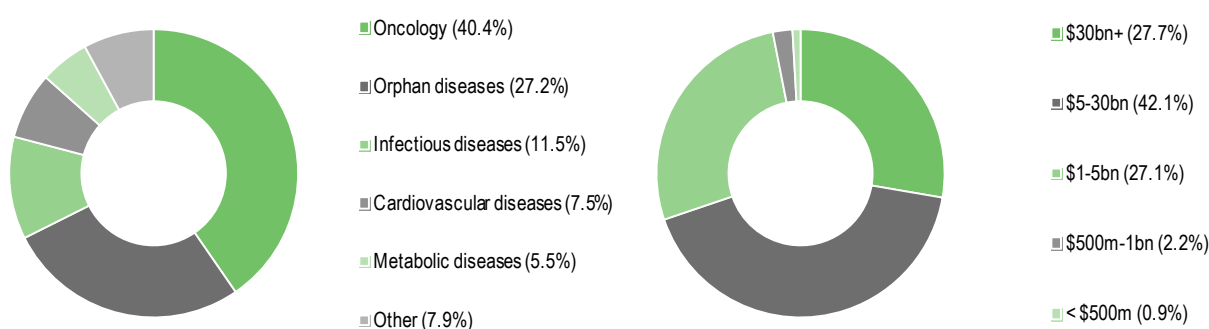
Having narrowed down the universe thematically to c 300 companies, quantitative and qualitative criteria are applied to arrive at a list of c 100 companies on which to build in-depth financial models. BION tries to focus on novel treatments that will ultimately reduce healthcare costs and improve patient outcomes. Screening criteria are weighted towards medical considerations, such as a new drug's efficacy, although quality of management and financials are also important.

Analysts draw up detailed proposals on potential holdings, which are discussed within the team and presented to the board in monthly meetings. An investment case will include financial models, clinical data, upside and downside potential and a view on position size and purchase price. New positions, full exits and major changes in weighting must be approved by the board. The target is a portfolio of 20-35 stocks, with the largest five to eight positions being 'core' holdings with larger weightings. The final stage of the investment process is monitoring and risk management, with continuous reassessment of the investment case and close scrutiny of clinical data. Significant changes in value will be assessed and proposals may be made to increase, reduce or exit the position.

## Current portfolio positioning

At 31 December 2014 BION's portfolio held 32 stocks, at the higher end of its stated range of 20-35. The top 10 holdings accounted for two-thirds of assets, while within that, six 'core' holdings – Celgene, Isis, Incyte, Gilead, Actelion and Agios – made up 51.7% of the portfolio. BION is more concentrated than peers, where the top 10 stocks on average represent c 50% of portfolios. All the core holdings generated revenues in 2014, although Isis (a leader in the development of antisense therapy for genetic conditions such as spinal muscular atrophy), Incyte (a specialist in haematological disorders such as myelofibrosis) and Agios (which uses its expertise in cellular metabolism to develop new cancer treatments) are yet to become profitable. Agios has increased substantially as a proportion of the portfolio following a rerating on positive data for a compound targeting acute myeloid leukaemia, for which it is partnered with Celgene. (The shares have returned 242% in the past 12 months, according to Bloomberg.)

**Exhibit 3: Portfolio distribution by clinical focus (left) and market capitalisation (right)**



Source: BB Biotech, Edison Investment Research, at 31 December 2014

Holdings recently added to the portfolio include PTC Therapeutics, a specialist in rare genetic diseases with a lead molecule approved in Europe for the treatment of Duchenne muscular dystrophy; and next-generation antibiotic developers Cempira and Tetrphase. The managers note that antibiotics may be entering a new phase because of the need for novel treatments to combat the increasing prevalence of drug resistance in previously treatable infections.

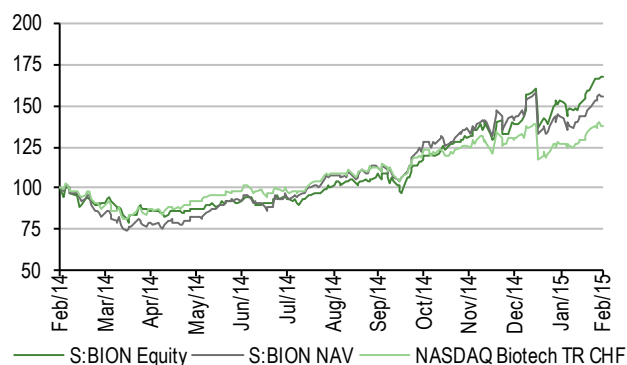
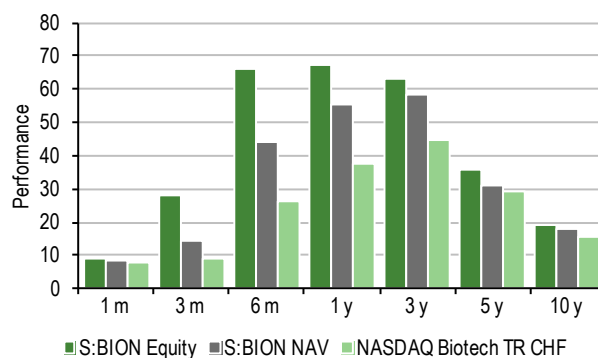
During 2014 BION sold out of its remaining holdings in emerging markets, meaning the portfolio is now concentrated in the US (87.4% of assets) and Europe (12.6%). The European exposure is split between Swiss franc, Swedish and Danish krone and euro-denominated stocks. The managers choose not to hedge currency exposure.

## Performance: Strong run of cumulative outperformance

Over three years from 29 February 2012 to 28 February 2015, the benchmark NASDAQ Biotech index (NBI) has risen some 200% in CHF total return terms. In spite of market corrections in March and October (and a brief drop in January, partly owing to the Swiss National Bank's decision to scrap the currency peg to the euro), the past year has continued strong, with a 37.7% CHF total return from the NBI between 28 February 2014 and 28 February 2015. BION has significantly outperformed the index in share price and NAV total return terms over three and six months and one and three years to 28 February (Exhibit 4). Over longer periods outperformance has been maintained but is more marginal; annualised returns for BION and the index are c 30% over five years and c 15-20% over 10 years.

On a cumulative basis over the past 10 years, BION has significantly outperformed the NBI (Exhibit 5; a rising line indicates periods of outperformance), although there was a period of pronounced underperformance in late 2009 and early 2010. Since the March/April 2014 correction, outperformance has once again been marked.

Exhibit 6 also shows BION's returns in the context of the broader healthcare sector and the mainstream UK equity index, underlining the strength of biotech in general and BION's portfolio in particular during the past decade. It should be noted, however, that longer-term returns are weighted to the more recent period; from end-February 2005 to end-February 2012, the NBI produced a cumulative CHF total return of 40.1% while BION's NAV total return was 33.2%.

**Exhibit 4: Investment trust performance to 28 February 2015**
**Price, NAV and benchmark total return performance, one year rebased**

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


Source: Thomson Datastream, Morningstar, Edison Investment Research. Note: \*Three, five and 10 years annualised. Returns in CHF.

**Exhibit 5: BION NAV total return vs NASBIOT total return, over 10 years, rebased to 100**


Source: Thomson Datastream, Morningstar, Edison Investment Research. Note: Performance calculated in CHF.

**Exhibit 6: Share price and NAV total return performance, relative to benchmarks (%), to 28 February 2015**

|  | One month | Three months | Six months | One year | Three years | Five years | 10 years |
|--|-----------|--------------|------------|----------|-------------|------------|----------|
| Price relative to NASDAQ Biotech         | 1.0       | 16.9         | 31.2       | 21.4     | 42.9        | 29.7       | 36.1     |
| NAV relative to NASDAQ Biotech           | 0.1       | 4.5          | 14.0       | 12.7     | 32.0        | 8.2        | 26.1     |
| Price relative to MSCI World Health Care | 1.3       | 24.5         | 44.7       | 31.9     | 108.4       | 124.1      | 150.9    |
| NAV relative to MSCI World Health Care   | 0.5       | 11.3         | 25.7       | 22.4     | 92.5        | 87.0       | 132.4    |
| Price relative to FTSE All Share         | (0.7)     | 25.6         | 65.5       | 59.6     | 211.1       | 220.4      | 312.2    |
| NAV relative to FTSE All Share           | (1.5)     | 12.3         | 43.8       | 48.1     | 187.4       | 167.4      | 281.8    |

Source: Thomson Datastream, Morningstar, Edison Investment Research. Note: Performance calculated in CHF. Geometric calculation.

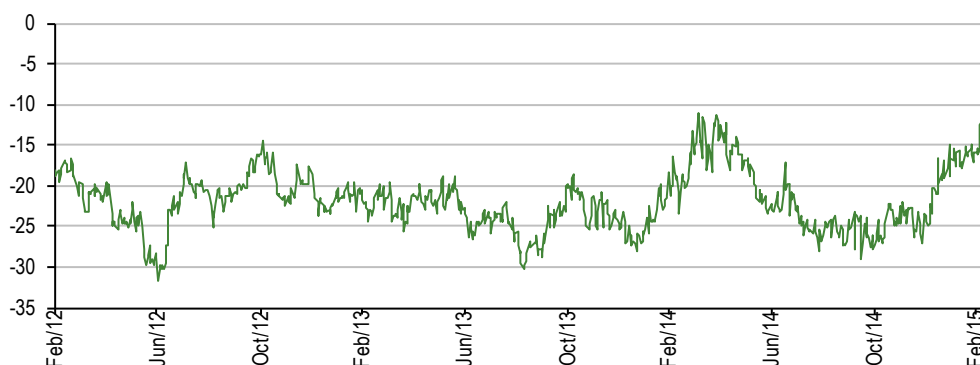
## Discount: Narrower after strong run for sector

At 10 March 2015 BION's shares stood at a 13.6% discount to cum-income net asset value. This is narrower than the averages over one, three and five years (20.9%, 21.9% and 22.1% respectively). The narrowing may in part reflect continued strong demand for biotech assets – with the sector shrugging off two significant market reversals (in spring and autumn 2014) to post solid gains for the year – as well as buying from passive funds since BION's inclusion in the Stoxx Europe 600 index in December 2014. It may also indicate a degree of success for BION's two-pronged discount management programme, whereby it pays capital distributions of 5% (see Dividend section, below) and also buys back up to 5% of shares per year. In FY14 140,200 shares were bought back into treasury for a total consideration of CHF23.3m.



BION has historically traded at a wider discount than its UK-listed peers, and this differential has been maintained in spite of a general narrowing of discounts (see Peer group comparison below). As the largest fund in the peer group by a significant margin, BION's discount skews the weighted average for the sector, which at 12.0% (figures from Morningstar, at 5 March) is wider than the discount on all but one of the other constituents. Excluding BION, the sector weighted average is narrower at 6.8%; if the two healthcare generalists are also excluded, the sector average discount is 14.1% including or 9.1% excluding BION.

**Exhibit 7: Discount over three years, including income**



Source: Thomson Datastream, Morningstar, Edison Investment Research

## Capital structure and fees

BION is a closed-ended investment company, listed on the Swiss SIX exchange with secondary euro-denominated listings in Germany and the Italian Star segment (all of which are recognised exchanges for the purposes of ISA investment). At the 31 December 2014 year-end BION had 11.85m shares in issue, of which 567,208 were held in treasury (see Discount section, above). BION has a CHF350m credit line, of which currently CHF30m is drawn. The maximum available gearing based on the current facility and FY14 net assets is c 10%; the actual gearing level is far lower at c 0.9% gross/0.6% net, a significant fall from the c 6% level at the 30 June half-year.

An all-in annual management fee of 1.1% of average market capitalisation is payable to Bellevue Asset Management. This was reduced in 2014 from 1.2%, although at the same time a CHF1bn cap on the average market capitalisation was removed. The removal of the cap and the significant increase in assets during the year means the management fee paid for FY14 (CHF22.4m) was practically double the fee paid for FY13 (CHF12.0m), although the total expense ratio was only marginally higher, at 1.14% versus 1.02% for FY13.

## Dividend policy and record

Few biotech companies pay dividends (dividend income was 0.4% of BION's operating income for FY14) and BION's own dividend record (see Exhibit 1 on page 2) reflects a history of payments out of capital, primarily to help manage the discount. This policy was formalised from the 2012 financial year, with a cash distribution equivalent to 5% of the volume-weighted average share price in December paid following the AGM in March each year. For the year ended 31 December 2014 a distribution of CHF11.60 has been declared. This is c 65% higher than a year previously and reflects strong performance from the biotech sector in general and from BION itself during 2014. Because the cash distribution is a set percentage of the share price, it will fluctuate from year to year and may go down in value (perhaps substantially if the biotech sector suffers a significant reverse) as well as up, although BION's managers point to historical average portfolio returns of 15% as an indication that the current distribution level can be sustainable.

## Peer group comparison

Exhibit 8 below shows BION alongside the Association of Investment Companies' specialist Biotech & Healthcare sector. As a Swiss-listed closed-end fund, BION is not a member of the AIC peer group but has a similar investment focus to the two biotech specialists in the sector. BION is the largest fund in the group by a considerable margin. NAV total return is the highest in the peer group over one, three and five years. Ongoing charges are in line with the average and are the lowest of the three biotech specialists, while the discount to NAV is the widest in the sector. Gearing is modest and at a broadly similar level to peers. BION's 4.6% yield is a function of a 5% capital distribution policy adopted in 2012 (see Dividend section, above).

**Exhibit 8: Biotech and healthcare investment trusts**

| Percentage unless stated          | Market cap<br>£m | TR one<br>year | TR three<br>years | TR five<br>years | Ongoing<br>charges | Perf. fee | Discount (-)<br>/premium | Net gearing  | Yield       |
|-----------------------------------|------------------|----------------|-------------------|------------------|--------------------|-----------|--------------------------|--------------|-------------|
| <b>BB Biotech AG</b>              | <b>2766.3</b>    | <b>61.0</b>    | <b>309.0</b>      | <b>358.2</b>     | <b>1.1</b>         | <b>No</b> | <b>-15.4</b>             | <b>102.0</b> | <b>4.6*</b> |
| Biotech Growth Trust              | 480.2            | 40.5           | 231.4             | 344.7            | 1.2                | Yes       | -7.3                     | 106.0        | 0.0         |
| International Biotechnology Trust | 217.6            | 53.9           | 185.9             | 246.7            | 1.7                | Yes       | -13.3                    | 104.0        | 0.0         |
| Polar Capital Gbl Healthcare      | 206.1            | 20.5           | 83.0              | --               | 1.1                | Yes       | -9.2                     | 96.0         | 2.0         |
| Worldwide Healthcare              | 909.3            | 38.5           | 150.0             | 190.5            | 1.0                | Yes       | -4.6                     | 112.0        | 0.8         |
| <b>Sector weighted average</b>    |                  | <b>52.2</b>    | <b>253.3</b>      | <b>316.3</b>     | <b>1.1</b>         |           | <b>-12.0</b>             | <b>104.2</b> | <b>3.6</b>  |
| <b>BION rank in sector</b>        | <b>1</b>         | <b>1</b>       | <b>1</b>          | <b>1</b>         | <b>3</b>           |           | <b>5</b>                 | <b>4</b>     | <b>1</b>    |

Source: Morningstar, 5 March 2015, Edison Investment Research. Notes: TR = NAV total return. Net gearing is shown here as total assets less cash/cash equivalents as a percentage of shareholders' funds (100 = ungeared). BB Biotech is not part of the AIC peer group. All data is in sterling terms. \*BB Biotech's yield is a function of its 5% capital distribution policy. Few biotech stocks pay dividends.

## The board

BION has three executive directors. While idea-generation and day-to-day portfolio management reside with the fund managers, all major investment decisions are signed off by the board, who are highly qualified industry experts. The longest-serving director, Dr Clive Meanwell, has been a director since 2003 and is executive chairman and CEO of The Medicines Company, which he founded in 1996. Dr Erich Hunziker became chairman of BB Biotech in 2013 and has been on the board since 2011. He is a former CFO of Roche. Professor Dr Klaus Strein joined the board in 2013 after holding senior R&D roles at Roche and Boehringer Mannheim.

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