Platinum International Health Care Fund

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Portfolio Manager

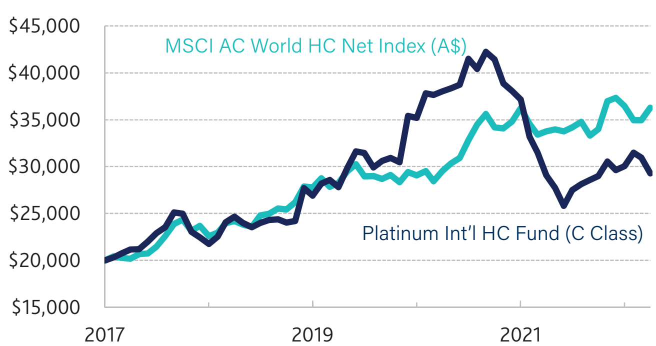
Performance

(compound p.a.+, to 31 March 2023)

	QUARTER	1YR	3YRS	5YRS	SINCE INCEPTION
Platinum Int'l HC Fund*	-3%	1%	2%	7%	9%
MSCI AC World HC Index^	0%	8%	9%	12%	9%

+ Excludes quarterly returns.
* C Class – standard fee option. Inception date: 10 November 2003.
After fees and costs, before tax, and assuming reinvestment of distributions.
^ Index returns are those of the MSCI All Country World Health Care Net Index in AUD. Source: Platinum Investment Management Limited, FactSet Research Systems.
Historical performance is not a reliable indicator of future performance.
See note 1, page 4. Numerical figures have been subject to rounding.

Value of $20,000 Invested Over Five Years
31 March 2018 to 31 March 2023



After fees and costs, before tax, and assuming reinvestment of distributions.
Historical performance is not a reliable indicator of future performance.
Source: Platinum Investment Management Limited, FactSet Research Systems.
See notes 1 & 2, page 4.

The Fund (C Class) returned -2.6% for the quarter.[1]

The global healthcare sector had the worst start to the year in 30 years relative to the S&P 500 index (see Fig. 1).

The Platinum International Health Care Fund primarily invests in companies that develop new therapies, devices or diagnostic approaches. The Fund also focuses on companies that enable such innovations to take place, such as next-generation tools used by scientists. For the past 18 months or so, these subsectors of healthcare have been abandoned by generalist investors due to the changing interest rate environment. Many companies in this subsector are unprofitable and depend on external capital, which is now more difficult to come by. In the past six months, we have witnessed a glimpse of a recovery, but the collapse of Silicon Valley Bank, which has been a crucial provider of funding to many start-ups in this space, has again put a dampener on the recovery. In all honesty, the biotech sector is currently priced as if it is going out of business.

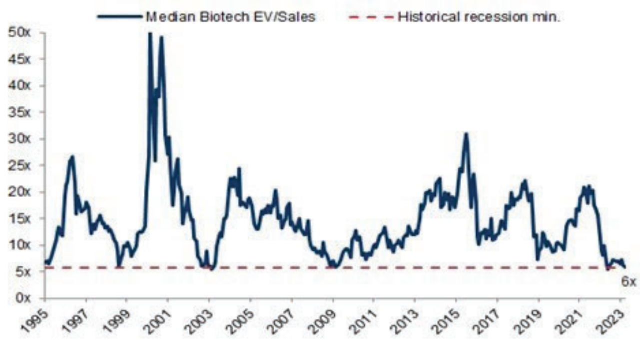
A recent chart from Goldman Sachs highlights the fact that valuations of biotech companies are currently at rock-bottom levels (see Fig. 2 on the following page). These levels have historically coincided with recessions and, most importantly, have marked key inflection points for the sector.

1 References to returns and performance contributions (excluding individual stock returns) in this Platinum International Health Care Fund report are in AUD terms, unless otherwise specified. Individual stock and index returns are quoted in local currency terms and sourced from FactSet Research Systems, unless otherwise specified.

Fig. 1: Healthcare Performance Relative to S&P 500 Calendar Year to Date (US$)

Source: Goldman Sachs Global Investment Research, FactSet Research Systems.

Fig. 2: Biotech Enterprise Value (EV)/Sales



Source: Goldman Sachs Global Investment Research, FactSet Research Systems.

For further context for Australian investors, the SPDR S&P Biotech ETF (XBI), an index that largely comprises non-profitable biotechs, returned -4.9% in Australian dollar terms for the 12 months to March and -7.0% for the quarter. The Fund returned 1% for the year and -2.6% for the quarter.

Pharmaceutical (pharma) companies have held up relatively better, reflecting their attraction as safe havens. The pharma companies that we own focus on retooling, including **Takeda Pharmaceutical** and **Sanofi**. Both companies are making good progress and have provided a positive contribution to the Fund's performance over the quarter, rising 6% and 12%, respectively. A special mention goes to Sanofi, which received new drug approvals and promising data in chronic obstructive pulmonary disease (COPD) for its key anti-inflammatory antibody, Dupixent.

Other contributors to performance over the quarter included US biotech **Albireo Pharma** (+103%), which was acquired by French biopharmaceutical company Ipsen over the quarter. Albireo's focus is on bile-acid modulators to treat rare liver conditions and complements Ipsen's rare disease portfolio. **Bayer** (+21%) rallied after further chatter on a potential breakup and the appointment of Bill Anderson as the new CEO. Bill was previously the CEO of Roche Pharma and is considered to be a very pragmatic manager. This is yet another member of the Roche alumni taking on the task of reforming a company with a drug discovery engine problem. **Neuren Pharmaceuticals** (+70%) rallied strongly after receiving approval in the US for trofinetide, a medication used to treat Rett syndrome.

Key detractors included **Esperion Therapeutics** (-74%) as the presentation of the CLEAR Outcomes trial for NEXLETOL, a drug designed to lower cholesterol and the risk of cardiovascular events, disappointed on some endpoints. In addition, Daichi Sankyo, Esperion's European partner also believes that the data does not justify milestone payments. **Redx Pharma** (-52%) was another significant underperformer, with the stock weakening following its unsuccessful reverse merger with a US biotech.

Changes to the Portfolio

We added to various investments that, despite their good progress, continue to see an ongoing lack of investor interest. One such example is **Exscientia**; it announced two new pipeline assets moving into the clinic during the quarter, but its valuation is again back below an enterprise value of US$50 million, as many investors are waiting for clinical data. We added to our position as we see a productive drug discovery engine in the making. We also added to **Icosavax**, **Omega Therapeutics** and **Zealand Pharma**. At the same time, we trimmed some of our holdings, which had a great start to the year, including **Albireo Pharma** (exited), **Takeda**, **Zai Lab** and **Neuren**.

Disposition of Assets

REGION	31 MAR 2023	31 DEC 2022	31 MAR 2022
North America	44%	47%	44%
Europe	24%	23%	22%
Australia	16%	14%	13%
Japan	4%	4%	5%
Asia	3%	4%	3%
Other	1%	1%	1%
Cash	8%	7%	12%
Shorts	0%	-5%	-3%

See note 3, page 4. Numerical figures have been subject to rounding.
Source: Platinum Investment Management Limited.

Net Sector Exposures

SECTOR	31 MAR 2023	31 DEC 2022	31 MAR 2022
Biotechnology	56%	53%	49%
Pharmaceuticals	26%	27%	26%
Life Sciences Tools & Services	7%	7%	8%
Other	2%	1%	2%
TOTAL NET EXPOSURE	92%	88%	86%

See note 4, page 4. Numerical figures have been subject to rounding.
Source: Platinum Investment Management Limited.

Top 10 Holdings

COMPANY	COUNTRY	INDUSTRY	WEIGHT
SpeeDx Pty Ltd	Australia	Biotechnology	7.8%
Bayer AG	Germany	Pharmaceuticals	4.0%
Sanofi SA	US	Pharmaceuticals	4.0%
Takeda Pharmaceutical Co	Japan	Pharmaceuticals	3.9%
Telix Pharmaceuticals Ltd	Australia	Biotechnology	3.6%
UCB SA	Belgium	Pharmaceuticals	2.8%
Exscientia Plc	UK	Biotechnology	2.7%
Gilead Sciences Inc	US	Biotechnology	2.4%
Quanterix Corp	US	Life Sciences Tools	2.3%
Galapagos NV	Belgium	Biotechnology	2.2%

As at 31 March 2023. See note 5, page 4.
Source: Platinum Investment Management Limited.

For further details of the Fund's invested positions, including country and industry breakdowns and currency exposures, updated monthly, please visit https://www.platinum.com.au/our-products/pihcf

Commentary

Pharma companies are sitting on very healthy balance sheets, but so far, they have not deployed very much of it. Life for pharma companies is not going to get any easier, given that a patent cliff is approaching towards the end of this decade and price pressure is set to intensify as a result of the Inflation Reduction Act provisioning for Medicare to negotiate certain prescription drugs starting in 2026. Mergers and acquisitions (M&A) are inevitable given that the competitive dynamics of the industry have changed significantly over the past two decades. Today, a market monopoly for a new mechanism of action drug is no longer a given; peers, as well as biotech companies, are fast followers, continuously adding pressure. Hence, the days of being able to take your time and tinker with a new R&D project are behind us; today, the need to increase R&D efficiency is paramount.

Product portfolio concentration is also an issue for pharma companies, with often one product contributing significantly to sales. Fig. 3 summarises the concentration of the top product as a percentage of sales at pharma companies.

Merck stands out, with Keytruda (sales of US$21 billion in 2022) accounting for more than half of its pharma sales. While Keytruda is approved for many cancer indications, it is still striking to see how concentrated Merck's product portfolio has become. Merck's pipeline does have some interesting assets coming through, such as sotatercept for pulmonary hypertension (obtained via its acquisition of Acceleron, which was held in the Fund at the time), an oral peptide inhibitor of PCSK9, a key enzyme that regulates cholesterol (UCB, a holding in the Fund, will receive royalties for this product upon approval), as well as personalised cancer vaccines from Moderna, but overall, diversification is paramount for Merck. Not that long ago, Merck was seen as a contender to buy antibody biotech Seagen, however, during the quarter, Pfizer was the successful bidder, acquiring Seagen for US$40 billion (2023E sales of US$2.2 billion). Pfizer estimates the acquisition will generate US$10 billion in sales by 2030.[2]

Keytruda's US patent expires in 2028, with Merck working on a subcutaneous injectable version as well as coformulations with other immuno-oncology pipeline products. The company will see cash accumulate on its balance sheet leading into 2028; hence, we are likely to see more acquisitions.

Today, pharma companies need to focus on externally sourced R&D just as much as their internal R&D projects. Their venture capital arms will play a key role in helping to engage with the biotech industry, as will the alumni networks of these large companies. Biotechs are the innovators in the healthcare sector, a fact that was further highlighted in the recent IQVIA Institute report, ***Global Trends in R&D 2023.*** The data shows that emerging biopharma companies[3] are the ones that "are responsible for two-thirds of the R&D pipeline".[4]

Outlook

Many investors in the healthcare sector are trying to figure out where to hide, and during the March quarter, the defensive nature of healthcare did not really play out. M&A is not a fix; it is part of life in this sector. The Silicon Valley Bank collapse was unhelpful and has put the biotech sector back to square one, with funding becoming an issue and a buyer's strike happening again. We will be paying close attention to clinical data as well as approval decisions for several of our holdings.

Fig. 3: Top Product as a % of Pharma Sales (2022)

COMPANY	% OF PHARMA SALES*	BRAND NAME	MECHANISM OF ACTION	DISEASE INDICATION	PHARMA SALES % OF OVERALL BUSINESS SALES
Merck	54.9	Keytruda	anti-PD1	Oncology	71%
Abbvie	36.6	Humira	anti-TNF	Inflammatory disease	100%
Sanofi	27.0	Dupixent	anti-IL4/13	Inflammatory disease	71%
Eli Lilly	26.1	Trulicity	GLP-1 agonist	Metabolic disease	100%
BMY	25.5	Eliquis	anti-Fxa	Cardiovascular disease	100%
GSK	24.2	Dolutegravir	Integrase Inhibitor	HIV infection	73%
JNJ	19.3	Stelara	anti-IL12/23	Inflammatory disease	65% after spin-off of consumer division
Pfizer	17.7	Eliquis	anti-Fxa	Cardiovascular disease	85%
AstraZeneca	13.5	Tagrisso	anti-EGFR	Lung cancer	100%
Roche	13.3	Ocrevus	anti-CD20	Multiple Sclerosis	70%
Novartis	11.6	Cosentyx	anti-IL17A	Inflammatory disease	100% following spin-off of Sandoz division

Source: Company reports, Platinum Investment Management Limited.
*Pharma sales are defined as pure pharma, excluding vaccine, consumer and animal health sales. For Merck and Pfizer, COVID-related sales are also excluded.

2 Source: https://www.pfizer.com/news/press-release/press-release-detail/pfizer-invests-43-billion-battle-cancer

3 Companies that spend less than US$200 million a year on R&D and have less than US$500 million in sales.

4 Source: https://www.iqvia.com/insights/the-iqvia-institute/reports/global-trends-in-r-and-d-2023

Notes

Unless otherwise specified, all references to "Platinum" in this report are references to Platinum Investment Management Limited (ABN 25 063 565 006, AFSL 221935).

Some numerical figures in this publication have been subject to rounding adjustments. References to individual stock or index performance are in local currency terms, unless otherwise specified.

1. Fund returns are calculated by Platinum using the net asset value unit price (i.e. excluding the buy/sell spread) of the stated unit class and represent the combined income and capital returns over the specified period. Fund returns are net of fees and costs, pre-tax, and assume the reinvestment of distributions. The MSCI index returns are in AUD, are inclusive of net official dividends, but do not reflect fees or expenses. MSCI index returns are sourced from FactSet Research Systems. Platinum does not invest by reference to the weightings of the specified MSCI index. As a result, the Fund's holdings may vary considerably to the make-up of the specified MSCI index. MSCI index returns are provided as a reference only. The investment returns shown are historical and no warranty is given for future performance. Historical performance is not a reliable indicator of future performance. Due to the volatility in the Fund's underlying assets and other risk factors associated with investing, investment returns can be negative, particularly in the short term.
2. The investment returns depicted in the graph are cumulative on A$20,000 invested in C Class (standard fee option) of the Fund over the specified period relative to the specified MSCI index in AUD.
3. The geographic disposition of assets (i.e. other than "cash" and "shorts") shows the Fund's exposures to the relevant countries/regions through its long securities positions and long securities/index derivative positions, as a percentage of its portfolio market value. Country classifications for securities reflect Bloomberg's "country of risk" designations. "Shorts" show the Fund's exposure to its short securities positions and short securities/index derivative positions, as a percentage of its portfolio market value. "Cash" in this table includes cash at bank, cash payables and receivables and cash exposures through derivative transactions.
4. The table shows the Fund's net exposures to the relevant sectors through its long and short securities positions and long and short securities/index derivative positions, as a percentage of its portfolio market value. Index positions (whether through ETFs or derivatives) are only included under the relevant sector if they are sector specific, otherwise they are included under "Other".
5. The table shows the Fund's top ten positions as a percentage of its portfolio market value taking into account its long securities positions and long securities derivative positions.

Disclaimers

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