

Platinum International Health Care Fund



Bianca Ogden
Portfolio Manager

Performance

(compound p.a.⁺, to 31 March 2020)

	QUARTER	1YR	3YRS	5YRS	SINCE INCEPTION
Platinum Int'l HC Fund*	3%	13%	14%	11%	10%
MSCI AC World HC Index [^]	2%	17%	15%	9%	10%

⁺ Excludes quarterly returns.

* C Class – standard fee option. Inception date: 10 November 2003.

After fees and costs, before tax, and assuming reinvestment of distributions.

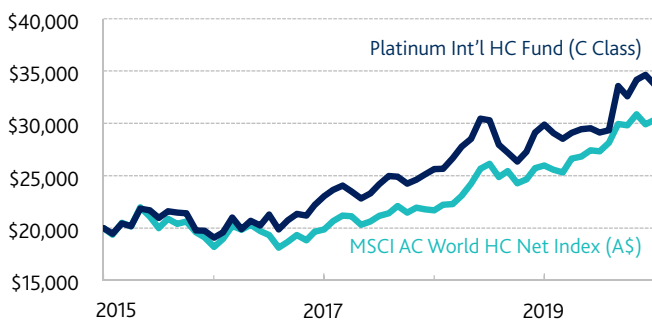
[^] Index returns are those of the MSCI All Country World Health Care Net Index in AUD. Source: Platinum Investment Management Limited, FactSet.

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 2015 to 31 March 2020



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.

See notes 1 & 2, page 4.

The Fund (C Class) returned 3.3% over the quarter.¹

It was a dynamic quarter dominated by a virus and the subsequent mobilisation of global healthcare systems to combat a pandemic. Several of our holdings are actively involved in developing diagnostic tests (**Roche, Qiagen, SpeeDx**), therapeutics (**Gilead Sciences, Roche, Sanofi**) and vaccines (**Moderna, BioNTech, Sanofi, Johnson & Johnson, CanSino**) for the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). We have been invested in these companies for some time and they all made a positive contribution to the Fund's performance over the quarter. Our decision to invest in these companies reflected their technology, management teams, and research and development (R&D) pipelines, as well as the long-term opportunities ahead. It is gratifying to see the dedication of all the companies in rapidly responding to the health crisis and take on the challenge.

For the moment, the world is in a holding pattern as we all watch and wait for the "flattening of the curve". Many clinical trials have been put on hold, while elective surgeries are delayed to ensure resources are allocated to patients with the coronavirus disease (COVID-19) and their treating physicians. Excluding the stocks mentioned above, many share prices have declined sharply and uncertainty rules. As Johnson & Johnson's Chief Financial Officer aptly said, "What we know for sure about guidance is we will be 100% wrong". We fully concur with that. Like companies, investors have to keep a clear head and look beyond the pandemic. There is no clear precedent of such a drastic slowdown in economic activity. Companies like Zimmer Biomet, which specialises in hip and knee replacements, is likely to experience a significant impact to their business in the coming months, as will dental-related companies. However, the market will at some point look through the temporary challenges. We have accordingly been adding to many of our positions during the share price declines. Those businesses with strong management, sophisticated science and technologies, solid balance sheets and innovative products have been at the top of our shopping list. We also added new companies in the gene therapy space that we have always had an eye on but felt were too expensive and far too widely owned.

¹ References to returns and performance contributions in this Platinum International Health Care Fund report are in AUD terms.

In other news during the quarter, Thermo Fisher Scientific finally announced its plans to acquire Qiagen, a company we have owned for some time. Qiagen's products are currently in high demand as they provide RNA² extraction kits as well as diagnostic tests for SARS-CoV-2.

Commentary

Biotech is an industry that thrives on challenges; good scientists do not take 'no' for an answer. It is this mindset that motivates the scientific community to counter this new coronavirus and it was also that exact same determination that helped establish today's biotech industry.

DNA and genetic engineering lie at the foundation of the biotech industry and the seminal work for today's protein therapeutics dates back to the 1970s. At that time, Herbert Boyer and Stanley Cohen showed that a gene from one organism can be transferred to another, involving enzymes that cut the DNA as well as enzymes that 'ligate' (put together) fragments of DNA.³ The end result is that the target organism is able to produce a gene product from the artificially inserted gene and essentially turn 'cells' into manufacturing sites. Herbert Boyer went on to co-found Genentech together with venture capitalist Robert Swanson, each investing US\$500 in 1976. Two years later, recombinant insulin was made. Today, we see genetic engineering and biomanufacturing as standard operating procedures. However, in the 1980s the pharmaceutical industry was

² Ribonucleic acid (RNA) is a polymeric molecule essential in various biological roles in coding, decoding, regulation and expression of genes.

³ These enzymes were identified in the 1960s.

Top 10 Holdings

COMPANY	COUNTRY	INDUSTRY	WEIGHT
BioNTech	Germany	Biotechnology	6.1%
SpeedX Pty Ltd	Australia	Biotechnology	5.7%
Takeda Pharma Co	Japan	Pharmaceuticals	3.8%
Sanofi SA	France	Biotechnology	3.7%
Gilead Sciences Inc	US	Biotechnology	3.3%
Roche Holding AG	Switzerland	Pharmaceuticals	2.9%
UCB SA	Belgium	Pharmaceuticals	2.6%
Quanterix Corp	US	Life Sciences Tools	2.2%
Astellas Pharma	Japan	Pharmaceuticals	2.1%
Moderna Inc	US	Biotechnology	2.0%

As at 31 March 2020. See note 6, page 4.

Source: Platinum Investment Management Limited.

Disposition of Assets

REGION	31 MAR 2020	31 DEC 2019	31 MAR 2019
North America	36%	33%	36%
Europe	32%	31%	24%
Oceania	11%	13%	13%
Asia	7%	7%	6%
Japan	7%	7%	4%
Cash	7%	10%	17%
Shorts	-5%	-2%	-8%

See note 3, page 44. Numerical figures have been subject to rounding.
Source: Platinum Investment Management Limited.

Net Sector Exposures

SECTOR	31 MAR 2020	31 DEC 2019	31 MAR 2019
Biotechnology	49%	46%	43%
Pharmaceuticals	29%	30%	24%
Life Sciences Tools & Services	11%	11%	8%
Consumer Staples	0%	0%	1%
Health Care Providers & Services	0%	1%	0%
Health Care Technology	0%	0%	-1%
Health Care Equip & Supplies	-1%	1%	0%
TOTAL NET EXPOSURE	88%	89%	75%

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

Net Currency Exposures

CURRENCY	31 MAR 2020	31 DEC 2019	31 MAR 2019
US dollar (USD)	47%	45%	51%
Euro (EUR)	23%	19%	10%
Australian dollar (AUD)	11%	14%	2%
Japanese yen (JPY)	7%	7%	16%
Hong Kong dollar (HKD)	4%	3%	2%
Swiss franc (CHF)	4%	4%	7%
British pound (GBP)	3%	6%	8%
Swedish krona (SEK)	1%	1%	2%
Danish krone (DKK)	1%	2%	1%
Korean won (KRW)	0%	0%	-1%
Norwegian krone (NOK)	0%	0%	2%

See note 5, page 4. Numerical figures have been subject to rounding.
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>.

focused on chemical synthesis, and all this recombinant DNA technology to make drugs was considered 'unproven'. Yes, it was great to test in the laboratory, but therapeutics pharmaceutical (pharma) executives were not convinced at all. The team at Genentech was not at all deterred by the lack of interest by pharma and continued on its path.

Today, biotech and pharma companies alike make ever-more complex protein therapeutics and develop formulations that make them last longer in human bodies, while biomanufacturing processes are being optimised to offer better yields. Pharma companies highlight their depth of protein-engineering capabilities at every possibility.

As investors, it is important to identify these unproven new technologies and the people driving these scientific advances. While the technology alone is interesting, it requires determined people to exploit it and challenge the traditional way of doing things. Timelines can be long and setbacks are a given, but these disruptive approaches can fundamentally change an industry.

The vaccine industry has seen limited disruption. There have been a number of new vaccines developed, but there are considerably fewer biotechs in this sector compared to the large number developing antibodies. The vaccine industry today is dominated by four companies: GSK, Pfizer, Merck and Sanofi. Making today's vaccines is costly, requiring significant manufacturing 'knowhow' and involves making millions of dosages containing viruses or parts of the pathogen, or in the case of influenza, requires a new vaccine each year. Vaccines are for healthy individuals and as such require a pristine safety profile to receive regulatory approval.

In the years to come, we expect that vaccines will play a much greater role in not just preventing infections, but also in treating diseases. This will, however, require a rethink of how vaccines are manufactured, which will provide investment opportunities. As mentioned above, vaccines aim to induce an immune response, essentially mobilising the immune system to attack a future invader. Traditionally, the invader is a bacteria or a virus, but it can easily be anything that's not supposed to be there, like a tumour. The proteins of the tumour that elicit the immune system need to be identified and then combined into a cancer vaccine. Using the traditional manufacturing approach of growing an attenuated virus in eggs or cell lines or making each protein in steel vats and following the vaccine clinical development guidelines, makes a cancer vaccine a very difficult commercial opportunity.

Using messenger RNA (mRNA) as the 'vaccine/drug' modality could be the solution. Genes dictate how a protein should look; making it, however, requires an intermediary molecule called mRNA. This molecule makes a copy (transcription) of a gene, which then functions as the template for making proteins (called translation). Once those proteins in the tumour sample have been identified as 'immunogenic' you can determine the mRNA and make it in a significantly smaller number of steel vats at a fraction of the time and cost. A mixture of these mRNAs can then be injected into the patient who essentially functions as its own manufacturing site. Today, BioNTech, a German biotech, together with Genentech/Roche produce a personalised cancer vaccine in about six weeks after receiving the patient's tumour sample, which is down from three months.

The flexibility and speed of using mRNA could have wide ramifications for the vaccine industry as well as the broader therapeutics industry. Within 63 days, US biotech, Moderna was able to select the antigen sequence, choose an mRNA SARS-CoV-2 vaccine prototype, make clinical trial material and give a dose to the first patient. BioNTech will shortly follow with its SARS-CoV-2 mRNA candidate (supported by Pfizer and China's Fosun). Recently, Sanofi also expanded its relationship with another mRNA biotech, Translate Bio to develop a SARS-CoV-2 mRNA vaccine. Interestingly, Sanofi has already been working on a more traditional vaccine for this virus but obviously wants to hedge its approach.

Feedback we frequently receive from vaccine manufacturers is that mRNA is unproven. As we highlighted above, new therapeutic modalities are always unproven to begin with and it is the hard work and perseverance of scientists and senior management that turn it into a proven and commercial opportunity. Both Moderna and BioNTech have such dedicated teams in place.

Outlook

A pandemic crisis like the one we are witnessing today, brings to light many challenges within different healthcare systems. Once we come out on the other side we need to learn from what has happened. Paul Hudson, CEO of Sanofi recently wrote an article in the Frankfurter Allgemeine Zeitung (FAZ) on the preparedness, pandemic coordination and drug manufacturing in Europe, key subjects he feels need to be addressed. As investors in the healthcare sector, we expect that these dramatic times will create new investment opportunities, particularly in the biotech sector. We are already seeing venture funds raising money for new investments, so while we cannot predict when the world will return to work, we know it will happen.

Notes

1. Fund returns are calculated using the net asset value (NAV) unit price (which does not include the buy/sell spread) of the stated unit class of the Fund and represent the combined income and capital returns of the stated unit class over the specified period. Fund returns are net of fees and costs, are pre-tax, and assume the reinvestment of distributions. The MSCI Index returns are in Australian Dollars and are inclusive of net official dividends, but do not reflect fees or expenses. MSCI index returns are sourced from FactSet.
Platinum does not invest by reference to the weightings of the Index. The Fund's underlying assets are chosen through Platinum's bottom-up investment process and, as a result, the Fund's holdings may vary considerably to the make-up of the Index that is used as its reference benchmark. Index returns are provided as a reference only.
The investment returns shown are historical and no warranty can be 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 this 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 net MSCI Index in Australian Dollars.
3. The geographic disposition of assets (i.e. the positions listed other than "cash" and "shorts") represents, as a percentage of the market value of the Fund's positions, the Fund's effective exposures to the relevant countries/regions through direct securities holdings and long derivatives of stocks and indices. "Shorts" relates to the effective exposures to short securities and short securities/index derivative positions.
4. The table shows, as a percentage of the Fund's net asset value, the Fund's exposures to the relevant sectors through direct securities holdings as well as both long and short derivatives of stocks and indices.
5. The table shows the effective net currency exposures of the Fund's portfolio as a percentage of the Fund's net asset value, taking into account the Fund's currency exposures through securities holdings, cash, forwards, and derivatives. The table may not exhaustively list all of the Fund's currency exposures and may omit some minor exposures.
6. The table shows the Fund's top 10 long equity positions as a percentage of the Fund's net asset value, taking into account direct securities holdings and long stock derivatives. The designation "China" in the "Country" column means that the company's business is predominantly based in mainland China, regardless of whether the company's securities are listed on exchanges within mainland China or on exchanges outside of mainland China.

Disclaimers

This publication has been prepared by Platinum Investment Management Limited ABN 25 063 565 006 AFSL 221935, trading as Platinum Asset Management (Platinum®). Platinum is the responsible entity and issuer of units in the Platinum International Health Care Fund (the "Fund"). This publication contains general information only and is not intended to provide any person with financial advice. It does not take into account any person's (or class of persons') investment objectives, financial situation or needs, and should not be used as the basis for making investment, financial or other decisions. You should read the entire Product Disclosure Statement (including any Supplement(s) thereto) for the Fund ("PDS") and consider your particular investment objectives, financial situation and needs before making any investment decision to invest in (or divest from) the Fund. You can obtain a copy of the current PDS from Platinum's website, www.platinum.com.au or by phoning 1300 726 700 (within Australia), 0800 700 726 (within New Zealand) or +61 2 9255 7500, or by emailing to invest@platinum.com.au. You should also obtain professional advice before making an investment decision.

Neither Platinum nor any company in the Platinum Group®, including any of their directors, officers or employees (collectively, "Platinum Persons"), guarantee the performance of the Fund, the repayment of capital, or the payment of income. The Platinum Group means Platinum Asset Management Limited ABN 13 050 064 287 and all of its subsidiaries and associated entities (including Platinum). To the extent permitted by law, no liability is accepted by any Platinum Person for any loss or damage as a result of any reliance on this information. This publication reflects Platinum's views and beliefs at the time of preparation, which are subject to change without notice. No representations or warranties are made by any Platinum Person as to their accuracy or reliability. This publication may contain forward-looking statements regarding Platinum's intent, beliefs or current expectations with respect to market conditions. Readers are cautioned not to place undue reliance on these forward-looking statements. No Platinum Person undertakes any obligation to revise any such forward-looking statements to reflect events and circumstances after the date hereof. 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.
© Platinum Investment Management Limited 2020. All rights reserved.

MSCI Disclaimer

The MSCI information may only be used for your internal use, may not be reproduced or disseminated in any form and may not be used as a basis for or a component of any financial instruments or products or indices. None of the MSCI information is intended to constitute investment advice or a recommendation to make (or refrain from making) any kind of investment decision and may not be relied on as such. Historical data and analysis should not be taken as an indication or guarantee of any future performance analysis, forecast or prediction. The MSCI information is provided on an "as is" basis and the user of this information assumes the entire risk of any use made of this information. MSCI, each of its affiliates and each other person involved in or related to compiling, computing or creating any MSCI information (collectively, the "MSCI Parties") expressly disclaims all warranties (including, without limitation, any warranties of originality, accuracy, completeness, timeliness, non-infringement, merchantability and fitness for a particular purpose) with respect to this information. Without limiting any of the foregoing, in no event shall any MSCI Party have any liability for any direct, indirect, special, incidental, punitive, consequential (including, without limitation, lost profits) or any other damages. (www.msci.com)