

Value in healthcare

What's it all about?

Healthcare expenditure is set to rise, driven by an aging population, a new cycle of innovation in pharma/biotech and trends in emerging economies. However, investing in biotech sector could represent a real challenge for investors with no in-house expertise. HBM Healthcare is a listed investment company that focuses on investments in private and public healthcare companies (Europe and US). Thanks to its solid in-house expertise in the healthcare sector and skilful stock picking, HBM has built up a solid track record, regularly generating above-market returns. This makes it an attractive option for investors seeking healthcare exposure. We initiate coverage with a Buy rating and TP of CHF151.

Buy (Not Rated)

Target price
Current price
Up/downside
Change in TP
Change in EPS
CHF 151.00
CHF 129.80
16.3%
none
none

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Pharma & biotech research team

Biographies at the end of the report

360 in **1** minute

Investment case summary

HBM Healthcare is a Swiss investment company managed by HBM Partners. It was founded in 2001 and has been listed on the Swiss Stock Exchange since February 2008. Its investment focus is private and public healthcare companies, mainly in Europe and North America. Despite increasing pressure on healthcare, the sector offers solid fundamentals, supported by an ageing population, innovation and emerging economies.

No other sub-sector in healthcare generates such a high return as the biotech sector. However, the entry barriers are high, and an experienced team with deep healthcare knowledge is necessary to implement a successful stock-picking strategy. HBM represents an attractive option for investors seeking healthcare exposure.

HBM has gradually built up a strong track record (+126% return since 2008 or 9% CAGR), targeting and delivering an annual return of at least 5% of net assets. This regular outperformance gives the company an edge over peers. Its investment portfolio is made up of stakes in about 50 companies (private and public) as well as in healthcare-dedicated funds (15% of investments), to diversify outside its core expertise. Thanks to a solid cash position of CHF410m (after the sale of AAA), HBM Healthcare is ready to embark on a new investment phase (mainly in private companies).

Key findings of the report

In this report we provide:

- An analysis of the long-term trends in the healthcare sector (ageing population, innovation, changes in lifestyle, etc.).
- An assessment of key issues to monitor in biotech portfolio management
- A comparative analysis of HBM Healthcare versus its peers.
- An analysis of the companies that are its main holdings.

Valuation model

Our valuation of HBM Healthcare is based on the NAV of all investments at a five-year average 25% share discount to NAV. We expect the NAV of HBM's public company portfolio (63% of investments) to reach the value implied by analysts' and consensus target prices. The valuation of investments in private companies and funds are included in our valuation at their acquisition costs or the price of the last round of financing. Any IPO or trade sales of companies in the private equity portfolio offer upside to our scenario. Our conservative valuation points to a NAV per share of CHF202, implying a target price of CHF151 (at 25% discount to NAV) and a Buy rating.

52-week high (CHF)

52-week low (CHF)

98.40

Company summary

HBM Healthcare is a Swiss investment company managed by HBM Partners. It was founded in 2001 and listed on the Swiss Stock Exchange in February 2008. Its investment focus is private and public healthcare companies, mainly in Europe and North America. The investment portfolio is made up of stakes in about 50 companies (its largest investment is less than 10% of the portfolio). It also has investments in healthcare-dedicated funds to diversify outside of its core expertise.

Management

Andreas Wicki, CEO Erwin Troxler, CFO

Hans Peter Hasler, Chairman of the Board

Key shareholders

Nogra Pharma Invest 15.0%-20.0% HBM Healthcare Investments Ltd 3.0%-5.0%

Market data HBMN SW Bloomberg Reuters HBMN.S Market cap (CHF) 912.6m Free float (%) 100.0 No. of shares outstanding (m) 1.2 3m avg. daily vol (CHFm) YTD abs. performance 31.1% 131.20

Strengths

- Highly skilled investment team with long-standing expertise
- Diversified portfolio of late-stage assets, both private and public
- Active role in value creation within portfolio companies
- Listed private healthcare equity fund

Opportunitie

- Invested in emerging and innovative therapies
- Substantial clinical newsflow from holding companies
- Intense M&A activity in the global healthcare sector
- Favourable environment for healthcare IPOs

Weaknesses

- Persistent wide discount to NAV
- Mature portfolio, which needs to be rebalanced
- Mixed performance over the years
- Size could be an obstacle to invest in small- and mid-caps

- Competition from listed healthcare equity funds or ETFs
- Venture is an industry that does not scale well
- The biotech boom coming to an end
- Sector rotation with healthcare outflows

Key	financials	(nlease see	the end of thi	c report fo	r full fina	aciale)
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Income Statement (CHFm)	2013	2014	2015	2016	2017E	2018E
Sales	0.0	0.0	0.0	0.0	0.0	0.0
% Change	na	na	na	na	na	na
EBITDA adjusted	0.0	0.0	0.0	0.0	0.0	0.0
EBIT adjusted	0.0	0.0	0.0	0.0	0.0	0.0
Adjusted EBIT margin (%)	na	na	na	na	na	na
Net profit reported	353.5	258.4	23.1	134.6	74.5	19.9
Net profit adjusted	353.5	258.4	23.1	134.6	74.5	19.9
Cash flow statement (CHFm)						
CF from operating activities	339.9	242.8	-44.0	119.3	59.5	4.3
Capex	0.0	0.0	0.0	0.0	0.0	0.0
Free cash flow	339.9	242.8	-44.0	119.3	59.5	4.3
Balance sheet (CHFm)						
Intangible assets	0.0	0.0	0.0	0.0	0.0	0.0
Tangible assets	0.0	0.0	0.0	0.0	0.0	0.0
Fin. & other non-current assets	878.6	1,050.6	1,007.6	1,126.8	1,240.5	1,300.6
Total shareholders' equity	920.3	1,074.2	1,019.9	1,086.9	1,175.0	1,206.9
Pension provisions	0.0	0.0	0.0	0.0	0.0	0.0
Liabilities and provisions	5.4	117.0	102.7	259.4	259.4	259.4
Net financial debt	-46.9	-76.9	-15.9	36.6	62.1	90.4
Working capital requirement	-1.4	-2.9	-3.6	-3.3	-3.3	-3.3
Invested capital	-1.4	-2.9	-3.6	-3.3	-3.3	-3.3
Per share data (CHF)						
EPS adj and fully diluted	40.98	32.58	3.06	19.01	10.60	2.83
Cash flow per share	39.40	30.61	-5.82	16.86	8.46	0.61
Book value per share	106.68	135.46	135.09	153.51	167.12	171.65
DPS	3.00	5.50	5.50	5.80	5.85	6.15
Ratios						
ROE	46.5%	25.9%	2.2%	12.8%	6.6%	1.7%
ROIC	na	na	na	na	na	na
Gearing	-5.1%	-7.2%	-1.6%	3.4%	5.3%	7.5%
Valuation						
P/E adjusted and fully diluted	1.6	2.7	32.6	5.3	12.2	45.8
P/CF	1.6	2.9	na	5.9	15.3	na
P/BV	0.6	0.7	0.7	0.7	0.8	0.8
Dividend yield (%)	4.7%	6.2%	5.5%	5.8%	4.5%	4.7%
FCF yield (%)	61.3%	34.4%	-5.8%	16.8%	6.5%	0.5%
EV/Sales	na	na	na	na	na	na
EV/EBITDA	na	na	na	na	na	na
EV/EBIT	na	na	na	na	na	na
EV/IC	na	na	na	na	na	na



Investment case in six charts

Chart 1: Number of new drug approvals at the FDA

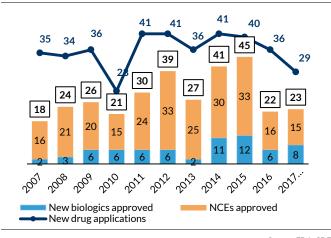
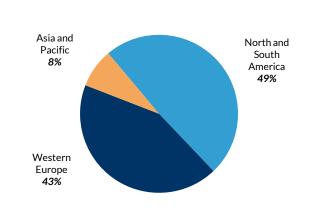


Chart 2: Regional exposure



Source: FDA, CDER

Source: HBM Healthcare Investments as of 30 September 2017

Chart 3: Allocation of assets (CHF1.2bn)

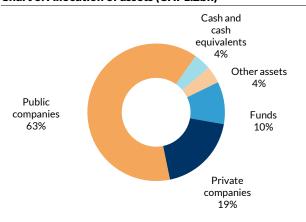
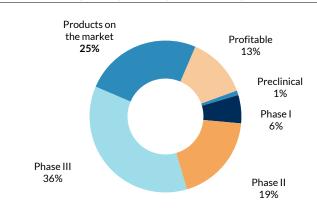


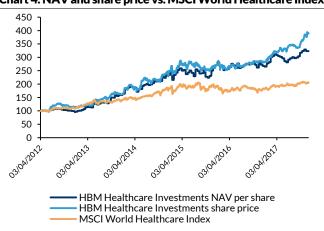
Chart 3: Development phase of portfolio companies



Source: HBM Healthcare Investments as of 30 September 2017

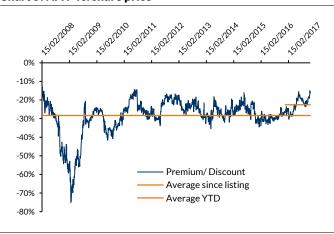
Source: HBM Healthcare Investments as of 30 September 2017

Chart 4: NAV and share price vs. MSCI World Healthcare Index



Source: Kepler Cheuvreux, Bloomberg

Chart 5: NAV vs. share price



Source: Kepler Cheuvreux, Bloomberg

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Investment case summary

HBM Healthcare is a Swiss investment company managed by HBM Partners. It was founded in 2001 and has been listed on the Swiss stock exchange since February 2008. Its investment focus is private and public healthcare companies, mainly in Europe and North America. Despite increasing pressure on healthcare budget, the sector offers solid fundamentals, supported by an ageing population, innovation and emerging economies.

HBM Healthcare has gradually built up a strong track record (+126% return since 2008 or 9% CAGR), targeting and delivering an annual return of at least 5% of net assets through a combination of share buybacks and cash distribution. This has given it an edge over peers.

The investment portfolio is made up of stakes in about 50 companies (private and public) as well as in healthcare-dedicated funds (15% of investments), to diversify outside its core expertise. Thanks to a solid cash position of CHF410m (after the sale of AAA), HBM Healthcare is set to embark on a new investment phase (mainly in private companies). We initiate coverage on the company with a Buy rating and target price of CHF151, implying 16% upside. Our TP is based on a NAV assessment including a five-year average 25% share discount to NAV.

Long-term healthcare trend still positive

Despite upward pressure on healthcare costs (9% of GDP across OECD countries), expenditure growth in this sector, which mainly takes the form of pharmaceutical spending, is increasing, supported by solid fundamentals. These include ageing populations (and the related increase in drug consumption), changes in lifestyle (eating habits and low levels of physical activity), emerging-country expansion, and a new cycle of innovation within pharma/biotech companies in a friendlier regulatory climate. This positive trend is led by flourishing biotech companies. The MSCI World Healthcare Index has posted 32% growth for the last three years, while the NASDAQ Biotech Index achieved 44% over the same period. Conditions are the same in Europe, with the Next Biotech Index having grown by 77% over the past three years (2015-2017).

A solid investment strategy...

HBM Healthcare Investments (HBM) actively invests in the human medicine, biotechnology, medical technology and diagnostics sectors. The company holds, closely tracks and manages an international portfolio of promising companies. While the main focus is North America and Europe, HBM also invests in companies from emerging economies. HBM prefers companies with products that are already available on the market or at an advanced stage of development (phase II or phase III). However, in order to balance its risk profile, the portfolio includes companies from various areas of activity and at different degrees of maturity. Thanks to a disciplined stock-picking strategy, backed by a long-term vision, HBM benefits from a solid track record (+126% since 2008), giving the company an edge over peers.

Current portfolio investments

HBM Healthcare's portfolio encompasses investments in public companies, private firms and specialised funds. While stock picking is the rule for public and private companies, investments through dedicated funds allow HBM Healthcare to take advantage of strength in a particular market (be it China, emerging countries or generics). HBM's public portfolio represents 63% of total investments, while more than 60% of the public company portfolio has a holding period of less than two years, and c. 30% from two to five years. While HBM Healthcare is a long-term investor, the relatively short holding periods can result in a complete rotation of the portfolio due to exits (industrial or takeovers).

HBM Healthcare's private portfolio has recently grown, with the company adding 12 new investments in the first half of 2017. These new acquisitions represent 19% of the fund's total investments, and this share is set to further increase over the coming 12-24 months.

Valuation, target price and risks

We initiate coverage on HBM Healthcare with a target price of CHF151, implying 16% upside, based on the assumption that the share's NAV will reach the value implied by analysts' and consensus target prices for HBM's public company holdings and on a five-year average 25% share discount to NAV. Our conservative valuation of CHF1,413m for investments only includes the portfolio's public holdings and does not include valuation upside from the private equity part of the portfolio.

Long-term trend of healthcare sector still positive

Despite rising pressure on healthcare costs (9% of GDP across OECD countries), expenditure growth in this sector, which mainly takes the form of pharmaceutical spending, is increasing supported by solid fundamentals. These include ageing populations (and the related increase in drug consumption), changes in lifestyle (eating habits and low levels of physical activity), emerging-country expansion, and a new cycle of innovation within pharma/biotech companies in a friendlier regulatory climate. This positive trend is led by the dynamism of biotech companies. The MSCI World Healthcare Index has posted 32% growth for the last three years, while the NASDAQ Biotech index achieved +44% over the same period. Conditions are the same in Europe, with the Next Biotech Index having grown 77% over the past three years.

Sustained underlying growth

The long-term trend of the pharmaceutical industry's growth is astonishing. The OECD estimates that, in 2016, health spending accounted for 9% of GDP on average across OECD countries. Spending on inpatient and outpatient care combined represents the largest part of health spending across OECD countries. Medical goods (mainly pharmaceuticals) accounted for 19% of health spending, mostly driven by the US market.

Looking at changes over time, average health spending grew at a faster rate than the overall economy in the 1990s and 2000s. After a sharp decline in health expenditure growth in 2008-10 following the economic crisis, growth is back and remains at around 3% on average.

Chart 6: Distribution of national health expenditure (USDbn)

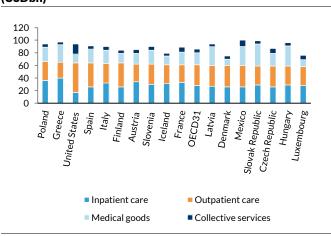
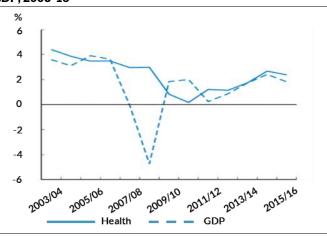


Chart 7: Average annual growth in per capita expenditure and GDP, 2003-16



Source: OECD Health Statistics

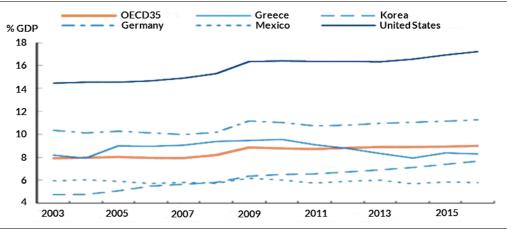
Source: OECD Health Statistics 2017

However, these averages hide high discrepancies on a country-by-country basis. While the share of economic activity devoted to healthcare reached 17.2%

of US GDP in 2016, it represents only 12.2% in Switzerland. The Center for Medicare and Medicaid Services (CMS), expects healthcare spending in the US to represent c. 20% of GDP by 2022E. According to the World Bank, this increasing trend, even at a lower growth rate, is observed in all countries, from high- to low-income countries.

Chart 8: Healthcare expenditure as a share of GDP, selected OECD countries, 2003-16

HBM Healthcare

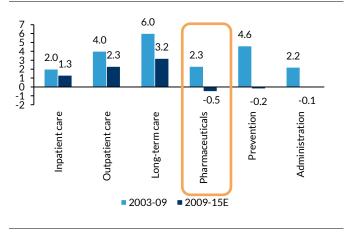


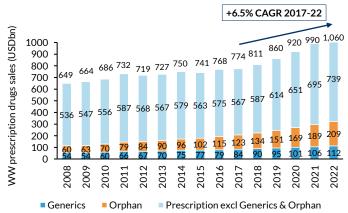
Source: OECD Health Statistics 2017

Turning our attention to pharmaceutical spending, expenditure (per capita) contracted annually by 0.5% 2009-15 after positive annual increases of 2.3% during the pre-crisis years (2003-09).

Although healthcare spending is decreasing per capita, worldwide sales of prescription drugs are still growing. Pharmaceutical spending covers expenditure on prescription medicines and self-medication (OTC), and represents a worldwide prescription market of USD774m in 2017E. According to EvaluatePharma, the pharmaceutical industry is set to post a 6.5% CAGR and is likely to reach USD1.1bn by 2022E.

Chart 9: Growth rates of health expenditure per capita for Chart 10: Worldwide total prescription drug sales (2008-22) selected services, OECD average, 2003-15





Source: OECD Health Statistics 2017

Source: Evaluate Pharma, May 2017



Underlying factors driving this growth include the ageing population, improvements in quality of life in emerging countries, a new cycle of innovation in pharma companies, and the new possibility of a shortened pathway to Food and Drug Administration (FDA) approval for treatments of specific diseases.

HBM Healthcare

Ageing population

Healthcare expenditure is concentrated on relatively few people. According to data from the US Department of Health and Human Services, a small number of people account for a significant share of healthcare expenses. Conversely, a large portion of the population has very low levels of healthcare spending. Thus, almost half of healthcare spending was used to treat just 5% of the US population.

Chart 11: Distribution of personal healthcare spending, 2009



Source: NIHCM Foundation analysis of data from the 2009 Medical Expenditure Panel Survey

Older people, or those with a chronic condition (long-term care), are significantly more likely to be among the most expensive patients. Moreover, as the population ages, global healthcare consumption increases. Hence, high spending occurs near the end of many patients' lives. In the US, people over 64 years of age represent 13% of the population, but they account for 40% of the top 5% highest spenders on healthcare.

groups, 2009

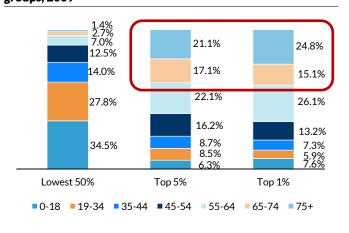
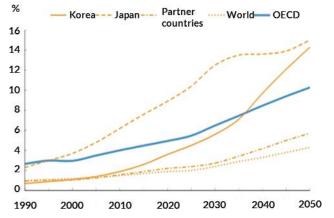


Chart 12: Age of distribution of low versus high spending Chart 13: Trends in the share of the population aged over 80, 1990-2050E



Source: NHICM Foundation analysis of data from the 2009 Medical Expenditure Panel Survey

Source: OECD Health Statistics 2017



Life expectancy across OECD countries increased by over five years between 1990 and 2012. According to OECD statistics, the share of the population aged over 65 is set to increase from 17% of the population to 28% in 2050. Hence, the growth of pharmaceutical spending is likely to continue in the coming years.

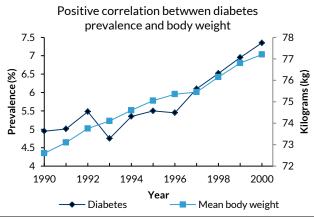
Changes in lifestyle

According to the World Health Organisation (WHO), low fruit and vegetable consumption and low levels of physical activity increase the risk factors in terms of years of healthy life lost. In several countries, unhealthy diets and low levels of physical activity have produced an increased risk of coronary heart disease, strokes, and certain types of cancer.

Moreover, healthcare expenditure is significantly correlated to the rise in rates of risk factors such as obesity, and the increased prevalence of chronic diseases linked to these risk factors such as hypertension, diabetes, and hypercholesterolemia.

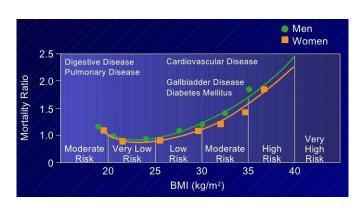
The relationship between excess bodyweight, cardiovascular diseases and mortality is well established. A survey published by Chan et *al.* in Diabetes Care, borne out by data from the Centres for Disease Control and Prevention, confirmed that obesity is the primary risk factor for Type 2 Diabetes. The incidence of Type 2 Diabetes has increased in the US, in parallel with the rise in obesity.

Chart 14: Diabetes - the ongoing epidemic



Source: Kepler Cheuvreux, AH Mokdad et al, JAMA 1999

Chart 15: Overweight or obese - mortality risk



Source: Gray DS, Med Clin North Am, 1989

According to the International Diabetes Federation (IDF), in 2015, nearly 415m people worldwide were estimated to have diabetes (9% of people over the age of 18). This led to USD690bn being spent around the world on diabetes and its complications. If this trend is not halted, these costs could soar to USD820bn by 2040E.

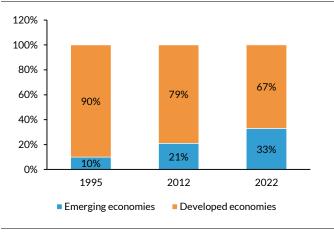
In the same way, smoking is the leading cause of an increased risk of cancer, particularly lung cancer. While smoking among adults has declined across OECD countries in recent years, more than one-fifth of adults still smoke daily; this leads to rising costs related to the treatment of the associated diseases (COPD, cancers, cardiovascular diseases, etc.).

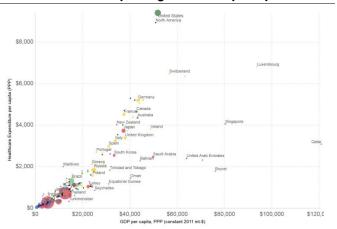
Emerging countries

In 2016, Europe and the US accounted for more than 80% of the USD2.6trn of worldwide healthcare expenditure. However, due to regulatory constraints and intense pricing pressure, expected growth in these regions is relatively modest. Conversely, healthcare expenditure is rapidly growing in emerging markets. In 2014, the World Economic Forum estimated that one-third of all health expenditure will take place in emerging countries by 2022E.

Chart 16: Global health expenditure (USDtrn)

Chart 17: Healthcare spending versus GDP per capita



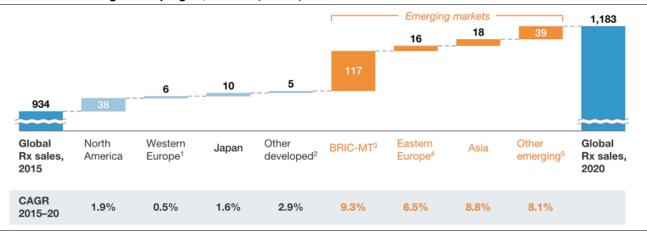


Source: World Bank, GDP per capita in constant USD 2014

Source: World Bank, GDP per capita in constant USD, 2014

At the country level, the strongest predictor of healthcare spending is national income. With the gradual improvement in quality of life across the world, a growing number of people have access to medicine. According to the World Bank and OECD statistics, there is a robust correlation between GDP and healthcare spending. IMS Health forecasts that emerging market growth will be the main contributor to growth in the pharmaceutical industry over 2015-20E (75% of expected growth).

Chart 18: Pharma sales growth by region, 2015-20 (USDbn)



Source: IMS Health

Given the ongoing increase in access to medicines and their use in emerging markets, these markets are becoming increasingly important for pharma companies. These markets have now overtaken the EU5 economies in terms of pharmaceutical spending, with a total market size of USD281bn (2014). However, as emerging markets grow, governments are looking for ways to contain costs.

Prescription sales, 2011 (USDbn) 40 50 60 4.6 17.1 Eli Lilly Johnson & Johnson **Abbott Laboratories** 13.7 6.8 Roche 7.8 26.8 Merck & Co. 10.9 29.1 AstraZeneca 22.6 11.3 GlaxoSmithKline 12.7 23.1 Sanofi 13.6 22.6 **Novartis** 33.3 15 Pfizer ROW Main markets: Unites States, EU-Big 5, Japan

Chart 19: Weight of emerging countries in pharma revenues

EU5: France, Germany, United Kingdom, Italy and Spain - Source: Datamonitor

Seeking market share in this growing region, HBM has invested in dedicated strategic funds such as BioVeda China (focus on later-stage investment and growth opportunities in China), Tata Capital (growth expansion phase in India) and WuXi Healthcare (early-stage investment opportunities in China). Moreover, HBM has carried out specific investments in private companies based in emerging countries such as: Cathay, an environmentally-friendly nylon producer; 1mg, India's largest health platform; and SAI Life Sciences, a Contract Development & Manufacturing Organisation based in India.

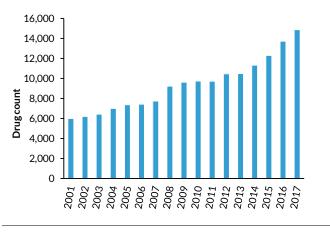
R&D productivity is increasingly leading to a new innovation cycle

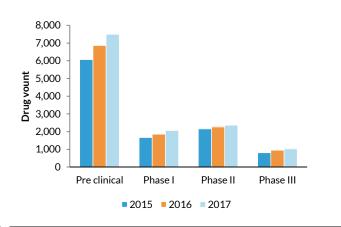
Innovation is crucial to pharma companies (particularly for biotechs) and will almost certainly continue to drive the sector. Despite constraints, there has been a clear acceleration in the number of drugs in development in recent years. According to data pooled by drug development database Pharmaprojects, there were 14,872 pipeline projects in development as of January 2017, up 8.4% versus the corresponding figure in 2016.

The largest growth in pharma development projects occurred in the pre-clinical stage, with an extra 632 early drug candidates, a rise of 9.2%. But there have been increases across clinical, and later, regulatory phases. In 2017, more than 1,000 drug candidates are in a late stage of development, suggesting a future renewal of the pharma pipeline.

Chart 20: Total R&D pipeline size by year, 2001-17

Chart 21: Pipeline by development phase 2015-17



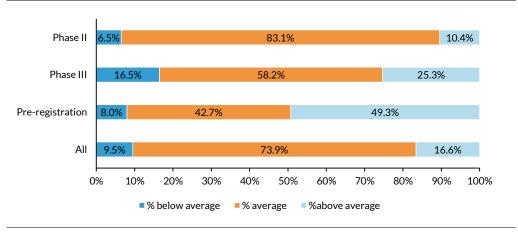


Source: Pharmaprojects, January 2017

Source: Pharmaprojects, January 2017, Kepler Cheuvreux

According to Biometracker statistics, almost half of recent drugs awaiting approval have a better-than-average chance of achieving it. While this figure drops to about a quarter when we focus on phase III candidates, only one-sixth of these compounds have a lower-than-average likelihood of approval, at this stage. These statistics emphasise the good health of the R&D sector, both in terms of numbers of candidates and the likelihood of taking them to their maturity.

Chart 22: Pipeline by development phase 2017 versus 2016 versus 2015



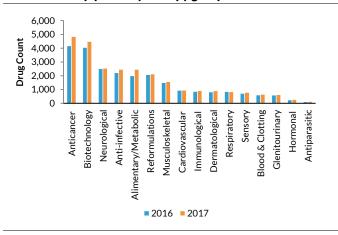
Source: Pharmaprojects

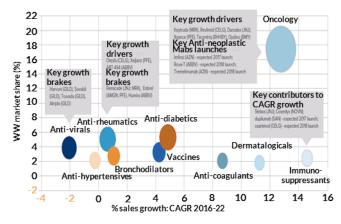
Oncology is one therapeutic class where science has made huge progress in recent years, thanks to innovative immuno-oncology treatment. Thus, numerous companies have developed targeted therapies for multiple solid and liquid tumours. However, despite all these medical advances, there are still huge unmet medical needs.

Much of the growth in pharma is set to come from new cancer medicines, in particular immunotherapies like Opdivo and Keytruda, and a new generation of checkpoint inhibitors. Thus, oncology therapies could reach USD130bn by 2022E.

Chart 23: R&D pipeline by therapy group

Chart 24: Therapy areas in 2022E, mkt share and sales growth



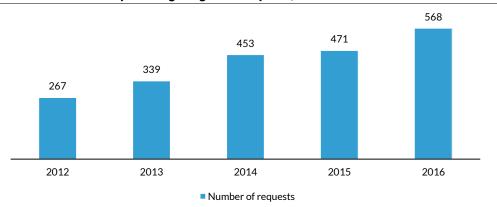


Source: Pharmaprojects, January 2017

Source: Evaluate Pharma, May 2017

Beyond oncology, which drives a significant part of pharma/biotech and investor interests, the treatment of rare diseases still seems to be very much in vogue. While half of the drugs approved in 2015 were developed for orphan diseases, more and more biotech companies are engaging in R&D related to such diseases. Indeed, this involvement in the rare disease business allows biotech companies to develop faster (orphan drug designation), and charge higher prices for many rare disease drugs.

Chart 25: Number of orphan drug designation requests, 2012-16



 $Source: FDA\ Orphan\ Drug\ Modernisation\ Plan,\ June,\ 29,\ 2017$

Hence, the number of orphan drug designation requests received by the FDA has doubled in the last five years. According to EvaluatePharma, the orphan drug market is expected to almost double during 2016-22E, peaking at USD209bn in 2022E.

Friendly regulatory climate

Before each approval of a new drug, the FDA requires a New Drug Application (NDA). The point of this document is to provide enough information to allow the FDA to evaluate the safety and efficacy profile of the new drug, determine its labelling and validate the Good Manufacturing Practices (GMP) methods used for production of the drug.

To accelerate the drug approval process, the US passed the Prescription Drug User Fee Act (PDUFA) law in 1992. This law allows the US regulatory agency to collect funds from drug manufacturers. In return, the FDA agreed to meet certain performance benchmarks, primarily related to completion times for the NDA review process. Since the enactment of the first version of the law, which was followed by several updates, the FDA has increased its transparency in the drug review process and significantly speeded up reviews of new drugs.

HBM Healthcare

PDUFA II PDUFA V **PDUFAI** PDUFA III **PDUFAIV** 25 2.5 times faster 19.1 19.1 18.7 20 16.5 16.6 13.5 14.4 15 11.2 10.9 11.0 9.6 10.0 10.0 10.0 10.0 9.9 10.0 10 5 0 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 Median numbers Receipt fiscal year

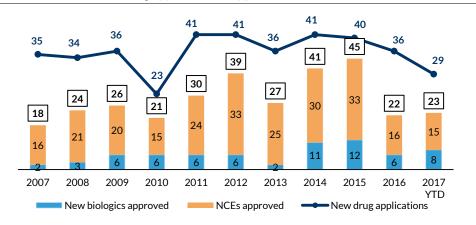
Chart 26: Number of months to approval of new drugs (after filing)

Source: FDA, CDER

In 2017, after a first filing, the average time for a review period by the FDA is nine months (vs. 19 months in 1992).

Thus, the regulatory environment at the FDA remains favourable for the approval of new drugs. This is despite the big drop in approvals over the last two years, which has highlighted the scarcity value of new medicines. For the coming years, we expect a return to a more sustainable rate.

Chart 27: Number of new drug approvals and applications at the FDA



Source: FDA, CDER

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Recent years have seen the emergence of new tools that will facilitate the approval of upcoming innovative treatments (development incentives like breakthrough therapy designation, priority review vouchers or the 21st Century Cures Act).

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Lastly, the Trump administration has made clear its willingness to reduce the regulations surrounding the drug approval process, making it easier, faster, and less expensive to obtain approval for a new drug.

One of the missions of the new FDA head (Scott Gottlieb was hired in March 2017) is to slash regulations and speed up drug approval at the agency. The Trump administration is set to increase the competitive environment for generic drugs while facilitating the approval of innovative drugs.

Key issues to monitor in biotech portfolio management

The pharma/biotech portfolio includes several healthcare companies at different stages of development. Beyond the outcomes of clinical trials, a pharma/biotech portfolio is sensitive to several themes; in particular the rise of healthcare costs which has becomes a significant issue for both developed and developing countries. This situation leads to harsher price controls all over the world for every new drug, and fosters the promotion of generics/biosimilars. However, as pharma companies need to renew their pipeline, biotech companies represent key M&A targets, often at a substantial premium.

Rise of healthcare costs

The rapid growth of healthcare expenditure has become a great concern for both households and governments, leading to increased price pressure on pharmaceutical drugs.

According to Express Scripts, prescription costs have dramatically increased for US patients in recent years. The Affordable Care Act, which provides uninsured patients access to affordable drugs is part of the reason for this rise.

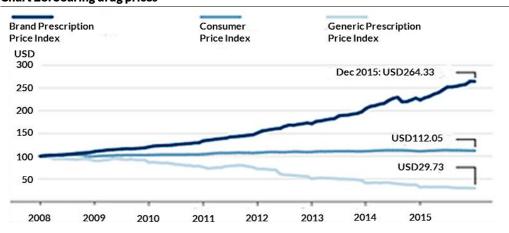


Chart 28: Soaring drug prices

Source: Express Scripts

Other reasons include the introduction of new drugs into the market which are sold at a higher price in some therapies (cancers, rare diseases).

Below are two examples of this price increase:

- Cancer drugs are on the rise. In less than 15 years, the average monthly price of cancer drugs has almost tripled to USD13,000.
- Insulin price hikes. The price of insulin has soared during the last 20 years (8x).

Chart 29: Cancer drug launch costs (monthly)

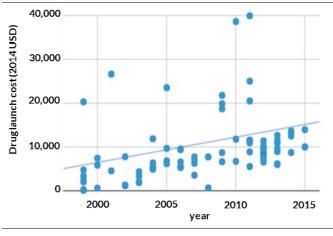
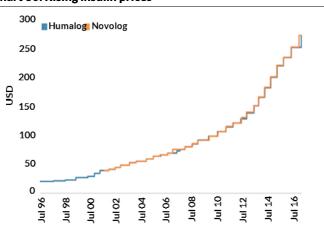


Chart 30: Rising insulin prices



Source: Bill Maher, Journal of oncology practises

Source: Truven Health Analytics

However, governments and payers are still willing to pay for innovation. Hence, the latest prices for innovative treatments like Opdivo (nivolumab, BMS) or Keytruda (pembrolizumab, Merck) which can cure specific cancers were up to USD150,000 for a course of therapy. Conversely, payers are more stringent and less willing to pay for moderate innovation.

Another consequence of these regular price increases is growing pressure on pharma/biotech companies to grant rebates to the Health Maintenance Organisation (HMO) or Pharmacy Benefit Managers (PBM).

Harsher price control

The high price of drugs is one of the biggest hurdles to wide-ranging access to healthcare. This is as true in emerging countries as it is in developed ones, where payers consider high prices a real barrier to accessing new medicines, given budgetary constraints. Hence, many drugs are not available to all the patients who need them.

According to Howard et al.¹, Journal of Economic Perspectives (2015), the high prices of new drugs are often unrelated to the magnitude of the expected health benefits. For instance, the prices of anticancer drugs are under scrutiny, as only a few of them provide significant survival gains. While our understanding of certain cancers has transformed the prognosis of this disease, several newer drugs are not associated with greater survival benefits compared to older drugs. Thus, among

¹ Howard et al., Pricing in the market for anticancer drugs, Journal of Economic Perspectives - Volume 29, Number 1, 2015—Winter 2015—Pages 139–162

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the 12 new anticancer drugs approved by the FDA in 2012, only one provided survival gains of over two months.

In the same way, the economic justification for orphan drugs prices is difficult to validate (cost-effectiveness) unless we look at the small size of the population targeted.

The flipside of price increases is Pharmacy Benefit Managers (PBM), which negotiate prices on behalf of private corporations (health insurers, Medicare, private unions) and ask for rebates and discounts which vary depending on the added value of a drug.

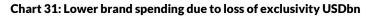
Furthermore, they are likely to impose a list of preferred drugs by insurance plans. The US is the only OECD country without direct control of drug prices. However, the new US administration wants stricter price control. In Europe, price control is already effective.

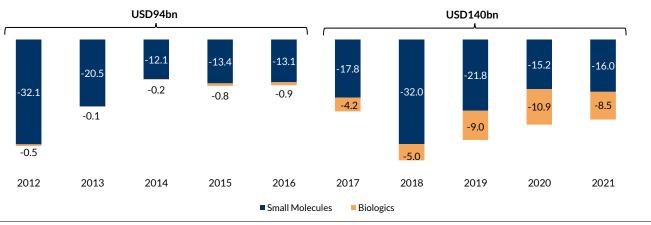
- To provide better price control, some regulatory agencies created specific bodies to assess the cost effectiveness of a new drug by measuring the quality-adjusted life years (QALY). Despite the creation of a list of reimbursed drugs, the National Institute for Health and Care Excellence (NICE), which is the advice body of the National Health Service (NHS) in the UK, was blamed for setting its price threshold too high, while the agency already has the strictest reimbursement rules in Europe.
- Following the financial crisis, between 2009 and 2015, Portugal decided to cut drug prices annually. The result was that the average price of generics drugs fell by more than two-thirds, and branded drug prices were cut by a third.

The pricing of new drugs is a key issue for pharma/biotech companies, particularly if a cheaper alternative exists. Furthermore, the payer consolidation will continue to increase insurance companies' negotiating power.

Patent expiration

Patent cliffs and budgetary constraints are the main factors behind slower sales in the pharmaceutical sector. In ten years, the patent cliff is set to wipe c. USD240bn off pharma's revenues.





Source: Quintiles IMS Market Prognosis, National Sales Perspectives, March 2017, Kepler Cheuvreux

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Biosimilars, or follow-on-biologics, are the "copied" versions of reference biologics that have undergone patent expiration. Various regulatory authorities such as the EMA and the FDA have stringent regulations on the commercialisation and development of biosimilars. However, considering the growing pressure to reduce healthcare expenditure, the regulatory pathway for their approval is better defined.

All these patent expirations leading to a growing market for generics and biosimilars will put mounting pressure on pharma/biotech companies to innovate as cheaper versions of already-approved molecules are launched. As pharma companies need to rejuvenate their pipeline, biotech companies represent key targets that are often bought at a substantial premium.

Dynamic M&A activity

M&A activity should centre on assets in "hot" therapeutic areas. Due to the recent fall in biotech valuations, it is believed that M&A activity could accelerate in 2017 following a pause in 2016. Large pharmaceutical companies continue to seek suitable early-stage assets and still have a strong desire to fulfil their pipeline.

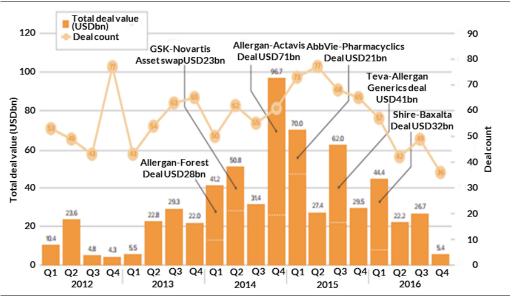


Chart 32: Pharma and biotech M&A transactions announced by quarter

Source: Evaluate Pharma, January 2017

Moreover, Trump's tax reform plans would deliver incentives to US pharmaceutical and biotech companies sitting on a pile of cash to repatriate this money. Indeed, the new US administration plans to allow companies to repatriate offshore cash balances by applying a limited repatriation tax rate (around 10%). As a consequence, large US-based companies are likely to significantly increase their M&A activity in their home country.

HBM's portfolio is likely to benefit from this rise in M&A activity thanks to several investments in promising US based-companies.

Key therapy areas which will trigger the interest of large pharma companies will be led by oncology, diabetes, and autoimmune diseases.

Table 1: Outlook of leading therapy areas spending and growth, constant USDbn

Therapy areas	Spending 2016	2011-16 CAGR	Spending 2021	2016-21 CAGR
Oncology	75.3	10.9%	120-135	9-12%
Diabetes	66.2	16.4%	95-110	8-11%
Autoimmune	45.1	18.2%	75-90	11-14%
Pain	67.9	7.1%	75-90	2-5%
Cardiovascular	70.5	-2.5%	70-80	0-3%
Respiratory	54.4	3.4%	60-70	2-5%
Antibiotics and Vaccines	54.4	2.5%	60-70	2-5%
Mental Health	36.8	-5.0%	35-40	(-1)-2%

Source: Quintiles IMS, December 2016

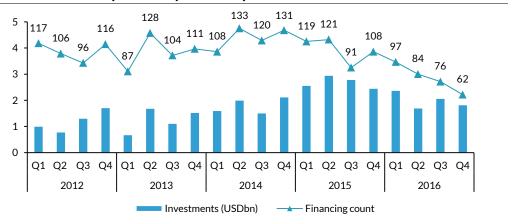
As they seek to fill their R&D pipelines, large pharma companies are likely to pursue their buyout strategies. The therapeutic areas of immuno-oncology, orphan diseases, and CVD (especially the NASH landscape) are seen as major growth opportunities. Furthermore, major license agreements are likely to boost the biotech value of more risky assets in the coming years (gene therapy, adoptive cell therapy, oncolytic virus/therapeutic vaccines).

Venture capitalists are on the lookout

Despite a slowdown in activity in 2016 versus 2015, the amount of capital invested by venture funds remained high in 2016, especially for quality and hot-spot companies. The emergence of cutting-edge technologies (adoptive cell therapies, gene therapies such as CRISPR technologies and personalised medicine) is set to offer HBM numerous attractive investment opportunities in the US and Europe.

Across both continents, biotech companies have raised an overwhelming USD8bn in 319 early-stage rounds despite a pullback in the biotech public market environment. This healthy level of venture capital investment demonstrates the sustainability of biotech activity for the foreseeable future and suggests potentially attractive investment opportunities ahead for HBM.

Chart 33: Venture capital activity in biotech/pharma



Source: Evaluate Pharma

Moreover, the investment environment is enforced by public policies. Thus, the European Union launched the biggest EU research and innovation programme ever in 2014, with nearly EUR80bn of funding available over seven years (2014-20).

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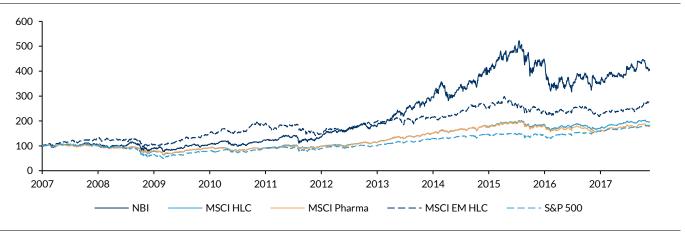
Also, the EIB (European Investment Bank) and the EIF (European Investment Funds) act as investors in venture capital funds in member countries.

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Stock performance of healthcare market biotech/medtech

On a long-term basis, the healthcare sector and more precisely biotech companies have clearly outperformed the general index. Indeed, healthcare stocks are less sensitive to economic cycles, whereas they are more sensitive to the outcome of clinical trials and the regulatory environment. Within the healthcare sector, the biotech segment posted the strongest gains over a long period (+304% for the NBI vs +82% for the S&P500), since 2007.

Chart 34: SPP for selected index



Source: Kepler Cheuvreux; Bloomberg

The main cause for concern in 2017 was the election of Trump and his announced aim to "repeal and replace" the Affordable Care Act (Obamacare). This reform will not take place in 2017 thanks to divergent opinions within the Republican Party on the way to repeal Obamacare. Most of the impact on the index occurred in Q1 2017.

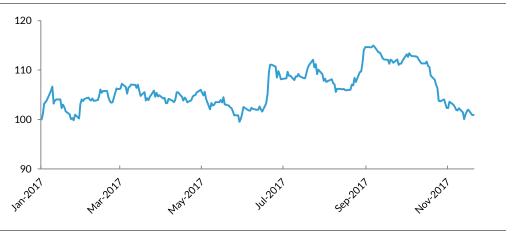
Biotech significantly recovered in 2017

Following a difficult 2016 (-22%), the NBI significantly recovered in 2017 (+16%)

In 2016, significant surprises influenced the biotech market, coming from the political environment (Brexit, Trump election), market surprises (the 25% biotech sell-off in January and February 2016), or clinical surprises (BMS's Opdivo failure in NSCLC 1L). Thus, the biotech industry lagged behind the broader market in 2017.

However, in 2017, the NBI index recovered to prove to be in line with the broader market. In our view, the main headwinds for the index remains Trump's regular comments on drug price gouging, which led to the NBI index's longest losing streak since mid-2016 at the time of the US election. In October 2017, biotech and pharma shares dropped after Trump said "drug prices are out of control". At a cabinet meeting he also said that "Prescription drug prices are out of control. Drug prices have gone through the roof". Thus, NBI's market performance is still sensitive to the political rhetoric surrounding US pricing. Conversely, the index was driven by M&A moves, in particular the acquisition of Kite Pharma by Gilead in August 2017.

Chart 35: NBI versus S&P500



Source: Kepler Cheuvreux

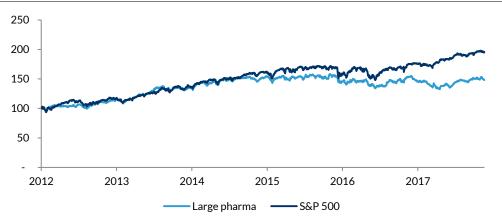
Despite the pricing rhetoric, politically, the environment in the US should be more favourable for the healthcare sector under the Trump administration. The new US president has announced a significant expansion in fiscal policy which should drive M&A and sustain a high level of investment in innovation.

M&A activity is likely to renew in 2017/18 as the underperformance of 2015/16 has resulted in attractive valuations for fast-growing companies. Recent significant M&A operations confirm this trend, where innovation has been key (Gilead acquiring Kite for USD12bn or Novartis purchasing AAA for USD3.9bn).

Biotech significantly outperformed during 2007-17

Over 2007-17, the performance of the healthcare sector (+96%) was driven by biotechnology (+304%), as large pharmaceuticals (+78%) continued to underperform the broader market (+82%). Many of the largest pharma companies were obliged to continue or accelerate deal-making. This led to massive value transfers from large companies to small and mid-caps. Moreover, setbacks seen in large pharma (AstraZeneca's durvalumab Mystic, BMS's Opvovo checkmate-214) confirm how challenging it will be to further extend potential indication immuno-oncology assets.

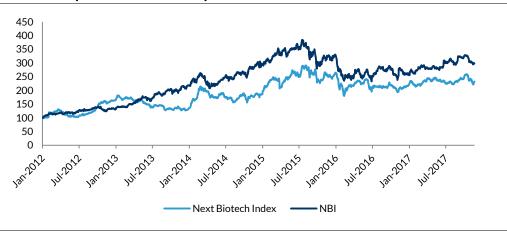
Chart 36: Large pharma versus S&P500 SPP



 $Note: Large\ pharmaceuticals\ comprise\ Merck\ \&\ Co,\ Pfizer,\ BMS,\ Lily,\ J\&J,\ GSK,\ AstraZeneca,\ Sanofi,\ Novartis,\ Roche.\ Source:\ Kepler\ Cheuvreux and\ Source:\ Cheuvreux and\ Source:\$

The biotech environment still appears to be more favourable in the US than in Europe. 2017 was disappointing in Europe, due to clinical or regulatory setbacks (DBV technologies, Santhera Pharmaceutical, Onxeo, Innate Pharma, Geneuro, Erytech, Ose Immunotherapeutics), and this significantly impacted the European Biotech market, driving its underperformance compared to the NBI.

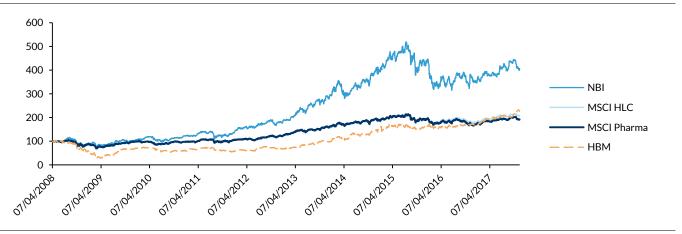
Chart 37: European versus US biotech performance



Source: Kepler Cheuvreux

Thanks to its deep expertise in the healthcare sector and wise investment choices, HBM Healthcare Investments has succeeded in outperforming the broader healthcare market over the past two years.

Chart 38: HBM SPP versus Healthcare Index



Source: Kepler Cheuvreux

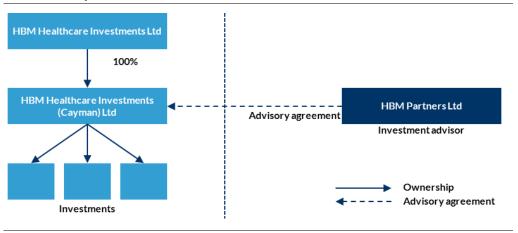
A solid investment strategy...

HBM Healthcare Investments (HBM) actively invests in the human medicine, biotechnology, medical technology and diagnostics sectors. The company holds, closely tracks and manages an international portfolio of promising companies. While the main focus is North America and Europe, HBM also invests in companies from emerging economies. HBM prefers companies with products that are already available on the market or at an advanced stage of development (phase II or phase III). However, in order to balance its risk profile, the portfolio includes companies from various areas of activity and at different degrees of maturity. Thanks to a disciplined stock-picking strategy backed by a long-term vision, HBM benefits from a solid track record (+126% since 2008) giving the company an edge compared to its peers.

A well advised, direct private equity investment

HBM Healthcare Investment is a direct private equity investment that has been listed on the Swiss Stock Exchange since February 2008. HBM Healthcare is managed and advised by HBM Partners under a collaboration agreement.

Chart 39: Group structure



Source: HBM

- **HBM Healthcare Investments Ltd** is the Swiss holding company located in Zug. This listed company holds 100% of HBM Healthcare Investments (Cayman) Ltd, which is in charge of all investments.
- HBM Healthcare Investments (Cayman) Ltd holds and sells positions in healthcare companies and related areas. The majority of investments are held in this company, although some are directly held by HBM Healthcare Investments Ltd.
- **HBM Partners Ltd** is the advisory company based in Zug. This company provides asset management of the healthcare portfolio, and other defined services, to HBM Healthcare Investments (Cayman) Ltd, in particular investment opportunities and associated due diligences.

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HBM Healthcare Investments (Cayman) Ltd has inked a long-term advisory agreement with HBM Partners (Investment Advisor). Under the terms of this agreement, HBM Healthcare Investments (Cayman) Ltd will be in charge of the identification of investment opportunities, the associated due diligence, the monitoring of the portfolio, and the evaluation of a potential exit strategy. As a rule, investment decisions are made by the boards of directors of HBM Healthcare's subsidiaries.

The compensation for the board of directors includes a fixed director's fee and variable compensation depending on value growth achieved.

Table 2: Fund fees

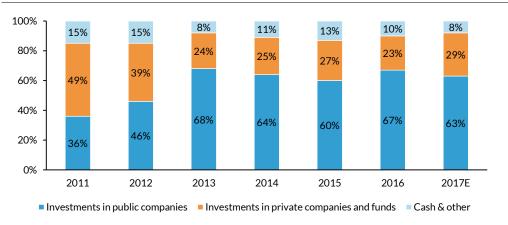
Fees		
Management fees	Quarterly	0.75% of the company assets plus 0.75% of the market capitalisation
Performance fee	Annually	15% on increase in value above the high water mark*

*High water mark is calculated each financial year - Source: HBM Healthcare Investments

A diversified portfolio to balance the risk

HBM Healthcare invests in a mix of private and public companies involved in healthcare (human medicine, biotechnology and medical devices) at different stages of development. While Europe and the US are the main areas of focus, the company also invests in Asia and emerging countries. During the last two years, the allocation of private companies has been strengthened by new and follow-on investments.

Chart 40: Breakdown of investment portfolio



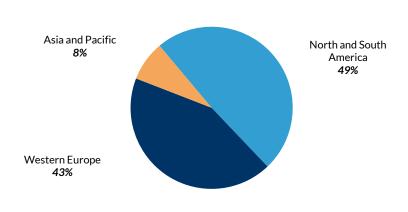
2017E does not include the sale of AAA - Source: Kepler Cheuvreux

The CHF1.2bn investment portfolio is made up of stakes in about 50 companies (public and private), with the largest investment accounting for less than 10% of the portfolio on 31 September 2017.

Geographic exposure by country

Europe and the US represent the lion's share of the HBM Healthcare portfolio. Indeed, these regions encompass a majority of promising late-stage biotech companies. However, HBM Healthcare also identifies companies present in emerging economies.

Chart 41: Geographic exposure



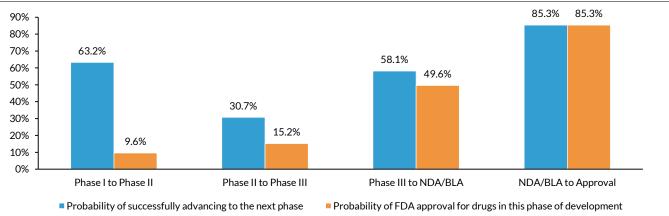
Source: HBM Healthcare Investments

If we take a macroscopic view, while the growth of the US pharmaceutical industry is expected to slowdown in the coming years, the US is still responsible for the largest portion of global pharmaceutical revenues. Moreover, the underlying market is deeper with a higher number of pharma/biotech companies than anywhere else in the world.

A mature portfolio, a higher likelihood of approval

The value of a healthcare/biotech portfolio increases with the advancement of its underlying pipeline. Whereas the development of a new drug is a high-risk, high-reward business, the likelihood of approval (LOA) is defined for each stage of development. According to Bio and Biomedtracker, these probabilities of success are based on a statistical analysis of records from the ten last years of each new drug (from January 2006 to December 2015). Thus, on average, LOA increases from 9.6% for a new drug in phase I to 49.6% for a drug in phase III.

Chart 42: Phase transition success rate and likelihood of approval, all modalities

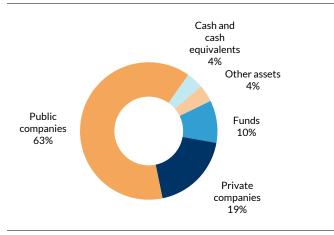


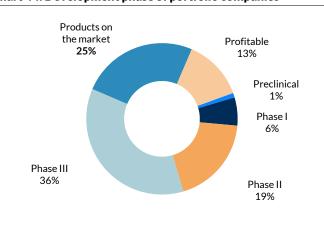
Source: BIO Industry Analysis

HBM Healthcare is likely to invest in private or public companies, or in companies originating from a private company's portfolio. Moreover, HBM prioritises revenue generating companies, companies with products at an advanced stage of development (phase II or phase III), or cash-flow neutral companies that require funding for their expansion.

Chart 43: Allocation of assets

Chart 44: Development phase of portfolio companies





Source: HBM Healthcare Investments as of 30 September 2017

Source: HBM Healthcare Investments as of 30 September 2017

As of end-September 2017, revenue generating companies represent 25% of HBM's portfolio. For these companies, value creation occurs at the point of the sales ramp-up of the recently approved drug.

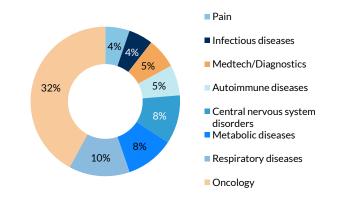
Focus on fast-growing therapeutic areas

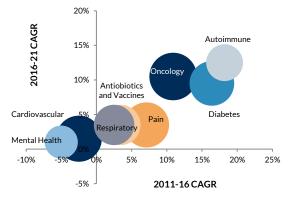
The surge of innovations in cancer treatments has resulted in strong dynamism in this therapeutic area. To take advantage of this treatment revolution, which is leading to impressive increases in survival rates, HBM Healthcare invests more than a quarter of its portfolio in companies involved in this field.

According to Quintiles IMS, the global demand for cancer drugs is expected to reach USD120-135bn by 2021E, implying a 2016-21E CAGR of 9-12%. Nowadays, over 500 companies are active in cancer research worldwide.

Chart 45: HBM's portfolio by therapeutic area

Chart 46: Growth (past and future) of some therapeutic areas





Source: HBM Healthcare Investments as of 30 September 2017

Bubble sizes represent the size of the area in USDbn - Source: Kepler Cheuvreux, Quintiles IMS

New targeted therapies, and the latest immuno-oncology approaches developed by biotech companies, have significantly improved patients' clinical course. The latest revolution in this field will likely come from CAR-T therapies (cancer treatments that use the patient's own immune system cells) and PARP inhibitors (targeted therapies).

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Beyond oncology, HBM's portfolio involves respiratory diseases (14% of portfolio) and metabolic diseases (11%). While respiratory diseases will increase with the rise of pollution levels, metabolic diseases are linked to changes in lifestyle (diabetes, NASH or hyperlipidaemia).

A long-term strategy backed by strong expertise

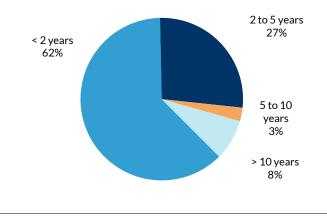
HBM Healthcare is a long-term shareholder. When an investment opportunity is detected, the company conducts due diligence and makes an evaluation of the investment potential. Thanks to an experienced team, HBM can be a long term investor that supports value creation over several years. Hence, HBM tends to hold companies for the long run. However, in specific cases (disappointing clinical results, changes of control, etc.) the holding period may be shortened.

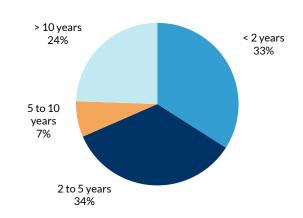
Long-term strategy

The strategy is based on a fundamental analysis of each company in the portfolio with an overall assessment of the investment case: market, clinical data, competitive landscape, intellectual property, and financial situation are all taken into account.

Chart 47: Public company portfolio by number of companies

Chart 48: Public company portfolio by holding period in value





Source: Kepler Cheuvreux

Source: Kepler Cheuvreux

The case of Advanced Accelerator Applications (AAA) is characteristic of HBM's strategy. After a strict due diligence, HBM invested in AAA shares in February 2014 when the company was still private. The fund strengthened its position when AAA went public and recently sold its stake to Novartis after the tender offer for 100% of AAA's share capital. This investment represented c. 15% of net assets before the offer. Considering the average price paid to build this position and the takeover price, the fund made a multiple on invested capital of 7.0x.

In-house expertise in healthcare

While investments and disposal decisions are taken by the board of directors of HBM Healthcare Investments (Cayman) Ltd, HBM Partners is the only advisor to the company.

Table 3: Board of directors, HBM Healthcare Investments Ltd

	First elected	Expertise	Age
Hans Peter Hasler, Chairman	2009	Sector and marketing strategies, FDA	61
Heinz Riesenhuber, Vice Chairman	2001	Management, production, audit	82
Mario Giuliani	2012	Management, production, audit	45
Eduard Holdener	2008	Research and development	72
Robert Ingram	2006	Sector and marketing strategies, FDA	75
Rudolf Lanz	2003	Finance, M&A transactions, audit	67

Source: HBM Healthcare

HBM Partners has a team of 12 investment advisors and analysts, all of whom are healthcare experts. Moreover, HBM Partners has an agreement which ensures access to more than 70 industry experts worldwide.

Chart 49: HBM Partners' organisation



Source: HBM Healthcare Investments

HBM Healthcare Investments seeks to have an active role in the companies it invests in. Indeed, HBM develops close relationships with the management of the companies in which it invests. It generally requests a seat on the company's board, as parts of its strong commitment to the strategy. HBM Healthcare Investments prioritises direct investments in Europe and the US. Investments in Asia are realised through dedicated funds in partnership with a local partner.

Table 4: HBM Partners' team, management

Name	Position	Previous positions
Stanislas Poniatowski	Chairman of the Board	Senior banker then Managing Director at Lazard Frères from 1976-2003
Dr. Henri B. Meier	Member of the Board	Roche's CFO for over 16 years
Didier de Montmollin	Member of the Board	Founding partner of DGE attorneys at law (Geneva)
Dr. Andreas Wicki	CEO	Healthcare entrepreneur and investor, 25 years of experience in pharma/biotech industries
Erwin Troxler	CFO	Account manager at PWC and Julius Baer, >20 years of experience in finance
Dr. Ulrich Geilinger	Head of private equity	Manager at Innoventure, CS, Apax and Vontobel, >25 years of experience in the VC Industry
Dr. Ino Staijen	Head of public equity	Senior biotechnology analyst, >15 years of experience in the pharma industry and in finance

Source: HBM Healthcare Investments

Most of the HBM Partners team is located in Zug, Switzerland, but some are based in the US or China. All of them have considerable knowledge of the healthcare and financial sectors.

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A long history and a solid track record

HBM Healthcare Ltd was founded in 2001 and has been listed on the Swiss Exchange since 2008. The company has gradually developed expertise in investing in private and public companies with an exit-driven strategy, leading to impressive performance over time. Since its inception, HBM's stock performance has regularly outpaced the market.

HBM Healthcare

A successful exit strategy...

While HBM Healthcare is known as a long-term investor, an exit strategy mind-set is always present. Hence, HBM Healthcare wants to be able to influence portfolio companies, particularly with regard to an exit from the investment. However, HBM can increase its level of investment in subsequent financing rounds if the potential for value-creation remains intact.

Thus, HBM has been a strong contributor to value creation in its portfolio companies and the fund has a proven track record of exits, validated by over 50 trade sales or public offerings since 2001.

Chart 50: Trade sales and IPOs

		Trades	sales IP	Os			Curetis (DE) Euronext	
Syntonix (US)						Paratek (US) NASDAQ	Eiger (US) NASDAQ	
Agensys (US)		Nuokang (CN) NASDAQ	Anthera (US) NASDAQ	Pacira (US) NASDAQ		Ophthotech Probiodrug (DE)	AAAP(US) NASDAQ	Obseva (CH) NASDAQ
Adnexus (US)	Lifeline (US) AIM	Ziemer (CH)	Asthmatx (US)	mtm (DE)		Ophthotech (US) NASDAQ	Nabriva (US) NASDAQ	AnaptysBio (US) NASDAQ
Aspreva (CA)	Panomics (US)	Brahms (DE)	Micrus (US)	Mpex (US)	ChemoCentryx (US) NASDAQ	PTC (US) NASDAQ	Ellipse (US)	True North (US)
Mediservice (CH)	Precimed (CH)	Esbatech(CH)	Sloning (DE)	PharmaSwiss (CH)	Vivacta (UK)	Enanta (US) NASDAQ	Kolitan (US)	Interventional Spine (US)
2007	2008	2009	2010	2011	2012	2013	2014	2015

Source: HBM

...leading to a strong share price performance

Over the last year, the fund's NAV increased by +19% while the share price has risen by 38%, significantly higher than the MSCI World (+21%) and the MSCI World Healthcare Index (+16%).

Table 5: Share price and NAV return compared with MSCI Index

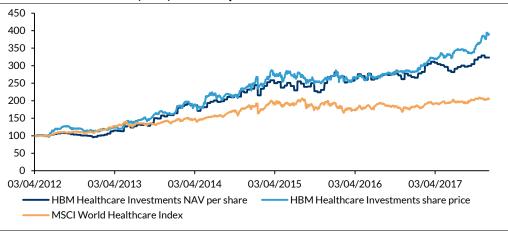
	1 Year	3 Years	5 Years
NAV per share	18.7%	39.2%	224.2%
Share price	36.7%	56.5%	244.8%
MSCI World	18.1%	20.7%	65.5%
MSCI Wolrd Healthcare	16.2%	10.7%	83.9%

Source: Bloomberg, Kepler Cheuvreux

During the last five years, the share price's performance evolved more rapidly than the NAV per share, leading to a reduction of the discount between these two values. One could say that the growing recognition of wise stock-picking investments made HBM Healthcare team's reputation.

Chart 51: Net asset value (NAV) and share price versus MSCI World Health Care Index

HBM Healthcare



Source: Bloomberg

And what are peers doing?

HBM is dedicated to investment in private and public healthcare companies. There are only a few listed funds with the same philosophy. We have identified some trusts in the UK that invest in healthcare, some US funds and BB Biotech, the Switzerland-based company.

Table 6: Peers as of 13 December 2017

	Country	Description	No. of holdings	Top 5	Top 10	North America	Europe
LIDA ALL III	011						4.407
HBM Healthcare	CH	Private (hands on) & listed	57	36%	52%	47%	44%
BB Biotech	CH	Listed (at least 90% of its holding)	31	46%	71%	95%	5%
(Bellevue Asset Management)		Biotechnology sector focus					
Worldwide healthcare trust	UK	Listed	74	19%	34%	64%	16%
(Orbimed Capital)		Broad healthcare mandate					
Polar Capital Global Healthcare Trust	UK	Listed - Focused on pharma	64	31%	51%	49%	32%
Biotech growth trust	UK	Listed	45	46%	67%	93%	7%
(Orbimed Capital)		Biotech sector focus					
International Biotechnology Trust	UK	Listed (7% of private)	83	32%	49%	89%	11%
		Biotech sector focus					
BlackRock Health Sciences	US	Biotech sector focus	nd	22%	36%	>85%	<15%
Tekla Healthcare Investors	US	Equities (90%)	59	37%	58%	83%	8%
		Broad healthcare mandate					
Tekla Healthcare Opportunities	US	Broad healthcare mandate	55	30%	47%	nd	nd
CLAL Biotechnology industries	Israel		14	nd	nd	42%*	40%*

*In number of investments Source: Kepler Cheuvreux

While some peers posted a better performance on a five-year basis, all of these peers have a US bias: they are majority invested in the US whereas HBM Healthcare is not. Despite its lower exposure to the US market, thanks to wise choices, HBM Healthcare's long-term performance (three to five years) is among the best of its peer group.

Table 7: Comparative performance

	Country	Perf. 1M	Perf. 1Y	Perf. 3Y	Perf. 5Y	Price (Ic)	NAV/share
HBM Healthcare	CHF	1.6%	37.8%	58.9%	252.3%	129.8	154.4
BB Biotech	CHF	0.3%	23.7%	63.9%	381.2%	65.2	62.4
Worldwide Healthcare Trust	GBp	-1.8%	28.9%	27.9%	176.1%	33.1	32.3
Polar Capital Global Healthcare Growth Trust	GBp	1.1%	17.7%	14.0%	64.5%	2.7	2.7
Biotech growth trust	GBp	-7.0%	12.1%	-4.1%	130.9%	10.2	10.3
International Biotechnology Trust	GBp	-1.0%	19.4%	31.6%	184.6%	8.1	7.9
BlackRock Health Sciences	USD	-0.2%	12.3%	24.0%	138.9%	35.8	35.0
Tekla Healthcare Investors	USD	-4.7%	5.1%	-10.8%	105.8%	21.8	23.1
Tekla Healthcare Opportunities	USD	-1.8%	16.1%	10.2%	N/A	17.2	18.8
CLAL Biotechnology industries	NIS	-6.0%	28.2%	31.1%	-69.6%	0.9	nd
MedCap	SEK	6.0%	41.5%	45.4%	80.7%	4.7	nd

Source: Kepler Cheuvreux

To take advantage of healthcare innovations and the strong underlying performance of this sector without investing enormous amounts of human capital, one could choose an Exchange Traded Fund (ETF). However, stock picking is more effective than a basket. Thus, the performances of all available ETFs are far below that of HBM Healthcare, regardless of duration.

We identify five ETFs dedicated to healthcare/biotech that are available for investors: iShares Nasdaq Biotech ETF, First Trust NYSE Arca Biotech ETF, SPDR S&P Biotech ETF, ProShares Ultra Nasdaq Biotech ETF, and Market Vectors Biotech ETF.

Table 8: Relative performance of some ETFs invested in biotech

	AUM (USDbn)	Perf. 1M	Perf. 1Y	Perf. 3Y	Perf. 5Y
HBM Healthcare		1.6%	37.8%	58.9%	252.3%
iShares Nasdaq Biotech ETF	9.7	-2.3%	11.3%	2.4%	141.9%
First Trust NYSE Arca Biotech ETF	1.2	-0.7%	26.7%	21.3%	189.4%
SPDR S&P Biotech ETF	n.a.	-5.4%	23.8%	37.8%	204.4%
ProShares Ultra Nasdaq Biotech ETF	0.5	-3.9%	21.2%	-18.3%	284.2%
Market Vectors Biotech ETF	0.6	-3.0%	11.5%	5.6%	144.6%

Source: Kepler Cheuvreux

Current portfolio investments

HBM Healthcare's portfolio encompasses investments in public companies, private companies and specialised funds. While stock picking is the rule for public and private companies, investments through dedicated funds allow HBM Healthcare to take advantage of dynamism in a particular market (be in China, emerging countries or generics). HBM's public portfolio represents 63% of total investments, while more than 60% of the public company portfolio has a holding period less than two years and c. 30% from two to five years. While HBM Healthcare is a long-term investor, the relatively short holding periods can result in a complete rotation of the portfolio due to exits (industrial or takeovers).

HBM Healthcare's private portfolio has grown recently by adding 12 new investments in the first half of 2017. These new acquisitions represent 19% of the fund's total investments and this share is set to further increase over the coming 12-24 months.

Profile of the core portfolio of listed companies

HBM has more than 35 positions in various, differently sized companies. HBM's public portfolio represents more than 60% of total investments, with a holding period of less than five years for 90% of these investments. A significant part of the public company portfolio originated in the private company portfolio.

Table 9: Top ten companies in HBM Healthcare's public portfolio

Public companies	Market	Stock	Currency	Date of first	% of HBM's public
		exchange		investment	portfolio*
Vectura Group**	UK	LONDON	GBP	2006	9.8%
Pacira Pharmaceuticals	US	NASDAQ	USD	2007	2.7%
Genmab	Denmark	NASDAQ OMX COPENHAGEN	DKK	2013	0.3%
Esperion Therapeutics	US	NASDAQ	USD	2015	2.3%
Ultragenyx Pharmaceutical	US	NASDAQ	USD	2015	1.1%
Tesaro	US	NASDAQ	USD	2016	0.4%
Neurocrine Biosciences	US	NASDAQ	USD	2015	0.5%
AnaptysBio	US	NASDAQ	USD	2015	3.2%
Eagle Pharmaceuticals	US	NASDAQ	USD	2015	2.5%
Paratek Pharmaceuticals	US	NASDAQ	USD	2001	3.0%

 * Pre AAA acquisition, * * Merger between Vectura and Skypharma in 2016 - Source: HBM, Kepler Cheuvreux (1998) - Source: HBM, Kepl

None of the public companies held by HBM Healthcare (65% of total portfolio) are covered by our European analyst team at Kepler Cheuvreux. We have made an analysis of the major expected triggers for those that represent a significant percentage of HBM Healthcare's investments portfolio (six major investments - see appendix 1 for further details).

Profile of the private company portfolio

HBM's private company portfolio represents 19% of total investments. Since the beginning of 2017, HBM Healthcare has strengthened its private portfolio with 12 new investments. Moreover, HBM Healthcare plans to continue this focus on private companies and targets a further increase in the allocation of private companies over the next 12-24 months.

Table 10: HBM's private company portfolio

Private companies	Country	Currency	Date of first	Investment	Fair	НВМ
			investment		value	ownership
Cathay Industrial Biotech	China	USD	May 2006	USD28m	USD43.9m	9.3%
Harmony Biosciences	US	USD	October 2017	USD30m	USD30.0m	9.4%
Y-mAbs Therapeutics	Denmark	USD	October 2017	USD20m	USD20.0m	8.8%
Amicus	Switzerland	EUR	April 2017	EUR16m	EUR16.0m	25.4%
Westmed Holding	US	USD	-	USD7m	USD12.4m	22.4%
ARMO Biosciences	US	USD	February 2016	USD12m	USD12.0m	4.0%
Vascular Dynamics	US	USD	FY 2015	USD9m	USD9.0m	15.8%
1mg	India	INR	July 2017	USD15m	INR401.9m	9.7%
FarmaLatam	Colombia	USD	-	USD5.8m	USD5.8m	64.6%
Neurelis	US	USD	December 2016	USD5.5m	USD5.5m	11.0%

Source: HBM Partners

Fair value of the investments in private companies are included at their acquisition costs or at the value determined during the last financing round.

Cathay Industrial

Cathay Industrial Biotech was founded in 1997 and is headquartered in Shanghai, China. It is an industrial biotechnology company focused on producing long chain dibasic acids (LCDAs). LCDAs are primarily used as chemical intermediates for nylons, polyesters, adhesives and bio-solvents. Cathay provides its products to customers in the chemical, automobile and textile fields.

Ellipse Technologies

Incorporated in 2005 and based in California, Ellipse Technologies has built a platform technology for non-invasive adjustable, remote-controlled implants for spinal and orthopaedic applications. The company has two products on the market: MAGEC for the treatment of scoliosis during the growth phase, and PRECICE, a limb-lengthening system. MAGEC received US approval in September 2014.

Profile of the funds portfolio

Beyond direct investments in private or public companies, HBM Healthcare also invests in dedicated healthcare funds to take advantage of growth in specific regions (Nordic, the US and emerging countries, particularly subsector medical devices, diagnostics, and distribution) and technologies, notably sequencing technology. Generally, HBM invests with local actors such as Tata in India or WuXiApp in China.

Moreover, HBM Healthcare also supports other HBM-related funds such as HBM BioCapital II, Bio MedInvest I and II, and HBM Genomics.

Table 11: Portfolio of funds

Funds	Location	Since	Size	Commit-	Fund strategy	Regional focus
				ment		
HBM BioCapital II	Jersey	2012	USD120m	EUR42m	Growth companies in healthcare	Europe, US
MedFocus Fund II	US	2005	USD16m	USD16m	Early-stage investments in new medical device technologies	California
WuXi Healthcare Ventures II	China	2005	USD20m	USD25m	Life science companies developing transformative therapies	China
BioMedInvest II	Guernsey	nd	CHF106m	CHF10m	Private equity financing to early-stage private companies in biotechnology, emerging pharmaceutical and medical technology. The fund is closed for new investments	Switzerland
Hatteras Venture Partners III	US	2007	USD83m	USD10m	Focus on biopharmaceuticals, medical devices, diagnostics, and related opportunities in human medicine. Early, late or seed investments	
Tata Capital HBM Fund I	India	2015	USD10m	USD15m	Growth/expansion phase. Access to one of the leading PE investors in India life sciences investments	India
Galen Partners V	US	2007	USD250m	USD10m	Healthcare growth equity. Investments in proven companies that have repeat customer purchase patterns	North America
Nordic Biotech	Denmark	n/a	n/a	DKK31m	Focused on investing in public and private equity markets using principles of risk aversion and innovation	Nordic
BioMedInvest I	Switzerland	n/a	CHF100m	CHF10m	Private equity and mezzanine financing in early- to mid- stage companies. The fund is closed for new investments	Switzerland
HBM Genomics	Cayman Islands	2015	USD15m	USD15m	Early/development stage. Access to promising investments in later rounds	US
BioVeda China	China	2005	USD25m	USD8.5m	Later/growth - access to one of the first investors specialised in the Chinese healthcare market	China

In bold: investments made in emerging countries - Source: Kepler Cheuvreux

At end-September 2017, the total commitment to funds represented CHF117.5m.

TP CHF 151.00

Valuation, target price and risks

We initiate coverage on HBM Healthcare with a target price of CHF151, implying 16% upside, based on the assumption that the share's NAV will reach the value implied by analysts and consensus price targets for HBM's public company holdings and on a five-year average 25% share discount to NAV. Our conservative valuation of CHF1,413m for investments assumes only the portfolio's public holdings and does not include valuation upside from the private equity part of the portfolio.

Objective of a recurrent return for shareholders

HBM targets an annual return of at least 5% of net assets through a combination of buybacks and cash distribution. To achieve this goal, the board is strongly committed to shareholder value. Hence, the compensation to the Board of Directors includes a fixed director's fee and a variable compensation depending on value growth achieved (see Table 2: Fund fees).

A new share buyback programme

Share buybacks to reduce its capital is part of HBM strategy to return value to its shareholders. A new share buy-back programme for up to 10% of the issued shares (730,000) was approved in June 2016 and started on 6 October 2016. It will be completed no later than 23 June 2019. Under this share buy-back programme a total of 203,100 shares have been repurchased (as of end September 2017).

Cash distribution

Five years ago, HBM changed its dividend policy and initiated a regularly and increasing friendly distribution. The company started to pay dividend in FY 2013.

Table 12: Distribution

	2013	2014	2015	2016	2017
Net dividend per share (CHF)	1.50	3.00	5.50	5.50	5.80
Shares outstanding	8.8	8.5	7.8	7.4	7.1
Distribution (CHFm)	13.2	25.5	42.9	40.7	41.18
Distribution yield (%)	2.9%	4.0%	5.1%	5.1%	5.2%

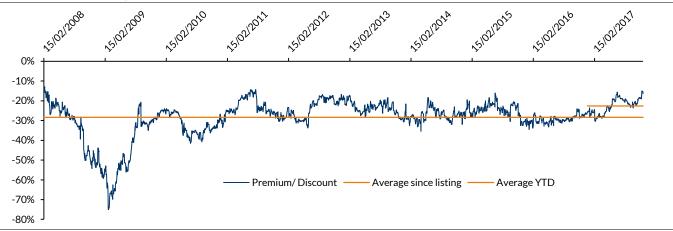
Source: Bloomberg, Kepler Cheuvreux

A recurrent discount to NAV

Twice monthly, HBM publishes the net asset value per share of its fund. This NAV is calculated from the share price of publicly traded portfolio companies, while fair value of the funds and investments in private companies are included at their acquisition costs or at value determined during the last financing round.

HBM Healthcare Investments is a listed healthcare fund including several participations in different companies at various stages of development. For an investor, while HBM offers a more balanced risk, its core business is less readable than a pure player. Hence a discount is always applied in the valuation of a holding. On average, HBM trades at a discount to NAV of between 20% and 30% whereas since the beginning of the year, this discount was reduced to 20%.

Chart 52: NAV vs. share price



Source: Bloomberg

While the strong expertise of HBM team on stock picking backed by recurrent high performances seems increasingly recognised by the market, we do not expect a further reduction of the discount to NAV.

NAV-based pricing model

A peer comparison is not appropriate as the thematic of investment of each fund is different as well as their return.

Target price of CHF151

Our HBM valuation is based by the NAV of the company portfolio with a discount applied by the market.

Twice monthly, HBM publishes the net asset value per share of its fund. This NAV is calculated from the share price of publicly traded portfolio companies, while fair value of the funds and investments in private companies are included at their acquisition costs or at value determined during the last financing round.

Kepler Cheuvreux Healthcare/Biotech team does not cover any companies of HBM Healthcare Investments public portfolio. Hence, our NAV valuation is based on the following assumptions:

- For the public companies, we apply consensus target prices from Bloomberg when the number of analyst covering the stock is higher than five. Otherwise, we apply valuations based on the most recent update.
- For the private companies and the funds, we apply the last disclosed fair value reported (as of 31 November 2017).
- A discount to NAV of 25% which is the average seen over the last five year even though this discount is shrinking since the beginning of the year.

Accordingly we derived a target NAV per share of CHF202 and a TP of CHF151 including a discount to NAV of 25% leading to a 16% upside to the last listed price.

Table 13: Valuation - Part I

Name	Currency		Current share	Market cap	Fair value	TP	TP	Analysts V	aluation at
		(%)	price (lc)	(lc in m)	(CHFm)		range		TP (CHF)
Vectura	GBP	9.8%	102.6	693.8	89.9	153.1	113-180	11	134.1
Pacira Pharmaceuticals	USD		44.3	1,793.2	48.0	50.6	27-80	16	55.2
Genmab	DKK		1,110.0	72,382.7	33.9	1,440.3	784-1800	21	36.0
Neurocrine Biosciences	USD		70.2	6,246.7	31.0	89.4	74-139	13	36.6
Nabriva Therapeutics	USD		5.7	211.2	13.4	19.3	16-24	7	44.8
Paratek Pharm.	USD		17.7	493.2	14.7	41.6	34-56	10	34.0
Ultragenyx Pharm.	USD		44.6	1,926.7	21.0	65.8	43-85	17	31.7
Galapagos	EUR	0.4%	73.8	3,873.2	18.0	97.7	84-110	10	22.7
Eagle Pharm.	USD	2.5%	57.5	890.5	22.1	62.0	37-75	4	23.4
Probiodrug	EUR	5.5%	11.5	94.3	6.0	28.8	24.5-33	4	15.0
Esperion Therapeutics	USD	2.3%	55.7	1,496.7	34.2	72.7	60-100	12	41.8
Tesaro	USD	0.4%	82.6	4,478.9	17.8	149.2	117-224	22	29.6
Eiger BioPharm.	USD	6.9%	12.5	131.5	9.0	31.8	26-35	5	18.3
Nicox	EUR	5.4%	10.3	300.2	18.9	16.9	14-20	2	30.7
Antares Pharma	USD	1.1%	1.9	277.3	3.0	3.7	3-5	5	6.5
Coherus Biosciences	USD	1.0%	8.6	498.3	4.9	28.4	15-45	8	16.3
Alimera Sciences	USD	5.1%	1.3	89.9	4.5	4.3	3-5	4	15.0
argenx	EUR	0.9%	56.1	1,474.2	15.4	46.3	32-64	3	13.5
Avexis	USD	0.4%	96.1	3,136.6	12.4	115.2	52-135	16	15.4
AnaptysBio	USD	3.2%	84.3	2,066.6	65.6	83.7	76-101	8	54.0
ObsEva	USD	7.8%	10.0	365.7	28.3	20.2	16-25	6	46.4
Clovis Oncology	USD	0.4%	63.1	3,083.0	12.2	95.4	73-125	13	18.0
Immunomedics	USD	0.6%	12.3	1,877.5	11.2	16.7	15-19	3	15.3
Ascendis Pharma	USD	0.8%	37.0	1,362.8	10.8	48.6	37-62	6	14.5
Erytech Pharma	EUR	2.9%	16.4	294.9	9.9	41.5	35-49	6	16.4
Divis Laboratories	INR	0.2%	1,063.4	285,378.7	8.8	1,007.8	800-1200	16	9.4
Intercept Pharm.	USD	0.5%	60.9	1,539.8	7.6	130.1	50-332	20	16.1
Claris Lifesciences	INR	2.0%	350.9	19,207.9	5.9	480.0	480.0	1	8.1
Puma Biotechnology	USD	0.1%	100.5	3,796.1	3.8	133.0	108-164	9	6.6
Acadia Pharmaceuticals	USD	0.1%	29.9	3,722.4	3.7	49.8	36-61	10	7.4
DBV Technologies	EUR	0.2%	36.3	911.8	2.1	71.8	40-120	8	5.0
Vicore Pharma	SEK	7.6%	21.1	341.2	3.0	nd	nd	0	3.0
RA Pharmaceuticals	USD	1.3%	7.9	174.2	2.2	26.4	18-34	5	7.9
Laurus Labs	INR	0.5%	503.9	53,523.8	4.1	612.5	570-680	5	4.7
Spring Bank Pharm.	USD	1.7%	12.8	174.3	2.9	31.0	20-45	6	6.6
Albireo Pharma	USD	1.9%	23.4	207.5	3.9	56.3	35-92	6	9.5
Corium International	USD		11.1	398.5	3.6	14.5	13-16	5	4.5
Other					15.0				
Total public companies					623.2				889.1

Source: Kepler Cheuvreux

Upside represented by investments in public companies is balanced by the three main upsides representing less than one-third of the total upside. Hence, the company's valuation is less sensitive to a specific event on a company' portfolio.

Table 14: Valuation - Part II

Name	Currency	HBM holding (%)	Current share price (LC)	Market cap (LC)	Fair value (CHFm)	TP	TP range	Analysts	Valuation at TP (CHF)
Total public companies		• •	• • •	• •	623.2				889.1
Cathay Industrial	USD	9.3%			42.5				42.5
Harmony Biosciences	USD	9.4%			29.0				29.0
Y-mAbs Therapeutics	USD	8.8%			19.4				19.4
Amicus	EUR	25.4%			18.3				18.3
Westmed Holding	USD				12.0				12.0
ARMO BioSciences	USD	4.0%			11.6				11.6
Vascular Dynamics	USD				8.7				8.7
1mg	INR				6.0				6.0
FarmaLatam	USD				5.6				5.6
Neurelis	USD	11.0%			5.3				5.3
SAI Life Sciences	INR				5.2				5.2
Cardiac Assist	USD				5.2				5.2
Formation Biologics	CAD				3.9				3.9
Vitaeris	USD				3.9				3.9
Homology Medecines	USD				3.9				3.9
Iconic Therapeutics	USD	7.1%			3.6				3.6
Shrij Polymers	INR				3.0				3.0
Shape Memory Medical	USD				2.9				2.9
Complexa	USD				2.8				2.8
Amphora Medical	USD	5.5%			2.1				2.1
Other					17.7				17.7
Total private companies					212.6				212.6
HBM BioCapital II	EUR				27.3				27.3
MedFocus Fund II	USD				18.2				18.2
WuXi Healthcare II	USD				11.9				11.9
BioMedInvest II	CHF				9.4				9.4
Hatteras Venture Part. III					9.2				9.2
Tata Capital HBM Fund I	USD				8.1				8.1
Galen Partners V	USD				7.9				7.9
Nordic Biotech	DKK				7.7				7.7
BioMedInvest I	CHF				7.1				7.1
HBM Genomics	USD				6.9				6.9
BioVeda China	USD				0.0				0.0
Other					3.7				3.7
Total funds					117.5				117.5
Total investments					953.2				1,219.2
Cash and other assets less	s liabilities				193.5				193.5
Net Asset Value					1,146.7				1,412.7
Number of shares (m)					7.0				7.0
NAV per share (CHF)					163.8				201.8
Discount					25%				25%
Target price (CHF)					122.9				151.4

Source: Kepler Cheuvreux

Note that the cash less liabilities item includes among other things the cash available in the fund (CHF210m), the cash resulting from the sale of AAA (CHF197m) as well as CHF100m in bond liabilities (two straight bond tranches with a par value of CHF50m each and maturing on 10 July 2021 and 10 July 2023, respectively).

Table 15: Sensitivity analysis

Discount to NAV	15%	20%	25%	30%
TP	171.5	161.4	151.4	141.3

Source: Kepler Cheuvreux

Upside to our valuation

Our valuation only includes the potential of public company based on their target prices. This valuation does not include valuation upside from private companies or funds. Indeed, these investments are valued at their acquisition costs or the price of the last round of financing. Hence, their valuation does not change before either an exit or a new financing round.

Thus, these investments represent the hidden value of HBM portfolio. Before investing in a private company, HBM assesses the potential of exit strategy. Main exit for private companies is IPO or acquisition.

Chart 53: More than 50 trade sales and IPOs

		Trades	sales IP	Os			Curetis (DE) Euronext	
Syntonix (US)						Paratek (US) NASDAQ	Eiger (US) NASDAQ	
Agensys (US)		Nuokang (CN) NASDAQ	Anthera (US) NASDAQ	Pacira (US) NASDAQ		Ophthotech Probiodrug (DE)	AAAP(US) NASDAQ	Obseva (CH) NASDAQ
Adnexus (US)	Lifeline (US) AIM	Ziemer (CH)	Asthmatx (US)	mtm (DE)		Ophthotech (US) NASDAQ	Nabriva (US) NASDAQ	AnaptysBio (US) NASDAQ
Aspreva (CA)	Panomics (US)	Brahms (DE)	Micrus (US)	Mpex (US)	ChemoCentryx (US) NASDAQ	PTC (US) NASDAQ	Ellipse (US)	True North (US)
Mediservice (CH)	Precimed (CH)	Esbatech(CH)	Sloning (DE)	PharmaSwiss (CH)	Vivacta (UK)	Enanta (US) NASDAQ	Kolitan (US)	Interventional Spine (US)
2007	2008	2009	2010	2011	2012	2013	2014	2015

Source: HBM Healthcare

HBM team has at several times demonstrated its ability to make right choice with a significant upside on the fair value.

Table 16: IPO impact on fair value

	IPO date	Fair value increase (CHF)
Nabriva Therapeutics	November 2015	9.50%
AAA	November 2015	100%
Probiodrug	October 2014	236%
Paratek	July 2013	1118%
Ophthotech	September 2013	735%

Source: Kepler Cheuvreux

Moreover, in October 2017 Novartis announced a tender offer for Advanced Accelerator Applications (AAA) for USD3.9bn reflecting a 47% premium compared to AAA's price before media reported on September 27 that Novartis was interested. On the basis of the takeover price, the value of this investment grew by USD31.9m corresponding to an increase of the NAV per share of +2.5%.

More recently in December 2017, CSL and Vitaeris (held at 20% by HBM Healthcare) announced a strategic partnership with an option to acquire.

According to the agreement, Vitaeris retains control of project through end of phase III, received USD15m and will be eligible to milestone payments by CSL and royalties on future sales. However, despite this promising agreement, the book value remained unchanged.

Risk to our valuation

The main risk of our valuation is the ability of HBM team to continue to realise an accurate stock picking to select the most promising companies both in the private and public portfolio.

As its science, failure in development could always happen. However, HBM has a balanced pipeline and more than 73% of is investments are made in companies in late stage of development.

Beyond development risk inherent to every investment in healthcare there are a low risk of liquidity (available cash to participate to follow-on financing or grab opportunities) and a low risk of currency risk (71% of the allocation of assets are in dollars of which about a fifth of public portfolio is hedged).

Table 17: Exchanges rates used in our valuation

Exchange rates (CHF) as of 12/12/2017	
DKK	0.1563
EUR	1.16
GBP	1.32
INR	0.0154
SEK	0.1175
USD	0.99

Source: Bloomberg

Appendices

Company sheets for main investments:

- Vectura Pharmaceuticals
- Pacira
- Genmab
- **Esperion Therapeutics**
- Ultragenyx Pharmaceutical
- Tesaro

Vectura is a British-based company which specialises in the development of formulation and device technologies for respiratory diseases (mainly dry powder inhalers, pressurised metered dose inhalers and smart nebuliser technology). In June 2016, Vectura completed a merger with Skyepharma to offer a complementary inhalation delivery platform. Thanks to this acquisition, Vectura has also expanded its formulation expertise in oral drug development. The company has signed core agreements with the world's leading laboratories (Novartis, GSK, etc.) to sell its products. Currently, Vectura owns seven in-market inhaled assets.

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Bruno Angelici, Chairman James Ward-Lilley, CEO Andrew Derodra, CFO

Key shareholders

HBM Healthcare Investments Ltd 10.5% Invesco Ltd 9.8% Aviva 3.7%

Market data

Last price, 19/12/2017	103.9p
Bloomberg	VEC LN
Reuters	VEC.L
Market cap (GBP)	693.8m
Free float (%)	88%
No. of shares outstanding	678.0m
3m avg. daily vol (GBPm)	319.1
YTD abs. performance	-24.2%
52-week high ()	163.00p
52-week low ()	89.95p

- Broad pipeline of partnered and proprietary assets (especially Nebuliser)
- Promising sales outlook for Flutiform and Ultibro.
- Core agreements signed with word's leading laboratories (Novartis, GSK, etc.)
- Strong cash flow generation, disciplined R&D and M&A investment

■ Value of global respiratory market estimated at USD50bn by 2024

- Generics' share of major inhaled classes expected to grow from 7% to 25% in value by 2024
- High unmet need and increasing diagnosis especially in emerging markets

Weaknesses

- Regulatory process
- Recent setbacks
- Delays in US generic Advair (CRL received from the FDA)

- Failure in clinical trials
- Strong competition within the COPD market (many alternatives)
- Competitors to Advair Diskus: Teva non-substitutable generic and Mylan's device
- Pricing pressure in respiratory market

Investment case summary

- ■The acquisition of Skyepharma in 2016 led to the creation of a world's leading company focused on respiratory diseases which is a growing therapeutic area (market forecasts of USD50bn by 2024, 3% CAGR) with unmet medical needs. For the treatment of airway diseases, the drug used is as important as the device used for inhalation.
- Vectura provides pharma companies (active in the respiratory field) with access to its formulation expertise and its range of device technologies via licensing agreements or collaborations. Its expertise can be beneficial for novel patented molecules, generics or in-house drugs.
- Vectura owns 20 revenue generating in-market assets of which eight are in-market inhaled products. While Vectura has signed several partnerships on novel patented molecules, generics or specific devices, the company wants to capture the future value by becoming a wholly-owned specialist. Thus, the objective is to create a unique integrated inhaled drug delivery platform comprising formulation, development and devices for new drugs.
- In order to accelerate growth, Vectura is also pursuing selective M&A focused on US assets delivering in-market revenue.

- Vectura has six valuable late-stage novel and generic assets in the field of asthma or COPD (chronic obstructive pulmonary disease) of which one is a wholly-owned asset (nebulised budesonide using the AKITA Jet device for delivery) with the potental to deliver revenues by 2020. An European phase III study is underway.
- Moreover, the company has an early stage pipeline encompassing three developments of which one is wholly-owned asset while others are already partnered (UCB, Ablynx).

Catalysts

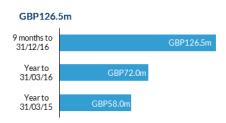
- Vectura Group and its partner Hikma Pharmaceuticals are developing VR315, a generic of Advair Diskus (GSK, sales of GBP1.8bn in 2016). In May 2017, they received a complete response letter from the FDA. As no material concerns were raised with regard to the substitutability of the proposed device, the launch has been set for 2018.
- The study read-out of QVM149 phase III (moderate-severe uncontrolled asthma) is expected for 2018. This fixed combination triple therapy offers a significant advantage to patients (adherence improvement). According to Vectura, the sales potential could range between USD300-500m.
- A major catalyst will be the European phase III outcome of VR475, the late-stage Vectura's wholly-owned asset. This drug/device combination targets the reduction in exacerbation of asthma for adult with severe, uncontrolled asthma. It could be a costeffective alternative to biological therapy. Results are expected in late 2018.

Valuation

Recurring revenues represent 80% of group sales (GBP126m) whereas the cash position stood at GBP88m at end-2016. The consensus is positive on the stock (11 opinions) with an average target price of GBP1.60 pointing to +65% upside.



Revenue (GBPm)





Pacira Pharmaceuticals is a pharmaceutical company which is engaged in the clinical and commercial development of products for acute care thanks to its proprietary DepoFoam drug delivery technology. The company has two approved products: Exparel and Depocyt(e). However, only Exparel is still being marketed. Launched in April 2012, Exparel is a local anaesthetic based on a new formulation of the painkiller bupivacaine. The company is endeavouring to extend Exparel's indications in postsurgical analgesia.

Management

David Stack, CEO and Chairman Kristen Williams, JD, CEO Charles A. Reinhart, CFO

Key shareholders

Blackrock 7.9% Vanguard Group 7.1% T. Rowe Price Group Inc 6.1%

Market data

Last price, 13/12/17	USD45.80
Bloomberg	PCRX US
Reuters	PCRX.O
Market cap (USD)	1.793bn
Free float (%)	99%
No. of shares outstanding	37.0m
3m avg. daily vol (USDm)	29.0
YTD abs. performance	41.8%
52-week high (USD)	51.70
52-week low (USD)	30.80

Strengths

- DepoFoam's proprietary technology to produce extend release formulation
- Exparel is a valuable alternative to minimise opioid use for postsurgical pain
- Partnerships with world-leading laboratories or healthcare systems (J&J and Trinity Health)
- DepoFoam is easy to industrialise

Opportunities

- According to US News and World Report, one in ten patients report becoming addicted or dependent on opioids after surgery
- Urgent need to find alternatives to opioids. A growing number of deaths are associated with opioid medication and overdoses (opioid crisis)
- US: robust national campaign to educate patients and healthcare providers regarding non-opioid treatment options
- DepoFoam is a versatile technology which can be used with several compounds

Weaknesse

- Disappointment regarding Exparel's short-term sales potential (2017)
- Exparel 's mixed phase III results on the extension of the indication: nerve block in upper and lower extremity surgeries
- Technical issues with DepoCyt(e) production led to the discontinuation of production

Threats

- Opioids are still the most prescribed painkillers
- Failure in clinical development
- New painkiller alternative

Investment case summary

- Thanks to its propietary DepoFoam technology, Pacira is able to create extended-release formulations of existing drugs. This platform offers several advantages over competitive technologies: convenient product which can be administered into priviledged sites and already approved by regulatory authorities in some indications
- Postsurgical pain is a key issue to improve patient outcomes. Nowadays, up to 80% of patients report pain that is moderate to extreme in intensity after surgery.
- Two drugs have already been approved: DepoCyt(e) (oncology) and Exparel (acute pain). However, following technical manufacturing issues, Pacidara discontinued the Depocyt(e) production and focused its efforts on Exparel (extension of indication).
- Exparel (FDA approved in October 2011) provides long-lasting pain control while reducing opioid use. The abuse of opioids has a devastating impact on public health and safety in the US: every day, more than 90 Americans die after overdosing on opioids.
- Exparel is an alternative to opioids for post-surgical pain control. While the performance of Exparel in 2017 has been below investors' expectations, there is huge market potential thanks to Exparel's extension of indications following procedures on extremities. According to Evaluate Pharma, Exparel in all of its indications could reach sales of over USD800m by 2022 (70m annual surgical procedures in the US leading to a potential opportunity for non-opioid therapy in 40m procedures).

Pipeline

The pipeline relies on the extension of Exparel's indications in common surgeries associated with an increased risk of chronic opioid use: hip or knee arthroplasty, mastectomy, laparoscopy, appendectomy or after lumbar spinal fusion surgery.

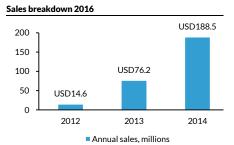
Catalysts

- All clinical data to expand Exparel's use in key surgical procedures. Before resubmitting the nerve block dossier, Pacira answered FDA questions and provided additional data. In addition to the two phase III trials (nerve block studies in patients undergoing arthroplasty knee or shoulder), the filing also included data from two studies in hand/wrist and foot/ankle procedures. A PDUFA action date is expected for April 2018.
- Pacira is working with the FDA to define a regulatory pathway to expand the current Exparel infiltration label to include paediatrics.
- In spine, Pacira assesses the effectiveness of Exparel in minimally invasive surgery.

Valuation

■ Pacira's cash position stood at USD375m at the end of Q3 2017. The consensus is strongly positive whereas the upside seems limited: there are 16 opinions with an average target price of USD52 implying +22% upside.







Genmab is a Danish biotechnology company with proprietary technologies (DuoBody and HexaBody) which aims to create bispecific and immune effector enhanced antibodies. These differentiated antibody therapeutics are focused on the treatment of cancer. The company has two antibodies on the market: Arzerra (ofatumumab) approved for patients suffering from chronic lymphocytic leukaemia (CLL) and distributed by Novartis and; Darzalex (daratumumab), approved by the FDA in November 2015 in 3L for the treatment of multiple myeloma (MM) and marketed by Jansen.

Management

Mats Pettersson, Chairman of the Board Jan G. J. van de Winkel, President and CEO David A. Eatwell, CFO

Key shareholders

Vanguard Group 7.4% Artisan Partners Ldt Partnership 5.5% Baillie Goffird and Company 4.9%

Market data

Last price, 13/12/17	DKK1052.00
Bloomberg	GEN DC
Reuters	GEN.CO
Market cap (DKK)	72.382bn
Free float (%)	95%
No. of shares outstanding	60.0m
3m avg. daily vol (DKKm)	551.3
YTD abs. performance	-10.3%
52-week high (DKK)	1482.00
52-week low (DKK)	1052.00

Strengths

- Proprietary platform for the creation of specific antibodies
- In-depth knowledge of antibody biology
- Strong focus on cancer treatment, a fast-growing therapeutical area
- Strategic collaborations with major players such as Janssen, Novartis or Amgen

Opportunities

- Versatile technology which could be used to generate best possible antibody products
- Focus on CLL and MM, two cancers with important unmet medical needs
- Daratumumab has the potential to be used in different forms of MM
- An extensive pipeline in oncology

Weaknesses

- Regulatory process
- Dependence on partnership to finalise the development
- Dependence on partners' commitment for the marketing
- Focus on oncology

Threats

- Failure in clinical trials
- Execution of future out-licensing deals
- Evolution of oncology treatment landscape (biosimilars or technology change)
- Increased competition in CLL and MM

Investment case summary

- Genmab is a leading company engaged in the manufacturing of dedicated antibodies thanks to its proprietary technologies: DuoBody and HexaBody. Its business model is based on licencing antibodies in order to receive milestone payments and royalties depending on the success in the development.
- Revenues (DKK1,816m in 2016) mainly came from royalties and/or milestone payments on partnered drugs (94% of group' sales).
- Net sales of Arzerra amounted to USD46m in 2016 representing a decrease of 19% versus 2017 due to an increase in competition from Imbruvica (ibrutinib, AbbVie).
- For the short term, the main growth driver will be Darzalex which has been approved in different lines of multiple myeloma (MM) treatment. The FDA has recently approved its use in combination with Pom/Dex regimen (pomalidomide plus low-dose dexamethasone) for relapsed/refractory MM.
- While Janssen booked USD554m of sales for Darzalex in the first half of 2017, the guidance for the full year points to net sales of USD1.1-1.3bn. According to Evaluate pharma estimates, this drug has the potential to become a backbone therapy for MM and hence could reach peak sales of over USD8bn by 2020 in this indication on which, Genmab are entitled to a 12.5% royalty. However, competition from other anti-CD38s particularly isatuximab (Sanofi, currently in phase III) could drive down prices and reduce Darzalex's sales potential.

Pipeline

Genmab is aiming to build a strong differentiated oncology pipeline. Eight projects are in clinical development by Genmab and its partners: daratumumab and ofatumumab in a late stage of development (new indications) and in an early stage of development for tisotumab vedotin (ph. I/II, multiple solid tumors) and HuMax-AXL-ADC (ph. I/II, lymphoma).

Catalysts

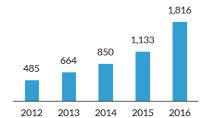
■ The release of Darzalex's quarterly sales is a clear indicator of the drug ramp-up and sales potential. Moreover, the positive results from the clinical pipeline could sustain the momentum (ph. III MM interim efficacy analysis for daratumumab in frontline, start of subcutaneous trial, ph. III headline results of ofatumumab in refractory follicular lymphoma, etc.).

Valuation

Genmab's cash position stood at DKK3,922m at end-2016. The consensus is quite positive on the stock (15 opinions) with an average target price of DKK1,490 implying +21% upside.







Consensus recommendation



Esperion is a late-stage company which is developing targeted therapies to lower LDL-cholesterol for patients that have not been adequately treated using the current lipid-modifying therapies. Its main asset, bempedoic acid (ETC-1002) is currently in phase III in the treatment of patients with hypercholesterolemia in monotherapy and in combination with ezetimibe especially in patients with a history of statin intolerance. Several catalysts are expected for 2018. If positive, they will pave the way for success in the high-cholesterol market with a likely market entry for bempedoic in 2020.

Management

Tim Mayleben, President and CEO Narendra Lalwani, Executive VP, R&D, COO Mary McGowan, CMO

Key shareholders

Meditor Capital Management 8.8% Domain partners 8,6% Pentwater Capital 7.6%

Market data

Last price, 13/11/17	USD57.13
Bloomberg	ESPR US
Reuters	ESPR.O
Market cap (USD)	1.496bn
Free float (%)	89%
No. of shares outstanding	23.0m
3m avg. daily vol (USDm)	26.5
YTD abs. performance	356.3%
52-week high (USD)	63.89
52-week low (USD)	10.97

Strengths

- Strong clinical evidence of efficacy of bempedoic to lower LDL-C
- The FDA does not require a cardiovascular outcome study, implying a quicker approval time for bempedoic
- Bempedoic acid is associated with fewer side effects, in particular a lower occurrence of muscle-related side effects

Opportunitie

- Cardiovascular diseases are the leading cause of death worldwide
- Need for an alternative to statins
- Huge market opportunity for cholesterol-lowering treatments
- Regarding the potential market, Esperion represents an interesting target

Weaknesses

- Only one drug in the pipeline (bempedoic)
- Statins remain the treatment of choice for the treatment of hypercholesterolemia
- Regulatory process
- No partner to date
- **Threats**
- Failure in clinical trial (efficacy or long-term safety)
- The FDA should ask for a cardiovascular outcome study before giving its approval
- Healthcare budget constraints

Investment case summary

- Esperion specialises in the development of new oral alternatives to statins for the treatment of patients with elevated LDL-C. Two developments are underway: bempedoic in monotherapy and in combination pill with ezetimibe.
- Several phase II outcomes have already highlighted the efficacy and sound safety profile of bempedoic alone or in combination with other drugs.
- The FDA no longer requires a cardiovascular outcome study implying a quicker approval time for bempedoic. However, Esperion still has to carry out the study.
- In August 2017, Esperion announced positive 1002-038 phase II results (n=60). This clinical trial evaluated the LDL-C lowering efficacy and safety of bempedoic acid/ezetimibe combination plus atorvastatin versus a placebo in patients with hypercholesterolemia. The six-week study met its primary endpoint of a greater LDL-C reduction from the baseline of 64% (p<0.001) in the bempedoic/ezetimibe/ atorvastatin group. These promising results in triple-combo therapy with bempedoic should pave the way for clinical success in the high-cholesterol market.

Pipeline

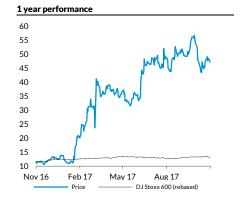
- In early 2016, Esperion launched a global phase 3 clinical programme (n=3,600) including a long-term safety study and three LDL-C lowering efficacy studies in high-risk cardiovascular patients.
- In July 2017, Esperion initiated a phase II (1002-039) trial to assess the efficacy and safety of bempedoic acid in combination with a PCSK9 therapy (n=50).
- In addition to these clinical programmes, Esperion has launched a global cardiovascular outcomes trial (CLEAR Outcomes). This study (n=12,600) will last 4.75 years and results are expected by 2022.

Catalysts

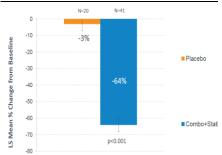
- Top-line readouts from the four global pivotal Phase III studies are expected by the second and third quarters of 2018. All of these outcomes will act as major catalysts for the stock and they are likely to lead to the filing of two NDAs in 2019 for bempedoic acid as a monotherapy, and as a combo therapy (bempedoic/ezetimibe).
- Top-line results of bempedoic/PCSK9 combination are expected by Q1 2018. However, this non-registrational study only aims to confirm the efficacy and safety profile of bempedoic in add-on therapy.

Valuation

- As of end September 2017, cash amounted to USD309m. Thanks to a follow-on public offering of U8SD175m in August 2017, Esperion should have enough cash until the expected regulatory approvals of bempedoic in monotherapy or in combination with ezetimibe in Q1 2020.
- The consensus (11 opinions) is strongly positive with an average target price of USD63 indicating +34% upside.



LDL-C percent change from baseline (1002-038 study)





Ultragenyx is a California-based biotechnology company focused on developing treatments for serious rare and ultra-rare genetic diseases. The leading candidate is burosumab, developed in collaboration with the Japanese-based company Kyowa Hakko Kirin for the treatment of X-linked hypophosphatemia. Burosumab phase III results were announced in April 2017 and were mixed. While the candidate met its primary endpoints but missed a key secondary pain endpoint, it received (positive CHMP opinion in December 2017. The second most advanced Ultragenyx's candidate is UX003 (vestronidase alfa rhGUS) developed in the mucopolysaccharidosis type 7 (MPS 7) indication. MEPSEVII was approved in the US in November 2017 while in Europe, regulatory approval is expected in H1 2018.

Management

Daniel G.Welch, Chairman Emil D. Kakkis, President and CEO Shalini Sharp, CFO

Key shareholders

Capital Group Companies Inc 19.8% Wellington Management Group LLP 10.8% FMR LLC 9.0%

Market data

Last price, 13/12/17	USD45.19
Bloomberg	RARE US
Reuters	RARE.O
Market cap (USD)	1.926bn
Free float (%)	92%
No. of shares outstanding	41.0m
3m avg. daily vol (USDm)	21.5
YTD abs. performance	-35.7%
52-week high (USD)	88.80
52-week low (USD)	44.51

Strengths

- Proprietary pipeline
- Addresses orphan indications with no competition
- Acquired leading gene transfer company providing further opportunities in the orphan landscape
- Solid cash position

Opportunities

- Steady and inexorable growth of the orphan drug market
- Rare disease companies are hot targets for large M&A
- Generic competition is unlikely in the ultra-orphan landscape

Weaknesses

- Regulatory process
- Lack of commercial structure
- Lack of NMEs in clinical stage
- Past clinical setbacks have raised concerns about its future success

Threats

- Orphan disease attrition rate remains high
- Pricing and reimbursement of its candidates still have to be determined
- Healthcare payers' stakeholders have more pricing influence now

Investment case summary

- Ultragenyx is a leading ultra-rare disease biotechnology company. With four candidates under clinical development, Ultragenyx has one of the deepest pipelines in the rare diseases segment.
- Ultragenyx's most advanced product is burosumab which is currently being developed for the treatment of X-linked hypophosphatemia, a debilating disease affecting the bones. The candidate reported positive top-line phase III results in April 2017, although this result was counterbalanced by disappointing secondary endpoint data. Ultragenyx aims to start the commercialisation of burosumab in 2018.
- In 2017, the company experienced two setbacks in its clinical programmes for Ace-ER, a GNE myopathy candidate which Ultragenyx discontinued, and triheptanin in transporter type-1 deficiency syndrome. Although sales were expected to be low for these two programmes, these setbacks cast doubt on Ulragenyx 's ability to deliver successful results on its product candidates.
- The company has not yet recorded any product sales as its first candidate to reach the market, burosumab, is not expected to be out before 2018.
- In September 2017, Ultragenyx announced its intention to acquire Dimension Therapeutics for c. USD150m to strengthen its pipeline in gene therapy and haemophilia.

Pipeline

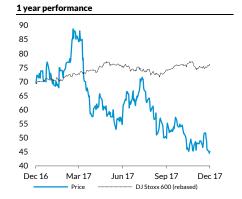
 Ultragneyx has two late-stage clinical candidates under development: burosumab and UX007. Both are expected to start their commercial life in 2018.

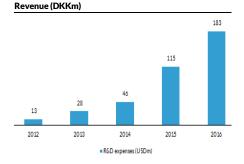
Catalysts

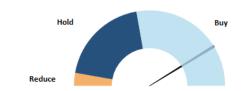
■ There are several key events ahead in the coming months. For burosumab, the PDUFA date is expected in April 2018, while the CHMP opinion were positive in December 2017. The other important regulatory decision is the approval of UX007 in Europe, following the positive PDUFA outcome on 16 November 2017 in the US.

Key questions for management

After the acquisition of Dimension Therapeutics, Ultragenyx's cash position stood at USD246m however it has not generated any sales revenues yet. The consensus is quite optimistic on the stock (18 recommendations) with an average price of USD67 (+38%).







Tesaro is a commercialised-stage biotech company with two approved medicines: Varubi (rolapitant) and Zejula (niraparib). Varubi has been approved since 2015 for the prevention of nausea and vomiting associated with cancer chemotherapy. Varubi recorded USD6.9m of sales in 2016, while the consensus expects USD21m in 2017. The second product is Zejula, a parp inhibitor indicated in ovarian cancer which was approved in the US and Europe in 2017. For its first year, Zejula is expected to reach USD105m while the consensus expects USD1.7bn peak sales.

Management

Lonnie Moulder, CEO Timothy pearson, CFO

Key shareholders

New Enterprise Associates, 18.9% Fidelity Management, 14.0%

Market data

Last price, 13/11/17	USD83.03
Bloomberg	TSRO US
Reuters	TSRO.O
Market cap (USD)	4,478bn
Free float (%)	97%
No. of shares outstanding	54.0m
3m avg. daily vol (USDm)	82.2
YTD abs. performance	-38.2%
52-week high (USD)	190.36
52-week low (USD)	80.68

Strengths

- Zejula is widely recognised as the best-in-class parp inhibitor
- Know-how in the development of late-stage products
- Multiple further indications for Zejula

Opportunities

- Obvious target for large pharmaceutical companies seeking to enter the DDR segment
- Large unmet need addressed by Zejula
- Zejula is currently being tested with immunomodulators implying that there could be a new addressable disease

Weaknesses

- Very early-stage pipeline
- The success of the company will depend mainly on one product
- No proprietary technology

Threat

- Fierce competitive environment with AstraZeneca and Clovis Pharm.
- The Zeluja patent is due to expire in 2029 creating a 10-year exclusivity period
- Oncology is a rapidly changing field and new and better therapies may emerge in the next few years

Investment case summary

- Tesaro is a pharmaceutical company that focuses on the development of oncology therapeutics. Its main asset is Zejula, a parp inhibitor, which was first launched in April 2017. Zejula has been approved in ovarian cancer for patients with a BRCA-deficient gene.
- Zejula has blockbuster status, with USD1.7bn peak sales expected.
- This medicine competes with Astrazeneca's Lymparza and Clovis Oncology's Rubraca and is considered to be the best-in-class therapy.
- Besides Zejula, Tesaro markets Varubi, a palliative treatment to help patients to deal with the side effects of chemotherapy.
- Regarding the early-stage pipeline, Tesaro entered into a collaboration with Anaptys bio in March 2014 for the discovery and development of immune-oncology candidate. As part of this collaboration, Tesaro is developing an PD-1 inhibitor as well as a TIM-3 and a LAG-3. All of these candidates have started clinical trials highlighting the relatively few assets in Tesaro's pipeline.

Pipeline

- Tesaro is marketing two medicines and developing two immuno-oncology programmes (one anti-PD-1 and one anti-TIM-3 which are currently in phase I)
- Moreover, as part of its Anaptys collaboration, Tesaro is developing several preclinical immune-oncology assets including bi-specific antibodies sucg as PD-1/anti-LAG-3.

Catalysts

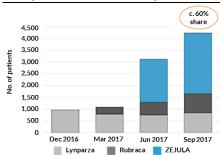
- The main catalyst in the coming months will be the sales ramp-up and prescription uptake of Zejula following its approval.
- According to Zejula's approval, no major clinical results or regulatory statements are expected in the next few months. However, preliminary phase I data of the immuneoncology pipeline is expected in H1 2018

Valuation

- Tesaro's cash position stood at USD521m as of 30 September 2017.
- Consensus is quite pushy on the stock with 11 Buy and seven Hold ratings with an average target price of USD147.



Monthly PARPi ovarian cancer treated patients





Valuation

FY to 31/03 (CHF)	2011	2012	2013	2014	2015	2016	2017E	2018E
Per share data (CHF)								
EPS adjusted	-2.70	7.52	40.98	32.58	3.06	19.01	10.60	2.83
% Change	na	na	445.2%	-20.5%	-90.6%	521.5%	-44.3%	-73.3%
EPS adjusted and fully diluted	-2.70	7.52	40.98	32.58	3.06	19.01	10.60	2.83
% Change	na 2.70	na	445.2%	-20.5%	-90.6%	521.5%	-44.3%	-73.3%
EPS reported	-2.70	7.52	40.98	32.58	3.06	19.01	10.60	2.83
% Change EPS Consensus	na	na	445.2%	-20.5%	-90.6%	521.5%	-44.3%	-73.3%
Cash flow per share	-4.19	6.26	39.40	30.61	-5.82	16.86	8.46	0.61
Book value per share	57.94	67.42	106.68	135.46	135.09	153.51	167.12	171.65
DPS	0.00	1.50	3.00	5.50	5.50	5.80	5.85	6.15
Number of shares, YE (m)	9.4	8.9	8.6	7.9	7.6	7.1	7.0	7.0
Number of shares, fully diluted, YE (m)	9.4	8.9	8.6	7.9	7.6	7.1	7.0	7.0
radiiber of shares, runy unuted, 12 (iii)	7.4	0.7	0.0	7.7	7.0	7.1	7.0	7.0
Share price								
Latest price / year end	41.5	51.4	75.5	108.0	99.5	111.4	129.8	129.8
52 week high (Year high)	50.5	53.0	80.0	112.5	111.5	113.1	131.2	
52 week low (Year low)	38.0	40.1	49.3	70.3	92.0	92.0	111.3	
Average price (Year)	44.1	47.8	64.2	89.1	99.8	100.2	129.8	129.8
Enterprise value (CHFm)								
Market capitalisation	416.1	426.2	554.1	706.4	753.3	709.4	912.6	912.6
Net financial debt	-41.5	-52.8	-46.9	-76.9	-15.9	36.6	62.1	90.4
Pension provisions	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Market value of minorities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Market value of equity affiliates (net of tax)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Others	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Enterprise value	374.6	373.4	507.2	629.5	737.4	746.0	974.8	1,003.0
Valuation								
P/E adjusted	na	6.4	1.6	2.7	32.6	5.3	12.2	45.8
P/E adjusted and fully diluted	na	6.4	1.6	2.7	32.6	5.3	12.2	45.8
P/E consensus		· · ·	2.0	,	02.0	0.0		.0.0
P/BV	0.8	0.7	0.6	0.7	0.7	0.7	0.8	0.8
P/CF	na	7.6	1.6	2.9	na	5.9	15.3	na 4 T o (
Dividend yield (%)	0.0%	3.1%	4.7%	6.2%	5.5%	5.8%	4.5%	4.7%
Dividend yield preference shares (%)	0.0%	3.1%	4.7%	6.2%	5.5%	5.8%	4.5%	4.7%
FCF yield (%)	-9.5%	13.1%	61.3%	34.4%	-5.8%	16.8%	6.5%	0.5%
ROE (%) ROIC (%)	-4.5%	11.7%	46.5%	25.9%	2.2%	12.8%	6.6%	1.7%

Income statement

FY to 31/03 (CHFm)	2011	2012	2013	2014	2015	2016	2017E	2018E
Net financial items	-2.3	0.2	0.0	-0.3	-2.1	-2.6	-2.6	-2.6
Associates	-23.1	66.8	353.5	258.6	25.2	137.1	77.1	22.5
Others	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Earnings before tax	-25.4	67.0	353.5	258.4	23.1	134.6	74.5	19.9
Tax	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net profit from continuing operations	-25.4	67.0	353.5	258.4	23.1	134.6	74.5	19.9
Net profit from discontinuing activities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net profit before minorities	-25.4	67.0	353.5	258.4	23.1	134.6	74.5	19.9
Minorities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net profit reported	-25.4	67.0	353.5	258.4	23.1	134.6	74.5	19.9
Adjustments	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net profit adjusted	-25.4	67.0	353.5	258.4	23.1	134.6	74.5	19.9
Earnings before tax % Change	na	na	427.6%	-26.9%	-91.1%	482.9%	-44.6%	-73.3%
Net profit from continuing operations % Change	na	na	427.6%	-26.9%	-91.1%	482.9%	-44.6%	-73.3%
Net profit reported % Change	na	na	427.6%	-26.9%	-91.1%	482.9%	-44.6%	-73.3%
Net profit adjusted % Change	na	na	427.6%	-26.9%	-91.1%	482.9%	-44.6%	-73.3%
Gross profit margin (%)	na	na	na	na	na	na	na	na
EBITDA margin (%)	na	na	na	na	na	na	na	na
EBIT margin (%)	na	na	na	na	na	na	na	na
Net profit margin (%)	na	na	na	na	na	na	na	na
Tax rate (%)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Payout ratio (%)	0.0%	20.0%	7.3%	16.9%	179.8%	30.5%	55.3%	217.1%
EPS reported (CHF)	-2.70	7.52	40.98	32.58	3.06	19.01	10.60	2.83
EPS adjusted (CHF)	-2.70	7.52	40.98	32.58	3.06	19.01	10.60	2.83
EPS adj and fully diluted (CHF)	-2.70	7.52	40.98	32.58	3.06	19.01	10.60	2.83
DPS (CHF)	0.00	1.50	3.00	5.50	5.50	5.80	5.85	6.15
DPS,preference shares (CHF)	0.00	1.50	3.00	5.50	5.50	5.80	5.85	6.15
EPS reported % Change	na	na	445.2%	-20.5%	-90.6%	521.5%	-44.3%	-73.3%
EPS adjusted % Change	na	na	445.2%	-20.5%	-90.6%	521.5%	-44.3%	-73.3%
EPS adj and fully diluted % Change	na	na	445.2%	-20.5%	-90.6%	521.5%	-44.3%	-73.3%
DPS % Change	na	na	100.0%	83.3%	0.0%	5.5%	0.9%	5.0%

Cash flow statement

FY to 31/03 (CHFm)	2011	2012	2013	2014	2015	2016	2017E	2018E
Net profit before minorities	-25.4	67.0	353.5	258.4	23.1	134.6	74.5	19.9
Depreciation and amortisation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Goodwill impairment	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Change in working capital	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Others	-14.1	-11.2	-13.6	-15.6	-67.1	-15.2	-15.0	-15.7
Cash Flow from operating activities	-39.5	55.8	339.9	242.8	-44.0	119.3	59.5	4.3
% Change	na	na	508.8%	-28.6%	na	na	-50.1%	-92.8%
Capex	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Free cash flow	-39.5	55.8	339.9	242.8	-44.0	119.3	59.5	4.3
% Change	na	na	508.8%	-28.6%	na	na	-50.1%	-92.8%
Acquisitions	-126.8	-71.0	-309.8	-323.3	-395.9	-405.0	0.0	0.0
Divestments	92.5	101.5	329.8	461.7	476.5	444.9	30.0	30.0
Dividend paid	0.0	0.0	0.0	-23.6	-42.3	-39.2	-41.2	-43.2
Share buy back	-28.7	-12.5	-20.6	-78.9	-35.9	-29.1	-18.9	-18.9
Capital increases	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
Others	-14.7	-67.3	-349.4	-190.8	-1.0	6.2	-63.9	-10.4
Change in net financial debt	-114.2	10.5	-5.2	93.9	-35.6	105.2	-25.5	-28.2
Change in cash and cash equivalents	-114.9	11.5	-6.1	93.5	-25.6	104.2	-25.5	-28.2
Attributable FCF	-39.5	55.8	339.9	242.8	-44.0	119.3	59.5	4.3
Cash flow per share (CHF)	-4.19	6.26	39.40	30.61	-5.82	16.86	8.46	0.61
% Change	na	na	529.1%	-22.3%	na	na	-49.8%	-92.8%
FCF per share (CHF)	-4.19	6.26	39.40	30.61	-5.82	16.86	8.46	0.61
% Change	na	na	529.1%	-22.3%	na	na	-49.8%	-92.8%
FCF Yield (%)	-9.5%	13.1%	61.3%	34.4%	-5.8%	16.8%	6.5%	0.5%
Unlevered FCF Yield (%)	-10.6%	15.0%	67.0%	38.6%	-5.7%	16.3%	6.4%	0.7%

Balance sheet

FY to 31/03 (CHFm)	2011	2012	2013	2014	2015	2016	2017E	2018E
Cash and cash equivalents	41.5	53.0	46.9	140.4	114.8	219.0	193.5	165.2
Inventories	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Accounts receivable	1.0	2.0	0.2	0.2	0.2	0.4	0.4	0.4
Other current assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Current assets	42.5	55.0	47.1	140.6	115.0	219.4	193.9	165.6
Tangible assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Goodwill	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Intangible assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Financial assets	505.0	546.9	878.6	1,050.6	1,007.6	1,126.8	1,240.5	1,300.6
Other non-current assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non-current assets	505.0	546.9	878.6	1,050.6	1,007.6	1,126.8	1,240.5	1,300.6
Short term debt	0.0	0.2	0.0	63.5	0.0	156.5	156.5	156.5
Accounts payable	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other short term liabilities	1.1	0.8	1.5	3.1	3.8	3.8	3.8	3.8
Current liabilities	1.1	1.0	1.5	66.6	3.8	160.3	160.3	160.3
Long term debt	0.0	0.0	0.0	0.0	98.9	99.1	99.1	99.1
Pension provisions	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other long term provisions	0.0	0.0	3.8	50.4	0.0	0.0	0.0	0.0
Other long term liabilities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non-current liabilities	0.0	0.0	3.8	50.4	98.9	99.1	99.1	99.1
Shareholders' equity	546.4	601.0	920.3	1,074.2	1,019.9	1,086.9	1,175.0	1,206.9
Minority interests	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total equity	546.4	601.0	920.3	1,074.2	1,019.9	1,086.9	1,175.0	1,206.9
Balance sheet total	547.5	602.0	925.7	1,191.2	1,122.7	1,346.2	1,434.4	1,466.3
% Change	-12.9%	10.0%	53.8%	28.7%	-5.8%	19.9%	6.5%	2.2%
Book value per share (CHF)	57.94	67.42	106.68	135.46	135.09	153.51	167.12	171.65
% Change	-3.2%	16.4%	58.2%	27.0%	-0.3%	13.6%	8.9%	2.7%
Net debt	-41.5	-52.8	-46.9	-76.9	-15.9	36.6	62.1	90.4
Net financial debt	-41.5	-52.8	-46.9	-76.9	-15.9	36.6	62.1	90.4
Trade working capital	1.0	2.0	0.2	0.2	0.2	0.4	0.4	0.4
Working capital	-0.1	1.2	-1.4	-2.9	-3.6	-3.3	-3.3	-3.3
Inventories/sales	na	na	na	na	na	na	na	na
Invested capital	-0.1	1.2	-1.4	-2.9	-3.6	-3.3	-3.3	-3.3
Net fin. debt / EBITDA (x)	na	na	na	na	na	na	na	na
Net fin. debt / FCF (x)	1.1	-0.9	-0.1	-0.3	0.4	0.3	1.0	21.2
Gearing (%)	-7.6%	-8.8%	-5.1%	-7.2%	-1.6%	3.4%	5.3%	7.5%
Goodwill / Equity (%)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	0.070	0.070	3.070	3.070	3.070	3.070	3.070	0.070



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Prices in this report are taken as of the previous day's close (to the date of this report) on the home market unless otherwise stated.

Companies mentioned

Stock	ISIN	Currency	Price
AstraZeneca	GB0009895292	GBP	4,887.50
GeNeuro	CH0308403085	EUR	5.67
GlaxoSmithKline	GB0009252882	GBP	1,310.00
HBM Healthcare	CH0012627250	CHF	129.80
Merck KGaA	DE0006599905	EUR	91.42
Novartis	CH0012005267	CHF	83.80
OSE Immunotherapeutics	FR0012127173	EUR	3.66
Roche	CH0012032048	CHF	244.70
Sanofi	FR0000120578	EUR	73.20
Santhera	CH0027148649	CHF	37.30

Source: Factset closing prices of 18/12/2017

Disclosure checklist - Potential conflict of interests

Company Name	Disclosure
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Rating Breakdown	А	В
Buy	45%	49%
Hold	36%	35%
Reduce	16%	11%
Not Rated/Under Review/Accept Offer	3%	5%
Total	100%	100%

Source: Kepler Cheuvreux

A: % of all research recommendations

B: % of issuers to which material services of investment firms are supplied

12 months rating history

The below table shows the history of recommendations and target prices changes issued by KEPLER CHEUVREUX research department (Equity and Credit) over a 12 months period.

Company Name	Date	Business Line	Rating	Target Price	Closing Price
AstraZeneca (GBP)	23/12/2016 07:26	Equity Research	Buy	5000.00	4342.50
	15/05/2017 07:27	Equity Research	Buy	5500.00	5176.00
	27/07/2017 07:53	Equity Research	Under Review		5113.00
	28/07/2017 08:00	Equity Research	Buy	5200.00	4325.00
	01/11/2017 07:33	Equity Research	Buy	5250.00	5032.00
GeNeuro (EUR)	03/10/2017 16:06	Equity Research	Buy	8.70	4.28
GlaxoSmithKline (GBP)	09/03/2017 06:51	Equity Research	Reduce	1500.00	1671.50
	15/05/2017 07:05	Equity Research	Reduce	1520.00	1665.00
	31/10/2017 08:28	Equity Research	Reduce	1340.00	1372.50
HBM Healthcare (CHF)	03/07/2017 06:13	Equity Research	Not Rated		113.70
Merck KGaA (EUR)	01/06/2017 06:26	Equity Research	Buy	128.00	107.45
	31/07/2017 07:34	Equity Research	Buy	119.00	93.11
Merck KGaA ()	04/10/2017 07:28	Equity Research	Buy	115.00	
Novartis (CHF)	13/01/2017 08:37	Equity Research	Buy	90.00	72.80
	23/03/2017 08:28	Equity Research	Buy	82.00	73.40
	04/07/2017 06:11	Equity Research	Buy	88.00	80.60
	28/08/2017 07:23	Equity Research	Buy	87.00	80.20
OSE Immunotherapeutics (EUR)	20/02/2017 07:18	Equity Research	Buy	9.00	6.75
	26/06/2017 07:52	Equity Research	Under Review		6.00
	27/06/2017 16:54	Equity Research	Reduce	3.40	4.58
	07/12/2017 08:53	Equity Research	Reduce	3.80	3.58
Roche (CHF)	17/02/2017 08:33	Equity Research	Hold	234.00	242.80
	11/05/2017 06:55	Equity Research	Hold	236.00	267.60
Roche ()	06/06/2017 07:25	Equity Research	Hold	231.00	
Roche (CHF)	11/07/2017 06:18	Equity Research	Hold	235.00	241.20
	11/09/2017 06:07	Equity Research	Hold	230.00	244.60
	20/10/2017 07:41	Equity Research	Hold	226.00	238.60
Sanofi (EUR)	03/02/2017 06:52	Equity Research	Buy	87.00	74.98
	15/02/2017 08:32	Equity Research	Buy	88.00	80.50
	12/04/2017 06:54	Equity Research	Buy	92.00	84.81
	26/07/2017 07:34	Equity Research	Buy	89.00	82.67
	07/09/2017 06:51	Equity Research	Buy	90.00	82.38
	20/11/2017 07:27	Equity Research	Buy	87.00	75.43
Santhera (CHF)	07/03/2017 08:21	Equity Research	Not Rated		74.10
	08/03/2017 08:31	Equity Research	Buy	82.00	76.40
	15/09/2017 10:10	Equity Research	Under Review		71.40
	18/09/2017 07:13	Equity Research	Reduce	36.00	38.75

Credit research does not issue target prices. Left intentionally blank.

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Equity research

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Buy: The minimum expected upside is 10% over next 12 months (the minimum required upside could be higher in light of the company's risk profile).

Hold: The expected upside is below 10% (the expected upside could be higher in light of the company's risk profile).

Reduce: There is an expected downside.

Accept offer: In the context of a total or partial take-over bid, squeeze-out or similar share purchase proposals, the offer price is considered to be fairly valuing the shares.

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Not rated: The stock is not covered.

Restricted: A recommendation, target price and/or financial forecast is not disclosed further to compliance and/or other regulatory considerations.

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Valuation methodology and risks

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Recommendation system (issuer or instrument level)

Buy: The analyst has a positive conviction either in absolute or relative valuation terms and/or expects a tightening of the issuer's debt securities spread over a 6 months period.

Hold: The analyst has a stable credit fundamental opinion on the issuer and/or performances of the debt securities over a 6 months period.

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Valuation methodology and risks

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Valuation methodologies and models can be highly dependent on macroeconomic factors (such as the price of commodities, exchange rates and interest rates) as well as other external factors including taxation, regulation and geopolitical changes (such as tax policy changes, strikes or war) and also on methodologies' changes of recognized agencies. In addition, investors' confidence and market sentiment can affect the valuation of companies. The valuation is also based on expectations that might change rapidly and without notice, depending on developments specific to individual industries.

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