



Front page: Image from the library of the REPAIR Impact Fund showing similarities in nature from the microscopic to the macroscopic level. The shape of the lake (located in Holland) resembles a lysed (dead) microbe. The trees on the peninsula also look like pili (hair-like structures) on bacilli.

Note: Due to rounding, numbers presented throughout this document may not add up precisely to the totals provided and percentages may not precisely reflect the absolute figures.

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The Novo Holdings results for 2019 are very satisfactory. Income from the Novo Group companies was up, as was the return on the Investment Portfolio. It is particularly gratifying to see all the Novo Holdings investment teams contributing to our 2019 returns. 2019 was a year of delivering on our ambition of High Performance with Respect and Responsibility.

Kasim Kutay, Chief Executive Officer

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INTRODUCTION

Novo Holdings is a holding and investment company, wholly owned by the Novo Nordisk Foundation. Our objective is to meet the Novo Nordisk Foundation's strategic and commercial goals, which require us to make investments with a view to long-term returns. Hence, our reporting includes the long-term investment performance of the Novo Group companies (comprising Novo Nordisk and Novozymes) as well as the Investment Portfolio (consisting of the Life Science Investment Portfolio and the Financial Investment Portfolio).

Novo Holdings aims to deliver long-term attractive returns. Comparing the performance of Novo Holdings to relevant indices over the last five to ten years, and since inception, it is our assessment that we have delivered competitive returns on our Life Sciences Investments as well as on our Financial Investments.

Returns: 2019 and historical

	2019	2018	Trailing 5 years	Trailing 10 years	Since inception
Total return from Novo Group companies	31%	-9%	10%	21%	18%
Return on Life Science Investments	11%	4%	13%	17%	14%
Return on Financial Investments	17%	-4%	8%	10%	8%
Total return on the Investment Portfolio	14%	1%	11%	13%	11%

Note: All returns are in DKK and reflect total returns, excluding internal costs. Return from Novo Group companies (Novo Nordisk and Novozymes) is measured as total returns with both A and B shares in the above table, valued using the quoted B share price at closing 31 December 2019. Returns on Life Science Investments are calculated on an Internal Rate of Return (IRR), based on the book value at the end of the measurement period and cash flows within the measurement period compared with the book value at the beginning of the measurement period. Returns on Financial Investments are based on Time Weighted Returns (TWR).

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NOVO HOLDINGS AT A GLANCE

Novo Holdings is a Danish private limited liability company fully owned by the Novo Nordisk Foundation and established in 1999. The Company is the controlling shareholder in the publicly listed entities Novo Nordisk and Novozymes, and invests the wealth of the Novo Nordisk Foundation.

The objective of Novo Holdings is to meet the Novo Nordisk Foundations' strategic and commercial goals, which are three-fold:

- To support the Novo Nordisk Foundation in being a strong owner of Novo Nordisk and Novozymes
- To generate attractive returns for the Novo Nordisk Foundation on its investable assets
- To make investments with the main goals of promoting better health, sustainability and welfare

As such, it is the mission of Novo Holdings to be a supportive owner of the Novo Group companies and to make a growing and positive impact on health, science and society by generating attractive long-term returns on the assets of the Novo Nordisk Foundation.

It is the ambition of Novo Holdings to be 'recognized by our stakeholders as an exceptional enterprise that delivers outstanding results'. To reach our ambition, we have formulated a set of guiding principles and values:

- We are a values-driven company striving for 'High Performance with Respect and Responsibility', as anchored in the Novo Holdings Way.
- We set a clear and ambitious investment strategy, which is returns-driven, with a focus on the Life Sciences and with Financial Investments as an important pillar for diversification and liquidity.

novoholdings
Investors in life science

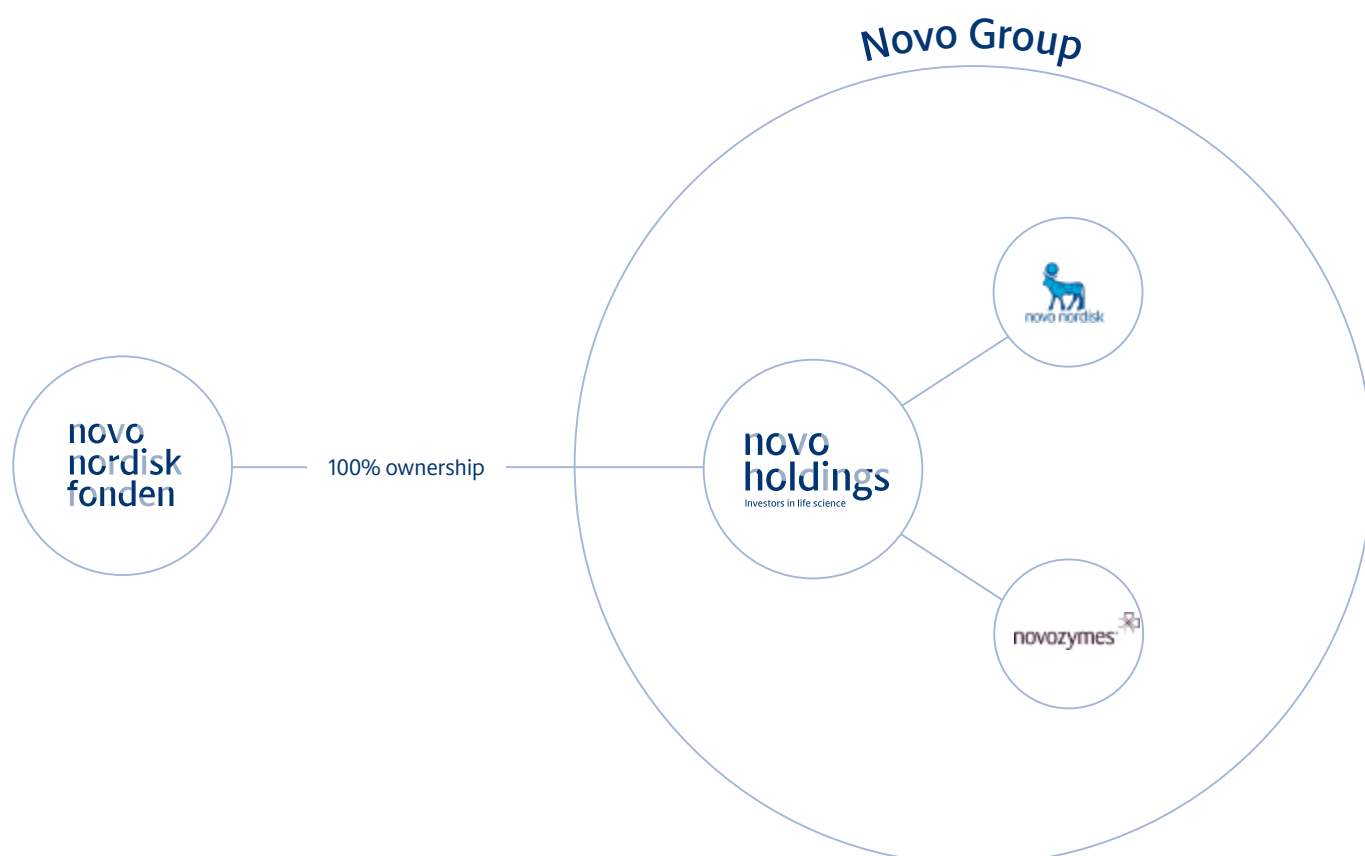
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It is the ambition of Novo Holdings to be 'recognized by our stakeholders as an exceptional enterprise that delivers outstanding results'.

- We maintain operational excellence by focusing on talent nurture and development and by upholding quality investment processes and reporting.

The investment strategy of Novo Holdings is to generate attractive returns through a deliberate focus on the life sciences industry. The strategy is based on the core beliefs that the sector remains attractive, that it is possible to diversify within the sector, and that Novo Holdings has the ability to continue to build on our heritage and distinct competitive advantage as investors in the life sciences.

The common foundation for all investments is that they must comply with – or at least not act against – the values and commitments defined in our Code of Conduct and the Novo Charter.



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2019 IN BRIEF

Our total investment assets appreciated 24% to DKK 411 billion in 2019, up from DKK 331 billion at the end of 2018, with A and B shares of Novo Group companies valued using the quoted B share price closing on the 31 December each respective years. This positive development was largely driven by an increase in the value of Novo Nordisk and Novozymes by 27% and 10%, respectively, as well as the favourable developments in the Investment Portfolio. By the end of 2019 the total investment assets of DKK 411 billion represent the highest value for Novo Holdings since the inception of the company in 1999.

The total Income and Investment Return in 2019 was DKK 26 billion. This was derived from income related to dividend payments and participation in the share buy-back programmes of the Novo Group companies of DKK 11 billion, as well as investment returns from the Investment Portfolio of DKK 15 billion. This represents the best result for Novo Holdings since the inception of the company 20 years ago.

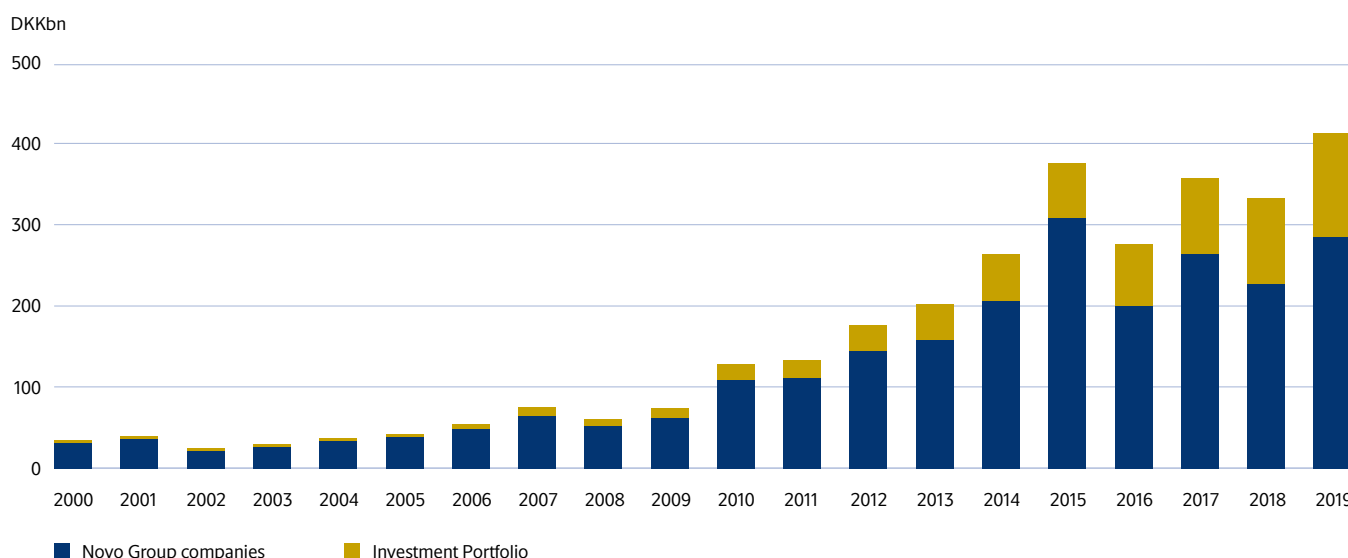
The return on the Investment Portfolio derives from a mix of realized and unrealized returns from our Life Sciences and Financial Investments Portfolios, delivering DKK 5 billion and DKK 10 billion respectively.

The Investment Portfolio returned 14% in 2019, up from 1% in 2018, with our Life Science Investment Portfolio returning 11% and our Financial Investment Portfolio returning 17%, respectively.

From an asset class perspective, all asset classes contributed positively to the returns in 2019. These positive results were especially driven by the returns generated by public equity, venture capital, private equity and real assets. Additionally, credit, EM debt and bonds contributed with positive returns.

As announced in January 2014, Novo Holdings has informed Novo Nordisk that it intends to consider its participation in the Novo Nordisk share repurchase programme on a case-by-case basis. In 2019 we participated in the share buy-back programme of Novo Nordisk and Novozymes and through this recorded an income of DKK 5 billion in addition to income from dividend payments of DKK 6 billion. For 2020, Novo Holdings has informed Novo Nordisk that it plans to participate in its share buy-back programme. Novo Holdings currently intends to maintain its ownership of around 28% of Novo Nordisk share capital. Furthermore, we plan to participate in the share repurchase programme of Novozymes.

Total investment assets



Note: Novo Holdings' investment in Novo Group companies (Novo Nordisk and Novozymes) A and B shares in the above table are valued using the quoted B share price at closing on 31 December of the respective years. The value of our holding of NNIT is moved from the Novo Group companies to Financial Investments in 2018. By the end of 2019, Financial Investments Area includes DKK 16.7 billion, which are managed on behalf of the Novo Nordisk Foundation.

During 2019, we welcomed 18 new employees to Novo Holdings, and by the end of the year a total of 88 were employed at Novo Holdings. In addition to this, we separated out from Principal Investments a new Investment Area called Novo Growth. Novo Growth will be our in-house growth equity unit and will ensure we have dedicated investment efforts across the entire investment continuum of the life sciences sector. The Novo Holdings organization is expected to expand further in the coming years, as we implement our recently updated strategy plan towards 2023, which, among other things, sets a direction of further diversifying our investment efforts, within both Life Science Investments and Financial Investments.

DKK billion	2019	2018
Income from Novo Group companies	11.3	10.6
Return on Life Science Investments	6.4	2.2
Return on Financial Investments	8.4	-1.3
Total Income and Investment Return	26.0	11.5

Note: Income from the Novo Group companies includes dividend and direct income related to the sale of shares in Novo Nordisk and Novozymes, whereas the returns from Life Science Investments and Financial Investments (together 'the Investment Portfolio') represent realized and unrealized gains and losses on these investments. In 2018 we reclassified NNIT A/S from a Novo Group company to become part of the Financial Investment Portfolio.



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LETTER FROM THE CHAIRMAN AND THE CEO

2019 was a very satisfactory year for Novo Holdings. We strengthened our position as a leading international investor both within Life Sciences and Financial Investments and realized record income and investment returns of DKK 26 billion (EUR 3.5 billion). We also closed the year with a record DKK 411 billion (EUR 55 billion) in total investment assets, with A and B shares of Novo Group companies valued using the quoted B share price at closing 31 December of the respective years.

We are particularly pleased to report that this record result is well balanced and based on a strong performance from the Novo Group companies and the Investment Portfolio, with the latter generating more than half of our 2019 income corresponding to DKK 15 billion (EUR 2.0 billion).

As of year-end 2019, the Life Science Investment Portfolio generated a 5-year average return of 13%, while the Financial Investments Portfolio has delivered 5-year average return of 8%. The total Novo Holdings 5-year average return stands at 11%.

The following are among the Investment Portfolio highlights for 2019:

1. During 2019 we made a strategic decision to further broaden our investment capabilities within the life sciences sector as well as to expand and further diversify the Financial Investments Portfolio.
2. The Principal Investments team divested our stake in Veloxis Pharmaceuticals, owned since 2003, to Asahi Kasei, generating attractive returns reflected in fair value at year end and recognized in January 2020.
3. Novo Growth made its first growth equity investments, worth DKK 1.5 billion (EUR 204 million), into Lanzatech, Vestaron, bioMASON, Tempus, Oxford Biomedica and Mycoworks. The focus is on companies that have recently reached, or are close to, the commercial stage, with a high growth potential, which is particularly compatible with investing in the bio-industrial sector (a life science segment within which Novo Holdings is expanding).
4. Novo Ventures continued its high level of activity, including 21 new investments and 10 exits, underpinning its position as one of the leading life science venture funds, both in terms of volume of investment and returns. In 2019 alone, Novo Ventures invested a total of DKK 2.5 billion (EUR 339 million), and by end 2019, it had 75 companies in its active portfolio with a book value of DKK 8.9 billion (EUR 1.2 billion).
5. Novo Seeds doubled its biotech investments capacity to DKK 400 million (EUR 54 million) with a focus on the Nordic region. The ambition is to invest in 3-4 new companies annually.
6. The Financial Investments team made 5 new investments within its newly formed Direct Equity Investment strategy, totaling DKK 1.4 billion (EUR 187 million). The portfolio has a global mandate with a strategy to make long term investments in high quality businesses. The ambition is to grow this part of the Investment Portfolio significantly in the coming years.
7. The REPAIR Impact Fund has now committed a total of DKK 338 million (EUR 45 million) to seven companies, developing novel antibiotics in the early stage of drug development (lead optimization) to the early stages of clinical development (Phase 1), which is the fund's original focus. Given the continued difficult



From left: Chairman of the Board Lars Rebien Sørensen and CEO Kasim Kutay

funding environment for anti-infectives, the fund has decided to keep certain capital in reserve to potentially support funding for its portfolio companies' Phase 2 clinical trials.

On the strategy front, the Board of Directors of Novo Holdings approved the strategy for Novo Holdings to enter the Asian market. We have begun gradually executing on this strategy.

We continued to grow the Novo Advisory Group, which assists us in our investment decision making process and ongoing portfolio management. In 2019 we welcomed Richard Ridinger and David Martyr to the group.

Novo Holdings celebrated its 20th anniversary in 2019. We remain relentless in the pursuit of our mission to be a supportive owner of the Novo Group companies and to make a growing and positive impact on health, science and society by generating attractive long-term results on the assets of the Novo Nordisk Foundation. Over the past 20 years we have become a leading international life science investor and have built an Investment Portfolio that generates attractive returns to complement our income from the Novo Group companies. As always, we remain guided by the Novo Holdings Way, which has Performance, Respect and Responsibility as its cornerstones.

2019 was a very satisfactory year for Novo Holdings and we would like to extend our sincerest gratitude to all our colleagues for their focus and commitment and for making Novo Holdings a very special place to be.



Lars Rebien Sørensen
Chairman of the Board



Kasim Kutay
Chief Executive Officer

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INVESTMENT STRATEGY

Guided by the Novo Nordisk Foundation, it is the strategic objectives of Novo Holdings to be a strong owner of Novo Nordisk and Novozymes, to generate attractive returns on the Novo Nordisk Foundation's investable capital and invest and to promote better health, sustainability and welfare.

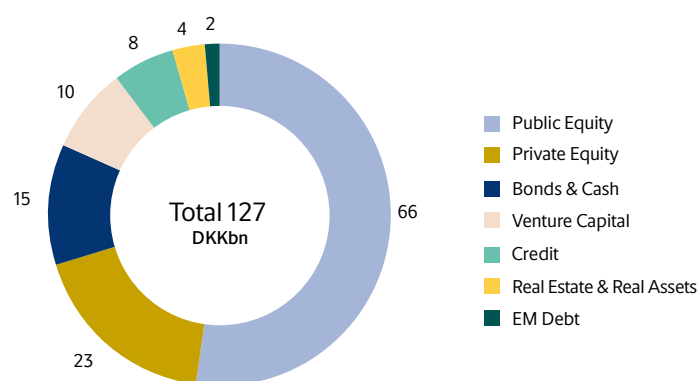
During the course of 2019, we undertook one of our periodic strategy reviews. Directed by the risk tolerance set by the Novo Nordisk Foundation, balancing risk and returns with the projected grant payouts of the Novo Nordisk Foundation, we revisited our current asset allocation as well as our risk management measures. On this basis, we developed our asset allocation as well as our investment strategy towards 2023, which entails increasing the diversification of our Investment Portfolio over the coming years. This will largely be achieved by further diversifying our Financial Investments portfolio into real assets, private equity and technology venture capital and by broadening our approach to investments within the life sciences sector, including expanding to Asia.

As of year-end 2019, the total Investment Portfolio is valued at DKK 127 billion and is predominantly allocated towards equity, with public equity representing 52% and private equity representing 18% of the Investment Portfolio respectively. Subsequently our bond portfolio represents 12%, venture capital represents 8%, credit represents 6%, real assets represents 3% and EM debt with 1%. In terms of geographical split, measured by currency exposure, around 85% of the portfolio is exposed to US dollar, Danish kroner and Euro.

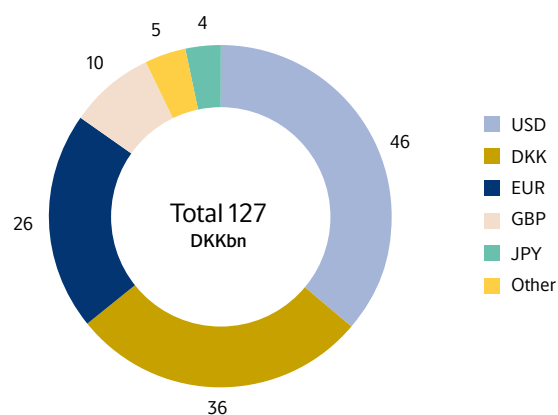
We operationalize our asset allocation strategy through a deliberate life sciences-focused investment strategy complemented by a broadly diversified global cross-industry financial portfolio. By the end of 2019, the value of the Investment Portfolio is 51% Life Science Investments and 49% Financial Investments, which is within our long-term strategic direction of deploying around 50-60% of the Investment Portfolio into the life sciences sector.

Since the inception of Novo Holdings in 1999, we have focused on investing in the life sciences area. Initially spearheaded by Novo Ventures, this focus and effort has developed further over the years, which means that today we invest across the full continuum within the life sciences sector, from local early start-ups to global well-established corporates. Currently, our exposure is mostly to Europe and the US, but the intention is to further expand our exposure to the Asian region.

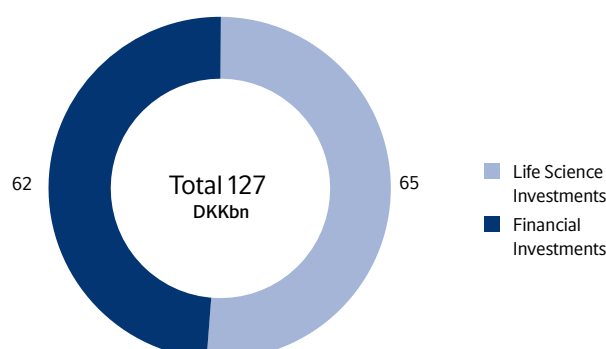
Investment Portfolio Split by Asset Class end 2019



Investment Portfolio Split by Currency end 2019



Investment Portfolio Split by Life Science Investments and Financial Investments end 2019



The strategic focus on life sciences originates from the DNA of the Novo Group family, and after 20 years, we continue to find exposure to the life sciences sectors very attractive. The life sciences sectors are supported by a number of highly attractive underlying fundamentals. We also find the opportunities for business, sub-sector and geographical diversification within the area appealing.

Our life science Investment Portfolio is fairly diversified in terms of value. We have an overweight towards biotech and medtech in terms of number of companies invested into by the end of 2019. The significant number of biotech and medtech companies is a result of our large portfolio of seed and venture stage companies.

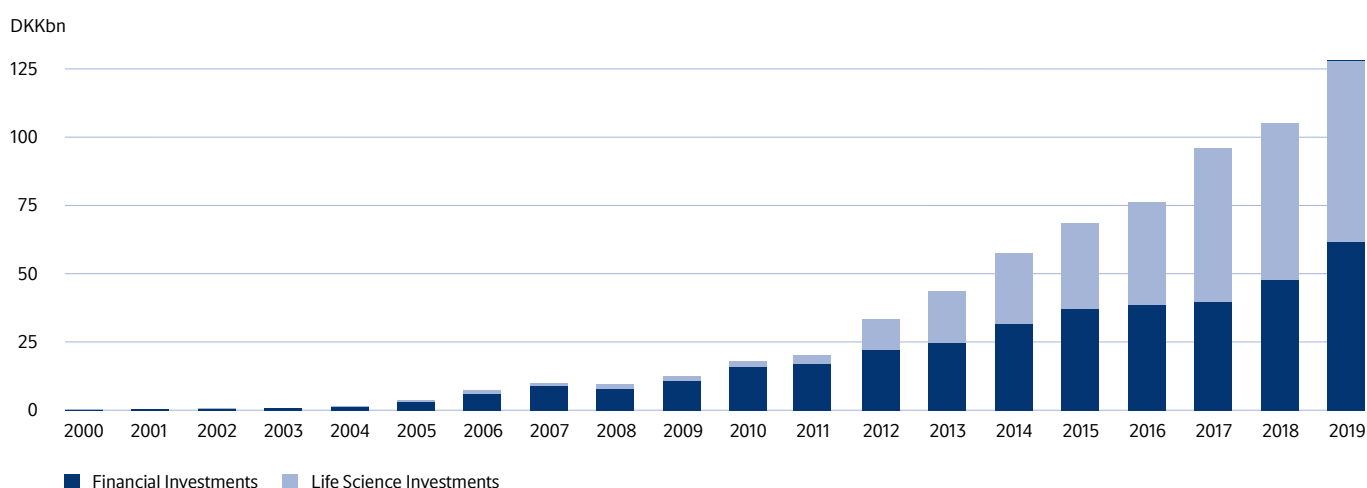
We mainly invest into the life sciences sector directly and with equity as the predominant asset class; both public equity and private equity.

While we have a flexible investment approach, also leaving room for investments into other asset classes, such as debt instruments and quasi equity, we expect the Life Sciences Portfolio to continue to be dominated by equity investments over the coming years.

Our complementary portfolio of financial investments ensures geographical diversification outside the life sciences sector providing an optimal risk/return profile and readily available liquid assets in support of the grant-giving needs of the Novo Nordisk Foundation.

The Financial Investments Portfolio largely consists of public equity, supplemented by a position in bonds, credits and EM debt, as well as some real assets adding stabilization and diversification to the portfolio. For more than 15 years, we have predominantly approached the public equity market via global external niche portfolio managers. Whereas we plan to continue deploying capital towards the public equity market through these channels, we also expect to gradually increase the proportion of internally managed public equity investments. In addition, over the coming years we expect the portfolio to diversify further with increased exposure to real assets as well as venture capital and private equity outside of life sciences, amongst other things, at the expense of the current sizeable exposure to public equity.

Investment Portfolio from 2000 to 2019



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LIFE SCIENCE INVESTMENT

Over the past 20 years, we have invested around DKK 76 billion into the life science sector, and by the end of 2019 the Life Science Investment Portfolio was valued at DKK 65 billion, representing investments into + 100 companies. Since the inception of Novo Holdings in 1999, life science investments have returned 14%, with returns in 2019 alone being 11%, up from 4% in 2018.

Measured in value by the end of 2019, the composition of the Life Sciences Portfolio is public equity of 47%, private equity of 35%, followed by venture capital representing 16% of the Investment Portfolio and a smaller proportion of debt investments. The Life Science Investment Portfolio represents a diversified portfolio across the bioindustrials, medtech, biotech, pharma, services, pharma and health care IT sub-segments with the geographical exposure split by 74% in Europe and 26% in the US.

In 2019, we made 33 new investments in life sciences companies and 65 follow-on investments. In total we deployed capital of DKK 5.9 billion during 2019. We exited 12 investment and received proceeds from investments providing a total cash-in flow of DKK 5.6 billion from our Life Sciences Portfolio during 2019. In addition to this we announced two transactions, including the divestiture of our ownership in Veloxis

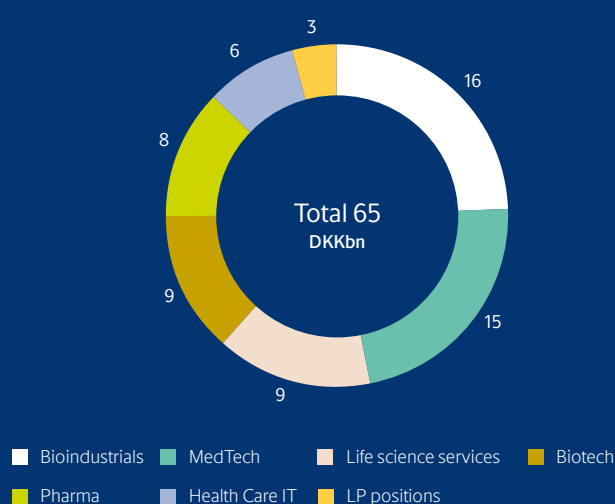
Pharmaceuticals, as well as the partial sell-down of our position in eResearchTechnology, Inc. (ERT), which both closed in early 2020.

We execute and organize our life sciences investment strategy along four investment platforms, covering the full investment continuum and life cycle, each with its distinct investment strategy and dedicated investment team: Principal Investments, investing into leading, well-established growth-oriented corporates; Novo Growth, investing into companies in the initial growth and commercialization phase; Novo Ventures, investing into venture stage companies; and Novo Seeds, focusing on early stage start-ups and company-creation in the Nordic region.

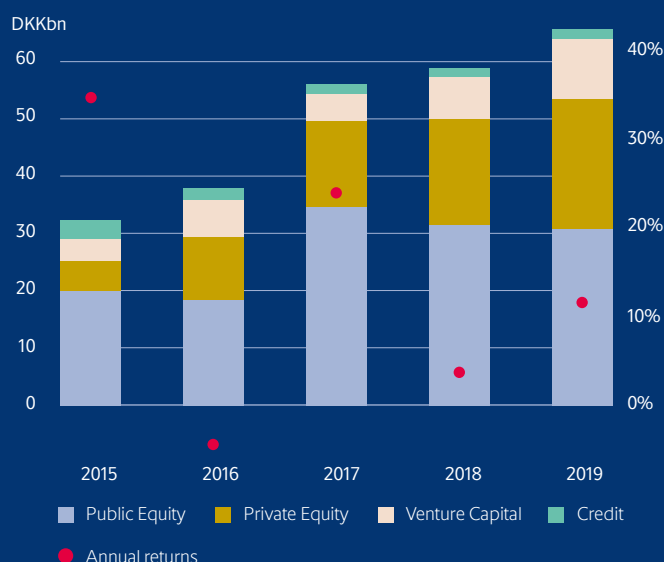
Whereas Novo Ventures dates back to 2000, Novo Seeds to 2007 and Principal Investments to 2013, we decided in 2019 to launch Novo Growth as a separate investment area. We see great potential in growth equity as an asset class within life sciences, and a strong strategic rationale for us in directly covering the full investment continuum and life cycle, both from a deal sourcing and a portfolio management perspective.

Over the coming years, we plan to continue to deploy significant capital to Life Sciences Investments across all four investment platforms.

Life Science Investment Portfolio by sub-sectors end 2019



Life Science Investments Portfolio and return 2015–2019





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Over the coming years, we plan to continue to deploy significant capital to Life Sciences Investments across all four investment platforms.

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PRINCIPAL INVESTMENTS

Since the establishment of Principal Investments in 2013, more of our Life Sciences Investments have been directed towards leading, well-established growth-oriented corporates, such that by the end of 2019 the portfolio represents a total of 12 companies. Investments conducted by Principal Investments are made in publicly listed and privately-owned companies, with a mix of minority, co-control and control positions.

During 2019, we invested less in Principal Investments compared to historical levels, as in many instances, we found valuation levels to be challenging. We did, however, make a significant minority investment into US-headquartered WIRB-Copernicus Group (WCG), a world-leading provider of clinical research services. In partnership with Leonard Green & Partners and Arsenal Capital Partners the transaction was signed late in 2019 and closed in early 2020. In total, Principal Investments deployed capital related to closed transactions of DKK 1.1 billion during 2019.

On the exit side, we took advantage of the current attractive valuation environment by selling our stake in UK-listed BTG Plc to Boston Scientific. BTG had been part of our investment portfolio since 2015. We also sold our stake in Danish-listed Veloxis Pharmaceuticals to the Japanese company Asahi Kasei, with closing and associated cash inflow from the transaction taking place in early 2020. Veloxis Pharmaceuticals has been part of the Novo Holdings' portfolio since 2003 and part of Principal Investments' Portfolio since 2015. In 2019, we also reduced our holding

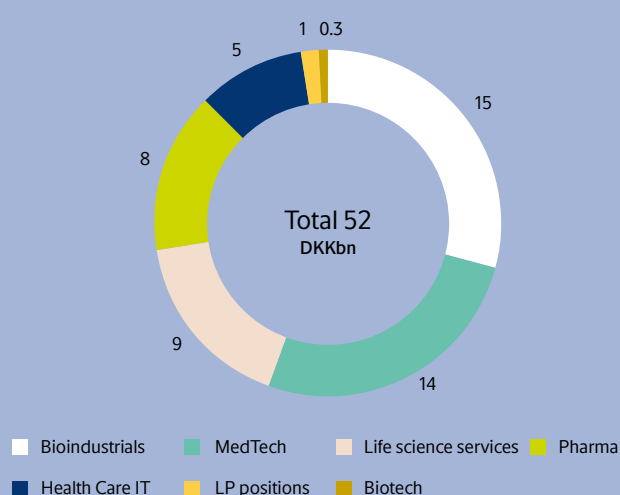
in US-headquartered eResearchTechnology, Inc. (ERT), a leading global cloud platform solutions provider that supports the capture of efficacy and safety data endpoints for optimal clinical trial performance. We sold close to 40% of our shareholding in ERT to the French private equity fund Astorg, with final closing and cash in-flow related to the transaction taking place in early 2020.

Cash inflows related to exits of closed transactions during 2019 amounted to DKK 3.2 billion for Principal Investments.

At the end of 2019, 10 companies in the Principal Investment Portfolio are headquartered in Europe and 2 in the US. The portfolio consists of majority positions in Sonion and Xellia, both headquartered in Denmark, and minority positions in Chr. Hansen, Symphogen, SYNLAB, Orexo, ConvaTec, Evotec, Environtainer (all headquartered in Europe) and ERT and Inogen (both in the US).

The exposure of the portfolio is spread across multiple sub-sectors, with a relatively large position in Chr. Hansen providing a sizeable exposure to the bioindustrials sub-sector, followed by medtech, life science services, pharma, healthcare IT and biotech. The Investment Portfolio deployed through Principal Investments is valued at DKK 52.5 billion by the end of 2019, up from DKK 51.0 billion by the end of 2018.

Principal Investment Portfolio by sub-sectors end 2019



Principal Investments Portfolio 2015–2019



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NOVO GROWTH

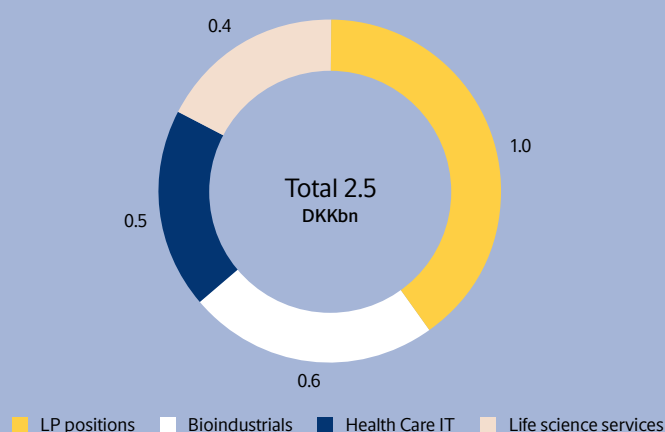
Novo Growth was established as a separate investment area in 2019, representing our in-house effort to capture opportunities in the growth equity space – an asset class experiencing high levels of activity and significant growth, and an area where Novo Holdings' capabilities and characteristics naturally position us as a differentiated investor.

Novo Growth targets highly innovative, scalable life science companies that have recently reached, or are close to, the commercial stage, with strong long-term potential. As such, the investment area captures the life sciences opportunities in the space between venture capital and classic buy-out private equity, thus completing our investment continuum.

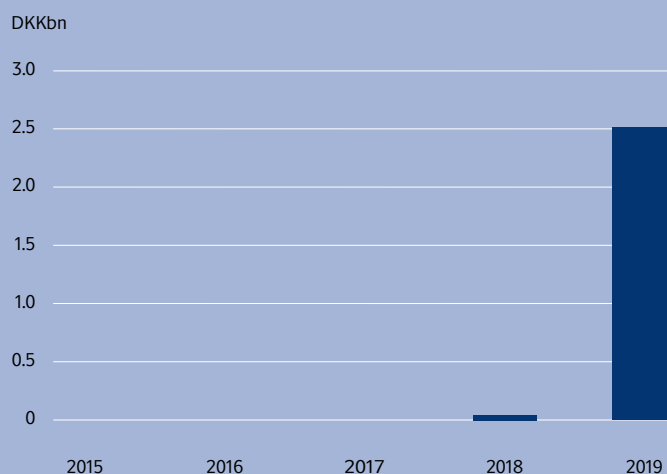
The combination of our long-term capital and sector expertise position us as an investor of choice for growth companies in the life sciences sector. Already in the first year of existence of Novo Growth, we conducted six direct investments, deploying DKK 1.5 billion. Notable investments include significant minorities in Oxford Biomedica (the world's leading lentiviral vector manufacturer), LanzaTech (a technology platform provider for the recycling of carbon from industrial off-gasses) and Tempus (a precision medicine technology provider). In addition, our portfolio comprises two targeted investments into specialised growth equity funds.

At the end of 2019, the Novo Growth Investment Portfolio consisted of six companies, with primary exposure to the following sub-segments within the life sciences sector: clinical diagnostics, industrial biotechnology, biologics supply chain, and healthcare technology. Adding our LP positions in external fund managers, the value of the Novo Growth Portfolio is DKK 2.5bn by end 2019.

Novo Growth Investment Portfolio by sub-sectors end 2019



Novo Growth Investment Portfolio 2015–2019



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NOVO VENTURES

Novo Ventures was established in 2000 and operates out of Denmark, with additional offices in San Francisco and Boston. During 2019 we continued to invest predominantly into development stage biotech, with the majority of investments in the US. The total active portfolio included investments in 75 companies by the end of 2019, up from 66 companies by the end of 2018.

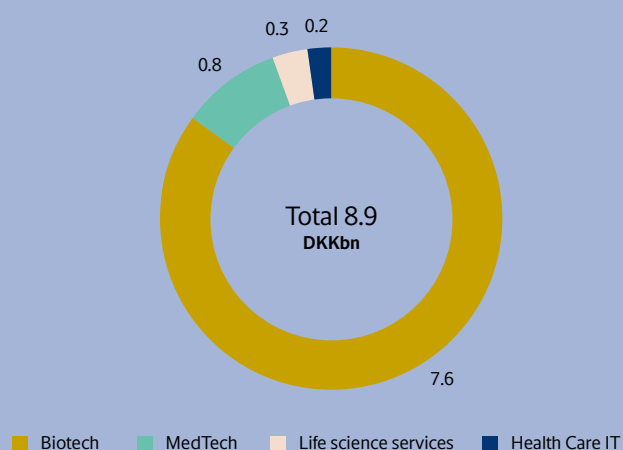
During 2019, we invested in 55 companies, of which 11 were new private companies and 8 new public companies. Overall, we invested DKK 2.5 billion, which included follow-on investments of DKK 1.5 billion in 36 companies.

Through the year we received DKK 1.8 billion in exit proceeds from the sale of private and public stock. In addition, four private portfolio companies generated significant liquidity through initial public offerings in 2019. Therachon AG, a portfolio company since 2018, was acquired by Pfizer in 2019, resulting in a significant return.

By the end of 2019, the Novo Ventures Investment Portfolio consists of 75 companies, including private companies representing 69% of total value, and public companies representing 31% of total value.

The value of the active Novo Venture Investment Portfolio reached DKK 8.9 billion by the end of 2019, representing an increased exposure to life science venture from 2018, primarily within the life sciences sub-sectors biotech and medtech.

Novo Ventures Investment Portfolio by sub-sectors end 2019



Novo Ventures Investment Portfolio 2015–2019



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NOVO SEEDS

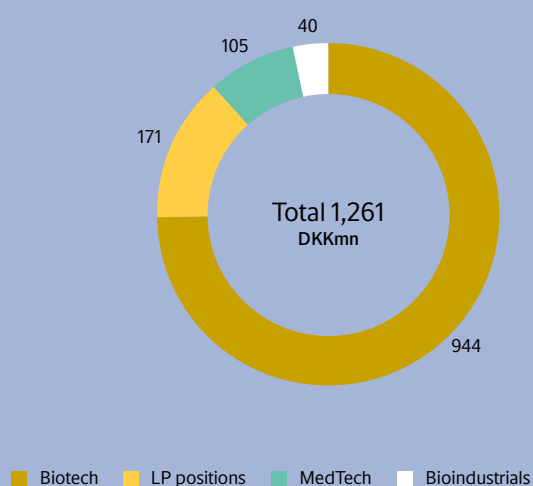
Established in 2007, Novo Seeds operates out of Denmark with the mission to build Nordic life sciences companies based on breakthrough innovations. In addition, Novo Seeds operates the REPAIR Impact fund aimed at investing in novel antibiotics.

2019 was a year of progress and growth, with five new investments, including the launch of STIPE Therapeutics, the first company to spin out from the BioInnovation Institute, and four new investments by the REPAIR Impact Fund, representing investments of DKK 393 million over the course of the year. Further to this, we continued building syndicates of international investors creating significant value through follow-on investments in our portfolio companies. We have also grown the team of entrepreneurs, advisors and partners, as we strengthen our activities in identifying, building and investing in exceptional life sciences startups.

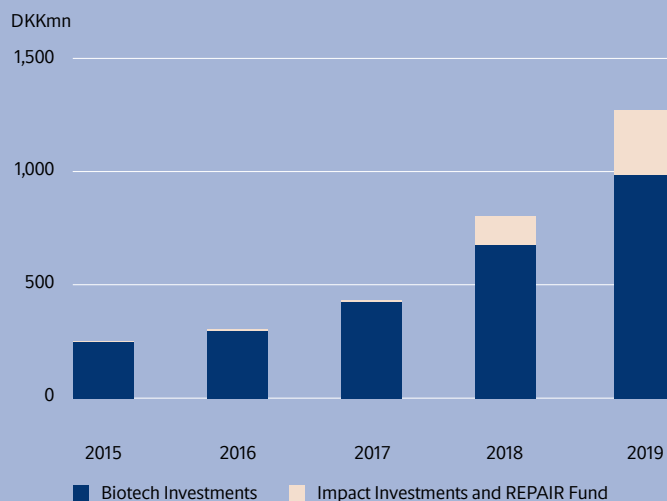
By the end of 2019, the Novo Seeds biotech portfolio consists of 27 companies, of which 18 are Nordic-based. The portfolio largely consists of private investments valued at DKK 1,261 million by the end of 2019, up from DKK 796 million by the end of 2018. The portfolio is predominantly exposed to the biotech and medtech

sub-segments of the life sciences industry. The REPAIR portfolio consists of seven companies both private and public and are valued at DKK 194 million by the end of 2019, up from DKK 63 million by the end of 2018.

Novo Seeds Investment Portfolio by sub-sectors end 2019



Novo Seeds Investment Portfolio 2015–2019



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FINANCIAL INVESTMENTS

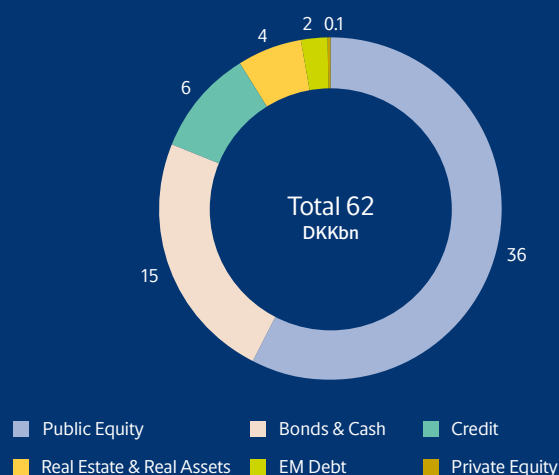
Since its establishment in 2005, Financial Investments has formed a key part of our strategy to ensure diversification in our portfolio by investing in non-life science assets. By year-end 2019, Financial Investments managed a portfolio of DKK 62 billion, up from DKK 46 billion in 2018, driven by returns generated by financial investment over the year as well as inflow of capital from dividend and participation in the share-buyback programmes of Novo Nordisk and Novozymes. Since the inception in 2005, we have compounded 8% on a yearly basis, with returns in 2019 alone being 17%, up from -4% in 2018.

The investments conducted through Financial Investments are to a large extent public and liquid, which serves as an important financing source for the grant-giving activities of the Novo Nordisk Foundation and for allowing us to potentially support Novo Nordisk and Novozymes. This is visible when presenting the value of the investment portfolio of Financial Investments with public investments including equity, bonds, credits and EM debt representing 58%, 24%, 9% and 2% respectively of the portfolio. Private and less liquid investments such as real estate, private equity and private debt represent 7% of the portfolio measured by value.

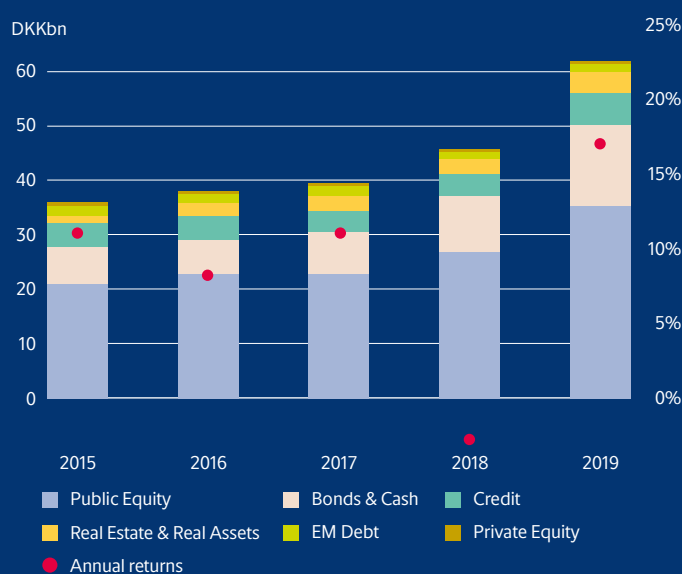
The composition of the equity portfolio represents diversification across different sectors with primary exposure to "financials", "industrials" and "information technology", representing around 50% of the public equity portfolio by the end of 2019.

Historically, a large part of the investment portfolio has been managed through external mandates. Today, we manage more than 50% of the portfolio internally and we plan to continue conducting more investments internally, as well as to expand our presence within real assets, private equity and venture capital over the coming years.

Financial Investment Portfolio by Asset Class end 2019



Financial Investment Portfolio and return 2015–2019



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GOVERNANCE AND LEADERSHIP

Novo Holdings was established in 1999, with the purpose of managing the wealth of the Novo Nordisk Foundation. The Board of Directors oversees and guides Novo Holdings in realizing its mission to be a supportive owner of the Novo Group companies and to make a growing and positive impact on health, science and society by generating attractive long-term returns on the assets of the Novo Nordisk Foundation.

During 2019, the Board of Directors met six times, including a two-day strategy meeting, as well as an exploratory visit to Singapore. The Board of Directors sets the strategic direction, decides on key priorities, including organizational development and budget allocation, approves specific investment proposals and is responsible for the overall risk management of Novo Holdings.

Elected once annually at the Annual General Meeting, the Board of Directors is comprised of six members, including the Chairman and the Vice Chairman, and represents a broad range of relevant investment and life science capabilities.

During 2019 and as a result of the growth of the Novo Holdings organisation, we established two Board committees, a Remuneration and a Nomination Committee, to support the Board in managing these tasks. Each of these committees is chaired by the Chairmanship of the

Board, with the Remuneration Committee being further supported by an additional Board member. The performance of both the Board of Directors and each of these committees is reviewed on

a regular basis, with input from Board members as well as from Executive Management (CEO and CFO).

The Leadership Team of Novo Holdings is composed of the CEO, CFO, the Managing Partners of the Investment Areas as well as the head of People & Organisation.

The Leadership Team provides leadership across the organization in support of the overall direction set by the Board of Directors. Executive Management is responsible for the daily management of Novo Holdings' operations and provides recommendations to the Board of Directors with respect to investments, strategic direction, organizational development and financial planning.



Board of Directors from left, Jeppe Christiansen, Lars Rebieen Sørensen (Chairman), Viviane Monges, Steen Risgaard (Vice Chairman), Jean-Luc Butel and Francis Cuss.



Leadership from left, Peter Haahr, Petrina Knowles Gjelstrup, Søren Møller, Christoffer Søderberg, Morten Beck Jørgensen, Kasim Kutay and Thomas Dyrberg.

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CASES

BIOINDUSTRIALS

Since its inception, Novo Holdings has been a major bioindustrials investors with a controlling shareholding in Novozymes, the world's leading enzymes suppliers. In addition, Novo Holdings is the largest shareholder in Chr. Hansen, a world leader in microbial industrial solutions.

Important scientific advances are broadening the application of bioindustrial solutions into many new exciting areas. This development, combined with the increasing desire and need to use more natural solutions in industry, make the bioindustrial segment a very attractive investment proposition.

Enzymes are proteins, and in nature they initiate biochemical reactions in all living organisms. It is enzymes that convert the food in our stomachs to energy and turn the falling leaves in the forest to compost. In industry, enzymes replace chemicals and accelerate production processes. They help customers make more from less, while saving energy and generating less waste. Enzymes are widely used in laundry and dishwashing detergents where they remove stains and enable low-temperature washing and concentrated detergents. Other enzymes improve the quality of bread, beer and wine, or increase the nutritional value of animal feed. Enzymes are also used in the production of biofuels where they turn starch or cellulose from biomass into sugars which can be fermented to ethanol. These are just a few examples of enzymatic applications.

Like enzymes, microorganisms have natural properties that can be put to use in a variety of processes. Microorganisms are, among other things, used in agriculture, animal health and nutrition, industrial cleaning and wastewater treatment.

Case 1

LanzaTech, founded in 2005, is a Chicago-based pioneer of carbon recycling technology based on developed a biological process that turns pollution into products.

Raw greenhouse emissions which are generated by industrial processes and would otherwise be combusted and released into the atmosphere are used to feed a fermentation process which produces ethanol and other valuable chemicals, which can then be used in fuels and other products. Examples of the uses of the technology include taking steel mill emissions and even unsorted, unrecyclable household waste and converting these wastes to ethanol.

This next generation sustainable fuel was used in a commercial flight for the first time in 2018. As such, LanzaTech is turning the global carbon crisis into a feedstock opportunity with the potential to displace 30% of crude oil use today and reduce global CO₂ emissions by 10%.

Year of investment: 2019

Investment team: Novo Growth

Case 2

Vestaron, founded in 2005, is an AgTech company based in North Carolina, which develops environmentally friendly pesticides.

The company develops biopesticides from naturally occurring peptides, discovers natural peptides that are insecticidal before taking the genes of that peptide and putting them in a yeast strain which can be fermented into the final product. Their products have proven to be as effective as chemical neonicotinoids insects as well as birds or mammals without being toxic to beneficial insects, birds or mammals. This approach represents a novel

new mode-of-action to control pests, making these products a new way to effectively address the growing problem of insect resistance to existing traditional synthetic insecticides.

Vestaron was in research and product development for more than 14 years, before efforts to bring the company's first products to full commercialization in the United States began.

Year of investment: 2019

Investment team: Novo Growth

Case 3

bioMASON, founded in 2012, is a start-up in North Carolina that uses bacteria to produce sustainable masonry for the construction industry, as an alternative to traditional concrete, bricks and mortar.

bioMASON manufactures concrete masonry products (e.g. tiles, pavers) without using traditional cement, which as an industry accounts for an estimated 8% of global CO₂ emissions. Instead, the company uses sand, bacteria and nutrient-rich water. When mixed together, this combination ferments, and billions of bacteria create calcium carbonate crystals that bind the grains of sand together, similar to using cement, producing high-quality biocement® construction materials through a carbon dioxide neutral process.

The concrete stone industry has an annual revenue of about USD 300 billion, and even a niche market of a few percent could thus comprise an interesting business case for this new production method.

Year of investment: 2019

Investment team: Novo Growth



PEOPLE AND VALUES

Our ambition is to be “recognized by our stakeholders as an exceptional enterprise that delivers outstanding long-term results”. To reach our ambition, we abide by the Novo Holdings Way. The Novo Holdings Way is a set of values and guiding principles, described in more details below:

- **Performance:** We strive to deliver outstanding long-term results. Vision, collaboration and diversity are key to our performance.
- **Respect:** We conduct ourselves with integrity and transparency, and we build long-term relationships based on trust and respect.
- **Responsibility:** Sustainability is integral to our business and learning is core to our organization.

To deliver high performance with respect and responsibility, we aim at staying on the forefront of what we do, and we benchmark our efforts. In addition to the Board of Directors, Novo Holdings has an advisory group of external life science professionals (the Novo Advisory Group), who provide Novo Holdings with feedback and advice on Life Science Investment projects. Furthermore, we deliver operational excellence through an industry-leading team and quality investment processes.

Attracting, developing and retaining high performing talent is key. We aim to offer a unique and attractive employer value proposition with a competitive compensation package and opportunities for continuous development and career advancement through our ‘Novo Academy’ programme.

Novo Holdings employed 88 employees by the end of 2019, representing 11 nationalities and having a great variety of experience and educational backgrounds. 38% of our employees are female and 62% are male. Diversity is a continued focus area for us, and we will work to attract more senior female talents as well as to build the pipeline of female talents in 2020. In 2019, we welcomed 18 new employees to the organization. We are organized into five Investment Areas – Principal Investments, Novo Growth, Novo Venture, Novo Seeds, Financial Investments – as well as Finance & Operations, and leverage the People & Organisation and communication competences of the Novo Nordisk Foundation in our daily work. We strive to be a well-respected company and a responsible and attractive employer. All employees are expected to help to build the Novo Holdings brand by upholding and promoting its values and culture.

	2019	2018
Headcount	88	84
Investment professionals	51	49
Number of non-danes	30	26
% of non-danes	34%	31%
Number of female employees	33	32
% of female employees	38%	38%
% participating in engagement survey	86%	n.a.
Result of engagement survey	8.6	n.a.

Note: Engagement survey ranks from 1 to 10. We did not conduct engagement survey in 2018.

In support of our strategic direction, we plan to expand the organization with further investment capabilities within the Investment Areas of Principal Investments, Novo Growth and Financial Investments in the coming years, as well as in key functions supporting the Investment Areas.



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To deliver high performance with respect and responsibility, we aim at staying on the forefront of what we do, and we benchmark our efforts.

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CORPORATE SOCIAL RESPONSIBILITY



Corporate Social Responsibility is integral to the values of Novo Holdings as a wholly owned subsidiary of the Novo Nordisk Foundation.

The mission of Novo Holdings to be a supportive owner of the Novo Group companies and to make a growing and positive impact on health, science and society by generating attractive long-term returns on the assets of the Novo Nordisk Foundation. As such, Novo Group companies must strive to make sure that their products and services make a significant difference in improving how people live and work. It also includes a commitment to continuously improving financial, environmental and social performance.

We refer to the Corporate Social Responsibility policies of the Novo Nordisk Foundation, where the statutory requirements under the Danish Financial Statements Act §99a and §99b are disclosed:

novonordiskfonden.dk/wp-content/uploads/appendix_a.pdf

Responsible investments

Whereas we have for many years included aspects of Corporate Social Responsibility into our investment processes and asset management, we established a common Responsible Investment Policy in Novo Holdings in 2019. During the year this policy has been implemented into our daily business through a dedicated investment procedure, essentially integrating aspects of Environmental, Social and

Governance (ESG) into all our investment processes and decisions. During 2019 we successfully conducted several new direct investments, primarily within the life science sector, all of which were assessed in reference of our Responsible Investment Policy. Further to this, by end of 2019, each Investment Area has assessed all our direct investments, our investments into LP positions as well as our investments conducted through external fund managers, in reference to our Responsible Investment Policy.

In the first half of 2020, Novo Holdings plans to become a signatory of the United Nations Principal for Responsible Investments (UNPRI), and we intend to further develop our investment processes and decision-making in the perspective of conducting responsible investments in the coming years.

Impact of investment activities on society

Novo Holdings' societal impact depends on how well we manage our financial resources. The aim is to leave a positive footprint on society. First and foremost, Novo Holdings does this by ensuring an attractive return on investments to support the Novo Nordisk Foundation's grant-giving activities. In 2019, the Foundation awarded grants amounting to DKK 4.9 billion for scientific, humanitarian and social purposes through 623 grants. For more insights on this please visit impact.novonordiskfonden.dk

In addition to this we highlight the following selected impacts for 2019:

- Of our total investment assets (measuring the value of the Novo Group companies using the quoted B share price at closing year-end 2019) 85% are deployed into the life science sector, which by definition holds the purpose of positively impacting society.
- Novo Holdings invested DKK 5.9 billion in 33 life science companies with our investment portfolio of Life Science Investments constituting 51% of the total Investment Portfolio by the end of 2019.
- The Investment Portfolio of Novo Seeds, whose mission is to build and develop life sciences companies in the Nordics, increased to DKK 1,261 million by the end of 2019, up from DKK 796 million by the end of 2018.
- During 2019 we deployed DKK 143 million through the fully-owned DKK 1 billion REPAIR impact fund, supporting development of novel antibiotics in the effort to combat microbial resistance, adding to the DKK 133 million deployed in 2018.
- The Novo Group paid corporate tax of DKK 8.9 billion in Denmark, up from DKK 7.5 billion in 2018.

For information on the impact of investments on human rights and the environment, see also the Corporate Social Responsibility Reports of Novo Nordisk and Novozymes.

	2019	2018
Total investment assets (DKK bn)	411	331
% total investment assets in life science sector	85%	86%
Investment Portfolio (DKK bn)	127	104
% share of Investment Portfolio in life science sector	51%	56%
Novo Seeds Investment Portfolio (DKK mn)	1,261	796
Accumulated investments conducted in REPAIR fund (DKK mn)	276	133
Novo Group paid tax (DKK bn)	8.9	7.5

Note: Total investment assets includes Novo Group companies with A and B shares of the companies valued using the quoted B share price at closing 31 December of the respective years.



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BUSINESS AND FINANCIAL RISKS

Our greatest risks are related to the business of Novo Nordisk and Novozymes, which vary in steps with the different activities of the two subsidiaries.

There are inherent risks associated with investing in Novo Nordisk. A rigorous approach to enterprise risk management helps Novo Nordisk management protect and enhance the value of our tangible and intangible assets. The company is continually exposed to risks throughout their value chain – from early discovery of new, promising molecules to the production and delivery of medicines to patients. Some risks are inherent in the pharmaceutical industry, such as delays or failures of potential new medicines in the R&D pipeline. Other risks such as supply disruptions and competitive threats are well-known to any manufacturing company with global production.

Novo Nordisk never compromise on product quality, patient safety and business ethics: these are front and centre of the enterprise-wide risk management set-up. The company apply a two-way lens and assess risks to people as well as potential financial loss and reputational damage. Executive Management and the Board of Directors in Novo Nordisk review a 'heat map' of the biggest risks biannually. This map is based on insights from management teams in all organisational areas and includes risks that could cause significant disruptions to the business over a three-year horizon. Please refer to the Annual Report 2019 for a detailed overview of our key risks in Novo Nordisk, which amongst others include balancing affordable care and commercial value, risk of digital disruption in addition to concerns for the global environment.

Novozyymes risk management process reduces uncertainty as much as possible and aims to keep the company on track to achieve their commitments and deliver value to their stakeholders. Novozyymes operates an Enterprise Risk Management process whereby the key risks facing the company are identified, assessed and mitigated at different levels of the organization. The company monitor most risks by means of half-yearly reviews. However, some risks may at times require more frequent updates. Risks are assessed based on a two-dimensional heat map rating system that estimates the potential impact of a given risk on financials. For 2020 four key enterprise risks has been identified, relating to volatility of agriculture related business, competition and market consolidation, global political and economic instability as well as cyberattacks. For more information about Novozyymes and their approach to risk management, please consult the Novozyymes Annual Report 2019

Risk management is an integral part of how we manage our Investment Portfolio both from a strategic and from an operational perspective. With around 51% of the Investment Portfolio allocated towards the life sciences sector, we have a significant exposure to this industry. Whereas the industry is considered broad and provides opportunity for some diversification across subsectors and geographies, Novo Holdings is especially exposed to the particular risks related to the life sciences sector.

At the highest strategic level, the Novo Nordisk Foundation sets the risk tolerance for Novo Holdings, which is operationalized through dedicated risk measures. Based on this, we measure and focus on shortfall risk for growth in grant pay-outs, portfolio volatility, idiosyncratic risk, access to liquidity as well as diversification of the investment portfolio.

More specifically, we allocate the capital to reflect that 1) the Novo Nordisk Foundation should generally be able to increase its grants by at least the growth in nominal GDP; 2) a maximum loss on the investment portfolio, i.e. excluding Novo Nordisk and Novozyymes, in exceptionally negative markets conditions is defined; 3) no single investment should represent more than a certain percentage of the investment portfolio; 4) the Novo Nordisk Foundation should at any given time be able to liquidate assets without incurring losses from forced disposals, at a value corresponding to actual commitment and the expected five-year grant pay-out obligations plus an additional buffer; and 5) of the investment portfolio, the Financial Investments should at any given time represent a certain minimum of the total portfolio. In addition to this, specific ranges for asset allocation by different asset classes has been developed.

With key systems and investment processes well-documented and established, we plan to further strengthen our risk management during 2020, as we, among other things, will establish a dedicated Risk Management and Allocation committee to the Leadership Team, which is to meet monthly to discuss key risks, potential adjustments to the asset allocation as well as an updated action plan in case of market down-turns.

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THE FUTURE

Novo Holdings' financial prospects are partly dependent on the results of Novo Nordisk and Novozymes. For further information on the outlook for 2020 for these two companies, please consult their Annual Reports.

At the Annual General Meeting (AGM), Novozymes approved a dividend of DKK 2.25 per share. In addition, the Board of Directors of Novo Nordisk at the upcoming AGM on 26 March 2020, propose to pay-out dividend for 2019 of DKK 8.35 (of which DKK 3.00 has been paid out as interim dividend in 2019). Provided approval of this proposal, Novo Holdings expects to receive dividends from both Novo Group companies of DKK 4.0 billion in the first quarter in 2020. In August 2020, we also expect to receive additional interim dividends from Novo Nordisk. Furthermore, we plan to participate in the share repurchase programme of Novo Nordisk and Novozymes, which we anticipate will generate additional income.

In addition to the income from the Novo Group companies, the result of Novo Holdings relies on the investment returns from our Investment Portfolio. As directed by our strategy, the Investment Portfolio is largely allocated and exposed to the life sciences sector.



Five year summary

DKK billion	2019	2018	2017	2016	2015
Income from Novo Group companies	11.3	10.6	6.0	7.1	4.3
Return from investment activities	14.8	0.9	14.7	1.2	11.5
Operating profit	25.6	11.0	20.3	8.2	15.4
Net profit for the year	23.1	12.0	19.1	7.1	14.8
Proposed dividend	8.0	5.8	1.6	0.0	3.0
Equity	113.9	96.6	86.2	67.1	62.9
Total assets	131.6	109.9	100.1	81.0	74.4

Financial ratios

Equity ratio	87%	88%	86%	83%	85%
Employees*	68	68	51	41	34

*Calculation based on the ATP-method

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CASES

DIGITAL HEALTHCARE

The abundance of technologies and digital solutions that are flowing into the life sciences ecosystem is changing how medicine is discovered and how healthcare is being delivered and used.

One example is big data, which in recent years has changed the way any industry manages, analyses and leverages data. In healthcare, however, the potential is even more promising. Large scale data from the enormous industry can be collected and refined into actionable insights in pharmaceuticals, clinical data, and patient behaviour.

Also, tools are emerging to help address patient centric challenges, such as care coordination and long waiting time to see a doctor. Combined with data-driven findings, this can help predict individual healthcare problems, assess and treat health issues faster, and empower patients with tools to involve them more in their own health. As legislators and companies seek to reduce health costs, digital tools also represent an increasingly attractive option to drive efficiencies.

The continued movement toward and adoption of technology in healthcare, which also includes artificial intelligence, machine learning and robotic technologies amongst others, will lead to new breakthroughs and new treatments. This includes personalised medicine which breaks with a traditional 'one size fits all' approach to the treatment of patients. Instead, new approaches based on patients' genetic material and lifestyle will target therapies to achieve the best outcomes in the individual management of disease or predisposition to disease.

As the demand for digital health solutions grows, we expect to see a continued steady flow of funds from both venture capital and public markets into the space. This will improve and accelerate product development, create better tools for clinical trials and a new wave of devices, technologies and processes will emerge.

Operating in this digital space, however, still requires a fundamental understanding of healthcare trends as well as the inefficiencies and possibilities in the healthcare system that technology can help resolve or utilise.

Several of Novo Holdings' investment teams have made investments in this area, and we will expand our presence in the coming years.

The digital health revolution is an all-embracing mega-trend, and it is all but impossible for any investor to stay ahead of the curve. However, we approach the market with confidence, as we believe that Novo Holdings, based on deep domain expertise, ability to embrace exciting visions, and to be patient and long-term in its investments approach, is well-positioned to partner with the many digital health companies that are emerging and maturing.



Case 1

ERT is a global data and technology company, based in Pennsylvania, that captures critical endpoint data while minimizing uncertainty and risk in clinical trials. Thus, ERT helps its customers move ahead quickly with the development of new treatments.

More specifically, ERT which was founded in 1972, delivers innovative imaging, cardiac safety, respiratory, and eClinical solutions that help biopharmaceutical companies meet global regulators' strict guidelines for demonstrating the safety and efficacy of new medical compounds.

In 2019, 75% (36) of the compounds approved by the FDA were developed using one or more of ERT's eClinical solutions during the drug development process.

Year of investment: 2016

Investment team: Principal Investments

Case 2

Founded in 2008, MDLIVE is one of largest telehealth platforms in the U.S. The company offers a technology-enabled service that connects consumers to certified medical professionals via telephone or video on-demand.

The services are designed to replace emergency room or urgent care visits for non-emergency issues. In addition to providing urgent care for over 50 routine medical conditions, MDLIVE also offers behavioural health therapy.

Healthcare providers can use MDLIVE's platform to collect and share clinical data from patient medical records, lab results and in-home biometric devices for real-time risk assessments, wellness advice, diagnoses and treatment.

Year of investment: 2018

Investment team: Novo Ventures

Case 3

Tempus, based in Chicago, is a leading technology company advancing precision medicine through the collection and analysis of molecular and clinical data.

With the largest connected clinical and genomic database aggregated from academic medical centres and community-based hospitals, the Tempus platform serves the entire healthcare ecosystem of providers, payers, researchers and life sciences companies. Using advanced machine learning, next-generation sequencing, and AI-assisted image recognition, the company's platform accelerates discovery of new insights and enables physicians to make real-time, data driven decisions based upon those insights on behalf of their patients.

The Tempus platform touches more than 1 in 4 cancer patients in the U.S. and the company is further enhancing operations and accelerating its expansion into new therapeutic areas and geographies.

Year of investment: 2019

Investment team: Novo Growth

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MANAGEMENT'S STATEMENT

The Executive Management and Board of Directors have today considered and adopted the Annual Report of Novo Holdings for the financial year 1 January – 31 December 2019.

The Annual Report is prepared in accordance with International Financial Reporting Standards as adopted by the EU and further requirements in the Danish Financial Statements Act.

In our opinion, the Financial Statements give a true and fair view of the financial position at 31 December 2019 of the Company and of the results of the Company operations and cash flows for 2019.

In our opinion, Management's Review includes a true and fair account of the development in the operations and financial circumstances of the Company, of the results for the year and of the financial position of the Company as well as a description of the most significant risks and elements of uncertainty facing the Company.

We recommend that the Annual Report be adopted at the Annual General Meeting.

Hellerup, 18 March 2020

Executive Management

Kasim Kutay
CEO

Peter Helt Jacobsen Haahr
CFO

Board of Directors

Lars Rebien Sørensen
Chairman

Steen Riisgaard
Vice Chairman

Jean-Luc Butel

Jeppe Fonager Christiansen

Viviane R. F. Monges

Francis Cuss

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To the Shareholder of Novo Holdings

INDEPENDENT AUDITOR'S REPORT

Opinion

In our opinion, the Financial Statements give a true and fair view of the financial position of the Company at 31 December 2019, and of the results of the Company's operations and cash flows for the financial year 1 January - 31 December 2019 in accordance with International Financial Reporting Standards as adopted by the EU and further requirements in the Danish Financial Statements Act.

We have audited the Financial Statements of Novo Holdings for the financial year 1 January - 31 December 2019, which comprise statement of comprehensive income and statement of financial position, statement of cash flows, statement of changes in equity and notes, including a summary of significant accounting policies ("financial statements").

Basis of Opinion

We conducted our audit in accordance with International Standards on Auditing (ISAs) and the additional requirements applicable in Denmark. Our responsibilities under those standards and requirements are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are independent of the Company in accordance with the International Ethics Standards Board for Accountants' Code of Ethics for Professional Accountants (IESBA Code) and the additional requirements applicable in Denmark, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Statement on Management Report

Management is responsible for Management Report.

Our opinion on the financial statements does not cover Management Report, and we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read Management Report and, in doing so, consider whether Management Report is materially inconsistent with the financial statements or our knowledge obtained during the audit, or otherwise appears to be materially misstated.

Moreover, it is our responsibility to consider whether Management Report provides the information required under the Danish Financial Statements Act.

Based on the work we have performed, in our view, Management Report is in accordance with the Financial Statements and has been prepared in accordance with the requirements of the Danish Financial Statements Act. We did not identify any material misstatement in the Management Report.

Management's Responsibilities for the Financial Statements

Management is responsible for the preparation of Financial Statements that give a true and fair view in accordance with International Financial Reporting Standards as adopted by the EU and further requirements in the Danish Financial Statements Act, and for such internal control as Management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, Management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting in preparing the financial statements unless Management either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs and the additional requirements applicable in Denmark will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit conducted in accordance with ISAs and the additional requirements applicable in Denmark, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement

resulting from fraud is higher than for one resulting from error as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by Management.
- Conclude on the appropriateness of Management's use of the going concern basis of accounting in preparing the financial statements and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to continue as a going concern.
- Evaluate the overall presentation, structure and contents of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that gives a true and fair view.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Hellerup, 18 March 2020

PricewaterhouseCoopers

Statsautoriseret Revisionspartnerselskab
CVR No 33 77 12 31

Kim Fücksel

State Authorised Public Accountant
mne9291

Torben Jensen

State Authorised Public Accountant
mne18651

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STATEMENT OF COMPREHENSIVE
INCOME

1 January to 31 December

DKK million	Note	2019	2018
Income from Novo Group companies	2	11,256	10,564
Return from Life Science Investments	3	6,433	2,177
Return from Financial Investments	4	8,353	-1,319
Costs	5, 6, 7	-469	-407
Operating profit		25,573	11,015
Novo Nordisk Foundation's share of return of joint investment portfolio		-2,472	608
Profit before tax		23,101	11,623
Income tax expense	8	0	370
Total comprehensive income/Net profit for the year		23,101	11,993
Proposed distribution of profit			
Proposed dividend		8,000	5,800
Retained earnings		15,101	6,193
		23,101	11,993

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STATEMENT OF FINANCIAL POSITION

Year end 31 December

DKK million	Note	2019	2018
Assets			
Novo Group companies	9	3,465	3,537
Life Science Investments	10, 12, 13	65,114	58,336
Financial Investments	11, 12, 13	61,774	46,055
Property		456	458
Total non-current assets		130,809	108,386
Amounts owed by group companies		0	33
Investments pending settlement		220	31
Tax receivables		42	394
Other receivables		32	164
Cash at bank		518	940
Total current assets		812	1,562
Total assets		131,621	109,948
Equity and liabilities			
Share capital		500	500
Retained earnings		113,391	96,090
Total equity		113,891	96,590
Real estate debt		248	249
Joint investment portfolio Novo Nordisk Foundation		16,652	12,222
Trade payables		145	24
Investments pending settlement		0	632
Financial Investments liabilities	11	520	0
Other liabilities		63	77
Other provisions	14	102	154
Total current liabilities		17,730	13,358
Total liabilities		17,730	13,358
Total equity and liabilities		131,621	109,948

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STATEMENT OF CASH FLOWS

1 January to 31 December

DKK million	2019	2018
Dividends received Novo Group companies	5,959	5,811
Proceeds from sale of shares in Novo Group companies	5,369	4,830
Divestments of Life Science Investments	4,985	4,511
Investments in Life Science Investments	-5,746	-5,530
Dividends received Life Science Investments	451	722
Interest received Life Science Investments	2	23
Divestments of Financial Investments	19,127	12,582
Investments in Financial Investments	-27,275	-20,166
Dividends received Financial Investments	228	390
Interest received Financial Investments	265	157
Investment in property	-6	-46
Operating expenses paid	-344	-522
Received corporation tax	408	-
Net cash used in operating activities	3,423	2,762
Cash flows from financing activities		
Contribution from the Novo Nordisk Foundation to the joint investment portfolio	5,800	1,600
Repayments to the Novo Nordisk Foundation from the joint investment portfolio	-3,844	-2,030
Repayment of real estate debt	-1	-
Dividends paid to Novo Nordisk Foundation	-5,800	-1,600
Net cash from financing activities	-3,845	-2,030
Net cash flow	-422	732
Cash and cash equivalents at the beginning of the year	940	208
Cash and cash equivalents at the end of the year	518	940

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STATEMENT OF CHANGES IN EQUITY

1 January to 31 December

DKK million	Share capital	Retained earnings	Total
2018			
Equity at the beginning of the year	500	85,697	86,197
Net profit for the year	-	11,993	11,993
Dividends paid	-	-1,600	-1,600
Equity at the end of the year	500	96,090	96,590
2019			
Equity at the beginning of the year	500	96,090	96,590
Net profit for the year	-	23,101	23,101
Dividends paid	-	-5,800	-5,800
Equity at the end of the year	500	113,391	113,891
Share capital	No.	Nominal value DKK million	
A share capital (shares of DKK 1)	115,400,000	115	
B share capital (shares of DKK 1)	384,600,000	385	
Total share capital at 31 December	500,000,000	500	

Any share amount of DKK 1 of the A share capital carries 10 votes, while any share amount of DKK 1 of the B share capital carries 1 vote.

There have been no changes in the share capital during the last 5 years.

Paid dividend per share equals DKK 11.60 (2018: DKK 3.20)

NOTES

NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The principal accounting policies applied in the preparation of these financial statements are set out below.

Comparative figures in the cash flow statement have been restated as a consequence of the change of presentation to the direct method in 2019.

In 2019, management has decided to base the disclosures in note 12 and 13 on more detailed information from external sources. Consequently, the comparative figures for 2018 have been restated to allow for a better basis for comparison.

A few other minor corrections have been made due to reclassifications.

Other than this, the principal accounting policies have been consistently applied to all the years presented, unless otherwise stated.

Basis of preparation

The financial statements included in this Annual Report have been prepared in accordance with International Financial Reporting Standards (IFRS) as adopted by the EU and additional requirements of the Danish Financial Statements Act for reporting class C enterprises (Large).

The financial statements are presented in DKK million unless otherwise stated.

Effects of new and amended accounting standards

The company has adopted all new and amended standards and interpretations issued by IASB and endorsed by the EU effective as of 1 January 2019. The application of new and amended accounting standards, including IFRS 16 Leases, have not had material impact on the Financial Statements in 2019 and no future periods from the adoption of these new IFRS's are anticipated.

It is the management's assessment that the above mentioned changes in accounting standards and interpretations will not have any significant impact on the financial statements upon adoption of these standards.

Critical accounting policies

The management of Novo Holdings considers the accounting policies for the investment categories set out below to be the most important to the company.

Investments in Novo Group companies

Investments in the category Novo Group companies are defined as

being the company's directly owned shares in Novo Nordisk A/S and Novozymes A/S. Investments in Novo Group companies are included in the company's financial statements at cost. If cost exceeds the recoverable amount, the carrying amount is written down to recoverable amount. Dividends and realized gains are included in 'Income from Novo Group companies' in the company's statement of comprehensive income.

Life Science Investments

Investments in the category Life Science Investments are defined as direct or indirect investments in financial assets that are primarily related to health care and does not meet the definition of investments in Novo Group companies.

Subsidiaries, associates and other financial assets that fall into this category are recognized in accordance with IFRS9 at fair value through profit or loss; Investments are initially recognized at fair value and subsequently adjusted to fair value.

Realized and unrealized gains and losses on fair value adjustments are recognized in the statement of comprehensive income in the financial year in which they arise. Realized gains and losses on sale of financial assets are calculated on the basis of the original purchase price. Purchase and sale of Life Science Investments are recognized on the trade date.

Dividend income from financial assets at fair value through profit or loss is recognized in the statement of comprehensive income within 'Return from Life Science Investments' when the company's right to receive payments is established.

Financial Investments

Investments in the category Financial Investments are defined as investments in financial assets that does not meet the definition of investments in the Novo Group companies or Life Science Investments.

Subsidiaries, associates and other financial assets that fall into this category are recognized in accordance with IFRS9 at fair value through profit or loss; Investments are initially recognized at fair value and subsequently adjusted to fair value.

Realized and unrealized gains and losses on fair value adjustments are recognized in the statement of comprehensive income in the financial year in which they arise. Realized gains and losses on sale of financial assets are calculated based on the original purchase price. Purchase and sale of Financial Investments are recognized on the trade date.

Dividend income from financial assets at fair value through profit or loss is recognized in the statement of comprehensive income within 'Return from Financial Investments' when the company's right to receive payments is established.

Fair value estimation

Please refer to Note 13.

Other accounting policies

Translation of foreign currencies

The financial statements are presented in Danish kroner (DKK), which is the company's functional currency and presentation currency.

Transactions in foreign currencies are translated into the functional currency at the exchange rates prevailing on the transaction dates. Foreign exchange gains and losses on completion of these transactions and on the translation of monetary assets and liabilities in foreign currencies to the exchange rates prevailing on the balance sheet date are recognized in the statement of comprehensive income.

Exchange rate differences arising on the translation of non-monetary items, such as other financial investments at fair value recognized in the statement of comprehensive income, are recognized as part of the gain or loss on fair value adjustments.

Derivative financial instruments

Novo Holdings does not apply hedge accounting, which is why value adjustments are recognized directly in the statement of comprehensive income under Return from Financial investments.

Tax

Corporation taxes in the statement of comprehensive income include tax payable for the year and change in provision for deferred tax.

Provision for deferred tax is based on the liability method and covers all temporary differences between carrying and tax values and from realisable tax-loss carry-forwards.

The tax value of tax-loss carry-forwards is included in deferred tax assets to the extent that the tax losses and other tax assets are expected to be utilised in the future taxable income. The deferred taxes are measured according to current tax rules and at the tax rates expected to be in force on elimination of the temporary differences. Measurement of deferred taxes in Denmark is based on a tax rate of 22%.

Tax payable/receivable includes tax payable computed based on the expected taxable income for the year and any adjustment for tax payable for previous years.

Novo Holdings is covered by the tax rules concerning compulsory joint taxation, because of which the company is jointly taxed with its Danish subsidiaries. Corporation tax is allocated between profit-making and loss-making Danish companies in ratio to their taxable income. Provision is made for tax using the full allocation method. Novo Holdings applies the tax transparency rules and distributes its taxable income to the Novo Nordisk Foundation.

Costs

Costs comprise the costs incurred to investments and the administration of the company including transaction costs and salaries.

Employee benefits

Wages, salaries, social security contributions, paid annual leave and sick leave, bonuses, and non-monetary benefits are recognized in the year in which the company's employees render the associated services. Where the company provides long-term employee benefits, the employees concerned accrue the costs to match the rendering of the services.

Pensions

The company's contributions to defined contribution plans are charged to the statement of comprehensive income in the year to which they relate.

Provisions

Provisions are recognized where a legal or constructive obligation has been incurred, because of past events, and it is probable that it will lead to an outflow of resources that can be reliably estimated.

Property

Property comprise the company's domicile. Property is measured at cost, less subsequent depreciation and impairment losses. Land is measured at cost less impairment losses. Depreciation is calculated using the straight-line method to allocate the cost of each asset to its residual value over its estimated useful life as follows:

- Buildings 50 years
- Installations 20-50 years
- Furniture 5 years

The residual values and useful lives of the assets are reviewed and adjusted, if appropriate, at each balance sheet date.

Cost comprises acquisition price and expenses directly related to the acquisition until the time when the asset is ready for use. The cost of self-constructed assets comprises direct expenses for wage consumption and materials.

Liabilities

Liabilities are generally recognized at amortised cost unless specified otherwise.

Dividends

Dividends are recognized as a liability in the period in which they are declared at the Annual General Meeting.

Cash flow statement

The cash flow statement is presented in accordance with the direct method and shows the company's cash flows for the year broken down by operating and financing activities, changes for the year in cash and cash equivalents as well as the company's cash and cash equivalents at the beginning and end of the year.

The cash flow statement cannot be immediately derived from the published financial records.

Cash flows from operating activities

Cash flows from operating activities are calculated as the net profit/ loss for the year adjusted for changes in working capital and noncash operating items such as depreciation, amortization and impairment losses, and provisions. Working capital comprises current assets less short-term debt excluding items included in cash and cash equivalents.

Cash flows from investing activities

Cash flows from investing activities comprise cash flows from acquisitions and disposals of intangible assets, property, plant and equipment as well as fixed asset investments.

Cash flows from financing activities

Cash flows from financing activities comprise cash flows from the raising and repayment of long-term debt as well as payments to and from shareholders.

Cash and cash equivalents

Cash and cash equivalents comprise solely cash at banks.

Critical accounting estimates and judgements

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities on the balance sheet date(s) and the reported amounts of revenues and expenses during the reporting period(s).

Management bases its estimates on historical experience and various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgements about the reported carrying amounts of assets and liabilities and the reported amounts of revenues and expenses that may not be readily apparent from other sources. Actual results could differ from those estimates.

Novo Holdings believes the following to be the critical accounting estimates and related judgements used in the preparation of its financial statements.

Life Science Investments

Investments in biotech companies are associated with significant risks, as they involve long-term investments in the development of new drugs and technologies. In accordance with the company's investment strategy, Novo Holdings has a wide spread in its investments in terms of geographical location, technologies and stage of development in order to limit the risk.

Life Science Investments are valued at fair value, if this can be set with a sufficient degree of reliability. By nature uncertainties exists regarding fair value assessments of Life Science Investments. The company's management reviews and assesses the value of the individual investments on an ongoing basis. Please refer to Note 13 for valuation method and inputs.

Explanation of financial ratios

Financial ratios have been calculated in accordance with the "Guidelines and Financial Ratios 2015", issued by the Danish Society of Financial Analysts.

Equity ratio = Equity / Total liabilities and equity x 100

NOTE 2 - INCOME FROM NOVO GROUP COMPANIES

DKK million	2019	2018
Dividends received from Novo Nordisk A/S	5,580	5,461
Dividends received from Novozymes A/S	379	350
Gain from sale of shares in Novo Nordisk A/S	4,836	4,150
Gain from sale of shares in Novozymes A/S	461	604
Total Income for the year	11,256	10,564

NOTE 3 - RETURN FROM LIFE SCIENCE INVESTMENTS

DKK million	2019	2018
Realized gain and return for the year, net	841	3,506
Appreciation to fair value, net	5,592	-1,329
Total Investment Result for the year	6,433	2,177

NOTE 4 - RETURN FROM FINANCIAL INVESTMENTS

DKK million	2019	2018
Realized gain and return for the year, net	4,298	559
Appreciation to fair value, net	4,055	-1,878
Total Investment Result for the year	8,353	-1,319

NOTE 5 - EMPLOYEE COSTS

DKK million	2019	2018
Wages and salaries	96	83
Incentive fees paid	13	171
Incentive fees change in provision	18	-105
Pension costs, defined contribution plans	20	15
Other employee costs	20	16
Total employee costs	167	180

Allocation of employee costs by category:

Life Science Investments	78	87
Financial Investments	17	13
Administration & management	72	80
	167	180

Hereof remuneration to Executive Management:

Salaries and short-term incentives	17	16
Long-term incentives	1	1
Pension	1	1
	19	18

Board of Directors' remuneration 2019					2018			
DKK thousands	Board fee	Committee work	Travel and other allowance	Total	Board fee	Committee work	Travel and other allowance	Total
Sten Scheibye	-	-	-	-	863	-	-	863
Göran Ando	-	-	-	-	144	29	58	231
Jeppe Christiansen	575	-	75	650	575	-	-	575
Per Wold-Olsen	-	-	-	-	144	162	325	631
Steen Riisgaard	1,150	-	75	1,225	869	-	-	869
Lars Rebien Sørensen	1,725	-	75	1,800	1,163	-	-	1,163
Jean-Luc Butel	575	500	447	1,522	575	154	680	1,409
Francis Cuss	575	-	447	1,022	575	-	446	1,021
Viviane Monges	575	72	366	1,013	431	-	-	431
	5,175	572	1,485	7,232	5,339	345	1,509	7,193

Committee work consists of internal committees and Novo Advisory Group.

	2019	2018
Average number of full-time employees (no.)	68	68

NOTE 6 - COSTS PER AREA

DKK million	2019	2018
Costs regarding Life Science Investments	316	282
Costs regarding Financial Investments	17	13
Administration & management	136	112
Total cost for the year	469	407

NOTE 7 - FEE TO STATUTORY AUDITORS

DKK million	2019	2018
Statutory audit	0.5	0.8
Tax advisory service	0.7	1.6
Other services	0.7	1.3
Total fee to statutory auditors	1.9	3.7

NOTE 8 - INCOME TAXES

DKK million	2019	2018
Computation of effective tax rate		
Statutory tax rate	22.0%	22.0%
Non-taxable income less non-deductible expenses	-16.1%	-25.1%
Deduction in accordance with the transparency rule	-5.9%	0.0%
Effective tax rate	0.0%	-3.1%

When assessing Danish corporation tax the company and all Danish subsidiaries are taxed jointly. Novo Holdings A/S is acting as the administrative company of the joint taxation. The Danish group companies are jointly liable for corporation tax on the consolidated taxable income.

The income tax paid for the Danish tax group in the current year was DKK 8,878 million (DKK 7,528 million in 2018). There have been some adjustments to prior years which predominantly arise from tax payments regarding tax disputes and reversal of the associated tax liability. The adjustments to prior years have resulted in tax received of DKK 1,544 million (DKK 130 million in 2018).

NOTE 9 - NOVO GROUP COMPANIES

DKK million	2019	2018
Cost at the beginning of the year	3,537	4,410
Disposals during the year	-72	-76
Transfer to Financial Investments	-	-797
Carrying amount at the end of the year	3,465	3,537

The Novo Group companies are valued at historical cost.

NOTE 10 - LIFE SCIENCE INVESTMENTS

DKK million	2019	2018
Cost at the beginning of the year	41,254	37,357
Additions during the year, net	1,186	3,897
Cost at the end of the year	42,440	41,254
Value adjustments at the beginning of the year	17,082	18,411
Appreciation to fair value, net	5,592	-1,329
Value adjustments at the end of the year	22,674	17,082
Fair value at the end of the year	65,114	58,336
Fair value measurement hierarchy		
Active market data	33,692	33,355
Directly or indirectly observable market data	-	-
Not based on observable market data	31,422	24,981
	65,114	58,336
Change in values not based on observable market data		
At the beginning of the year	24,981	19,252
Additions during the year	4,922	5,417
Disposals during the year	-1,031	-1,745
Change in hierarchy due to investments that completed an IPO during the year	-562	-279
Gains through profit or loss*	3,112	2,336
	31,422	24,981

*Of this amount, DKK 2,862 million relates to unrealized gains and losses on investments held at the company at year-end 2019 compared to DKK 2,066 million at year-end 2018.

NOTE 11 - FINANCIAL INVESTMENTS

DKK million	2019	2018
Cost at the beginning of the year	37,590	29,361
Additions during the year, net	11,144	7,140
Transfer from Novo Group	-	797
Cost at the end of the year	48,734	37,298
Value adjustments at the beginning of the year	8,465	10,635
Appreciation to fair value, net	4,055	-1,878
Value adjustments at the end of the year	12,520	8,757
Fair value at the end of the year	61,254	46,055
Hereof investment assets	61,774	46,055
Hereof hedging activities	-520	-
Fair value measurement hierarchy		
Active market data	44,868	34,864
Directly or indirectly observable market data	12,032	7,837
Not based on observable market data	4,354	3,354
	61,254	46,055
Change in values not based on observable market data		
At the beginning of the year	3,354	3,143
Additions during the year	367	550
Disposals during the year	-285	-120
Change in hierarchy due to investments that completed an IPO during the year	-112	0
Gains through profit or loss*	1,030	-219
	4,354	3,354

*Of this amount, DKK 1,024 million relates to unrealized gains and losses on investments held at the company at year-end 2019 compared to DKK -224 million at year-end 2018.

NOTE 12 - FINANCIAL INSTRUMENTS AND FINANCIAL RISK FACTORS

Financial instruments

The company contracts derivatives to hedge financial assets based on individual considerations.

The table below shows the derivatives contracted to hedge currency exposure on investments which give rise to value adjustments in the statement of comprehensive income:

DKK million	31 December 2019		31 December 2018	
	Contract amount	Market value	Contract amount	Market value
USD	-4,420	40	-3,250	11
EUR	1,097	0	977	0
GBP	-159	1	-240	2
SEK	-64	-1	-57	0
NOK	0	0	-39	-1
CHF	-216	-1	-27	0
Total	-3,762	39	-2,636	12

Financial risk factors

The fair value of the financial assets is exposed to adverse chances in the financial markets. The financial risk factors include the following types of risks: Currency risk, credit risk, interest rate risk and price risk.

Currency risk

Currency risk arises when we invest in financial assets in other currencies than DKK as the currency of most of the expenses and the functional currency of Novo Holdings and the Novo Nordisk Foundation is DKK. The Financial assets in the investment portfolio are primarily exposed to the

USD, EUR and GBP. Novo Holdings' policy is not to hedge share-based assets, but to hedge bond-based and liquid assets based on individual considerations. Hedging of currency exposure is carried out through currency derivatives, which generally have a maturity period that would not exceed six months.

The following table details the exposure to currency risk:

	Value 31 December 2019		Value 31 December 2018	
	Local currency, million	DKK million	Local currency, million	DKK million
Traded investment assets				
USD	\$7,195	47,986	\$5,858	38,274
EUR	€3,350	25,028	€2,028	15,142
GBP	£1,194	10,446	£1,216	10,083
Other		8,825		7,223
FX derivatives				
USD	-\$663	-4,420	-\$497	-3,250
EUR	€147	1,097	€131	977
GBP	-£18	-159	-£29	-240
Other		-280		-123
Cash in foreign currency				
USD	\$32	210	\$62	406
EUR	€5	38	€13	96
GBP	£1	8	£3	28
Other		0		0

The following table details the sensitivity to currency fluctuations:

	31 December 2019		31 December 2018	
	Unhedged exposure Local currency million	Impact on gain/loss for 2019 (DKK million)	Unhedged exposure Local currency million	Impact on gain/loss for 2018 (DKK million)
10% USD appreciation	\$6,564	4,378	\$5,423	3,543
10% GBP appreciation	£1,177	1,030	£1,191	987

The table sensitivities are based only on the impact of financial instruments that are outstanding at the balance sheet date and are thus not an expression of Novo Holdings total currency risk. A depreciation in currencies would have an equal but opposite impact.

Credit risk

Credit risk occurs on financial assets. Novo Holdings' policy is to have most of the bond-based investments in Danish government bonds and domestic mortgage credit bonds and a minor share in different high yield bonds. Based on individual consideration of each asset it is decided whether the credit risk should be hedged through derivatives.

Interest rate risk

Interest rate exposure arises in relation to interest-bearing assets and

liabilities. Novo Holdings' policy is to place the majority share of the interest-bearing assets in Danish government bonds and domestic mortgage credit bonds, and a minority in different high yield bonds. The interest rate risk is not hedged through derivatives, but the duration of the portfolio is adjusted to a desired exposure.

An increase of one percentage point in the interest rate would, other things being equal, result in a decrease in the bonds portfolio of DKK 341 million (2018: DKK 170 million).

The following table details the market value of the bond investments. The future payments from the floating rate interest bearing assets will fluctuate with the short-term market interest rates. However, the fair value will not fluctuate significantly with changes in market interest rates.

DKK million	2019	2018
Floating	3,597	3,599
Fixed	7,874	5,731
Mix	2,729	967
Total	14,200	10,297

Price risk

Price risk is the risk that the value of the investment portfolio will fluctuate due to changes in the market price, caused by factors specific to the individual investment or factors affecting all similar investments traded in the market. Novo Holdings invests both directly and through mutual funds and private equity funds. The price risk is not hedged through derivatives. The invested capital is allocated to reflect several defined risk measures and tolerance levels, which includes a maximum potential loss on the

investment portfolio, excluding Novo Nordisk, Novozymes and NNIT, in exceptionally negative market conditions. This financial risk measures are monitored by Novo Holdings and reported every quarter to the Novo Nordisk Foundation.

The price risk exposure of the investment portfolio is detailed in the following table.

	31 December 2019				31 December 2018			
DKK million	Financial Investments	Life Science	Total	%	Financial Investments	Life Science	Total	%
Public Equity	35,549	30,787	66,336	53%	27,218	31,192	58,410	56%
Private Equity	73	22,677	22,750	18%	235	18,425	18,660	18%
Venture Capital	0	10,143	10,143	8%	0	7,256	7,256	7%
Credit	6,095	1,507	7,602	6%	4,199	1,463	5,662	5%
EM debt	1,533	0	1,533	1%	1,417	0	1,417	1%
Real estate & real assets	3,804	0	3,804	3%	2,689	0	2,689	3%
Bonds	14,200	0	14,200	11%	10,297	0	10,297	10%
Total	61,254	65,114	126,368	100%	46,055	58,336	104,391	100%

Both the public and private investments are exposed to price risk. A 10 percentage decrease in the average price would, other things being equal, result in a decrease in the portfolio value DKK 12,637 million (2018: DKK 10,439 million). An increase in the average price of 10% would have an equal but opposite impact.

Liquidity risk

Liquidity risk is the risk of not being able to raise enough cash to meet the financial obligations when they fall due. This is a risk given the Novo Nordisk Foundation's substantial commitments to charity, investment activities and commitment to provide a stable basis for the commercial and research activities of the companies in the Novo Group.

The liquidity risk is monitored regularly by Novo Holdings and reported every quarter to the Novo Nordisk Foundation. The invested capital is allocated to ensure that the Novo Nordisk Foundation at any time can liquidate assets, without incurring losses from forced disposals, for a value corresponding to i) actual committed as well as expected 5-year grant payout obligations plus ii) an additional buffer.

NOTE 13 - FAIR VALUE ESTIMATION POLICIES

Fair value is the price that would be received by selling an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

Novo Holdings has implemented fair value guidelines and procedures, which ensure a consistent fair value measurement of each investment over time. Moreover, the fair value guidelines provide a framework for reasonable, consistent and transparent selection of valuation methodologies for valuing our investments. The selection criteria are in line with the value hierarchy in IFRS 13.

Hierarchy of fair value inputs

Investments measured at fair value are classified according to a fair value hierarchy depending on the inputs used in the valuation method. The fair value hierarchy distinguishes between observable and unobservable inputs, which are categorised within one of the following levels:

Level 1 – Unadjusted quoted market prices for identical assets in an active market.

Level 2 – Inputs, other than quoted market prices included within Level 1, which are observable either directly (i.e. as prices) or indirectly (i.e. derived from prices). Quoted prices for similar assets is a level 2 input.

Level 3 – Inputs for the asset that are not based on observable market data.

Securities traded on active markets are generally classified in level 1. Securities traded on inactive markets are generally categorised in level 2. Securities in private unlisted operating companies are generally categorised in level 3.

Investments in private investment companies are classified in level 2 or level 3 depending on the nature of their investment portfolios, their ability to liquidate their underlying investments, and any other restrictions on the disposition of the investments. If the investment can be redeemed at the reported net asset value on the measurement date or in the near future, the investment is categorised in level 2. Otherwise, the investment is categorised in level 3.

Policy for determining when transfers between levels are deemed to have occurred

Transfers into level 3 occurs when quoted market prices (level 1) or other observable inputs (level 2) are no longer available. Transfers out of level 3 occurs if quoted market prices (level 1) or other observable inputs (level 2) becomes available (e.g. when a private company goes public through an IPO, equity investments in the company transfers from level 3 to level 1 as the shares can be valued using the quoted market price (level 1).

Valuation methods and input

The general principle applied in selection of valuation approach maximizes the use of observable inputs and minimizes the use of unobservable inputs.

If a security trades in an active market the closing price is applied. An active market is defined as one in which transactions for the security occur with sufficient frequency and volume to provide pricing information on an ongoing basis.

Should a security not trade in an active market it is initially booked and held at cost in the first twelve months succeeding the investment, unless any material events occur within this timeframe. Beyond the twelve months window, the valuation methodology follows the following hierarchy below:

When independent broker quotes representing contemporaneous trades exist, these will be applied in estimating the fair value of the security;

If a portfolio company has carried out any financing rounds within the last twelve months and the pricing in the financing round is likely to represent a fair value, the fair value estimate is based on the price obtained in the financing round;

If neither independent broker quotes nor pricing from financing rounds are available, the fair value will be based on application of a modelling approach, which again follows a strict hierarchy:

1. If the company runs an established business with an identifiable stream of continuing earnings or cash flows that are considered

- to be maintainable, and it is possible to identify comparable companies in terms of risk attributes and earnings growth prospects, the fair value shall be based on application of the market approach (i.e. relevant multiples based on a set of comparable companies);
2. If no comparable companies in terms of risk attributes and earnings growth prospects can be identified, the fair value shall be based on application of an income approach (i.e. a discounted cash flow model);

3. If the company does not run an established business with an identifiable stream of continuing earnings or cash flows that are considered to be maintainable, the fair value shall be based on a value trigger approach, by which the fair value changes based on the occurrence of value triggering events.

Fair value measurement by hierarchy

The following table presents the investments as of 31 December 2019 by hierarchy of fair value input:

DKK million	Level 1	Level 2	Level 3	Total
Public Equity	61,295	5,041	0	66,336
Private Equity	0	0	22,750	22,750
Venture Capital	2,906	0	7,237	10,143
Credit	1,229	4,388	1,985	7,602
EM debt	1,284	249	0	1,533
Real estate & real assets	0	0	3,804	3,804
Bonds	11,846	2,354	0	14,200
Total investments at fair value	78,560	12,032	35,776	126,368
Life Science Investments	33,692	0	31,422	65,114
Financial Investments	44,868	12,032	4,354	61,254
Total investments at fair value	78,560	12,032	35,776	126,368

Investments as of 31 December 2018 by hierarchy of fair value input:

DKK million	Level 1	Level 2	Level 3	Total
Public Equity	55,836	2,573	0	58,409
Private Equity	0	0	18,662	18,662
Venture Capital	2,163	0	5,093	7,256
Credit	783	2,988	1,891	5,662
EM debt	1,255	161	0	1,416
Real estate & real assets	0	0	2,689	2,689
Bonds	8,182	2,115	0	10,297
Total investments at fair value	68,219	7,837	28,335	104,391
Life Science Investments	33,355	0	24,981	58,336
Financial Investments	34,864	7,837	3,354	46,055
Total investments at fair value	68,219	7,837	28,335	104,391

For the investments in unquoted equities, estimations of fair value rely substantially on non-observable input (level 3) such as pro-forma adjusted operating income multiplied by relevant multiples (e.g. EV/EBITDA) for a set of comparable companies less net interest-bearing debt.

If comparable companies are not available or applicable, fair value estimation will rely on other inputs such as projected cash flows discounted with a weighted average cost of capital (WACC). The following table details the estimations of fair value using non-observable input (level 3) by valuation technique:

DKK million	2019	2018
Income approach	13,680	10,747
Market approach	9,560	7,663
Other approaches	12,536	9,925
Total	35,776	28,335

The fair value for each investment can vary significantly if one or more of these inputs were changed. The following table shows the range of inputs used in the valuation of unquoted equities.

Input	Range	Sensitivity
Multiples for comparable companies	10.8x-20.3x	If multiples decreased by 1x, total investments at fair value would decrease by DKK 1,041 million
Pro-forma adjusted operating income	Individual	N/A
Weighted average cost of capital	4%-12%	If WACC increased by 1%-point, total investments at fair value would decrease by DKK 4,531 million
Projected cash flows	Individual	N/A
Net interest-bearing debt	Individual	N/A

NOTE 14 - OTHER PROVISIONS

DKK million	2019	2018
Provision for incentive fees at the beginning of the year	154	321
Paid during the year	-13	-231
Appreciation during the year, net	-39	64
Provision for incentive fees at the end of the year	102	154

In 2017, a Long Term Incentive Programme (the LTIP) was introduced to cover all employees in Novo Holdings, which, subject to meeting certain targets in 2017, 2018 and 2019, might be paid out in 2020. In 2018 and 2019 two additional Long Term Incentive Programmes were introduced, which subject to meeting certain targets in 2018, 2019, 2020 and 2021, might be paid out in 2021 and 2022 respectively.

Based on the investment returns for 2019 we have made provision for these incentive schemes.

Further to this, provisions have been made to cover an older incentive scheme covering certain employees and middle managers within Life Science Investment activities. This old incentive scheme will be phased out in 2019 and last payment will be made in March 2020.

To cover potential future pay-outs related to these Long Term Incentive Programmes Novo Holdings has provisions of DKK 102 million in 2019 (DKK 154 million in 2018).

NOTE 15 - CONTINGENT LIABILITIES

Contractual obligations

At year-end Novo Holdings was contractually obligated to make callable follow-on investments or capital contributions of the total outstanding amount:

Contractual obligations related to Life Science Investments	3,699	3,602
Contractual obligations related to Financial Investments	2,427	634
Total contingent liabilities	6,126	4,236

NOTE 16 - SUBSEQUENT EVENTS

In 2019 Novo Holdings announced the divestiture of ownership in Veloxis Pharmaceuticals and a partial sell-down of the ownership in eResearchTechnology, Inc. (ERT) which closed on 23 January 2020 and 4 February 2020 respectively.

NOTE 17 - RELATED PARTY TRANSACTIONS AND OWNERSHIP

Related party transactions

The Novo Nordisk Foundation, Novo Ventures 1 A/S, Novo Ventures (US) Inc., Novo Holdings Principal Investments (US), Inc., the Sonion Group, the Xellia Group, the Novo Nordisk Group, the Novozymes Group, the NNIT Group, associated companies and the board of directors and the

executive managements of Novo Nordisk Foundation and Novo Holdings are considered to be related parties. All agreements have been negotiated on market-based terms, and the majority of the agreements are valid for one year.

DKK million	2019	2018
Novo Nordisk Foundation		
Sale of services	66	62
Purchase of services	11	4
Novo Nordisk Foundation's share of joint investment portfolio	16,652	12,222
Novo Nordisk Foundation's share of result from joint investment portfolio	2,472	-608
Dividend payment to Novo Nordisk Foundation	5,800	1,600
Novo Nordisk A/S		
Participation in share buy-back programme (sale of shares)	4,894	4,206
Purchase of shares in NNIT A/S	0	368
Purchase of services	3	2
Novozymes A/S		
Participation in share buy-back programme (sale of shares)	475	623
NNIT A/S		
Purchase of services	24	19
Novo Ventures 1 A/S		
Loan	896	758
Novo Ventures (US), Inc.		
Purchase of services	136	60
Novo Holdings Principal Investments (US), Inc.		
Purchase of services	8	0
Other subsidiaries and associates		
Loans to other subsidiaries	1,369	1,211
Loans to associates	299	207
Contingent liabilities regarding commitments to associates	586	586

Other than the above-mentioned intercompany transactions and normal remuneration to management disclosed in Note 5 "Employee costs", no transactions have been concluded with the board of directors, executive management or other related parties.

Ownership

"Pursuant to section 112(1) of the Danish Financial Statements Act, no consolidated financial statements have been prepared. Novo Holdings is a wholly-owned subsidiary of the Novo Nordisk Foundation and is

consolidated into the group financial statements of the Novo Nordisk Foundation.

The consolidated financial statements of the Novo Nordisk Foundation can be ordered at:

Novo Nordisk Foundation
Tuborg Havnevej 19
DK-2900 Hellerup

NOTE 18 - SUBSIDIARIES AND ASSOCIATES

Listed by investment category and secondarily degree of control.

Novo Group

Subsidiaries	Ownership/voting rights*
Novo Nordisk A/S, Denmark	28.1%/76.1%
Novozymes A/S, Denmark	25.5%/72.0%

Life Science Investments

Subsidiaries			
BiOrigin ApS, Denmark	100%	Novo Invest 1 A/S, Denmark	100%
ENV HoldCo A/S	100%	Novo Ventures (US), Inc., USA***	100%
ERT HoldCo A/S, Denmark	100%	Novo Ventures 1 A/S, Denmark	100%
Novo DP2 Inc., USA	100%	Sonion HoldCo A/S, Denmark	100%
Novo Holdings Principal Investments (US) Inc, USA***	100%	Xellia HoldCo A/S, Denmark	100%
Novo Accelerator, Inc., USA	100%		

Associates

Acesion Pharma ApS, Denmark	41%	Inthera Bioscience Ltd., Switzerland	28%
Allievex Corporation, USA	45%	IO Biotech ApS, Denmark	34%
AMRA Medical, Sweden	21%	Karus Therapeutics Ltd., United Kingdom	21%
Antag Therapeutics ApS, Denmark	47%	MinervaX ApS, Denmark	49%
Aristea Therapeutics, Inc., USA	75%	NMD Pharma ApS, Denmark	27%
Avalyn Pharma, Inc., USA	23%	Nuvelution Pharma, Inc., USA	50%
Avilex Pharma ApS, Denmark	50%	Orexo AB, Sweden	27%
BioPhero ApS, Denmark	21%	Outpost Medicine, LLC, USA	26%
Biosyntia ApS, Denmark	47%	Reaplix ApS, Denmark	20%
Bolt Biotherapeutics, Inc., USA	21%	Rgenix Inc., USA	23%
Chr. Hansen Holding A/S, Denmark	22%	Spruce Biosciences, Inc., USA	55%
Convatec Group Plc, United Kingdom	21%	Stargazer Pharmaceuticals, Inc., USA	72%
Draupnir Bio ApS, Denmark	27%	Stipe Therapeutics ApS, Denmark	22%
ENVT Topco Ltd., United Kingdom	25%	Symphogen A/S, Denmark	47%
Epsilon-3 Bio Ltd., United Kingdom	26%	Synlab Limited, United Kingdom	23%
eResearchTechnology, Inc., USA	30%	Tarveda Therapeutics, Inc., USA	24%
F2G Limited, United Kingdom	38%	Unchained Labs, Inc., USA	33%
Glycomine, Inc., USA	40%	Vantia Ltd., United Kingdom	79%
Heparegenix GmbH, Germany	23%	Veloxis Pharmaceuticals A/S, Denmark	41%
Hoba Therapeutics ApS, Denmark	49%		

Financial Investments

Subsidiaries	
NNIT A/S**, Denmark	33.5%
Associates	
Dades A/S, Denmark	44%

* Voting rights is only disclosed if different from ownership. Voting right is calculated nominally, i.e. excluding treasury shares.

** NNIT A/S is listed as a subsidiary given that Novo Holdings A/S and the subsidiary Novo Nordisk A/S together own 51% of the shares and votes in the company.

*** The company is a separate legal entity that provides certain consultancy services to Novo Holdings, mainly within the areas of identifying, analysing, and negotiating investment opportunities among life science and biotech companies in the US. They also conduct related follow-up activities, such as board memberships and control and reporting efforts.

For a complete overview of the subsidiaries in Novo Holdings A/S group please refer to the consolidated financial statements of the Novo Nordisk Foundation.

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novo
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Investors in life science