

NOVO NORDISK A S  
Form 20-F  
February 14, 2011

[Back to Contents](#)

**UNITED STATES SECURITIES AND EXCHANGE COMMISSION**  
Washington, D.C. 20549

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**FORM 20 - F**

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(Mark One)

REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR (g) OF THE SECURITIES EXCHANGE ACT OF 1934

OR

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

**For the fiscal year ended December 31, 2010**

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

OR

SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(D) OF THE SECURITIES EXCHANGE ACT OF 1934

Commission File Number: 333-82318

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**NOVO NORDISK A/S**

(Exact name of Registrant as specified in its charter)

**Not applicable**

(Translation of Registrant's name into English)

**The Kingdom of Denmark**

(Jurisdiction of incorporation or organization)

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**Novo Allé**

**DK-2880 Bagsværd**

**Denmark**

(Address of principal executive offices)

Securities registered or to be registered pursuant to Section 12(b) of the Act:

**Title of each class:**

B shares, nominal value DKK 1 each

American Depositary Receipts, each representing one B share

**Name of each exchange on which registered:**

New York Stock Exchange\*

New York Stock Exchange

\* Not for trading, but only in connection with the registration of American Depositary Receipts, pursuant to the requirements of the Securities and Exchange Commission.

Securities registered or to be registered pursuant to Section 12(g) of the Act: None

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act: None

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the Annual Report:

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A shares, nominal value DKK 1 each: 107,487,200

B shares, nominal value DKK 1 each: 492,512,800

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Yes

No

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports to Section 13 or 15(d) of the Securities Exchange Act of 1934

Yes

No

Indicate by check mark whether the Registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days,

Yes

No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer. See definition of accelerated filer and large accelerated filer in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer

Accelerated filer

Non-accelerated filer

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

U.S. GAAP

International Financial  
Reporting Standards as  
issued  
by the International  
Accounting Standards Board

Other

If Other has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow:

Item 17

Item 18

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes

No

[Back to Contents](#)

## CONTENTS

	Page
<u>INTRODUCTION</u>	<u>3</u>
<u>ITEM 1</u> <u>IDENTITY OF DIRECTORS, SENIOR MANAGEMENT AND ADVISORS</u>	<u>4</u>
<u>ITEM 2</u> <u>OFFER STATISTICS AND EXPECTED TIMETABLE</u>	<u>4</u>
<u>ITEM 3</u> <u>KEY INFORMATION</u>	<u>4</u>
<u>ITEM 4</u> <u>INFORMATION ON THE COMPANY</u>	<u>5</u>
<u>ITEM 5</u> <u>OPERATING AND FINANCIAL REVIEW AND PROSPECTS</u>	<u>11</u>
<u>ITEM 6</u> <u>DIRECTORS, EXECUTIVE MANAGEMENT AND EMPLOYEES</u>	<u>16</u>
<u>ITEM 7</u> <u>MAJOR SHAREHOLDERS AND RELATED PARTY TRANSACTIONS</u>	<u>17</u>
<u>ITEM 8</u> <u>FINANCIAL INFORMATION</u>	<u>20</u>
<u>ITEM 9</u> <u>THE OFFER AND LISTING</u>	<u>20</u>
<u>ITEM 10</u> <u>ADDITIONAL INFORMATION</u>	<u>22</u>
<u>ITEM 11</u> <u>QUALITATIVE AND QUANTITATIVE DISCLOSURES ABOUT MARKET RISKS</u>	<u>27</u>
<u>ITEM 12</u> <u>DESCRIPTION OF SECURITIES OTHER THAN EQUITY SECURITIES</u>	<u>28</u>
<u>ITEM 12A</u> <u>DEBT SECURITIES</u>	<u>28</u>
<u>ITEM 12B</u> <u>WARRANTS AND RIGHTS</u>	<u>28</u>
<u>ITEM 12C</u> <u>OTHER SECURITIES</u>	<u>28</u>
<u>ITEM 12D</u> <u>AMERICAN DEPOSITARY SHARES</u>	<u>28</u>
<u>ITEM 13</u> <u>DEFAULTS, DIVIDEND ARREARAGES AND DELINQUENCIES</u>	<u>30</u>
<u>ITEM 14</u> <u>MATERIAL MODIFICATIONS TO THE RIGHTS OF SECURITY HOLDERS AND USE OF PROCEEDS</u>	<u>30</u>
<u>ITEM 15</u> <u>CONTROLS AND PROCEDURES</u>	<u>30</u>
<u>ITEM 16A</u> <u>AUDIT COMMITTEE FINANCIAL EXPERTS</u>	<u>31</u>
<u>ITEM 16B</u> <u>CODE OF ETHICS</u>	<u>31</u>
<u>ITEM 16C</u> <u>PRINCIPAL ACCOUNTANT FEES AND SERVICES</u>	<u>31</u>
<u>ITEM 16D</u> <u>EXEMPTIONS FROM THE LISTING STANDARDS FOR AUDIT COMMITTEES</u>	<u>32</u>
<u>ITEM 16E</u> <u>PURCHASES OF EQUITY SECURITIES BY THE ISSUER AND AFFILIATED PURCHASERS</u>	<u>32</u>
<u>ITEM 16F</u> <u>CHANGE IN REGISTRANT'S CERTIFYING ACCOUNTANT</u>	<u>33</u>
<u>ITEM 16G</u> <u>CORPORATE GOVERNANCE</u>	<u>33</u>
<u>ITEM 17</u> <u>FINANCIAL STATEMENTS</u>	<u>38</u>
<u>ITEM 18</u> <u>FINANCIAL STATEMENTS</u>	<u>40</u>
<u>ITEM 19</u> <u>EXHIBITS</u>	<u>41</u>
<u>SIGNATURES</u>	<u>44</u>

[Back to Contents](#)

## INTRODUCTION

In this Form 20-F, the terms *the Company*, *Novo Nordisk* and *the Group* refer to the parent company Novo Nordisk A/S together with its consolidated subsidiaries. The term *Novo Nordisk A/S* is used when addressing issues specifically related to this legal entity.

Throughout this Form 20-F the Company incorporates information on the various items by reference to its *Annual Report 2010* and *Annual Report 2009*. Therefore the information in this Form 20-F should be read in conjunction with our *Annual Report 2010* and *Annual Report 2009*, which were furnished to the SEC on Form 6-K on February 14, 2011 and on February 11, 2010, respectively.

The Company publishes its financial statements in Danish kroner (DKK).

### **Forward-looking statements**

The information set forth in this Form 20-F contains forward-looking statements as the term is defined in the U.S. Private Securities Litigation Reform Act of 1995.

Words such as *believe*, *expect*, *may*, *will*, *plan*, *strategy*, *prospect*, *foresee*, *estimate*, *project*, *anticipate*, *can*, *intend*, terms of similar meaning in connection with any discussion of future operating or financial performance identify forward-looking statements. Examples of such forward-looking statements include, but are not limited to:

statements of plans, objectives or goals for future operations, including those related to Novo Nordisk's products, product research, product development, product introductions and product approvals as well as cooperations in relation thereto,

statements containing projections of or targets for revenues, income (or loss), earnings per share, capital expenditures, dividends, capital structure or other net financials,

statements regarding future economic performance, future actions and outcomes of contingencies such as legal proceedings, and

statements of the assumptions underlying or relating to such statements.

With reference to our *Annual Report 2010* and the *Annual Report 2009*, examples of forward-looking statements can be found under the headings, *Performance in 2010*, *Outlook 2011*, *Managing performance using long-term targets* and elsewhere.

These statements are based on current plans, estimates and projections. By their very nature, forward-looking statements involve inherent risks and uncertainties, both general and specific. Novo Nordisk cautions that a number of important factors, including those described in this document, could cause actual results to differ materially from those contemplated in any forward-looking statements.

Factors that may affect future results include, but are not limited to, global as well as local political and economic conditions, including interest rate and currency exchange rate fluctuations, delay or failure of projects related to research and/or development, unplanned loss of patents, interruptions of supplies and production, product recall, unexpected contract breaches or terminations, government-mandated or market-driven price decreases for Novo Nordisk's products, introduction of competing products, reliance on information technology, Novo Nordisk's ability to successfully market current and new products, exposure to product liability and legal proceedings and investigations, changes in governmental laws and interpretation thereof, including on reimbursement, intellectual property protection and regulatory controls on testing, approval, manufacturing and marketing, perceived or actual failure to adhere to ethical marketing practices, investments in and divestitures of domestic and foreign companies, unexpected growth in costs and expenses, failure to recruit and retain the right employees and failure to maintain a culture of compliance.

Unless required by law, Novo Nordisk is under no duty and undertakes no obligation to update or revise any forward-looking statement after the date of this document, whether as a result of new information, future events or otherwise.

[Back to Contents](#)**Enforceability of civil liabilities**

The Company is a Danish corporation and substantially all of its directors and officers, as well as certain experts named herein, are non-residents of the United States. A substantial portion of the assets of the Company, its subsidiaries and such persons are located outside the United States. As a result, it may be difficult for shareholders of the Company to effect service within the United States upon directors, officers and experts who are not residents of the United States or to enforce judgments in the United States. In addition, there can be no assurance as to the enforceability in Denmark against the Company or its respective directors, officers and experts who are not residents of the United States, or in actions for enforcement of judgments of United States courts, of liabilities predicated solely upon the federal securities laws of the United States.

**PART I****ITEM 1 IDENTITY OF DIRECTORS, SENIOR MANAGEMENT AND ADVISORS**

Not applicable.

**ITEM 2 OFFER STATISTICS AND EXPECTED TIMETABLE**

Not applicable.

**ITEM 3 KEY INFORMATION****SELECTED FINANCIAL DATA**

IFRS figures in DKK millions, except share and ADR data	2006	2007	2008	2009	2010
Net sales	38,743	41,831	45,553	51,078	60,776
Operating profit from continuing operations	9,119	8,942	12,373	14,933	18,891
Operating profit	9,119	8,942	12,373	14,933	18,891
Net profit from continuing operations	6,452	8,522	9,645	10,768	14,403
Net profit	6,452	8,522	9,645	10,768	14,403
Earnings per share/ADR from continuing operations	10.05	13.49	15.66	17.97	24.81
Total assets	44,692	47,731	50,603	54,742	61,402
Net assets	30,122	32,182	32,979	35,734	36,965
Capital stock	674	647	634	620	600
Treasury stock	(39)	(26)	(26)	(32)	(28)
Dividends per share/ADR	3.50	4.50	6.00	7.50	10.00*
Dividends per share/ADR in USD	0.62	0.89	1.14	1.45	1.78*
Diluted earnings per share/ADR	10.00	13.39	15.54	17.82	24.60
Number of shares (million)	674	647	634	620	600

\*) Proposed dividend per share. For USD translation the exchange rate at December 31, 2010 from Danmarks Nationalbank (The Central Bank of Denmark) is used (USD 1 = DKK 5.6133)

Reference is made to Consolidated financial and non-financial statements 2010, pages 58-101 in our *Annual Report 2010* for further data.

[Back to Contents](#)**Exchange rates**

The following tables set forth, for the calendar periods indicated, certain information concerning Danmarks Nationalbank's daily official exchange rates for U.S. dollars in terms of Danish kroner expressed in DKK per USD 1.00. These rates closely approximate the noon buying rate for Danish kroner for cable transfers in New York City as announced by the Federal Reserve Bank of New York for customs purposes on the relevant dates.

Month	High	Low
July 2010	6.0421	5.7006
August 2010	5.9065	5.6220
September 2010	5.8641	5.4601
October 2010	5.4390	5.2883
November 2010	5.7339	5.2336
December 2010	5.7050	5.5479
January 2011	5.7734	5.4344
February 2011 (through February 7)	5.5003	5.4009

Year	Average rate	Period end rate	High	Low
2006	5.9118	5.6614	6.3082	5.5929
2007	5.4103	5.0753	5.7806	5.0132
2008	5.0848	5.2849	5.9811	4.6652
2009	5.3504	5.1901	5.9344	4.9218
2010	5.6538	5.6133	6.2286	5.1092

On February 7, 2011, the latest available date, the Danmarks Nationalbank's daily official exchange rate was 5.5003.

**CAPITALIZATION AND INDEBTEDNESS**

Not applicable.

**REASONS FOR THE OFFER AND USE OF PROCEEDS**

Not applicable.

**RISK FACTORS**

For information on risk factors reference is made to *Annual Report 2010* Risk management on pages 43-45.

**ITEM 4 INFORMATION ON THE COMPANY****HISTORY AND DEVELOPMENT OF THE COMPANY**

Novo Nordisk was formed in 1989 by a merger of two Danish companies, Nordisk Gentofte A/S and Novo Industri A/S. Novo Industri A/S was the continuing company and its name was changed to Novo Nordisk A/S. The business activities of Nordisk Gentofte were established in 1923 by August Krogh, H. C. Hagedorn and A. Kongsted, and the business activities of Novo Industri were established in 1925 by Harald and Thorvald Pedersen. The business of both companies from the beginning was production and sale of insulin for the treatment of diabetes. After spinning off the industrial enzyme division into the separate business, Novozymes A/S, in November 2000, Novo Nordisk today is a focused healthcare company.

[Back to Contents](#)

Legal name: Novo Nordisk A/S

Commercial name:

Novo Nordisk

Domicile:

Novo Allé, DK-2880 Bagsværd, Denmark

Tel:+45 4444 8888

Fax:+45 4449 0555

Website:novonordisk.com

(The contents of this website are not incorporated by reference into this Form 20-F.)

Date of incorporation:

November 28, 1931

Legal form of the Company:

A Danish limited liability company

Legislation under which

the Company operates:

Danish law

Country of incorporation:

Denmark

#### **Important events in 2010**

Reference is made to Our 2010 accomplishments and results , pages 2-15 in our *Annual Report 2010* for a list of important events in 2010.

#### **Capital expenditure in 2010, 2009 and 2008**

The total net capital expenditure for property, plant and equipment was DKK 3.3 billion in 2010 compared with DKK 2.6 billion in 2009 and DKK 1.8 billion in 2008. The higher level of capital expenditure in 2010 compared to the previous two years was primarily related to the ongoing establishment of a new insulin filling facility in Tianjin, China. The investments were financed from cash flow from operating activities. No significant divestitures took place in the period from 2008-2010.

Novo Nordisk expects to invest approximately DKK 3.5 billion in fixed assets in 2011. The expected level of investment in 2011 is primarily related to the continued construction of the insulin filling facility in Tianjin, China, as well as the establishment of production facilities for new delivery devices in Denmark and in Clayton, NC, USA.

#### **Public takeover offers in respect of the Company's shares**

No such offers occurred during 2010 or 2011 to date.

#### **BUSINESS OVERVIEW**

Novo Nordisk is a healthcare company and a world leader in diabetes care. The Company has one of the broadest diabetes product portfolios in the industry, including an advanced portfolio of modern insulins and the first human once-daily GLP-1 analog. In addition, Novo Nordisk has a leading

position in areas such as haemophilia, growth hormone therapy and hormone replacement therapy. Novo Nordisk manufactures and markets pharmaceutical products and services that make a significant difference to patients, the medical profession and society. Headquartered in Denmark, Novo Nordisk employs more than 30,000 employees in 74 countries and markets its products in 180 countries.

#### **Segment information**

Novo Nordisk is engaged in the discovery, development, manufacturing and marketing of pharmaceutical products and has two business segments: diabetes care and biopharmaceuticals. The diabetes care segment covers insulins, GLP-1, other protein-related products and projects (such as glucagon and protein-related delivery systems) and oral antidiabetic drugs. The biopharmaceuticals segment covers the therapy areas of haemophilia, growth hormone therapy, hormone replacement therapy and inflammation.



[Back to Contents](#)

For information on sales by business and geographic segment, reference is made to Note 2 Segment information in our *Annual Report 2010*.

**Seasonality**

Sales of individual products in individual markets may be subject to fluctuations from quarter to quarter. However, the Company's consolidated operating results have not been subject to significant seasonality.

**Raw materials**

The impact on the overall profitability of Novo Nordisk from variations in raw material prices is unlikely to be significant. No raw material supply shortage has had a significant impact on the Company's ability to supply any significant market. The Company's production is largely based on common and readily available raw materials with relatively low price volatility. Certain specific raw materials are, however, less available. For these raw materials, it is the policy of Novo Nordisk to develop close and long-term relationships with key suppliers as well as to secure at least dual sourcing whenever possible and when relevant operate with a predefined minimum safety level of raw material inventories.

**Market and competition**

Novo Nordisk's insulin and other pharmaceutical products are marketed and distributed through subsidiaries, distributors and independent agents with responsibility for specific geographical areas. The most important markets are North America, Japan, China and the major European countries. In addition, the contribution from key markets in the sales region International Operations such as Turkey, Russia, Argentina, Algeria and India to Novo Nordisk's overall sales is increasing.

Market conditions within the pharmaceutical industry continue to change, including efforts by both private and governmental entities to reduce or control costs generally and in specific therapeutic areas.

Historically, the market for insulin has been more sensitive to quality of products and services than to price. Most of the countries in which Novo Nordisk sells insulin subsidize or control pricing. In most markets insulin is a prescription drug.

The Company enters into numerous contracts with customers, suppliers, agents and industry partners. Some of the most important contracts include: in- and out-licensing of patent rights, products and development projects, co-promotion and co-development agreements, large tender orders and long-term sub-supplier agreements.

Several of the major international pharmaceutical companies have entered the diabetes market, specifically in the area of oral products for treatment of type 2 diabetes. In the insulin market, Novo Nordisk, Eli Lilly and Sanofi-Aventis are the most significant global companies.

Following regulatory approval for the once-daily GLP-1 analog, Victoza® it was launched in Europe in 2009, in the U.S. in February 2010 and in Japan in June 2010.

**Patents**

To maintain and expand competitiveness, Novo Nordisk strives for the strongest possible protection for those inventions that are created during the development of new products.

Novo Nordisk anticipates that the expiration of certain patents could impact sales within the next five years. However, with the continuing transition from human to modern insulins, an increasing proportion of Novo Nordisk's diabetes care sales in major markets are protected by patents.

In the following section, the patent protection of our key products within each business segments is considered. Furthermore, for products with recent patent expiration or with patent expiration during 2011, geographical sales splits are provided and factors that may influence the potential impact of competitive product launches are discussed. Note that in addition to the compound patents mentioned,

[Back to Contents](#)

Novo Nordisk has, like other companies engaged in production based upon rDNA technology, obtained licenses under various patents which entitle Novo Nordisk to use processes and methods of manufacturing covered by such patents.

*Key diabetes care products*

In the U.S., the key patents covering the three modern insulins, NovoLog®, NovoLog Mix® and Levemir® expire in 2014, 2014 and 2019, respectively. In Europe, key patents for NovoRapid®, NovoMix® and Levemir® expire in August 2011, 2014 and 2018, respectively. In Japan, the patent for NovoRapid® expired in December 2010, and the compound patents covering NovoMix® and Levemir® will expire in 2014 and 2019, respectively. In China, NovoLog® and NovoLog Mix® are no longer protected by compound patents; however Levemir® is protected until 2014. In addition to compound patent protection, NovoLog®/NovoRapid® is covered by a formulation patent in all of the above markets until 2017, and in the U.S. NovoLog Mix® is covered by a formulation patent until 2017.

The total sales of NovoLog®/NovoRapid® in 2010 were DKK 11,900 million with a geographical split as follows:

North America: 55%

Europe: 27%

Japan & Korea: 8%

International Operations: 10%

Today, biosimilar versions of insulin analogs can be approved in the U.S. via the 505(b)(2) pathway, and in the future the 351(k) pathway in the Public Health Service Act is also anticipated to be applicable. In the EU, a biosimilar pathway and guidelines are available for insulins, and the guideline for biosimilar products issued in Japan is also relevant for insulins. However, we believe that the formulation patent for NovoLog®/NovoRapid® makes it very challenging to develop a biosimilar version of this compound without infringing Novo Nordisk's intellectual property. Therefore, we do not anticipate that the eventual expiry of our original key NovoLog®/NovoRapid® patents will have a significant near term impact on sales, results of operations and liquidity.

The GLP-1 analog Victoza® is covered by a drug substance patent until 2022 in each of the U.S., the EU and Japan and until 2017 in China.

In addition to the insulin and Victoza® compound drug substance patents mentioned above, Novo Nordisk's delivery devices are protected by several patents.

Sales of NovoNorm®/Prandin®, an oral antidiabetic drug, may increasingly become exposed to generic competition as the original drug substance patent has expired.

In 2010, the total sales of NovoNorm®/Prandin® were DKK 2,716 million with a geographical split as follows:

North America: 39%

Europe: 29%

Japan & Korea: 1%

International Operations: 31%

In Europe, generic versions copies of NovoNorm® were first introduced in Germany in January 2010 and introductions of generic copies have subsequently been observed, e.g. in France, Italy, Spain and Belgium. Further generic competition is expected in additional European countries in 2011. We expect that generic competition will significantly reduce European sales of NovoNorm®, and we expect that on a country by country basis, most of such reduction will occur in the first 12 months following the introduction of generic competition.

In the U.S., Novo Nordisk holds a patent with claims directed toward the treatment of type 2 diabetes using a combination of repaglinide (Prandin®) and metformin. We believe generic versions of

[Back to Contents](#)

Prandin® are likely to infringe this patent. The patent expires in 2018 and is currently being challenged through legal proceedings. An adverse decision from the District Court of the Eastern District of Michigan was received January 19, 2011 regarding the Caraco patent infringement lawsuit. Novo Nordisk has appealed the District Court's ruling. If generic repaglinide competition to Prandin® were introduced in the U.S., we would expect a significant decline in sales of Prandin® within the first 12 months, in line with past experience from other branded tablet-based therapies.

The majority of NovoNorm® sales in International Operations are realized in China, where NovoNorm® has been exposed to generic competition for several years without significantly impacting our sales. Therefore, we do not expect a significant decline in NovoNorm® sales in International Operations in the short term due to generic competition.

*Key biopharmaceuticals products*

NovoSeven® sales are no longer protected by patents in Japan and in the U.S., where the patent expired in 2009 and November 2010, respectively. The European patent expires on a country-by-country basis from December 2010 to April 2011.

In 2010, sales of NovoSeven® were DKK 8,030 million with a geographical split as follows:

North America: 50%

Europe: 27%

Japan & Korea: 6%

International Operations: 17%

We believe that the expiry of the compound patent will have an insignificant impact on sales of NovoSeven® for the following reasons:

The active ingredient in NovoSeven® is a complex molecule, recombinant factor VIIa ( rFVIIa ). As a coagulation factor, the molecule is a complex protein as determined by its molecular weight and posttranslational modifications including glycosylated forms. We believe these characteristics make it difficult to develop a version that could be shown to be analytically highly similar and have similar safety and efficacy as established for NovoSeven®.

The Health Care Reform recently passed in the U.S. includes the establishment of a regulatory pathway for approving biosimilar versions of originator proteins. Therefore, in the future, a biosimilar version of rFVIIa could be submitted to the FDA as a Biologics License Application ( BLA ) under 351(k) of the U.S. Public Health Service Act and be approved if it fulfills the requirements, ie. that the product is biosimilar to its reference product and that no clinically meaningful differences between the products in terms of safety, purity and potency are seen.

In Europe, guidelines for the development of biosimilar products have been available since late 2005; however, to date these guidelines do not apply to coagulation factors because of their complexity.

The guideline for biosimilar products in Japan includes requirements similar to those established in the EU.

In Russia, a rFVIIa product has been approved and launched, for which to date only a limited clinical program has been completed. There is no information available to assess if this study could contribute towards fulfilling U.S. FDA requirements.

To date, we have not seen approvals of rFVIIa products in other parts of the world. As such, we believe that expiry of our compound patent for NovoSeven® will have an insignificant impact on sales, results of operations and liquidity in all geographical segments.

[Back to Contents](#)

Today, Norditropin is not covered by a drug compound patent. However, the used formulation is covered by a formulation patent that expires in 2017 in the U.S., the EU and in Japan. Furthermore, the pen devices that patients are using to inject growth hormone, are covered by separate patents. Today, all Novo Nordisk growth hormone products are supplied in pen devices.

#### **Impact of regulation**

As a pharmaceutical company, Novo Nordisk depends on government approvals related to production, development, marketing and reimbursement of its products. Important regulatory bodies include the United States Food and Drug Administration, the European Medicines Agency, the Japanese Ministry of Health, Labour and Welfare and the Chinese regulatory authorities, SFDA. Treatment guidelines from non-governmental organizations like the European Association for the Study of Diabetes and the American Diabetes Association may also impact the Company.

#### **ORGANIZATIONAL STRUCTURE**

For information regarding the organizational structure and securities exchange listings of Novo Nordisk A/S, reference is made to the sections Corporate governance on pages 40-42 and Shares and capital structure on pages 54-56 in the *Annual Report 2010*.

Reference is made to the section Corporate governance, remuneration and leadership on pages 40-53 in the *Annual Report 2010* regarding the parent company Novo A/S and the Novo Nordisk Foundation and the ownership structure.

Companies in the Novo Nordisk Group are listed in the Company's *Annual Report 2010* on pages 90-91, Companies in the Novo Nordisk Group.

#### **PROPERTY, PLANT AND EQUIPMENT**

The Company has its headquarters in Bagsværd, Denmark, where it occupies a number of buildings.

The Company believes that its current production facilities, including facilities under construction, are sufficient to meet its capacity requirements, including the capacity for meeting growing demand in the future for the modern insulin products NovoRapid®/NovoLog®, NovoMix®/NovoLog Mix®, Levemir® as well as for Victoza®. In addition, the Company is ensuring production capacity is in place for the next generation of modern insulin and devices. Reference is made to the sections Capital expenditures in 2010, 2009 and 2008 under Item 4 for more information about the current expansion programs. For the nature of the Company's property, plant and equipment, as of December 31, 2010 and 2009, reference is made to Note 12 Property, plant and equipment in our *Annual Report 2010*.

The major production facilities owned by the Company are located at a number of sites in Denmark, and the international production or processing facilities are located in the United States, France, Japan, China and Brazil. There are no material encumbrances on the properties.

Active pharmaceutical ingredient production is located in Denmark, primarily in Kalundborg and with secondary locations in Hillerød, Bagsværd and Gentofte. Below is a tabular presentation of the production sites.

In November 2008, Novo Nordisk celebrated the groundbreaking of a new production facility in Tianjin, China, which is scheduled to open in 2012. Once completed, it is expected to formulate and fill insulin products.

[Back to Contents](#)

<b>Major Production Facilities</b>	<b>Size of production area (square meters)</b>	<b>Major Production Activities</b>
Kalundborg, Denmark	119,400	Active pharmaceutical ingredients for diabetes and products for diabetes. Active pharmaceutical ingredients for haemophilia.
Hillerød, Denmark	88,300	Durable devices and components for disposable devices. Products for diabetes. Active pharmaceutical ingredients for haemophilia.
Gentofte, Denmark	41,100	Active pharmaceutical ingredients for glucagon and growth hormone therapy. Products for growth hormone therapy, glucagon and haemophilia.
Montes Claros, Brazil	47,000	Products for diabetes. Gel production. Products for oral antidiabetes treatment.
Clayton, North Carolina, U.S.	40,300	Products for diabetes.
Chartres, France	33,000	Products for diabetes.
Bagsværd, Denmark	16,900	Products for diabetes. Products for hormone replacement therapy.
Måløv, Denmark	15,300	Products for hormone replacement therapy. Products for oral antidiabetes treatment.
Tianjin, China	12,600	Packaging of diabetes products. Production of durable devices.
Hjørring, Denmark	8,000	Production of needles.
Koriyama, Japan	8,300	Packaging of products for the Japanese market.
Værløse, Denmark	6,100	Products for growth hormone therapy.
Køge, Denmark	2,500	Gels and ALP for active pharmaceutical ingredient production.
Tizi Ouzou, Algeria	1,700	Products for oral anti-diabetes treatment

Major production sites worldwide are certified according to the international standard ISO 14001 ( Environmental Management Standard ). The goal is to pursue control of significant environmental impacts of the Company s operations worldwide. All international production sites have obtained OHSAS 18001 certification. OHSAS is an Occupational Health Safety Assessment Series which is designed to help the Company control its health and safety risks.

The Company s research and development activities are increasingly performed globally. With the major sites located in Denmark, the Company is expanding its global presence with established research sites in Beijing, China and Seattle, USA. Further to this the Company has established clinical development centers in Princeton, USA, in Beijing, China, in Zurich, Switzerland, and in Tokyo, Japan.

#### **UNRESOLVED STAFF COMMENTS**

None.

[Back to Contents](#)

ITEM 5 OPERATING AND FINANCIAL REVIEW AND PROSPECTS

**CRITICAL ACCOUNTING ESTIMATES**

Reference is made to Note 1 Basis of preparation of the consolidated financial statements in our *Annual Report 2010*.

**NEW ACCOUNTING PRONOUNCEMENTS**

Reference is made to Note 1 Basis of preparation of the consolidated financial statements under the caption Summary of principal accounting policies in our *Annual Report 2010*.

**OPERATING RESULTS**

Reference is made to the section Forward-looking statements contained on page 3 and the discussion under the caption Risk factors contained under Item 3. Reference is further made to our *Annual Report 2010* Risk management on pages 43-45.

The financial condition of the Group and its development are described in our *Annual Report 2010* and our *Annual Report 2009*. The information in this section is based on these reports and should be read in conjunction with the annual reports. The analysis and discussions included in the annual reports are primarily based on the consolidated financial statements which are prepared in accordance with International Financial Reporting Standards as issued by the International Accounting Standard Board ( IASB ) and with International Financial Reporting Standards as endorsed by the EU.

**2010 compared with 2009**

The following portions of our *Annual Report 2010* constitute the Board of Directors and Executive Management s discussion and analysis of results of operations (incorporated herein by reference):

Our 2010 accomplishments and results (pages 2-15)

**2009 compared with 2008**

The following portions of our *Annual Report 2009* constitute the Board of Directors and Executive Management s discussion and analysis of results of operations (incorporated herein by reference):

Our 2009 accomplishments and results (pages 2-17)

**Segment information**

The segmented reporting is based on two business segments Diabetes care and Biopharmaceuticals . Reference is made to Note 2 Segment information in our *Annual Report 2010* for details on segmented results.

**Inflation**

Inflation for the three most recent fiscal years has not had a material impact on the Group s net sales and revenues or on net profit.

**Foreign currencies**

The bulk of Novo Nordisk s sales are in foreign currencies, mainly EUR, USD, JPY, CNY and GBP, while most production, research and development costs are carried in DKK. Consequently, Novo Nordisk has significant exposure to foreign exchange risks and engages in significant hedging activities, where the most significant exposure and hedging are related to USD, JPY, CNY and GBP, while the EUR exchange rate risk is regarded as low due to the Danish fixed-rate policy towards EUR. Thus, Novo Nordisk does not hedge the EUR exchange rate risk. For further description of foreign currency exposure, reference is made to the disclosure in Note 27 Financial risk in our *Annual Report 2010* and for further description of foreign currency exposure and hedging activities, reference is made to the description of financial instruments in Note 30 Derivative financial instruments in our *Annual Report 2010*.

[Back to Contents](#)

### Governmental policies

Please refer to pages 16-27 Our business and pages 40-53 Corporate governance, remuneration and leadership in our *Annual Report 2010* and item 4.

### LIQUIDITY AND CAPITAL RESOURCES

Novo Nordisk maintains a centralized approach to the management of the Group's financial risks. The overall objectives and policies for Novo Nordisk's financial risk management are outlined in the Novo Nordisk Treasury Policy, which is approved by the Board of Directors. The Treasury Policy governs the Group's use of financial instruments, for further information, reference is made to Item 11.

### Financial resources

Reference is made to page 60 Statement of Cash flows for the year ended 31 December in our *Annual Report 2010*. In addition Novo Nordisk has obtained a credit rating from two leading international rating agencies.

Novo Nordisk believes its financial resources are sufficient to meet its current requirements.

### Cash flow in 2010, 2009 and 2008

Reference is made to page 60 Statement of Cash flows for the year ended 31 December in our *Annual Report 2010* and to the consolidated cash flow in Item 17.

The most significant source of cash flow from operating activities is sales of our diabetes care and biopharmaceutical products. Generally, other factors that affect operating earnings, such as pricing, volume, costs and exchange rates, also flow through to have an impact on realized cash flow from operating activities.

There are no material restrictions on the ability of subsidiaries to transfer funds to the Company.

### Asset securitization

Novo Nordisk's Japanese subsidiary employs an asset securitization program that is a full non-recourse off-balance sheet arrangement to improve liquidity and to take advantage of market opportunities by receiving funds prior to scheduled payment dates. At December 31 the Group had de-recognized receivables without recourse having due dates after December 31 amounting to:

DKK million	2006	2007	2008	2009	2010
Sold trade receivables	1,515	1,270	1,587	1,611	2,066
Credit guarantee	100	96	81	0	0

Furthermore, in 2010 Novo Nordisk's Italian affiliate sold a significant part of its trade receivables through factoring transactions. The purpose of the full non-recourse off-balance sheet factoring arrangement was to sell overdue trade receivables to a third party at a discount in exchange for immediate cash settlement.

### Debt financing

Debt financing is obtained in DKK and in foreign currencies. Reference is made to Notes 19 Non-current debt and 30 Derivative financial instruments in our *Annual Report 2010* for information on currency structure, interest rate structure and maturity profile.

[Back to Contents](#)

### **Financial instruments**

Novo Nordisk does not enter into speculative positions and only hedges commercial exposure. The financial instruments used in conjunction with the Group's financial risk management include currency forwards, currency options, interest rate swaps and cross currency swaps. Current and non-current debt as well as money-market deposits are also used in the financial risk management. Reference is made to Note 30 Derivative financial instruments in our *Annual Report 2010* for further information on financial instruments including currency and interest rate structure.

### **Commitments for capital expenditure etc.**

Contractual obligations for capital expenditure and other contingent liabilities as of December 31, 2010 and 2009, respectively, are shown in Note 31 Commitments and contingencies in our *Annual Report 2010*. As of December 31, 2010 the Group had overall contractual obligations related to investments in fixed assets of DKK 88 million compared to DKK 260 million on December 31, 2009.

Additionally, as of December 31, 2010, the Group had contractual obligations of DKK 2,510 million relating to research and development projects, compared to DKK 1,989 million as of December 31, 2009. Reference is made to Note 31 Commitments and contingencies in our *Annual Report 2010* for a description of these commitments and other contingencies. The Executive Management of the Group believes that the obligations are covered by the Group's financial resources as well as expected future cash flows to be generated from operating activities.

### **RESEARCH AND DEVELOPMENT, PATENTS AND LICENSES, ETC.**

Novo Nordisk's research activities utilize biotechnological methods based on genetic engineering, advanced protein chemistry and protein engineering. These methods have played a key role in the development of the production technology which is used in the manufacturing of insulin, GLP-1, recombinant factor VIIa, human growth hormone and glucagon.

The focus of Novo Nordisk's research and development is on therapeutic proteins within insulin, GLP-1, blood clotting factors, human growth hormone and inflammation.

Research and development costs were DKK 9.6 billion or 15.8% of sales, DKK 7.9 billion or 15.4% of sales and DKK 7.9 billion or 17.2% of sales in 2010, 2009 and 2008, respectively. Novo Nordisk's research and development organization comprised approximately 5,400 employees as of December 31, 2010.

Information related to selected research and development projects can be found under Pipeline overview on pages 24-25 in the *Annual Report 2010*. Furthermore, on pages 28-35 Diabetes care and pages 36-39 Biopharmaceuticals in the *Annual Report 2010* we describe our clinical development projects grouped by our primary operating segments and development phase.

In determining whether or not any project or group of related projects is significant, we consider the following qualitative and quantitative criteria:

Assessment of the unmet medical need targeted with the specific project;

The inherent project risk including the risk of safety issues, unsatisfactory tolerability profile, limitations on the efficacy of the compound;

Timeline for completing the clinical testing and submitting an application for approval to regulatory authorities;

Regulatory authorities' position towards approval and drug label;

Changes in competitive landscape during the development and approval cycle including competing drugs being developed by others;

Changes in medical practice during the development period;

Position of payers, the medical society and patients towards treatment with drug and price of drug;

Expected uptake in market following launch; and

Expected net present value of the project.





[Back to Contents](#)

In assessing the criteria listed above, and as described in the Risk management section on page 43-45 of the 2010 Annual Report, it is important to note that at any one stage of development, due to the uncertainties inherent to clinical development and the regulatory approval process, there is a significant degree of uncertainty and risk that the project will not be successful. The nature of our development activities is such that a compound must first be proven to work by means of multiple clinical trials, which may require treatment of thousands of patients and could take years to complete. Even if initial results of preclinical studies or clinical trial results are promising, we may obtain different results that fail to show the desired levels of safety and efficacy, or we may not obtain applicable regulatory approval for a variety of other reasons. The compound must be accepted by the FDA, the European Medicines Agency and similar agencies around the world, each of which may have differing requirements. During each stage, there is a substantial risk that we will encounter serious obstacles which will further delay us, or that we will not achieve our goals and, accordingly, may abandon a product in which we have invested substantial resources. Furthermore the commercial potential of a project is dependent on the label granted by the regulatory authority upon approval. The label specifies for which indications a product can be used, major and minor safety concerns associated with drug treatment as well as if the drug can be combined with other types of medication. Thus a label can restrict usage substantially.

Given the uncertainties related to the process of product development, during the periods presented in our 2010 Form 20-F no single project in product development was significant based on the qualitative and quantitative criteria. However, during the periods presented two groups of projects were considered significant; the diabetes care group and biopharmaceuticals group.

The development projects accounting for the highest research and development spend in 2010 related to the phase 3a development program for Degludec<sup>1</sup> (insulin degludec) and DegludecPlus<sup>2</sup> (insulin degludec/insulin aspart).

In our experience, across our portfolio of development programs approximately 75% of research and development expenditure is spent on clinical development activities and approximately 25% is spent on research activities.

Reference is made to the caption Risk factors contained under Item 3.

**TREND INFORMATION**

In the recent years, two key drivers behind the performance of Novo Nordisk have been the changes in demographics globally such as the increasing proportion of elderly people and the growing problem of obesity. Both trends have contributed to the significant increase in the number of people with diabetes worldwide. According to the International Diabetes Federation, the number of people with diabetes is expected to increase to 438 million by 2030 from 285 million in 2010. Diabetes care is Novo Nordisk's largest segment comprising approximately 75% of sales. The epidemic growth in the number of people with diabetes, continuing transition from human insulins to modern insulins, and new delivery devices and market share gains are all driving Novo Nordisk's growth of the diabetes care segment.

The other segment of the Company is biopharmaceuticals, which comprise haemophilia, growth hormone therapy, hormone replacement therapy and inflammation therapy. Within haemophilia, sales of NovoSeven® continued to increase in 2010. The growth hormone therapy franchise benefited from further penetration and increasing market share of the liquid formulation Norditropin®, delivered in ready-to-use prefilled devices.

For further information on trends, reference is made to the section Our 2010 accomplishments and results on pages 2-15 in the *Annual Report 2010*. Information about expectations for the financial year 2011 can be found on page 11 in the subsection Outlook 2011.

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1 Internal designation for insulin degludec.

2 Internal designation for insulin degludec/insulin aspart.

[Back to Contents](#)

**OFF-BALANCE SHEET ARRANGEMENTS**

Reference is made to Note 31 Commitments and contingencies in our *Annual Report 2010*.

**TABULAR DISCLOSURE OF CONTRACTUAL OBLIGATIONS**

Reference is made to Note 31 Commitments and contingencies in our *Annual Report 2010*.

ITEM 6 DIRECTORS, EXECUTIVE MANAGEMENT AND EMPLOYEES

**DIRECTORS AND EXECUTIVE MANAGEMENT**

Reference is made to pages 50-52 in our *Annual Report 2010* for name, position, date of birth and period of service as director for the members of the Board of Directors.

Reference is made to page 53 in our *Annual Report 2010* for name, position, date of birth, year of appointment and year of joining Novo Nordisk for the members of Executive Management.

The Board of Directors has the overall responsibility for the affairs of the Company. Reference is made to pages 40-42 in our *Annual Report 2010*.

The activities of the members of Board of Directors and members of Executive Management outside the Company are included in our *Annual Report 2010* on pages 50-53.

There are no family relationships between the Board of Directors, Executive Management or between any of the members of the Board of Directors and any member of Executive Management. No director or member of Executive Management has been elected according to an arrangement or understanding with shareholders, customers, suppliers or others. As required by the Danish Companies Act, directors are elected at General Meetings by simple majority vote. In addition, four employee representatives are elected for four-year terms by the employees of Novo Nordisk A/S.

**COMPENSATION**

Reference is made to the section Executive remuneration on page 46-49 and Notes 28 and 29 in our *Annual Report 2010* regarding compensation.

**BOARD PRACTICES**

Reference is made to Corporate governance on pages 40-42 in our *Annual Report 2010* regarding board practices.

**EMPLOYEES**

Reference is made to the section entitled Performance highlights on page 15 in our *Annual Report 2010* regarding the total number of full-time employees in Novo Nordisk at year-end for the years 2006-2010.

[Back to Contents](#)

<b>Employees</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
	<hr/>	<hr/>	<hr/>	<hr/>	