

NOVO NORDISK A S  
Form 20-F  
February 27, 2004

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

---

**FORM 20 - F**

---

(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 31 December 2003**  
OR  
 TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d)  
OF THE SECURITIES EXCHANGE ACT OF 1934

---

**NOVO NORDISK A/S**

(Exact name of Registrant as specified in its charter)

Not applicable

The Kingdom of Denmark

---

(Translation of Registrant's name into English)

---

(Jurisdiction of incorporation or organization)

---

**Novo Allé**  
**DK-2880 Bagsvaerd**  
**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 2 each  
Depository 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

## Edgar Filing: NOVO NORDISK A S - Form 20-F

Indicate the number of outstanding shares<sup>1</sup> of each of the issuer's classes of capital or common stock as of the close of the period covered by the Annual Report:

A shares, nominal value DKK 2 each: 53,743,600

B shares, nominal value DKK 2 each: 284,407,719

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 which financial statement item the Registrant has elected to follow:

Item 17

Item 18

---

### CONTENTS

	<u>Page</u>
INTRODUCTION	3
PART I	
ITEM 1 IDENTITY OF DIRECTORS, EXECUTIVE MANAGEMENT AND ADVISORS	3
ITEM 2 OFFER STATISTICS AND EXPECTED TIMETABLE	3
ITEM 3 KEY INFORMATION	3
ITEM 4 INFORMATION ON THE COMPANY	4
ITEM 5 OPERATING AND FINANCIAL REVIEW AND PROSPECTS	11
ITEM 6 DIRECTORS, SENIOR MANAGEMENT AND EMPLOYEES	20
ITEM 7 MAJOR SHAREHOLDERS AND RELATED PARTY TRANSACTIONS	22
ITEM 8 FINANCIAL INFORMATION	24
ITEM 9 THE OFFER AND LISTING	25
ITEM 10 ADDITIONAL INFORMATION	27
ITEM 11 QUALITATIVE AND QUANTITATIVE DISCLOSURES ABOUT MARKET RISKS	29
ITEM 12 DESCRIPTION OF SECURITIES OTHER THAN EQUITY SECURITIES	31
PART II	
ITEM 13 DEFAULTS, DIVIDEND ARREARAGES AND DELINQUENCIES	31
ITEM 14 MATERIAL MODIFICATIONS TO THE RIGHTS OF SECURITY HOLDERS AND USE OF PROCEEDS	31
ITEM 15 CONTROLS AND PROCEDURES	31
ITEM 16A AUDIT COMMITTEE FINANCIAL EXPERT	32
ITEM 16B CODE OF ETHICS	32
ITEM 16C PRINCIPAL ACCOUNTANT FEES AND SERVICES	32
ITEM 16D EXEMPTIONS FROM THE LISTING STANDARDS FOR AUDIT COMMITTEES	33

# Edgar Filing: NOVO NORDISK A S - Form 20-F

## PART III

ITEM 17	FINANCIAL STATEMENT	33
ITEM 18	FINANCIAL STATEMENT	37
ITEM 19	EXHIBITS	38
SIGNATURES		41

---

<sup>1</sup> The outstanding number of shares represents the total number of shares less the Company's holding of treasury shares.

---

## 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 Financial Report 2003* and *Annual Financial Report 2002*. Therefore the information in this Form 20-F should be read in conjunction with the *Annual Financial Report 2003* and *Annual Financial Report 2002*, which were filed on Form 6-K on 25 February 2004 and on 20 February 2003, respectively.

For information on the organizational structure of Novo Nordisk and corporate governance in general reference is made to the section titled "Corporate governance" in the *Annual Financial Report 2003*.

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

## PART I

### ITEM 1 IDENTITY OF DIRECTORS, EXECUTIVE MANAGEMENT AND ADVISORS

Not applicable.

### ITEM 2 OFFER STATISTICS AND EXPECTED TIMETABLE

Not applicable.

### ITEM 3 KEY INFORMATION

#### SELECTED FINANCIAL DATA

Reference is made to Note 36 in the *Annual Financial Report 2003* regarding selected financial data.

#### **Exchange rates**

The following table sets forth, for the calendar periods indicated, certain information concerning Danmarks Nationalbank's daily official exchange rates for U.S. dollars (USD) in terms of Danish kroner expressed in DKK per USD 1.00. These rates

## Edgar Filing: NOVO NORDISK A S - Form 20-F

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.

3

---

<b>Month</b>			<b><u>High</u></b>	<b><u>Low</u></b>
August 2003			6.8705	6.5263
September 2003			6.8865	6.3728
October 2003			6.4158	6.3019
November 2003			6.5080	6.2028
December 2003			6.2142	5.9554
January 2004			6.0198	5.8060
1 5 February 2004			5.9791	5.9205

  

<b>Year</b>	<b><u>Average rate</u><sup>1</sup></b>	<b><u>Period end rate</u></b>	<b><u>High</u></b>	<b><u>Low</u></b>
1999	6.9834	7.3988	7.4135	6.3046
2000	8.0903	8.0205	9.0060	7.1800
2001	8.3619	8.4095	8.8611	7.8186
2002	7.8812	7.0822	8.6591	7.0822
2003	6.5899	5.9576	7.1592	5.9554

### **CAPITALIZATION AND INDEBTEDNESS**

Not applicable.

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

Not applicable.

### **RISK FACTORS**

The disclosure and analysis set forth herein, including the disclosure and analysis under the captions "Off-Balance Sheet Arrangements" and "Tabular Disclosure of Contractual Obligations" under Item 5, and in the Company's Annual Financial Report 2003 contain forward-looking statements as the term is defined in the U.S. Private Securities Litigation Reform Act of 1995. Reference is made to page 6 in the Annual Financial Report 2003 for the forward-looking statement.

No undue reliance should be placed on these forward-looking statements, which are applicable only as of the date hereof. The Company has no obligation to revise or update these forward-looking statements to reflect events or circumstances that arise after the date hereof or to reflect the occurrence of unanticipated events.

Reference is made to pages 8-9 "Risk management", page 15 "Financial risk factors and financial risk management" and pages 15-16 "Foreign exchange risk management" in the Annual Financial Report 2003 regarding management of risks in Novo Nordisk and specific risk factors.

## ITEM 4 INFORMATION ON THE COMPANY

### **HISTORY AND DEVELOPMENT OF THE COMPANY**

Novo Nordisk A/S 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 N

---

1 The average exchange rate is calculated by using the exchange rate on the last day of each month according to Danmarks Nationalbank's daily official exchange rates.

4

---

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. Having demerged the enzyme business into a separate company, Novozymes A/S, in November 2000 Novo Nordisk today is a focused healthcare company.

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](http://novonordisk.com)  
(The contents of this website are not incorporated by reference into this Form 20-F.)

Date of incorporation: 28 November 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 2003

#### JANUARY

Novo Nordisk signs a collaboration agreement with ZymoGenetics for the preclinical development of Interleukin 21 (IL-21), a potential cancer treatment

Published PROSE study suggests that NovoSeven® could be effective in reducing excessive blood loss and eliminating transfusion requirements during abdominal surgery

#### FEBRUARY

Novo Nordisk's 80th birthday

#### MARCH

Sten Scheibye, CEO of Coloplast A/S, elected as member of the Board of Directors

#### APRIL

Diabetes Dialogue, Novo Nordisk's global conference for experts in diabetes research and clinical practice, takes place in Switzerland. Delegates review and debate the latest developments in the treatment and potential cure of diabetes

#### MAY

Novo Nordisk awards contract to build a 19,000 square-foot (1,700 square-meter) expansion of its insulin manufacturing facility in Clayton, North Carolina, U.S.

## Edgar Filing: NOVO NORDISK A S - Form 20-F

Liraglutide, also known as NN2211, achieves Clinical Proof of Concept

### JUNE

The new Insulin Bulk Plant in Kalundborg, Denmark, dispatches the first batch of insulin. The Kalundborg facility, which represents the Company's largest single investment in history, will produce more than one third of the world's bulk insulin

5

---

### JULY

The European Agency for the Evaluation of Medicinal Products (EMA) approves Norditropin® SimpleXx® treatment of short children born small for gestational age

Novo Nordisk assumes U.S. marketing of Activella® and Vagifem® from Pfizer

### AUGUST

Brazilian authorities grant a final approval of Novo Nordisk's acquisition of Biobras, the Brazilian insulin pharmaceutical company

Inauguration ceremony held for new insulin packaging plant in China. The plant will package Novo Nordisk insulin products for the Chinese market

### SEPTEMBER

Dow Jones Sustainability World Indexes places Novo Nordisk first in the Pharmaceuticals Industry Group

Novo Nordisk launches a DKK 1 billion (EUR 135 million) expansion of its insulin factory in Chartres,

France, the Company's largest production facility outside of Denmark. Inauguration of the Oxford Centre for Diabetes, Endocrinology and Metabolism (OCDEM)

### OCTOBER

Novo Nordisk suspends clinical trials with NN414, a beta-cell selective compound, in people with type 1 and type 2 diabetes

The European Union's Committee for Proprietary Medicinal Products (CPMP) issues a positive opinion on NovoSeven® for two new treatments: prevention of bleeding during invasive procedures in people with factor VII deficiency, and treatment of Glanzmann's thrombasthenia

Novo Nordisk receives Approvable Letter for insulin detemir (Levemir(TM)) from the U.S. Food and Drug Administration

### NOVEMBER

Novo Nordisk announces its intent to invest more than USD 200 million (DKK 1.2 billion) in a new insulin production plant in Brazil

### DECEMBER

First results from phase 2 studies of the safety and efficacy of NovoSeven® in trauma patients show significant reduction in blood transfusion needed in patients treated with NovoSeven®

### Capital expenditure in 2003, 2002 and 2001

The total net capital expenditure for property, plant and equipment was DKK 2.3 billion in 2003 compared with DKK 4.0 billion in 2002 and DKK 3.8 billion in 2001. The decrease in capital expenditure in 2003 reflects the completion of the new insulin bulk facility in June 2003 and the new NovoSeven® factory which, in aggregate, represented a significant part of the

capital expenditure in 2001 and 2002. The high investment level during 2001 and 2002 was intended to further support the continued roll-out of existing products and the launch of new products. Investments in 2003 were mainly capacity expansion within the diabetes care area, increasing the capacity for insulin analogues, insulin filling and insulin delivery devices. The investments are primarily taking place in Denmark, though to an increasing extent also outside Denmark. The investments are financed internally. Novo Nordisk expects to invest around DKK 3.0 billion in fixed assets in 2004, and a significant part of these investments will take place outside Denmark. For further information on investments, please refer to Investments on page 5 and Outlook for 2004 on page 6 in the *Annual Financial Report 2003*. No significant acquisitions or divestitures of financial fixed assets occurred during 2003 or 2004 to date.

---

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

No such offers have occurred during 2003 or 2004 to date.

#### **BUSINESS OVERVIEW**

Novo Nordisk is a focused healthcare company and a world leader in diabetes care. In addition, Novo Nordisk has a leading position within areas such as hemostasis management, 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. With headquarters in Denmark, Novo Nordisk employs approximately 18,800 fulltime employees in 69 countries and markets its products in 179 countries at year end.

#### **Segment information**

Novo Nordisk is engaged in discovery, development, manufacturing and marketing of pharmaceutical products and has two business segments - diabetes care and biopharmaceuticals. The diabetes care segment covers Novo Nordisk's insulin franchise, including insulin analogues, human insulin and insulin-related sales, and OADs (oral antidiabetic drugs). The biopharmaceutical segment covers the therapy areas: hemostasis management (NovoSeven®), growth hormone therapy and hormone replacement therapy and other products.

For information on net turnover by business segment and geographic segment, reference is made to Annual Financial Report 2003 page 2 Financial highlights and Note 3 Segment information .

#### **Diabetes care**

Information relating to diabetes care may be found in the Company's Annual Financial Report 2003 on pages 7, 12-13 and 25, under the sections Research and development pipeline , The diabetes care segment and Note 3 Segment information , and is incorporated herein by reference.

#### **Biopharmaceuticals**

Information relating to biopharmaceuticals may be found in the Company's Annual Financial Report 2003 on pages 7, 13-14 and 25, under the sections Research and development pipeline , The biopharmaceuticals segment and Note 3 Segment information and is incorporated herein by reference.

#### **Seasonality**

Sales of individual products in individual markets may be subject to seasonality and fluctuations from quarter to quarter, but besides the first quarter often being relatively weak, and a trend of increasing sales per quarter in general going from first quarter to fourth quarter, the Company's consolidated results of operations have not been subject to significant seasonality.

#### **Raw materials**

As a focused healthcare company 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 the market. The Company's production is mostly based on common and readily available raw materials with a relatively low price volatility. Certain specific raw materials are, however, less available. For such raw materials, it is the policy of the Company to develop close and long-term relationships with key suppliers as well as to secure dual sourcing whenever possible.

### **Marketing 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 for these products have been North America, Japan and the major European countries.

7

---

Market conditions within the pharmaceutical industry continue to change, including efforts by both private and governmental entities to reduce/control costs 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 the Company sells insulin subsidize or control pricing. In most of these markets insulin is a prescription drug, but in the United States, human insulin may be sold over the counter, whereas insulin analogues require a prescription.

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

New manufacturing processes, efficient quality systems and innovative research and development are all important competitive factors affecting the Company.

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. The insulin market has fewer producers with Novo Nordisk and Eli Lilly as leading players, and Aventis, historically acting only locally in certain European markets, increasing its presence globally.

### **Patents**

Patents are important intellectual property rights of Novo Nordisk. Novo Nordisk seeks patents whenever there are products or processes which may qualify for patent protection.

The Company does not anticipate any instances of patent expiration that will have a significant negative impact on the sales of the Company within the next five years. Moreover, with the ongoing conversion from human insulin to insulin analogues an increasing proportion of Novo Nordisk's sales are protected by patents for insulin analogues expiring in 2011 and beyond. Furthermore, NovoSeven® sales are protected by patents expiring around 2011 except in Japan where the NovoSeven® patent expires in 2008.

Activelle®/Activella® sales may become exposed to generic competition due to patent expiration in the United States in 2006 and expiration of the Supplementary Protection Certificates in Europe in 2009.

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

### **Impact of regulations**

As a pharmaceutical company, Novo Nordisk is dependent on governmental approvals concerning production, development, marketing and reimbursement of its products. Important regulatory bodies include the United States Food and Drug Administration and the European Agency for the Evaluation of Medicinal Products in Europe. Treatment guidelines from



## Edgar Filing: NOVO NORDISK A S - Form 20-F

non-governmental organizations like the European Association for the Study of Diabetes and the American Diabetes Association may also have an impact on the Company.

### **ORGANIZATIONAL STRUCTURE**

For information regarding the capital structure and securities exchange listings of Novo Nordisk A/S, reference is made to the sections Corporate governance on pages 55-57 and Shareholder information on pages 58-59 in the *Annual Financial Report 2003*.

8

---

Reference is made to the section Shareholder information in the Annual Financial Report 2003 regarding the parent (Novo A/S) and ultimate parent of Novo Nordisk (Novo Nordisk Foundation) and their share ownership in Novo Nordisk A/S.

Information about the companies in the Novo Nordisk Group, set forth in the Company's *Annual Financial Report 2003* on pages 46-47, Companies in the Novo Nordisk Group, is incorporated herein by reference.

### **PROPERTY, PLANTS AND EQUIPMENT**

The Company's headquarters are located in Bagsvaerd, Denmark where the Company occupies several office buildings, the majority of which are owned by the Company.

The Company's major research and development facilities are located at a number of sites in Denmark. A number of smaller research and development operations around the world focus primarily on their local markets.

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 US, France, Japan, China, South Africa and Brazil.

The Company believes that its current production facilities and facilities under construction are sufficient to meet its future capacity requirements. Please refer to the sections Capital expenditure in 2003 under Item 4 and Investments on page 5 in the *Annual Financial Report 2003* for more information about the current expansion programs. The following table sets forth the nature of the Company's tangible fixed assets as of 31 December 2002 and 2003:

Figures in DKK million	<b><u>2002</u></b>	<b><u>2003</u></b>
<b>Nature of assets:</b>		
Land and buildings	5,689	6,642
Plant and machinery	3,483	5,936
Other equipment	1,137	1,093
Fixed assets in course of construction and payments on account	5,896	3,157
<b>Total tangible assets</b>	<b>16,205</b>	<b>16,828</b>

Reference is made to Note 3 in the *Annual Financial Report 2003* regarding the location of the tangible fixed assets as of 31 December 2002 and 2003.

The tangible fixed assets include several production sites worldwide at the end of 2003. There are no material encumbrances on the properties. Active pharmaceutical ingredient production is mainly located in Denmark, primarily in Kalundborg and secondarily in Hillerød, Bagsvaerd and Gentofte. Outside of Denmark limited drug substance production takes place in Brazil. Below is a tabular presentation of all the production sites.

<b>Major production facilities</b>	<b>Size of site, square meters</b>	<b>Major activities</b>
Kalundborg, Denmark	107,000	
1. Diabetes Bulk Production, expansion in progress		Active pharmaceutical ingredients for diabetes
2. Factor VII Production		Active pharmaceutical ingredients for hemostasis management
3. Diabetes Pharmaceutical Production		Products for diabetes
Hillerød, Denmark	80,000	
1. Medical Systems Production		Durable devices
2. Diabetes Disposable Pens, expansion in progress		Products for diabetes Active pharmaceutical ingredients for hemostasis management
3. Factor VII Production		
Bagsværd, Denmark	26,000	Products for diabetes
Gentofte, Denmark	44,000	Products for growth hormone therapy, glucagon and hemostasis management
Måløv, Denmark	23,000	Hormone replacement therapy products Products for OAD
Hjørring, Denmark	9,000	Production of needles
Tianjin, China	7,000	Packaging of products for the Chinese market
Koriyama, Japan	8,000	Packaging of products for the Japanese market
Chartres, France, expansion in progress	15,000	Products for diabetes
Johannesburg, South Africa	5,000	Products for diabetes
Clayton, North Carolina, U.S., expansion in progress	12,000	Products for diabetes
Montes Claros, Brazil, expansion planned	20,000	Active pharmaceutical ingredients for diabetes, Products for diabetes

The Diabetes Bulk Production is currently under expansion to establish additional capacity for the long acting insulin analogue; Levemir<sup>TM</sup>. The investment amounts to approximately DKK 900 million. At the end of the January 2004 approximately one third of the investment has been spent. The project is expected to file for approval in the second half of 2005.

The expansion of the Diabetes Disposable Pens facility will increase the existing capacity for components, assembly and packaging of Flexpen<sup>®</sup>. The investment amounts to approximately DKK 500 million. At the end of January 2004 the major part of the investment has been spent. The project is ongoing, and will be finalized during 2004.

The Chartres expansion project will increase the Penfill<sup>®</sup> and Flexpen<sup>®</sup> production, assembly and packaging. The investment amounts to approximately DKK 800 million. At the end of January 2004 only a minor part of the investment has been spent. The project is ongoing, and is expected to be finalized in 2006.

Novo Nordisk is committed to conducting its business in an environmentally responsible manner. The Company pursues new ways of reducing its impact on the environment while continuing to grow and bringing new products to market. No currently identified environmental issue is expected to have a material negative effect on the Company's ability to use its assets efficiently.

---

During 2002 and 2003, all major production sites worldwide have been certified according to the international standard ISO 14001 (Environmental Management Standard). The goal is to pursue optimal control of significant environmental impacts of the Company's operations worldwide.

## ITEM 5 OPERATING AND FINANCIAL REVIEW AND PROSPECTS

### **SIGNIFICANT ACCOUNTING ESTIMATES**

The consolidated financial statements in Novo Nordisk's Annual Financial Report 2003 are prepared in accordance with generally accepted accounting principles in Denmark (Danish GAAP). The Board of Directors and Executive Management believe that the accounting policies applied give a true and fair view of the Group's assets, liabilities, shareholders' funds, financial position, results and cash flows. As of 1 January 2004, the accounting policies will be changed to comply with the requirements under International Financial Reporting Standards (IFRS). Reference is made to the section "Adoption of IFRS in 2004 (unaudited)" in the *Annual Financial Report 2003* where the effect of adopting the IFRS standards as of 31 December 2003 on the Group's assets, liabilities, shareholders' funds, financial position, results and cash flows on the years 2003 and 2002 is shown.

Novo Nordisk accounting policies affecting the financial condition and results of operations, which inherently constitute some degree of uncertainty, are presented in Note 1 to the *Annual Financial Report 2003*.

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 at the date(s) of the financial statements 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 judgments about the reported carrying values 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 Nordisk believes the following are the significant accounting estimates and related judgments used in the preparation of its consolidated financial statements.

#### **Indirect production costs**

Work in progress and finished goods are stated at cost assigned by using the first-in, first-out method. Cost comprises direct production costs such as raw materials, consumables, energy and labor, and indirect production costs such as employee costs, depreciation, maintenance etc.

The indirect production costs are measured based on a standard cost method which is reviewed regularly in order to ensure relevant measures of utilization, production lead time and other relevant factors. Changes in the method for calculation of indirect production costs, including utilization levels, production lead time etc. in the calculation of indirect production costs, could have an impact on the gross margin and the overall valuation of "Stocks".

#### **Inventory-related allowances**

Novo Nordisk regularly reviews the inventory for excess inventory, obsolescence and declines in market value below cost and records an allowance against the inventory balance for any such declines. These reviews require Management to estimate future demand for the products sold. Possible changes in these estimates could result in revisions to the valuation of inventory.

#### **Allowance for write-down for doubtful debtors**

Debtors are stated at amortized cost less write-downs for potential losses on doubtful debts.

Novo Nordisk maintains allowances for doubtful debtors for estimated losses resulting from the subsequent inability of the customers to make required payments. If the financial conditions of the customers were to deteriorate, resulting in an impairment of their ability to make payments, additional allowances may be required in future periods. Management specifically analyzes debtors and analyzes historical bad debt, customer concentrations, customer creditworthiness, current economic trends and changes in the customer payment terms when evaluating the adequacy of the allowance for doubtful debtors.

Based on actual losses in the last three years, the uncertainty connected with the allowance for write-down for doubtful debtors is considered limited.

#### **Deferred taxes**

Management judgment is required in determining the Company's provision for income taxes, deferred tax assets and liabilities and the extent to which deferred tax assets can be recognized. Novo Nordisk recognizes deferred tax assets if it is probable that sufficient taxable income will be available in the future against which the temporary differences and unused tax losses can be utilized. Management has considered future taxable income and tax planning strategies in assessing whether deferred tax assets should be recognized.

#### **Pensions**

The determination of the pension benefit obligation and expense for defined benefit pension plans is dependent on the selection of certain assumptions used by actuaries in calculating such amounts. Those assumptions are described in Note 23 in the *Annual Financial Report 2003* and include, among others, the discount rate, expected long-term rate of return on plan assets and annual rate of increase in future compensation levels. A portion of the plan assets is invested in equity securities. The equity markets have experienced volatility, which has affected the value of the Company's pension plan assets. This volatility may make it difficult to estimate the long-term rate of return on plan assets. Actual results that differ from the assumptions are accumulated and amortized over future periods and therefore generally affect the recognized expense and recorded obligation in such future periods. The assumptions are based on actual historical experience and external data regarding compensation and discount rate trends. While Management believes that the assumptions are appropriate, significant differences in the actual experience or significant changes in the assumptions may materially affect the pension obligation and the Company's future expense.

#### **Valuation of long-lived and intangible assets**

Novo Nordisk assesses the carrying value of identifiable intangible assets and long-lived assets annually, or more frequently if events or changes in circumstances indicate that such carrying value may not be recoverable. Factors Novo Nordisk considers important, which could trigger an impairment review, include the following:

- significant underperformance relative to historical or projected future results;
- significant changes in the manner of the Company's use of the acquired assets or the strategy for its overall business;
- and
- significant negative industry or economic trends.

When Novo Nordisk determines that the carrying value of intangible assets and long-lived assets may not be recoverable based upon the existence of one or more of the above indicators of impairment, Novo Nordisk measures any impairment based on discounted projected cash flows.

This review is based upon projections of anticipated future cash flows. The most significant variables in determining cash flows are discount rates, terminal values, the number of years on which to base the cash flow projections, as well as the assumptions and estimates used to determine the cash inflows and outflows. Management determines discount rates to be used based on the risk inherent in the related activity's

current business model and industry comparisons. Terminal values are based on the expected life of products and forecasted life cycle and forecasted cash flows over that period. While Management believes that the assumptions are appropriate, such amounts estimated could differ materially from what will actually occur in the future.

#### **Provision for returned products**

As a part of normal business Novo Nordisk issues credit notes for expired goods. Consequently a provision for future returns is made based on historical statistical product returns. The pattern in returns in the future may be different from what has been.

#### **Provisions and contingencies**

Management of the Company makes judgments about provisions and contingencies, including the probability of pending and future litigation outcomes that in nature are dependent on future events that are inherently uncertain. In making its determinations of likely outcomes of litigation and tax matters etc., Management considers the evaluation of outside counsel knowledgeable about each matter, as well as known outcomes in case law. See the Annual Financial Report 2003 Note 34 for a detailed discussion of the key litigation matters the Group faces.

#### **NEW ACCOUNTING PRONOUNCEMENTS**

##### **New Danish accounting standards**

The Danish Accounting Standards Board has issued one new accounting standard, which has effect for 2003. Generally the standard is in line with the Danish Financial Statements Act of 2001 and International Financial Reporting Standards (IFRS) and has not had significant impact on the recognition and measurement principles used in the consolidated financial statements.

##### **New U.S. accounting pronouncements**

New U.S. accounting pronouncements generally only have implications for the US GAAP reconciliation of Danish GAAP figures to US GAAP figures.

In November 2002, the Emerging Issue Task Force (EITF) reached a final consensus on EITF 00-21, Revenue Arrangements with Multiple Deliverable. EITF 00-21 addresses certain aspects of the accounting for revenue arrangements with multiple deliverables by a vendor. The Issue outlines an approach to determine when a revenue arrangement for multiple deliverables should be divided into separate units of accounting and, if separation is appropriate, how the arrangement consideration should be allocated to the identified accounting units. The consensus reached in the Issue will affect Novo Nordisk in its financial statements beginning 1 January 2004. Novo Nordisk is currently determining the impact of the adoption of EITF 00-21 on the Group's consolidated financial statements.

In April 2003, the FASB issued SFAS 149, Amendment of Statement 133 on *Derivative Instruments and Hedging Activities*, which amends and clarifies accounting for derivative instruments, including certain derivative instruments embedded in other contracts, and for hedging activities under SFAS 133. The Statement is effective (with certain exceptions) for contracts entered into or modified after 30 June 2003. Management does not believe the adoption of this Statement will have a material impact on Novo Nordisk financial statements.

In May 2003, the FASB issued SFAS 150, *Accounting for Certain Financial Instruments with Characteristics of both Liabilities and Equity*. The Statement establishes standards for how an issuer classifies and measures certain financial instruments with characteristics of both liabilities and equity. It requires that an issuer classify a financial instrument that is within its scope as a liability (or an asset in some circumstances). It is effective for financial instruments entered into or modified after 31 May 2003, and otherwise is effective at the beginning of the first interim period beginning after 15 June 2003. Management

does not believe the adoption of this Statement will have a material impact on Novo Nordisk financial statements.

In December 2003 the Financial Accounting Standards Board issued FASB Interpretation No. 46R (FIN 46R), Consolidation of Variable Interest Entities Revised. FIN 46R modifies the scope exceptions provided in FIN 46. Entities would be required to replace FIN 46 provisions with FIN 46R provisions for all newly created post-31 January 2003 entities as of the end of the first interim or annual reporting period ending after 15 March 2004. Novo Nordisk reviewed its investment portfolio, including associated companies, and identified one investment in a Variable Interest Entity, as defined by FIN 46R. However, the Company determined that it is not the primary beneficiary and therefore, has not consolidated the Variable Interest Entity. Additional information concerning the transaction can be found under Off-Balance Sheet Arrangements .

On 12 January 2004, the Financial Accounting Standards Board issued FASB Staff Position FAS 106-1 which permits a sponsor of a postretirement healthcare plan that provides a prescription drug benefit to make a one-time election to defer accounting for the effects of the Medicare Prescription Drug, Improvement and Modernization Act of 2003, due to open questions about some of the new Medicare provisions and a lack of authoritative accounting guidance about certain matters. The Company anticipates that the benefits it pays after 2006 may be lower as a result of the new Medicare provisions. However, the retiree medical obligations and costs reported do not reflect the impact of this legislation. The final accounting guidance could require changes to previously reported information.

### **OPERATING RESULTS**

The following discussion includes certain forward-looking statements. Such forward-looking statements are subject to a number of risk factors, including material risks, uncertainties and contingencies which could cause actual results to differ materially from the forward-looking statements. For a discussion of important factors that could cause actual results to differ materially from the forward-looking statements, see the discussion in the Annual Financial Report 2003 under the caption Forward-looking statement on page 6..

The condition and development in the financial conditions of the Group are described in the Annual Financial Reports for 2002 and 2003. The information in this section is based on these reports and should be read in conjunction with the Annual Financial Reports. The analysis and discussions included in the Annual Financial Reports are primarily based on the financial statements which are prepared in accordance with Danish GAAP.

### **2003 compared with 2002**

The following portions of the Annual Financial Report 2003 constitute the Board of Directors and Executive Management s discussion and analysis of results of operations (incorporated herein by reference):

Management report (pages 4-6)

Financial discussion (pages 12-16)

On a US GAAP basis, net profit in 2003 increased by 15% compared to 2002. The net profit in accordance with US GAAP is in line with the net profit under Danish GAAP in 2003. However, the net profit reconciliation to US GAAP comprises a number of counterbalancing adjustments mainly due to differences in the treatment of unrealized gains and losses on cash flow hedges, options and share based awards, accounting for investments in research and development companies and accounting for goodwill. Please refer to Note 36 in the *Annual Financial Report 2003* for further information on the reconciliation of net profit to US GAAP for the years 1999 to 2003.

**2002 compared with 2001**

The following portions of the Annual Financial Report 2002 constitute the Board of Directors and Executive Management's discussion and analysis of results (incorporated herein by reference):

Management report (pages 1-4)  
Financial discussion (pages 13-18)

On a US GAAP basis, net profit increased by 22% in 2002 compared with 2001. Net profit on a US GAAP basis was 4% higher than net profit on a Danish GAAP basis in 2002, mainly due to differences in the treatment of employee shares, unrealized gains and losses on cash flow hedges, investments in research and development companies and accounting for goodwill. Please refer to Note 35 in the Annual Financial Report 2002 for further information on the reconciliation of net profit to US GAAP for the years 1998 to 2002.

**Segment information**

Based on a changed operational structure and related reporting set-up during the year, Management has reassessed the business segments of the Group resulting in the two business segments diabetes care and biopharmaceuticals to be reported for 2003. Comparative figures for 2002 are presented even though the Group only comprised one segment in previous years. The comparative figures have been prepared based on the methods applied for 2003. For further information reference is made to Note 3 Segment information in the *Annual Financial Report 2003*.

The net turnover of the diabetes care segment of DKK 17,665 million in 2002 increased by 6% to DKK 18,723 million in 2003, and net turnover of the biopharmaceuticals segment of DKK 7,522 million in 2002 increased by 4% to DKK 7,818 million in 2003. The share of net turnover of diabetes care and biopharmaceuticals was 71% and 29%, respectively.

Operating profit of diabetes care amounted to DKK 3,105 million in 2003 reflecting an increase by 32% compared to 2002 and reached an operating margin of 17%. Operating profit of biopharmaceuticals amounted to DKK 3,279 million in 2003 a decrease of 10% compared to 2002, and reached an operating margin of 42%.

**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**

For a description of foreign currency exposure and hedging activities, please see the discussion in the *Annual Financial Report 2003* on page 15 and the description of financial instruments under Liquidity and capital resources.

**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, please refer to Item 11.

**Financial resources**

It is part of Novo Nordisk's Treasury Policy to maintain sufficient financial resources. Financial resources of DKK 11,370 million at 31 December 2003 consist of the Group's cash and cash equivalents of DKK 2,669 million and of undrawn committed

## Edgar Filing: NOVO NORDISK A S - Form 20-F

credit facilities of DKK 8,701 million. The undrawn committed credit facilities consist of a USD 500 million and EUR 500 million as well as a DKK 2,000 million facility committed by a number of Danish and international banks. These facilities mature in 2004, 2007 and 2006, respectively. Cash and cash equivalents consist primarily of bank deposits and short-term government bonds. Furthermore, the Group had long-term debt of DKK 753 million at 31 December 2003.

It is Executive Management's opinion that financial resources are sufficient for the present requirements of the Company.

### **Cash flow**

The free cash flow for 2003 amounted to DKK 3,846 million compared to DKK 497 million in 2002. The increase resulted mainly from a significantly lower investment level after considerable investments in production facilities and the acquisition of Biobras in 2002. The increase in cash flow from operating activities is DKK 1,278 million.

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

Please refer to the consolidated cash flow and financial resources on page 20 in the *Annual Financial Report 2003*.

### **Debt financing**

Debt financing is obtained in DKK and in foreign currency. Please refer to Notes 21 and 25 in the Annual Financial Report 2003 for information on currency and maturity profile. Novo Nordisk has furthermore asset securitization programs with two external credit institutions which cover the major part of the trade debtors in its Japanese subsidiary. These programs are designed to accelerate the receipt of cash related to those receivables. Novo Nordisk has issued a credit guarantee of up to 15% of these receivables. Please refer also to Note 34 of the *Annual Financial Report 2003*.

### **Financial instruments**

Novo Nordisk does not enter into speculative positions as it hedges commercial exposure only. The financial instruments used in conjunction with the Group's financial risk management include currency forwards, currency options and cross-currency swaps. Short- and long-term debt as well as money-market deposits are also used in the financial risk management. Please refer to Note 33 in the *Annual Financial Report 2003* for further information on financial instruments.

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

Contractual obligations for capital expenditure and other contingent liabilities at 31 December 2003 and 31 December 2002 are shown in Note 34 of the consolidated financial statement in *Annual Financial Report 2003*. The Group has overall contractual obligations related to investments in fixed assets of DKK 547 million compared to DKK 658 million in 2002.

The Group has in addition contractual obligations of DKK 604 million relating to research and development projects, compared to DKK 983 million in 2002. Please refer to Note 34 in the *Annual Financial Report 2003* for a description of these commitments and other contingencies. The Executive Management of the Group is of the opinion that the obligations are covered by the Group's financial resources as well as expected future cash flows 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 (molecular modeling). These methods have played a key role in the development of the production technology which is used in the manufacture of insulin, recombinant Factor VIIa, human growth hormone and glucagon.

---

Novo Nordisk's research and development facilities are mainly located in Denmark, but development activities take place in many other countries.



## Edgar Filing: NOVO NORDISK A S - Form 20-F

Research and development expenditures during 2003 were DKK 4,193 million (16% of net turnover), while research and development expenditures in 2002 and 2001 were DKK 4,139 million (16% of net turnover) and DKK 3,970 million (17% of net turnover), respectively. Novo Nordisk's research and development organization comprised approximately 3,000 employees at the end of 2003.

Executive Management expects its research and development spending to be approximately 16% of net turnover. The spending level could, however, increase in years in which several major projects are in phase 3 of development, as this is typically the most expensive phase.

Information relating to selected research and development projects, set forth on page 7 in the *Annual Financial Report 2003*, is incorporated herein by reference.

### **TREND INFORMATION**

As a pharmaceutical company Novo Nordisk has benefited from changes in demographics such as the increasing share of elderly people. Moreover, the growing problem of obesity both in the western world as well as in the developing world is resulting in a significant increase in the number of people with diabetes. In 2003, approximately 194 million people worldwide in the adult population (age group 20-79) are estimated to have diabetes. This is expected to increase to 333 million in the adult population, by 2025 according to the International Diabetes Federation. Diabetes care is Novo Nordisk's largest segment comprising some 71% of turnover.

The other segment of the Company is biopharmaceuticals, which consists of hemostasis management, growth hormone therapy and other biopharmaceutical products. Within hemostasis management the penetration of NovoSeven® has continued and the franchise has grown with double digits since launch. The growth hormone therapy franchise has benefited from a successful U.S. launch of the liquid growth hormone Norditropin® cartridge. Other biopharmaceuticals, consisting mainly of the hormone replacement therapy franchise, continues to be negatively impacted by two studies highlighting the risk associated with long-term use of hormone replacement products, despite market share gains for Novo Nordisk's hormone replacement products.

In 2003, sales grew by 5% to DKK 26.5 billion, negatively impacted by the depreciation of Novo Nordisk's main invoicing currencies. Measured in local currencies sales grew by 15%. Production costs grew by 12% resulting in a gross margin of 72%, compared to a gross margin of 74% in 2002. As a result of the continued cost consciousness, as well as the impact from currencies, non-production costs grew by a modest 2%, hence operating profit grew by 7% to DKK 6.4 billion. The operating margin was 24%, also significantly negatively impacted by currencies.

### **The diabetes care segment**

Within diabetes care a trend is witnessed towards both earlier initiation of insulin treatment and also intensified insulin treatment with the aim of reducing the long-term complications resulting from the disease. The diabetes care franchise also benefits from the value upgrade realized by converting patients from human insulin to insulin analogues as well as converting patients from vials and syringes to insulin delivery systems. Novo Nordisk's expects the insulin market worldwide to show some 10% growth in the years to come, driven by the underlying volume growth as well as a value upgrade. In 2003, Novo Nordisk's insulin franchise grew by 6% reported or 16% in local currencies compared to 2002. This growth was primarily driven by Novo Nordisk's insulin analogues showing a growth rate of 115% or by 137% in local currencies.

---

Novo Nordisk and Eli Lilly are the two main players in the insulin market with Aventis increasing its global presence. Profitability to a large degree depends on the pursuit of economies of scale in the insulin industry as insulin production is capital intensive. Moreover, having an appropriate infrastructure is required to defend and expand market position. In addition, Novo Nordisk seeks to convert customers to patented analogues and insulin delivery systems but also relies on regulatory requirements to limit the Company's exposure to competition from smaller insulin producers primarily from the developing world.

## Edgar Filing: NOVO NORDISK A S - Form 20-F

Apart from Novo Nordisk's comprehensive portfolio of insulin and delivery devices, the diabetes care segment covers NovoNorm®/Prandin™, an oral hypoglycaemic agent, as well as generic metformin sold in Latin America.

In 2003, the diabetes care franchise grew by 6% to DKK 18.7 billion. The operating profit growth for the diabetes care segment was 32%, constituting 49% of Novo Nordisk's total operating profit.

### **The biopharmaceuticals segment**

The main growth driver within the biopharmaceutical segment is NovoSeven®. The sales growth for NovoSeven® has primarily been driven by North America followed by Europe. Sales in North America constitute close to 55% of total NovoSeven® sales. A number of factors have contributed to the solid NovoSeven® sales growth. Historically, it has been the use of NovoSeven® for spontaneous bleeds in congenital inhibitor patients that has driven growth, however, due to the high penetration within this area, the predominant part of the growth within the inhibitor segment in 2003 has been generated by acquired haemophilia and usage of NovoSeven® in connection with elective surgery. Treatment of spontaneous bleeds for congenital inhibitor patients remains the largest area of use. Moreover, sales are considered to have been positively affected by increased investigational use of NovoSeven®. In 2003 reported sales of NovoSeven® grew by 7% to DKK 3.9 billion. In December 2003, Novo Nordisk announced that it had obtained clinical proof of concept for the use of NovoSeven® in victims of traumatic injury. Moreover, in connection with the release of the full year 2003 results on 5 February 2004, Novo Nordisk announced that clinical proof of concept had been obtained for the use of NovoSeven® in connection with orthotopic liver transplantation.

A successful U.S. launch of the Norditropin® cartridge is decreasing Novo Nordisk's dependence on the Japanese market where the pricing environment continues to remain challenging. In 2003, Novo Nordisk obtained approval in Europe for the use of Norditropin® SimpleXx® in children born small for gestational age. Together with the launch of two new disposable growth hormone pens, this is expected to underpin growth in the growth hormone therapy franchise going forward. In 2003, sales grew by 4% to DKK 2.2 billion.

Within hormone replacement therapy the trend is towards low-dose products. This trend has benefited Novo Nordisk's product portfolio, resulting in market share gains; however, the overall decline in the market has had a negative impact on sales performance especially in Europe. In 2003, sales declined by 1% to DKK 1.3 billion. In July 2003, Novo Nordisk took back the marketing rights to certain hormone replacement therapy products in the U.S. after Pfizer's early termination of the marketing agreement originally entered into with Pharmacia. The dispute between Pfizer and Novo Nordisk in relation to Pfizer's early termination of the outlicensing agreement for certain HRT products in the U.S. has been settled. The parties have agreed not to disclose the settlement terms, but Novo Nordisk will record a minor positive non-recurring income in license fees and other operating income in 2004. Novo Nordisk has now partnered with Innovex, a contract sales organization. Novo Nordisk will direct the contract sales force comprising some 100 sales representatives with a target audience of 18,000 physicians. This sales force was established in early January 2004.

18

---

In 2003, sales of the biopharmaceuticals segment grew by 4%. Operating profit for the segment fell by 10% to DKK 3.3 billion, due to a higher level of research and development activities primarily related to NovoSeven®. In total biopharmaceuticals comprises some 51% of total operating profit.

Information about the expectations for the financial year 2004 can be found in the Annual Financial Report 2003 on page 6 in the section "Outlook 2004". Information about the Company's long-term financial targets can be found on page 5.

### **Costs<sup>1</sup>**

The growth in net turnover for high-margin products, like insulin analogues and production process optimization within product supply, have had a positive impact on the underlying gross margin. This has however been counterbalanced by costs related to impairment of assets and inventory adjustments. These factors combined with a negative impact from the development in the key invoicing currencies have led to production costs accounting for 28% of net turnover in 2003, an increase from 26% in 1999.

## Edgar Filing: NOVO NORDISK A S - Form 20-F

Executive Management expects gross margin to improve marginally going forward following improvements in the product mix supported by productivity improvements. However, as the majority of the production costs are realized in DKK the development in gross margin will be influenced by currency fluctuations.

Non-production costs as a percentage of net turnover have steadily decreased from 57% in 1999 to 52% in 2003. The development of sales and distribution costs and research and development costs is almost stable around 29%-30% and around 16-17% of net turnover, respectively. Administration costs as a percentage of turnover show a steady decrease from 10% in 1999 to 7% in 2003.

The cost development led to an improvement in the operating margin from 22% to 24% through the period 1999-2003.

### OFF-BALANCE SHEET ARRANGEMENTS

Novo Nordisk has an off-balance sheet arrangement which is a credit guarantee regarding asset securitization.

Novo Nordisk's Japanese subsidiary has asset securitization programs with two external credit institutions. Under these asset securitization programs the majority of the trade debtors in the Japanese subsidiary are sold to accelerate the receipt of cash related to those receivables. On part of the sold receivables, Novo Nordisk has issued a credit guarantee of up to 15% of the sold trade debtors. For the Novo Nordisk Group these programs are not of material importance for liquidity.

<b>DKK million</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>
Sold trade debtors with credit guarantee	392	431	295
Credit guarantee	59	65	44

For further information on contingencies, reference is made to Note 34 in the *Annual Financial Report 2003*.

As mentioned in Note 34 in the *Annual Financial Report 2003*, Novo Nordisk is engaged in a research and development project with Aradigm Corporation. Aradigm Corporation is a Variable Interest Entity as defined in FIN 46R; however, Novo Nordisk is not the primary beneficiary, and hence has not consolidated Aradigm Corporation.

---

1 The cost trends are calculated on Danish GAAP figures. According to US GAAP the trend would not have been significantly different.

### TABULAR DISCLOSURE OF CONTRACTUAL OBLIGATIONS

<b>Contractual obligations</b>	<b>Payments due by period</b>				<b>Total</b>
	<b>Less than 1 year</b>	<b>1 3 years</b>	<b>3 5 years</b>	<b>More than 5 years</b>	
DKK million					
Long-term debt	554	80	169	504	1,307
Operating leases	290	411	242	327	1,270
Purchase obligations	1,348	163	6	0	1,517
<b>Total</b>	<b>2,192</b>	<b>654</b>	<b>417</b>	<b>831</b>	<b>4,094</b>

For further information on contractual obligations, reference is made to Note 34 in the *Annual Financial Report 2003*.

**DIRECTORS AND EXECUTIVE MANAGEMENT**

The Company's Articles of Association provide for a Board of Directors of four to ten members. The Novo Nordisk A/S board currently consists of 10 members, seven of whom are elected by the shareholders to serve for terms of three years. The remaining three directors are elected for four-year terms by the Company's employees in accordance with Danish law, which provides that the Company's employees are entitled to be represented by half of the total number of directors elected at the Annual General Meeting, subject to a minimum of three.

Reference is made to page 60 in the Annual Financial Report 2003 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 61 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. The Board ordinarily meets seven times a year for the purpose of dealing with the principal issues of the Company's business and to establish and review general policies for the conduct of the Company's business.

The business address of the Board of Directors and Executive Management is Novo Nordisk A/S, Novo Allé, DK-2880 Bagsvaerd, Denmark.

The activities of the directors and members of Executive Management outside the Company are included in the Company's *Annual Financial Report 2003* on pages 60 and 61.

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 is elected according to an arrangement or understanding with customers, suppliers or others. As required by the Danish Companies Act, directors are elected at shareholder meetings by simple majority vote.

---

<sup>1</sup> In this document the term Senior Management refers to Executive Management in the *Annual Financial Report 2003*.

---

**COMPENSATION**

Reference is made to Note 32 in the *Annual Financial Report 2003* regarding compensation.

**BOARD PRACTICES**

Reference is made to the Annual Financial Report 2003 page 5, pages 55-57 and page 60 regarding board practices.

**EMPLOYEES**

Reference is made to Summary of the Group 1999-2003 in the *Annual Financial Report 2003* regarding the total number of full-time employees in Novo Nordisk at year-end for the years 1999-2003.

Employees	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>
	38%	36%	37%	38%	39%

## Edgar Filing: NOVO NORDISK A S - Form 20-F

Employees outside Denmark as percentage  
of total number of employees

Executive Management believes that the Company has a good relationship with its employees in general and with the labor unions of the Novo Nordisk employees.

Novo Nordisk believes that the benefits of its current personnel policy include low staff turnover, high morale, and ease in recruiting new employees. The Company has not experienced any significant labor disputes. Three members of Novo Nordisk's current Board of Directors are elected by the employees.

### **SHARE OWNERSHIP**

Since 1998, Novo Nordisk has established share option schemes for Executive Management and other key executives of the Company and its affiliates. The share option scheme provides for annual grants contingent on the fulfillment of performance and shareholder value related goals based on the long-term financial targets. For information on the Board of Directors' and Executive Management's individual holdings of, granting and exercise of options, please refer to Note 32 in the *Annual Financial Report 2003*.

Concerning information on the Board of Directors' and Executive Management's individual holdings of and trading in Novo Nordisk shares during 2003, please refer to Note 32 in the *Annual Financial Report 2003*. As of 5 February 2004, the Board of Directors and Executive Management owned 158,620 B shares.

The total number of options to acquire B shares held by Executive Management and directors<sup>1</sup> as of 5 February 2004, equals 554,060, and the specific conditions can be summarized as follows:

<b><u>Number of options held</u></b>	<b><u>Exercise price</u></b>	<b><u>Exercise period</u></b>	
10,500	190	19.2.2001	18.2.2006
19,500	125	25.3.2002	24.3.2007
55,000	198	24.3.2003	23.3.2008
55,500	198	22.2.2004	21.2.2009
296,060	198	01.2.2004	31.1.2007
47,500	332	08.2.2005	07.2.2010
70,000	195	06.2.2007	05.2.2012

---

<sup>1</sup> Retired members of Executive Management (Mads Ovlisen and Kurt Anker Nielsen) are Board members in Novo Nordisk today. The share options outstanding to Board members were issued to these Board members when they were part of Executive Management.

---

For a full description of individual holdings and exercise of stock options, please refer to Note 32 in the *Annual Financial Report 2003*.

In the period from 1 January 2004 until 5 February 2004, no B shares have been bought by the members of the Board of Directors or Executive Management, and no options have been exercised. The internal rules on trading in Novo Nordisk securities by members of the Board of Directors and Executive Management only permit trading in the 15 calendar-day period following each quarterly announcement. On 5 February 2004 members of Executive Management have indicated that they intend to sell 18,490 Novo Nordisk B shares in the period 6 February until 20 February 2004.

### ITEM 7 MAJOR SHAREHOLDERS AND RELATED PARTY TRANSACTIONS

**MAJOR SHAREHOLDERS**

The total share capital of the Company is split in two classes, A shares and B shares, each with different voting rights. The A shares, which are solely owned by the Novo Nordisk Foundation via Novo A/S, have 10 votes per DKK 1 of the A share capital, whereas the B shares have one vote per DKK 1 of the B share capital.

All of the A shares of the Company are held by Novo A/S, a wholly-owned subsidiary of the Novo Nordisk Foundation (the Foundation). As of 31 December 2003, the A shares represented approximately 65% of the votes exercisable at the Annual General Meeting.

The Foundation is a self-governing and self-owned foundation whose main purposes are to be a stable base for the business and research activities of the subsidiaries of Novo A/S, and in addition to support medical research and other scientific, humanitarian and social objectives.

Novo A/S was established in September 1999 with a contribution in kind of interest-bearing securities from the Foundation. In December 1999, the Foundation contributed its total holdings of A and B shares in Novo Nordisk A/S to Novo A/S in return for shares in Novo A/S. The purpose of Novo A/S is to administer its portfolio of securities and minority capital interests and to administer and vote on the A shares and B shares in Novo Nordisk A/S, thereby creating a satisfactory financial return for the Foundation.

Under its statutes (Articles of Association), the Foundation is governed by a Board of Governors, which must consist of at least six and not more than twelve members, of whom at least two must have a medical or scientific background. Members of the Foundation's Board of Governors are typically proposed by the chairman and elected by a two-thirds vote of the members who have themselves been elected under the Articles of Association. Any member may be removed by unanimous vote of the other members of the Foundation's Board of Governors. In addition, employee representatives are elected for four-year terms by the employees of the subsidiaries of the Foundation in accordance with Danish law, which provides that the employees of the subsidiaries of the Foundation are entitled to be represented by at least half of the number of members who have themselves been elected under the Articles of Association. No person or entity exercises any kind of formal influence over the Foundation's Board. The Board of the Novo Nordisk Foundation currently consists of nine persons, of whom two are also members of the Board of Directors of Novo Nordisk A/S (Mads Øvlisen and Stig Strøbæk).

Under its statutes, Novo A/S is governed by a Board of Directors, which must consist of at least three and not more than six members to be elected by the shareholder to serve for terms of one year. According to

---

the statutes of the Foundation, its Board of Governors can and shall provide for members of its own Board of Governors to be elected to Novo A/S Board of Directors. The Board of Directors of Novo A/S currently consists of five persons, with two directors being members of the Board of the Foundation (Palle Marcus and Jørgen Boe) and two other directors also being member of the Board of Directors of Novo Nordisk A/S (Kurt Anker Nielsen and Ulf J Johansson). The Chairman of the Foundation's Board of Governors serves as the Chairman of Novo A/S Board of Directors.

According to the statutes the Foundation is required, in exercising its voting rights through Novo A/S at Novo Nordisk A/S General Meetings, to have regard for the protection of Novo Nordisk's interests. A shares held by Novo A/S cannot be sold or be the object of any disposition as long as the Foundation exists. The dissolution of the Foundation or any change in its objectives would require the unanimous vote of the Foundation's Board of Governors, and other changes in the Foundation's statutes would require the approval of two-thirds of the members of the Foundation's Board of Governors. In addition, changes in the Foundation's statutes would require approval of the Danish foundation authorities. According to the statutes the Foundation is required to maintain material influence in Novo Nordisk A/S and its majority vote in Novo A/S.

## Edgar Filing: NOVO NORDISK A S - Form 20-F

The B shares of the Company are registered with the Danish Securities Centre and are not represented by certificates. Generally, the Danish Securities Centre does not provide the Company with information as to such registration. However, set forth below is information as of 5 February 2004 with respect to (a) any shareholder who is known to the Company to be the owner of more than 5% of any class of the Company's securities and (b) the total amount of any class owned by the directors and Executive Management as a group:

<u>Title of class</u>	<u>Identity of person or group</u>	<u>Shares owned</u>	<u>Percent of class</u>	<u>Percent of total votes</u>
A shares	Novo A/S	53,743,600 <sup>1</sup>	100.00	65.39
B shares	Danish Labor Market Supplementary Pension Scheme (ATP)	19,136,565	6.40	2.33
B shares	The Capital Group Companies Inc.	17,364,513	5.77	2.10
B shares	Fidelity Investments	15,256,112	5.07	1.86
B shares	Novo Nordisk A/S and affiliates (treasury shares)	16,542,841	5.50	0.00
B shares	Board of Directors and Executive Management	158,420	0.05	0.02

On the 18 November 2003, FMR Corp. (a U.S. corporation) and Fidelity International Limited (a Bermuda based corporation) notified the Copenhagen Stock Exchange of the ownership of the number of shares stated above under Fidelity Investments. The notification was made on behalf of a number of mutual funds and management companies.

At the Annual General Meeting on 25 March 2003, authorization was given to the Board of Directors, until the next Annual General Meeting, to allow the Company to acquire up to 10% of the share capital of the Company at the price quoted on the date of purchase with a deviation of up to 10%, cf. Section 48 of the Danish Companies Act.

---

<sup>1</sup> The number of A shares is calculated as an equivalent of the trading size (DKK 2) of the listed B shares but is not formally divided into number of shares. The A shares are not listed on any stock exchange.

---

On the 21 February 2003, The Capital Group Companies, Inc. (a U.S. corporation) notified the Copenhagen Stock Exchange of the above holding of shares, on behalf of several subsidiaries engaged in the investment management business. The shares are held in client accounts under the discretionary investment management authority of these subsidiaries.

In August 2002, Novo Nordisk announced a share buy-back scheme of DKK 2 billion which subsequently led to an increase in the holding of its own shares to 4.7% of total shares at 31 December 2003. The share buy-back scheme was completed in December 2003.

As the B shares are in bearer form, it is not possible to give an accurate breakdown of the holdings and number of shareholders per country. It is, however, estimated that approximately 62% of the B share capital was held in Denmark at the end of 2003. Approximately 24% of the B share capital is estimated to be held in North America. The estimated total number of shareholders is more than 75,000 of which more than 50,000 are estimated to be Danish residents and 10,000 to be resident in the U.S.

### RELATED PARTY TRANSACTIONS

Related parties are considered to be the Novo Nordisk Foundation, Novo A/S, the Novozymes Group (due to shared controlling shareholder), associated companies (e.g. Aradigm Corp. and ZymoGenetics, Inc.), the Board of Directors and officers of these entities and Management of Novo Nordisk. Novo Nordisk has access to certain assets of and can purchase certain services from Novo A/S and the Novozymes Group and vice versa. All agreements relating to such assets and services

## Edgar Filing: NOVO NORDISK A S - Form 20-F

are based on the list prices used for sales to third parties where such list prices exist, or the price has been set at what is regarded as market price. The material terms of these agreements are renegotiated annually.

Related party transactions in 2003 are primarily payments for services provided between the Novo Nordisk Group and the Novozymes Group and transactions with associated companies. The financial impact of these transactions is limited.

The total DKK amount of transactions with associated companies has decreased in 2003, primarily due to lower sales from Novo Nordisk to associated companies, and lower equity contribution to Aradigm Corp. There have not been any significant transactions with related parties out of the ordinary course of business since 31 December 2003.

There have not been and are no loans to Board of Directors or Executive Management.

For further information on related party transactions, please refer to Note 35 of the *Annual Financial Report 2003*.

### **INTERESTS OF EXPERTS AND COUNSEL**

Not applicable.

## ITEM 8 FINANCIAL INFORMATION

### **CONSOLIDATED STATEMENTS AND OTHER FINANCIAL INFORMATION**

See Item 17, Financial statements for information on balance sheet, income statement, changes in shareholders funds, cash flow statement, related notes, etc., including comparative figures. PricewaterhouseCoopers,

24

---

independent accountants, have audited the *Annual Financial Report 2003*<sup>1</sup> and their report does not contain qualifications.

For information on net turnover by business segments and geographic segments, see Item 4, Business overview .

#### **Dividend policy**

At the Annual General Meeting on 16 March 2004, the Board of Directors will propose a dividend of DKK 4.40 per share. No dividends will be paid on the Company's holding of its treasury shares. It is the intention of the Board of Directors that, over time, the payout ratio of Novo Nordisk shall be at the level of comparable companies.

#### **Legal proceedings**

Reference is made to Note 34 in the *Annual Financial Report 2003* regarding legal proceedings.

#### **Significant changes**

No significant changes have occurred since the date of the annual financial statements. For information on important events in the financial year of 2003, please refer to Important events under Item 4.

## ITEM 9 THE OFFER AND LISTING

### **Offer and listing details**



## Edgar Filing: NOVO NORDISK A S - Form 20-F

The table below sets forth for the calendar periods indicated, in the first two columns, high and low prices for the B shares as reported by the Copenhagen Stock Exchange and, in the third and fourth columns, high and low ADR prices as reported by the New York Stock Exchange.

Following the change in trading units as of 4 April 2001, all quotes are restated to reflect the new trading unit of DKK 2 per B share and a ratio of B shares to ADRs of 1:1.

Following the demerger of Novozymes A/S in 2000, historical quoted prices have been restated to reflect the share price excluding the value of the discontinued operations.

	<u>DKK per B share</u>		<u>USD per ADR</u>	
	<b>High</b>	<b>Low</b>	<b>High</b>	<b>Low</b>
1999	182	120	25.44	17.23
2000	368	168	41.22	22.45
2001	393	277	46.30	34.70
2002	340	168	40.60	21.50
2003	251	174	41.23	25.10
<b>2002</b>				
1st Quarter	339	289	40.51	33.28
2nd Quarter	340	226	40.60	28.24
3rd Quarter	245	168	32.75	21.50
4th Quarter	233	195	32.01	25.30

1 Two sections are included in the Annual Financial Report 2003 for convenience: Quarterly figures 2002 and 2003 and Adoption of IFRS in 2004. These two sections have not been audited and as such not covered by the independent auditors report.

25

	<u>DKK per B share</u>		<u>USD per ADR</u>	
	<b>High</b>	<b>Low</b>	<b>High</b>	<b>Low</b>
<b>2003</b>				
1st Quarter	234	174	34.50	25.10
2nd Quarter	247	222	39.51	32.36
3rd Quarter	251	213	38.30	32.18
4th Quarter	245	228	41.23	35.01

	<u>DKK per B share</u>		<u>USD per ADR</u>	
	<b>High</b>	<b>Low</b>	<b>High</b>	<b>Low</b>
August 2003	240	213	36.20	32.18
September 2003	251	237	38.30	35.74
October 2003	241	231	38.99	35.60
November 2003	245	229	39.52	35.01
December 2003	243	228	41.23	37.37
January 2004	242	230	41.26	39.03

### PLAN OF DISTRIBUTION

Not applicable.

**MARKETS**

The Company's share capital consists of A shares and B shares. As described above, the A shares are owned by the Novo Nordisk Foundation through its fully owned company Novo A/S and are not listed or traded on any stock exchange. The B shares have been publicly traded since 1974 and have been listed on the Copenhagen Stock Exchange since that time and on the London Stock Exchange since 1978. The Copenhagen Stock Exchange is the principal trading market for the B shares.

American Depositary Receipts ( ADRs ) representing the B shares, as evidenced by American Depositary Receipts issued by JP Morgan Chase Bank of New York, as the Depositary, have been listed on the New York Stock Exchange since 1981. As of 31 December 2003, 10,500,625 B share equivalents (representing 3.5% of the outstanding B shares, adjusted for the treasury shares) were held in the form of ADRs.

**SELLING SHAREHOLDERS**

Not applicable.

**DILUTION**

Not applicable.

**EXPENSES OF THE ISSUE**

Not applicable.

26

---

ITEM 10 ADDITIONAL INFORMATION

**SHARE CAPITAL**

Not applicable.

**MEMORANDUM AND ARTICLES OF ASSOCIATION**

At the Company's Annual General Meeting on 25 March 2003, it was decided to amend the Articles of Association as a consequence of the new Danish Financial Statement Act and the changes made to the Danish Companies Act, which were effective as of 1 January 2002.

The revised Articles of Association are filed together with this Form 20-F, exhibit 1.1.

**MATERIAL CONTRACTS**

There have been no material contracts outside the ordinary course of business. For a description of other contracts, please see the description under Item 4 - Important events .

**EXCHANGE CONTROLS**

## Edgar Filing: NOVO NORDISK A S - Form 20-F

There are no governmental laws, decrees, or regulations in Denmark (including, but not limited to, foreign exchange controls) that restrict the export or import of capital, or that affect the remittance of dividends, interest or other payments to non-resident holders of the B shares or the American Depositary Receipts.

There are no limitations on the right of non-resident or foreign owners to hold or vote the B shares or the American Depositary Receipts imposed by the laws of Denmark or the Articles of Association of the Company.

### TAXATION

The following summary outlines certain United States and Danish tax consequences to holders of ADRs or B shares who are citizens or residents of the United States under the current Convention between the Government of the United States of America and the Government of the Kingdom of Denmark for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Income (the Current Convention).

For purposes of the United States Jobs and Growth Tax Relief Reconciliation Act of 2003 (P-L. 108-27, 117 Stat. 752) and the Internal Revenue Code of 1986 as amended (the US Code), and the Current Convention, the holders of ADRs will be treated as the owners of the underlying B shares.

Under the usual Danish tax procedure withholding tax is deducted from dividend payments to United States residents and corporations at a 28% rate, the rate which is generally applicable in the case of non-residents in Denmark without regard to eligibility for a reduced treaty rate. Under the Current Convention, however, the maximum rate of Danish tax which may be imposed on a dividend paid to a United States resident or corporation not having a permanent establishment (as defined therein) in Denmark is 15%. United States residents and corporations who are eligible for the reduced treaty rate may apply to the Danish tax authorities to obtain a refund of the withholding tax exceeding the maximum rate.

Effective in 1987, the Danish tax authorities approved the Company's proposal to simplify such procedure. Under the approved procedure, U.S. resident shareholders holding ADRs will receive their dividends from the Depository reduced only by the 15% Danish withholding tax provided for in the Current

Convention if they certify to being U.S. residents. Accordingly, U.S. resident shareholders that have submitted the required form (Form 6166) to the Depository will not have to file for any tax withholding refund from the Danish tax authorities.

Subject to the limitations and conditions provided in the Jobs and Growth Tax Relief Reconciliation Act of 2003 (P-L. 108-27, 117 Stat. 752), a United States citizen will be taxed at a maximum of 15% of the dividend, as the dividend is received from a Qualified Foreign Corporation (QFC); Novo Nordisk A/S is a Qualified Foreign Company. It is a condition that the ADR holder fulfills certain holding period requirements.

Subject to the limitations and conditions provided in the U.S. Tax Code, the ADR holder may elect to credit the Danish taxes paid on dividends against its United States federal income tax liability. The credit includes taxes initially withheld from dividends declared to the extent the withheld taxes are not repayable to the United States shareholder. For United States federal income tax purposes, the full dividend payment, without reduction for Danish withholding tax, is treated as a foreign source dividend.

Subject to the limitations and conditions provided in the U.S. Tax Code, a United States resident or domestic corporation may elect to credit against its United States federal income tax liability Danish taxes paid on dividends from a Danish corporation. The credit includes taxes initially withheld from dividends declared to the extent the withheld taxes are not repayable to the United States shareholder. Alternatively, subject to applicable limitations, a U.S. shareholder may elect to deduct Danish taxes withheld from dividend payments which will generally constitute passive income for certain shareholders. For United States federal income tax purposes, the full dividend payment, without reduction for Danish withholding tax, is treated as a foreign

source dividend.

Under the U.S. Tax Code, United States corporations receiving dividend payments from Danish corporations generally will be taxable as income on the dividend and are not eligible for any dividend-received deduction. The full amount of dividends declared, without reduction for any Danish tax withheld, will be included in the gross income of the recipient United States Corporation for United States federal income tax purposes, subject to the aforementioned foreign tax credit.

**Sales of ADRs or B shares**

Gains or losses derived from the sale of ADRs or B shares by an individual not a resident in Denmark or a non-Danish corporation not doing business in Denmark are not subject to Danish taxation, but are subject to the general United States tax rules applicable to such transactions by United States citizens, residents or domestic corporations. A United States shareholder will recognize capital gain or loss for United States federal income tax purposes on a sale or other disposition of ADRs or B shares in the same manner as on the sale or other disposition of any other shares. In addition, any non-resident of Denmark may transfer out of Denmark any convertible currency representing the proceeds of the sales of ADRs or B shares in Denmark.

**DIVIDENDS AND PAYING AGENTS**

Not applicable.

**STATEMENT BY EXPERTS**

Not applicable.

28

---

**DOCUMENTS ON DISPLAY**

It is possible to read and copy documents referred to and filed with the SEC together with this Form 20-F at the SEC's public reference room located at 450 Fifth Street, NW, Washington, DC 20549. Please call the United States Securities and Exchange Commission at 1-800-SEC-0330 for further information on the public reference rooms.

Copies of this Form 20-F Report can be downloaded from the Investors pages on novonordisk.com. (The contents of the website are not incorporated by reference into this Form 20-F.) The 20-F is also filed and can be viewed via EDGAR on sec.gov.

**SUBSIDIARY INFORMATION**

Not applicable.

**ITEM 11 QUALITATIVE AND QUANTITATIVE DISCLOSURES ABOUT MARKET RISKS**

**Financial exposure and financial risk management**

Novo Nordisk has centralized 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 consists of the Foreign Exchange Policy, the Investment Policy, the Financing Policy, and the Policy regarding Credit Risk on Financial Counterparts together with a description of allowed instruments and risk limits.

## Edgar Filing: NOVO NORDISK A S - Form 20-F

According to the policy, Novo Nordisk hedges commercial exposure only and consequently does not enter into speculative positions.

Novo Nordisk uses a fully integrated Treasury Management System to manage all financial positions including accounts payable, accounts receivable, and future expected cash flows. All financial positions are marked-to-market based upon real-time quotes, and risk is assessed using generally accepted standards.

The financial instruments used in conjunction with the Group's financial risk management are e.g. currency forwards, currency options, cross-currency and interest rate swaps. For further information on financial instruments please see Note 33 in the *Annual Financial Report 2003*. Moreover, short- and long-term debts as well as money-market deposits are used in the financial risk management. For further information, please see Notes 9, 10, 19, 21 and 25 in the *Annual Financial Report 2003*.

For a description and discussion of the foreign exchange risk management, interest risk management, counterparty risk management and equity price risk management, please refer to the section on financial risk factors under Financial discussion in the *Annual Financial Report 2003*.

### Sensitivity analysis

When conducting a sensitivity analysis, the Group assesses the change in fair value on the market-sensitive instruments following hypothetical changes in market rates and prices. The rates used to mark-to-market the instruments are market data from the end of 2003.

### Interest rate sensitivity analysis

The financial instruments included in the sensitivity analysis of interest rate risk consist of the Group's marketable bonds and deposits together with short- and long-term loans with floating and fixed interest

29

---

rates. Not included are foreign currency forwards, foreign currency options, and foreign currency swaps due to the very limited interest effect of these instruments when the interest rate risk is assessed through the below-mentioned risk measures.

The interest rate risk is calculated as the duration, which expresses the percentage change in the market value of the financial instruments by a 1 percentage point parallel shift in the interest rate curve.

An interest rate change has a very limited effect on the Group's financial instruments. In the table below is shown how a 1 percentage point change of the interest rate level, all other variables being unchanged, would change the fair value of the Group's financial instruments.

The result of the sensitivity analysis at the end of 2003 is as follows:

	Interest rate level	Fair value of Group's financial instruments (DKK million)
2003	+ 1 percentage point	+ 1
	- 1 percentage point	- 1
2002	+ 1 percentage point	+ 10
	- 1 percentage point	- 10

**Foreign exchange sensitivity analysis**

The financial positions included in the foreign exchange sensitivity analysis are the Group's cash, account receivables and payables, short- and long-term loans, short- and long-term financial investments, foreign currency forward contracts, currency options, and currency swaps hedging transaction exposure. Not included are anticipated currency transactions, investments and fixed assets. Further, currency swaps hedging translation exposure are excluded from the sensitivity analysis, as the effects of changing exchange rates hereon are recognized directly under shareholders' funds. Moreover, the Group does not have any marketable bonds in foreign currency.

At the end of 2003, a 5% increase in the levels of all foreign exchange rates against the DKK, i.e. a unilateral weakening of DKK, would, all other variables being unchanged, result in a decrease in the fair value of the Group's financial positions of DKK 295 million. A 5% decrease in the levels of all foreign exchange rates against DKK, i.e. a unilateral strengthening of DKK, would, all other variables being unchanged, increase the value of the Group's financial positions by DKK 295 million.

In comparison, at the end of 2002, a 5% increase in the levels of all foreign exchange rates against the DKK, i.e. a unilateral weakening of DKK, would, all other variables being unchanged, result in a decrease in the fair value of the Group's financial positions of DKK 164 million. A 5% decrease in the levels of all foreign exchange rates against DKK, i.e. a unilateral strengthening of DKK, would, all other variables being unchanged, increase the value of the Group's financial positions by DKK 164 million.

To reflect the Danish fixed rate policy vis-a-vis EUR, an alternative calculation has been made. This calculation assumes that DKK remains unchanged versus EUR, i.e. that DKK and EUR weaken by 5% against all other currencies. Likewise it is assumed that DKK and EUR strengthen by 5% against all other currencies.

At the end of 2003, a 5% increase in the levels of foreign exchange rates against DKK and EUR would, all other variables being unchanged, result in a decrease in the fair value of the Group's financial positions of DKK 440 million. A 5% decrease in the levels of all foreign exchange rates against DKK and EUR would, all other variables being unchanged, increase the value of the Group's financial positions by DKK 481 million.

30

---

In comparison, at the end of 2002, a 5% increase in the levels of all foreign exchange rates against the DKK and EUR would, all other variables being unchanged, result in a decrease in the fair value of the Group's financial positions of DKK 360 million. A 5% decrease in the levels of all foreign exchange rates against DKK and EUR would, all other variables being unchanged, increase the value of the Group's financial positions by DKK 392 million.

**ITEM 12 DESCRIPTION OF SECURITIES OTHER THAN EQUITY SECURITIES**

Not applicable.

**PART II**

**ITEM 13 DEFAULTS, DIVIDEND ARREARAGES AND DELINQUENCIES**

None.

**ITEM 14 MATERIAL MODIFICATIONS TO THE RIGHTS OF SECURITY HOLDERS AND USE OF PROCEEDS**

None.

ITEM 15 CONTROLS AND PROCEDURES

**Evaluation of disclosure controls and procedures**

Novo Nordisk maintains disclosure controls and procedures that are designed to ensure that information required to be disclosed in the reports that Novo Nordisk files under the Securities Exchange Act of 1934 is recorded, processed, summarized and reported within the time periods specified in the rules and forms of the Securities and Exchange Commission, and that such information is accumulated and communicated to Management, including the Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure. In designing and evaluating the disclosure controls and procedures, Management recognized that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives, and Management necessarily was required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures.

Novo Nordisk's Chief Executive Officer and Chief Financial Officer have evaluated the Company's disclosure controls and procedures within 90 days prior to the date of this Report, and they concluded that these controls and procedures are effective.

**Changes in internal controls over financial reporting**

There have not been significant reductions in the level of internal controls over financial reporting during 2003.

31

---

ITEM 16A AUDIT COMMITTEE FINANCIAL EXPERT

While the whole Board in 2003 in principle served as audit committee, Novo Nordisk expects, in line with international trends, to establish an Audit Committee in March 2004. On the board, Kurt Anker Nielsen and Niels Jacobsen both qualify as audit committee financial experts as defined under the Sarbanes-Oxley Act.

ITEM 16B CODE OF ETHICS

Novo Nordisk has an ethics framework consisting of a number of rules and guidelines, including but not limited to the Novo Nordisk Way of Management, which consists of the Company's Vision, Charter, commitment to the Triple Bottom Line and Policies.

The Novo Nordisk Way of Management is principle-based and describes corporate values and required mindsets on business conduct and ethics including a number of the topics dealt with in the rules on Code of Ethics set forth in the Sarbanes-Oxley Act in the New York Stock Exchange Listed Company Manual.

Novo Nordisk has not established a separate Code of Ethics as a response to the requirement set forth in the Sarbanes-Oxley Act because the framework is already well integrated in the Company, and because the framework includes rules and guidelines reasonably similar to those requirements defined as Code of Ethics in the Sarbanes-Oxley Act and in the New York Stock Exchange Listed Company Manual.

For further information on Novo Nordisk Way of Management please visit Novo Nordisk's homepage [novonordisk.com](http://novonordisk.com) or receive a copy upon request.

ITEM 16C PRINCIPAL ACCOUNTANT FEES AND SERVICES

**Audit fees**

## Edgar Filing: NOVO NORDISK A S - Form 20-F

Reference is made to Note 7 in the *Annual Financial Report 2003* regarding aggregate audit fees.

Audit fees consist of fees billed for the annual audit of the Company's consolidated financial statements and the financial statements of the Parent Company, Novo Nordisk A/S. They also include fees billed for other audit services, which are those services that only the statutory auditor can provide, and include the review of documents filed with the SEC.

### **Audit-related fees**

Reference is made to Note 7 in the *Annual Financial Report 2003* regarding aggregate audit-related fees.

Audit-related fees consist of fees billed for assurance and related services that are related to the performance of the audit or review of the Company's financial statements and include consultations concerning financial accounting and reporting standards; internal control reviews; and statutory audit of subsidiaries' financial statements.

### **Tax fees**

Reference is made to Note 7 in the *Annual Financial Report 2003* regarding aggregate tax fees.

Tax fees include fees billed for tax compliance services, including assistance on the preparation of tax returns and claims for refund; tax consultations, such as assistance and representation in connection with tax audits and appeals, tax advice related to mergers and acquisitions, transfer pricing, and requests for

32

---

rulings or technical advice from taxing authorities; tax planning services; and expatriate tax compliance, consultation and planning services.

### **All other fees**

Reference is made to Note 7 in the *Annual Financial Report 2003* regarding aggregate all other fees.

All other fees include fees billed for services such as royalty audits and wholesaler audits.

### **Pre-approval policies**

The Board of Directors assesses all requests for services with the principal accountant for compliance with the established pre-approval policy regarding audit and non-audit services and either approves or rejects entering the engagement.

## ITEM 16D EXEMPTIONS FROM THE LISTING STANDARDS FOR AUDIT COMMITTEES

Not applicable.

## **PART III**

## ITEM 17 FINANCIAL STATEMENT

The financial statements required by this item accompany this Annual Report as the Novo Nordisk *Annual Financial Report 2003* (see Exhibit 14.1).

In the *Annual Financial Report 2003*, Novo Nordisk discloses some non-GAAP financial measures as defined in Regulation G, including:



Free cash flow;  
Cash/earnings.  
Return on invested capital (ROIC); and

**Free cash flow**

Free cash flow is defined as cash flow from operating activities plus cash flow from investing activities .

Management uses the measure of free cash flow to monitor the operating activities ability to finance the investing activities of the Group. A positive free cash flow shows that the operation is able to finance the investing activities of the Group and thereby external financing is not necessary.

Below is a reconciliation of free cash flow to the GAAP measure net cash flow.

33

**Reconciliation of free cash flow**

Free cash flow is reconciled to net cash flow

DKK Million	2003	2002	2001
Free cash flow	3,846	497	186
+ Cash flow from financing activities	(2,394)	(1,526)	(945)
<b>= Net cash flow</b>	<b>1,452</b>	<b>(1,029)</b>	<b>(759)</b>

**Cash/earnings**

Cash/earnings is defined as free cash flow as a percentage of net profit .

Cash/earnings measures the Group's ability to turn earnings into cash and is, therefore, in the eyes of Management a meaningful measure for public use to demonstrate a sound cash flow development from operations. This is why free cash flow is used as the numerator instead of net cash flow, because it is the ability of operations to generate cash which should be captured. Cash/earnings is reconciled to net cash flow to earnings below.

**Reconciliation of cash/earnings**

DKK Million	2003	2002	2001
<b>Numerator</b>			
Free cash flow	3,846	497	186
<b>Denominator</b>			
Net profit	4,858	4,095	3,865
<b>Cash/earnings (as reported in AFR) in %</b>	<b>79.2%</b>	<b>12.1%</b>	<b>4.8%</b>

**Numerator**

Free cash flow is reconciled to cash flow from operating activities

	Free cash flow	3,846	497	186
+	Cash flow from investing activities	2,313	4,384	4,134
=	<b>Cash flow from operating activities</b>	<b>6,159</b>	<b>4,881</b>	<b>4,320</b>

**Denominator**

No reconciliation

	Cash flow from operating activities	6,159	4,881	4,320
/	Net profit	4,858	4,095	3,865
=	<b>Cash flow from operating activities / Net profit in %</b>	<b>126.8%</b>	<b>119.2%</b>	<b>111.8%</b>

34

**Return on invested capital (ROIC)**

ROIC is defined as operating profit after tax (using the effective tax rate) as a percentage of average stocks, debtors, tangible and intangible fixed assets less non-interest bearing liabilities including provisions (where average is the sum of above assets and liabilities at the beginning of the year and at year-end divided by two) .

ROIC is used by Management as a measure for financial performance and value creation. Management believes that ROIC captures the Group's ability to provide a competitive return on investments in the Group compared to investing in the capital market.

35

**Reconciliation of ROIC**

DKK Million	2003	2002	2001
Operating profit after tax	4,201	3,886	3,599
/ Average non-interest bearing balance sheet items	22,036	19,327	15,564
= <b>ROIC (as reported in AFR) in %</b>	<b>19.1%</b>	<b>20.1%</b>	<b>23.1%</b>

**Numerator**

Reconciliation of Operating profit after tax to Operating profit

Edgar Filing: NOVO NORDISK A S - Form 20-F

	Operating profit after tax	4,201	3,886	3,599
/	(1-effective tax rate) in %	65.8%	65.0%	64.1%
<hr/>				
=	<b>Operating profit</b>	<b>6,384</b>	<b>5,979</b>	<b>5,614</b>
<hr/>				
<b>Denominator</b>				
Reconciliation of Average non-interest bearing balance sheet items to Shareholders' funds				
	Average non-interest bearing balance sheet items as used in ROIC calculation	22,036	19,327	15,564
*	2	44,072	38,654	31,128
-	Non-interest bearing balance sheet items at the beginning of the year	21,299	17,354	13,773
<hr/>				
=	Non-interest bearing balance sheet items at the end of the year	22,773	21,300	17,355
<hr/>				
	Non-interest bearing balance sheet items at the end of the year	22,773	21,300	17,355
+	Investments in associated companies	1,009	1,202	1,307
+	Other fixed asset investments	80	77	94
+	Current asset investments	1,828	315	1,402
+	Cash at bank and in hand	1,262	1,423	1,660
-	Banks and other credit institutions	(753)	(824)	(863)
-	Bank loans	(975)	(564)	(817)
<hr/>				
=	<b>Shareholders' funds at the end of the year (as reported in the AFR)</b>	<b>25,224</b>	<b>22,929</b>	<b>20,138</b>
<hr/>				
	Operating profit	6,384	5,979	5,614
/	Shareholders' funds	25,224	22,929	20,138
<hr/>				
=	<b>Operating profit / Shareholders' funds in %</b>	<b>25.3%</b>	<b>26.1%</b>	<b>27.9%</b>
<hr/>				

ITEM 18 FINANCIAL STATEMENT

The Registrant has responded to Item 17 in lieu of responding to this item.

**ADDITIONAL INFORMATION**

**Enforceability of civil liabilities**

The Company is a Danish corporation and substantially all of its directors and officers, as well as certain independent accountants 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 independent accountants 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 independent accountants 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 law of the United States.

ITEM 19 EXHIBITS

**a. Annual Financial Report**

The following pages from the Annual Financial Report 2003, filed on Form 6-K, dated 25 February 2004, are incorporated by reference.

	<b><u>Page(s) in the Annual Financial Report</u></b>
Financial highlights	[2]
Management report	[4-6]
Outlook for 2004	[6]
Research and development pipeline	[7]
Risk management	[8-9]
Financial discussion	[11-16]
The diabetes care segment; The biopharmaceuticals segment	[12-14]
Financial risk factors and financial risk management	[15]
Foreign exchange risk management	[15-16]
Consolidated profit and loss account for the years ended 31 December [2001, 2002 and 2003]	[18]
Consolidated balance sheets at 31 December 2002 and 2003	[19]
Consolidated cash flow and financial resources for the years ended 31 December [2001, 2002 and 2003]	[20]
Consolidated statements of changes in shareholders' funds for the years ended 31 December [2001, 2002 and 2003]	[21]
Notes to the consolidated financial statements	[22-44]
Note 36, Reconciliation of DK GAAP to US GAAP	[42-44]

## Edgar Filing: NOVO NORDISK A S - Form 20-F

List of companies in the Novo Nordisk Group	[46-47]
Summary of the Group 1999-2003	[48-49]
Adoption of IFRS in 2004	[51-53]
Management Statement	[54]
Corporate governance	[55-57]
Shareholder information	[58-59]
Board of Directors	[60]
Executive Management	[61]

### **b. Exhibits**

List of exhibits:

<b><u>Exhibit No.</u></b>	<b><u>Description</u></b>	<b><u>Method of filing</u></b>
1.1	Articles of Association of Registrant, as amended on 25 March 2003	Filed in English translation.
8.1	List of companies in the Novo Nordisk Group	Incorporated by reference to pages 46-47 of the <i>Annual Financial Report 2003</i> filed on Form 6-K dated 25 February 2004.
12.1	Certification of Lars Rebien Sørensen, President and Chief Executive Officer of Novo Nordisk, pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	Filed together with this Form 20-F for 2003.
12.2	Certification of Jesper Brandgaard, Executive Vice President and Chief Financial Officer of Novo Nordisk, pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	Filed together with this Form 20-F for 2003.
13.1	Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.	Filed together with this Form 20-F for 2003.
14.1	Registrant's Annual Financial Report for the fiscal year ended December 2003.	Incorporated by reference to the Registrant's Report on Form 6-K dated 25 February 2004.
14.2	Registrant's Annual Financial Report for the fiscal year ended December 2002.	Incorporated by reference to the Registrant's Report on Form 6-K dated 20 February 2003.

---

**c. Report of independent auditors**

To the Board of Directors and shareholders  
of Novo Nordisk A/S

We have audited the accompanying consolidated balance sheets of Novo Nordisk A/S and its subsidiaries as of 31 December 2003 and 2002 and the related consolidated profit and loss account, the consolidated statement of changes in shareholders funds and cash flow and financial resources for each of the three years in the period ended 31 December 2003, expressed in Danish kroner and incorporated with reference to the Registrants Annual Financial Report filed on Form 6-K dated 25 February 2004, pages 1-49. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by Management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Novo Nordisk A/S and its subsidiaries at 31 December 2003 and 2002, and the results of their operations and their cash flows for each of the three years in the period ended 31 December 2003, in conformity with accounting principles generally accepted in Denmark.

Accounting principles generally accepted in Denmark vary in certain significant respects from accounting principles generally accepted in the United States of America. Information relating to the nature and effect of such differences is presented in Note 36 to the consolidated financial statements in the *Annual Financial Report 2003*.

PricewaterhouseCoopers  
Copenhagen  
Denmark

4 February 2004

**SIGNATURES**

The Registrant hereby certifies that it meets all of the requirements for filing on Form 20-F and that it has duly caused and authorized the undersigned to sign this Annual Report on its behalf.

**NOVO NORDISK A/S**

/s/ Lars Rebien Sørensen

/s/ Jesper Brandgaard

Edgar Filing: NOVO NORDISK A S - Form 20-F

---

Name: Lars Rebien Sørensen  
Title: President and Chief Executive Officer

---

Name: Jesper Brandgaard  
Title: Executive Vice President and  
Chief Financial Officer

Dated: 24 February 2004