

NOVARTIS AG  
Form 20-F  
January 26, 2010

Use these links to rapidly review the document

[TABLE OF CONTENTS](#)

[NOVARTIS GROUP INDEX TO CONSOLIDATED FINANCIAL STATEMENTS](#)

As filed with the Securities and Exchange Commission on January 26, 2010

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**

Washington D.C. 20549

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**FORM 20-F**

- o REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR 12(g) OF THE SECURITIES EXCHANGE ACT OF 1934  
OR
- ý ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 for the fiscal year ended  
December 31, 2009  
OR
- o TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934  
OR
- o SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934  
**Commission file number 1-15024**

**NOVARTIS AG**

*(Exact name of Registrant as specified in its charter)*

**NOVARTIS Inc.**

*(Translation of Registrant's name into English)*

**Switzerland**

*(Jurisdiction of incorporation or organization)*

**Lichtstrasse 35  
4056 Basel, Switzerland**

*(Address of principal executive offices)*

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Novartis AG  
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(Name, Telephone, E-mail and/or Facsimile number and Address of Company Contact Person)

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

Edgar Filing: NOVARTIS AG - Form 20-F

**Title of class**  
American Depositary Shares  
each representing 1 share,  
nominal value CHF 0.50 per share,  
and shares

**Name of each exchange on which registered**  
New York Stock Exchange, Inc.

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

**None**

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act:

**None**

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

**2,274,353,351 shares**

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

**Yes  No**

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

**Yes  No**

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

**Yes  No**

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

Large accelerated filer

Accelerated filer

Non-accelerated filer

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

U.S. GAAP

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

Other

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

**Item 17  Item 18**

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

**Yes  No**

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Table of Contents**TABLE OF CONTENTS**

<u>INTRODUCTION AND USE OF CERTAIN TERMS</u>	1
<u>FORWARD LOOKING STATEMENTS</u>	1
<u>PART I</u>	3
<u>Item 1. Identity of Directors, Senior Management and Advisers</u>	3
<u>Item 2. Offer Statistics and Expected Timetable</u>	3
<u>Item 3. Key Information</u>	3
<u>3.A Selected Financial Data</u>	3
<u>3.B Capitalization and Indebtedness</u>	6
<u>3.C Reasons for the offer and use of proceeds</u>	6
<u>3.D Risk Factors</u>	6
<u>Item 4. Information on the Company</u>	18
<u>4.A History and Development of Novartis</u>	18
<u>4.B Business Overview</u>	21
<u>Pharmaceuticals</u>	23
<u>Vaccines and Diagnostics</u>	57
<u>Sandoz</u>	64
<u>Consumer Health</u>	71
<u>4.C Organizational Structure</u>	76
<u>4.D Property, Plants and Equipment</u>	76
<u>Item 4A. Unresolved Staff Comments</u>	83
<u>Item 5. Operating and Financial Review and Prospects</u>	83
<u>5.A Operating Results</u>	83
<u>5.B Liquidity and Capital Resources</u>	149
<u>5.C Research &amp; Development, Patents and Licenses</u>	153
<u>5.D Trend Information</u>	153
<u>5.E Off-Balance Sheet Arrangements</u>	154
<u>5.F Aggregate Contractual Obligations</u>	154
<u>Item 6. Directors, Senior Management and Employees</u>	156
<u>6.A Directors and Senior Management</u>	156
<u>6.B Compensation</u>	164
<u>6.C Board Practices</u>	185
<u>6.D Employees</u>	201
<u>6.E Share Ownership</u>	202
<u>Item 7. Major Shareholders and Related Party Transactions</u>	203
<u>7.A Major Shareholders</u>	203
<u>7.B Related Party Transactions</u>	204
<u>7.C Interests of Experts and Counsel</u>	204
<u>Item 8. Financial Information</u>	205
<u>8.A Consolidated Statements and Other Financial Information</u>	205
<u>8.B Significant Changes</u>	205

<u>Item</u>	<u>9.</u>	<u>The Offer and Listing</u>	<u>205</u>
	<u>9.A</u>	<u>Listing Details</u>	<u>205</u>
	<u>9.B</u>	<u>Plan of Distribution</u>	<u>206</u>
	<u>9.C</u>	<u>Market</u>	<u>207</u>
	<u>9.D</u>	<u>Selling Shareholders</u>	<u>207</u>
	<u>9.E</u>	<u>Dilution</u>	<u>207</u>
	<u>9.F</u>	<u>Expenses of the Issue</u>	<u>207</u>

---

Table of Contents

<u>Item</u>	<u>10.</u>	<u>Additional Information</u>	<u>207</u>
	<u>10.A</u>	<u>Share capital</u>	<u>207</u>
	<u>10.B</u>	<u>Memorandum and Articles of Association</u>	<u>207</u>
	<u>10.C</u>	<u>Material contracts</u>	<u>212</u>
	<u>10.D</u>	<u>Exchange controls</u>	<u>212</u>
	<u>10.E</u>	<u>Taxation</u>	<u>212</u>
	<u>10.F</u>	<u>Dividends and paying agents</u>	<u>217</u>
	<u>10.G</u>	<u>Statement by experts</u>	<u>217</u>
	<u>10.H</u>	<u>Documents on display</u>	<u>217</u>
	<u>10.I</u>	<u>Subsidiary Information</u>	<u>218</u>
<u>Item</u>	<u>11.</u>	<u>Quantitative and Qualitative Disclosures about Non-Product-Related Market Risk</u>	<u>219</u>
<u>Item</u>	<u>12.</u>	<u>Description of Securities other than Equity Securities</u>	<u>224</u>
	<u>12.A</u>	<u>Debt Securities</u>	<u>224</u>
	<u>12.B</u>	<u>Warrants and Rights</u>	<u>224</u>
	<u>12.C</u>	<u>Other Securities</u>	<u>224</u>
	<u>12.D</u>	<u>American Depositary Shares</u>	<u>225</u>
<u>PART II</u>			<u>227</u>
<u>Item</u>	<u>13.</u>	<u>Defaults, Dividend Arrearages and Delinquencies</u>	<u>227</u>
<u>Item</u>	<u>14.</u>	<u>Material Modifications to the Rights of Security Holders and Use of Proceeds</u>	<u>227</u>
<u>Item</u>	<u>15.</u>	<u>Controls and Procedures</u>	<u>228</u>
<u>Item</u>	<u>16A.</u>	<u>Audit Committee Financial Expert</u>	<u>228</u>
<u>Item</u>	<u>16B.</u>	<u>Code of Ethics</u>	<u>228</u>
<u>Item</u>	<u>16C.</u>	<u>Principal Accountant Fees and Services</u>	<u>229</u>
<u>Item</u>	<u>16D.</u>	<u>Exemptions from the Listing Standards for Audit Committees</u>	<u>230</u>
<u>Item</u>	<u>16E.</u>	<u>Purchases of Equity Securities by the Issuer and Affiliated Purchasers</u>	<u>231</u>
<u>Item</u>	<u>16F.</u>	<u>Change in Registrant's Certifying Accountant</u>	<u>231</u>
<u>Item</u>	<u>16G.</u>	<u>Corporate Governance</u>	<u>231</u>
<u>PART III</u>			<u>232</u>
<u>Item</u>	<u>17.</u>	<u>Financial Statements</u>	<u>232</u>
<u>Item</u>	<u>18.</u>	<u>Financial Statements</u>	<u>232</u>
<u>Item</u>	<u>19.</u>	<u>Exhibits</u>	<u>233</u>

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Table of Contents

**INTRODUCTION**

Novartis AG and its consolidated affiliates (Novartis or the Group) publish consolidated financial statements expressed in US dollars. Our consolidated financial statements found in Item 18 of this annual report on Form 20-F (Form 20-F) are those for the year ended December 31, 2009 and are prepared in accordance with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB).

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**USE OF CERTAIN TERMS**

In this Form 20-F, references to "US dollars," "\$" or "USD" are to the lawful currency of the United States of America, and references to "CHF" are to Swiss francs; references to the "United States" or to "US" are to the United States of America, references to the European Union (EU) are to the European Union and its 27 member states and references to "Americas" are to North, Central (including the Caribbean) and South America, unless the context otherwise requires; references to "ADS" or "ADSS" are to Novartis American Depositary Shares; references to "associates" are to employees of our affiliates; references to the "FDA" are to the US Food and Drug Administration, and references to "EMEA" are to the European Medicines Agency, an agency of the EU. All product names appearing in italics are trademarks owned by or licensed to Group companies. Product names identified by a "@" or a " " are trademarks that are not owned by or licensed to Group companies. You will find the words "we," "our," "us" and similar words or phrases in this Form 20-F. We use those words to comply with the requirement of the US Securities and Exchange Commission to use "plain English" in public documents like this Form 20-F. For the sake of clarification, each Group company is legally separate from all other Group companies and manages its business independently through its respective board of directors or other top local management body. No Group company operates the business of another Group company nor is any Group company the agent of any other Group company. Each executive identified in this Form 20-F reports directly to other executives of the Group company which employs the executive, or to that Group company's board of directors.

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**FORWARD LOOKING STATEMENTS**

This Form 20-F contains certain "forward looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, which can be identified by terminology such as "planned," "expected," "will," "potential," "pipeline," "outlook," or similar expressions, or by express or implied discussions regarding potential new products, potential new indications for existing products, or regarding potential future revenues from any such products, or potential future sales or earnings of the Novartis Group or any of its divisions or business units; or regarding the potential acquisition and merger with Alcon; or by discussions of strategy, plans, expectations or intentions. You should not place undue reliance on these statements. Such forward-looking statements reflect the current views of the Group regarding future events, and involve known and unknown risks, uncertainties and other factors that may cause actual results to be materially different from any future results, performance or achievements expressed or implied by such statements. There can be no guarantee that any new products will be approved for sale in any market, or that any new indications will be approved for existing products in any market, or that such products will achieve any particular revenue levels. Nor can there be any guarantee that the Novartis Group, or any of its divisions or business units, will achieve any particular financial results. Neither can there be any guarantee that the proposed acquisition and merger with Alcon will be completed in the expected form or within the expected time frame or at all. Nor can there be any guarantee that Novartis will be able to realize any of the potential synergies, strategic benefits or opportunities as a result of the proposed acquisition. In particular, management's expectations could be affected by, among other things, unexpected clinical trial results,

Table of Contents

including additional analysis of existing clinical data or unexpected new clinical data; unexpected regulatory actions or delays or government regulation generally; the Group's ability to obtain or maintain patent or other proprietary intellectual property protection; uncertainties regarding actual or potential legal proceedings, including, among others, product liability litigation, litigation regarding sales and marketing practices, government investigations and intellectual property disputes; competition in general; government, industry, and general public pricing and other political pressures; uncertainties regarding the after-effects of the recent global financial and economic crisis; uncertainties regarding future global exchange rates and uncertainties regarding future demand for our products; uncertainties involved in the development of new pharmaceutical products; the impact that the foregoing factors could have on the values attributed to the Group's assets and liabilities as recorded in the Group's consolidated balance sheet. Some of these factors are discussed in more detail herein, including under "Item 3. Key Information 3.D. Risk factors," "Item 4. Information on the Company," and "Item 5. Operating and Financial Review and Prospects." Should one or more of these risks or uncertainties materialize, or should underlying assumptions prove incorrect, actual results may vary materially from those described in this Form 20-F as anticipated, believed, estimated or expected. We provide the information in this 20-F as of the date of its filing. We do not intend, and do not assume any obligation, to update any information or forward looking statements set out in this Form 20-F as a result of new information, future events or otherwise.

Table of Contents

**PART I**

**Item 1. Identity of Directors, Senior Management and Advisers**

Not applicable.

**Item 2. Offer Statistics and Expected Timetable**

Not applicable.

**Item 3. Key Information**

**3.A Selected Financial Data**

The selected financial information set out below has been extracted from our consolidated financial statements prepared in accordance with IFRS as issued by the IASB. Our consolidated financial statements for the years ended December 31, 2009, 2008 and 2007 are included in "Item 18. Financial Statements" in this Form 20-F.

The results of our Medical Nutrition and Gerber Business Units are shown as discontinued operations for all periods presented, following their divestment in 2007. See "Item 5. Operating and Financial Review and Prospects - 5.A Operating Results Factors Affecting Comparability of Year-on-Year Results of Operations" and "Item 18. Financial Statements note 2" for more detailed discussion.

All financial data should be read in conjunction with "Item 5. Operating and Financial Review and Prospects." All financial data presented in this Form 20-F are qualified in their entirety by reference to the consolidated financial statements and their notes.



Table of Contents

	Year Ended December 31,				
	2009	2008	2007	2006	2005
	(\$ millions, except per share information)				
<b>INCOME STATEMENT DATA</b>					
<b>Net sales from continuing operations</b>	<b>44,267</b>	<b>41,459</b>	<b>38,072</b>	<b>34,393</b>	<b>29,446</b>
<b>Operating income from continuing operations</b>	<b>9,982</b>	<b>8,964</b>	<b>6,781</b>	<b>7,642</b>	<b>6,507</b>
Income from associated companies	293	441	412	264	193
Financial income	198	384	531	354	461
Interest expense	(551)	(290)	(237)	(266)	(294)
<b>Income before taxes from continuing operations</b>	<b>9,922</b>	<b>9,499</b>	<b>7,487</b>	<b>7,994</b>	<b>6,867</b>
Taxes	1,468	(1,336)	(947)	(1,169)	(986)
<b>Net income from continuing operations</b>	<b>8,454</b>	<b>8,163</b>	<b>6,540</b>	<b>6,825</b>	<b>5,881</b>
Net income from discontinued operations		70	5,428	377	260
<b>Group net income</b>	<b>8,454</b>	<b>8,233</b>	<b>11,968</b>	<b>7,202</b>	<b>6,141</b>
Attributable to:					
Shareholders of Novartis AG	8,400	8,195	11,946	7,175	6,130
Non-controlling interests	54	38	22	27	11
Operating income from discontinued operations (including divestment gains)		70	6,152	532	398
<b>Basic earnings per share (\$):</b>					
Continuing operations	3.70	3.59	2.81	2.90	2.52
Discontinued operations		0.03	2.34	0.16	0.11
Total	3.70	3.62	5.15	3.06	2.63
<b>Diluted earnings per share (\$):</b>					
Continuing operations	3.69	3.56	2.80	2.88	2.51
Discontinued operations		0.03	2.33	0.16	0.11
Total	3.69	3.59	5.13	3.04	2.62
Cash dividends <sup>(1)</sup>	3,941	3,345	2,598	2,049	2,107
Cash dividends per share in CHF <sup>(2)</sup>	2.10	2.00	1.60	1.35	1.15
<b>Operating income from continuing operations earnings per share (\$):</b>					
Basic	4.40	3.96	2.93	3.26	2.79
Diluted	4.38	3.92	2.91	3.24	2.78

(1) Cash dividends represent cash payments in the applicable year that generally relate to earnings of the previous year.

(2) Cash dividends per share represent dividends proposed that relate to earnings of the current year. Dividends for 2009 will be proposed to the Annual General Meeting on February 26, 2010 for approval.

Table of Contents

	2009	Year Ended December 31,			
		2008	2007	2006	2005
(\$ millions)					
<b>BALANCE SHEET DATA</b>					
Cash, cash equivalents and marketable securities & derivative financial instruments	17,449	6,117	13,201	7,955	10,933
Inventories	5,830	5,792	5,455	4,498	3,725
Other current assets	10,412	8,972	8,774	8,215	6,785
Non-current assets	61,814	57,418	48,022	46,604	36,289
Assets held for sale related to discontinued operations				736	
<b>Total assets</b>	<b>95,505</b>	<b>78,299</b>	<b>75,452</b>	<b>68,008</b>	<b>57,732</b>
Trade accounts payable	4,012	3,395	3,018	2,487	1,961
Other current liabilities	15,458	13,109	13,623	13,540	13,367
Non-current liabilities	18,573	11,358	9,415	10,480	9,240
Liabilities related to discontinued operations				207	
<b>Total liabilities</b>	<b>38,043</b>	<b>27,862</b>	<b>26,056</b>	<b>26,714</b>	<b>24,568</b>
Issued share capital and reserves attributable to shareholders of Novartis AG	57,387	50,288	49,223	41,111	32,990
Non-controlling interests	75	149	173	183	174
<b>Total equity</b>	<b>57,462</b>	<b>50,437</b>	<b>49,396</b>	<b>41,294</b>	<b>33,164</b>
<b>Total liabilities and equity</b>	<b>95,505</b>	<b>78,299</b>	<b>75,452</b>	<b>68,008</b>	<b>57,732</b>
Net assets	57,462	50,437	49,396	41,294	33,164
Outstanding share capital	825	820	815	850	848
Total outstanding shares (millions)	2,274	2,265	2,264	2,348	2,336

**Cash Dividends per Share**

Cash dividends are translated into US dollars at the Reuters Market System Rate on the payment date. Because we pay dividends in Swiss francs, exchange rate fluctuations will affect the US dollar amounts received by holders of ADSs.

Year Earned	Month and Year Paid	Total Dividend	Total Dividend
		per share (CHF)	per share in \$ (\$)
2005	February 2006	1.15	0.89
2006	March 2007	1.35	1.09
2007	February 2008	1.60	1.53
2008	February 2009	2.00	1.72
2009 <sup>(1)</sup>	February 2010	2.10	2.04 <sup>(2)</sup>

(1) Dividend to be proposed at the Annual General Meeting on February 26, 2010 and to be distributed March 5, 2010.

(2) Translated into US dollars at the 2009 Reuters Market System period end rate of \$0.97 to the Swiss franc. This translation is an example only, and should not be construed as a representation that the Swiss franc amount represents, or has been or could be converted into US dollars at that or any other rate.

Table of Contents**Exchange Rates**

The following table shows, for the years and dates indicated, certain information concerning the rate of exchange of US dollar per Swiss franc based on exchange rate information found on Reuters Market System. The exchange rate in effect on January 19, 2010, as found on Reuters Market System, was CHF 1.00 = \$0.97.

**Year ended December 31,  
(\$ per CHF)**

	<b>Period End</b>	<b>Average<sup>(1)</sup></b>	<b>Low</b>	<b>High</b>
2005	0.76	0.80	0.75	0.88
2006	0.82	0.80	0.76	0.84
2007	0.88	0.83	0.80	0.91
2008	0.94	0.93	0.82	1.02
2009	0.97	0.92	0.84	1.00

**Month end,**

August 2009			0.92	0.95
September 2009			0.94	0.98
October 2009			0.96	0.99
November 2009			0.97	1.00
December 2009			0.95	1.00
January 2010 <sup>(2)</sup>			0.96	0.98

(1) Represents the average of the exchange rates on the last day of each full month during the year.

(2) Through January 19, 2010.

**3.B Capitalization and Indebtedness**

Not applicable.

**3.C Reasons for the offer and use of proceeds**

Not applicable.

**3.D Risk Factors**

Our businesses face significant risks and uncertainties. You should carefully consider all of the information set forth in this annual report on Form 20-F and in other documents we file with or furnish to the SEC, including the following risk factors, before deciding to invest in any Novartis securities. Our business as well as our financial condition or results of operations could be materially adversely affected by any of these risks, as well as other risks and uncertainties not currently known to us or not currently deemed to be material.

**Risks Facing Our Business**

*Our Pharmaceuticals Division faces and will continue to face important patent expirations and aggressive generic competition.*

Our Pharmaceuticals Division's products are generally protected by patent rights, which are intended to provide us with exclusive rights to market the patented products. However, those patent rights are of



Table of Contents

varying strengths and durations. Loss of market exclusivity for one or more important products which we will face in the near future will have a material adverse effect on our results of operations.

The introduction of a generic version of a branded medicine typically results in a significant and rapid reduction in net sales for the branded product because generic manufacturers typically offer their unbranded versions at sharply lower prices. Such competition can result from the regular expiration of the term of the patent. Such competition can also result from the entry of generic versions of another medicine in the same therapeutic class as one of our drugs, or in another competing therapeutic class. In addition, generic manufacturers are taking an increasingly aggressive approach to challenging patents, conducting so-called "launches at risk" of products that are still under legal challenge for patent infringement, before final resolution of legal proceedings.

We also rely in all aspects of our businesses on unpatented proprietary technology, know-how, trade secrets and other confidential information, which we seek to protect through various measures including confidentiality agreements with licensees, employees, third-party collaborators, or consultants who may have access to such information. If these agreements are breached, our contractual remedies may not be adequate to cover any losses.

Some of our best-selling products are expected to face significant competition in the coming years due to the end of market exclusivity resulting from the expiry of patent protection.

The patent on valsartan, the active ingredient of our top-selling drug, *Diovan/Co-Diovan/Diovan HCT* (high blood pressure), expires in the major countries of the EU during 2011, in the US in September 2012, and in Japan in 2013. Our sales may also be impacted in 2010 when a competitor product, Cozaar®, is expected to become the first branded medicine in the same therapeutic class as *Diovan* to lose market exclusivity. In addition, the active ingredient valsartan is also used in the single-pill combination therapies *Exforge/Exforge HCT* (high blood pressure). While there is an expectation that market exclusivities for *Exforge/Exforge HCT* will remain in the EU and Japan due to regulatory exclusivities, there is a risk that the product may face generic competition in the US in September 2012.

The patent on *Femara* (cancer) will expire in 2011 in the US and in major European markets, while generic versions have already been launched in some smaller European markets.

Patents protecting the *Sandostatin LAR* (acromegaly) formulation, the long-acting version of this drug that represents a majority of our *Sandostatin* sales, expire in July 2010 in major markets outside the US, and in 2014 and beyond in the US.

Some of our products are also the subject of ongoing patent litigation. In particular, zoledronic acid, the active ingredient in *Zometa* (cancer), as well as in *Reclast/Aclasta* (osteoporosis), is currently the subject of US patent litigation, with the possibility of an "at risk launch" of a generic version of *Zometa* by one or more generic competitors in December 2010, when the 30-month stay period expires, absent any court decision preventing such a launch before then.

For more information on the patent status of our Pharmaceuticals Division's products see "Item 4. Information on the Company Item 4.B Business Overview Pharmaceuticals Intellectual Property" and "Item 18. Financial Statements note 20".

Clearly, with respect to products for which the patent terms are expiring, the loss of exclusivity of these products will have a material adverse effect on our business, financial condition and results of operations. In addition, should we unexpectedly lose exclusivity on additional products due to patent litigation or other reasons, this will have a material adverse effect on our business, financial condition and results of operations, both due to the loss of revenue, and the difficulties in planning for such losses.

Table of Contents

***Our business is increasingly affected by pressures on drug pricing.***

The growth of overall healthcare costs as a percentage of gross domestic product in many countries means that governments and payors are under intense pressure to control spending even more tightly. These pressures are particularly strong given the lingering effects of the recent global economic and financial crisis. As a result, our businesses and the healthcare industry in general are operating in an ever more challenging environment with very significant pricing pressures. These ongoing pressures include government-imposed industry-wide price reductions, mandatory pricing systems, an increase in imports of drugs from lower-cost countries to higher-cost countries, shifting of the payment burden to patients through higher co-payments, limiting physicians' ability to choose among competing medicines, mandatory substitution of generic drugs and growing pressure on physicians to reduce the prescribing of patented prescription medicines. We expect these efforts to continue as healthcare payors around the globe in particular government-controlled health authorities, insurance companies and managed care organizations step up initiatives to reduce the overall cost of healthcare, restrict access to higher-priced new medicines, increase the use of generics and impose overall price cuts. Such initiatives include the current efforts in the US to enact healthcare reform.

These initiatives not only affect the results of our Pharmaceuticals Division, but also have an increasing impact on the prices we can charge for the generic drugs marketed by our Sandoz Division. This is particularly true in Europe and especially Germany, our second-largest market for generic products, where various measures have been introduced to require generic manufacturers to lower their prices. In addition, in the US, a combination of aggressive efforts by distributors and retailers to increase their profit margins on generic products that are considered commodities, intense and increasing competition between generic pharmaceutical manufacturers, and changes and potential future changes to government regulations, including state and federal regulations and regulations impacting Medicare and Medicaid, are increasing the downward pressure on our prices there. We expect these and other challenges to continue to put pressure on our revenues, and therefore they could have a material adverse effect on our business, financial condition and results of operations.

For more information on pricing controls and on our challenging business environment see "Item 4. Information on the Company Item 4.B Business Overview Pharmaceuticals Price Controls."

***Our research and development efforts may not succeed in bringing high-potential products to market.***

Our ability to continue to grow our business and to replace sales lost due to the end of market exclusivity depends upon the success of our research and development activities in identifying and developing high-potential breakthrough products that address unmet needs, are accepted by patients and physicians, and are reimbursed by payors. To accomplish this, we commit substantial effort, funds and other resources to research and development, both through our own dedicated resources and through various collaborations with third parties. Developing new pharmaceutical products and bringing them to market, however, is a costly, lengthy and uncertain process. In spite of our significant investments, there can be no guarantee that our research and development activities will produce a sufficient number of commercially viable new products.

The research and development process for a new pharmaceutical product can take up to 15 years, or even longer, from discovery to commercial product launch and with a limited available patent life the longer it takes to develop a product, the less time there will be for us to recoup our development costs. New products need not only undergo intensive preclinical and clinical testing, but also must pass a highly complex, lengthy and expensive approval process. During each stage, there is a substantial risk that we will encounter serious obstacles which will further delay us and add substantial expense, or that we will not achieve our goals and, accordingly, may be forced to abandon a product in which we have invested substantial amounts of time and money. Reasons for delays may include: failure of the product candidate in preclinical studies; difficulty enrolling patients in clinical trials or delays or clinical trial holds at clinical trial sites; delays in completing formulation and other testing and work necessary to support an

Table of Contents

application for regulatory approval; adverse reactions to the product candidate or indications of other safety concerns; insufficient clinical trial data to support the safety or efficacy of the product candidate; our inability to manufacture sufficient quantities of the product candidate for development or commercialization activities in a timely and cost-efficient manner; and failure to obtain, or delays in obtaining, the required regulatory approvals for the product candidate or the facilities in which it is manufactured. Similar efforts are required to develop new products in our other divisions, as well, and similar risks apply. For a description of the approval processes which must be followed to market our products, see the sections headed "Regulation" included in the descriptions of our four operating divisions under "Item 4. Information on the Company Item 4.B Business Overview."

The pharmaceuticals industry has seen a dearth of regulatory approvals for new drugs in recent years, coupled with a significant increase in the cost per drug approved. For example, the FDA approved only 26 entirely new drugs (new molecular entities) in 2009. This follows 24 new approvals in 2008 and only 18 in 2007, one of the lowest single-year totals since 1983, when there were 14. These approval levels compare with the average annual approval rate of more than 30 new medicines per year in the period from 1996 to 2004. In addition, many of the new drugs approved in recent years have not been as financially successful as those approved in prior years. This relatively low level of research productivity comes at a time when the worldwide pharmaceuticals industry is estimated to be spending nearly \$50 billion each year on research and development activities, according to the Tufts Center for the Study of Drug Development. As a result, industry research and development spending per new molecular entity approved has climbed more than 200% to \$3.7 billion for 2006-2008 compared to only \$1.2 billion for 1998-2000.

If we are unable to maintain a flow of successful new products and new indications for existing products sufficient to cover our substantial research and development costs and to replace sales lost as older products are lost to generic competition, or displaced by competing products or therapies including the significant number of important products likely to face generic competition in the near future, this could have a material adverse effect on our business, financial condition or results of operations.

In addition, we invest a significant amount of effort and financial resources into research and development collaborations with third parties organizations that we do not control. Many of these may be small companies that do not have the same resources and development expertise as Novartis. If these third parties fail to meet our expectations, we may lose our investment in the collaborations or fail to receive the expected benefits, which could have a material adverse effect on our business, financial condition or results of operations.

***Increasing regulatory scrutiny of drug safety and efficacy may adversely affect us.***

Following several widely publicized issues in recent years, health regulators are increasingly focusing on product safety. Recently, the Obama Administration has publicly emphasized the importance of enforcing US drug safety regulations. In addition, authorities have paid increased attention to the risk/benefit profile of pharmaceutical products. These developments have led to requests for more clinical trial data, for the inclusion of a significantly higher number of patients in clinical trials, and for more detailed analysis of the trials. As a result, the already lengthy and expensive process of obtaining regulatory approvals for pharmaceutical products has become even more challenging.

In addition, the post-approval regulatory burden has been increasing. Approved drugs have increasingly been subject to requirements such as risk evaluation and mitigation strategies, comparative effectiveness studies and requirements to conduct post-approval Phase IV clinical trials to gather far more detailed safety and other data on products. These requirements have the effect of making the maintenance of regulatory approvals increasingly expensive, and further heightening the risk of recalls or loss of market share.

Table of Contents

These regulatory requirements, and any additional adverse regulatory developments in the approval process for new products or in the continued marketing of significant existing products, or any increases in regulation or major changes in the healthcare landscape, could have a material adverse effect on our business, financial condition and results of operations.

***Legal proceedings may have a significant negative effect on our results of operations.***

We are obligated to comply with the laws of the approximately 140 countries in which we operate, covering an extremely wide range of activities. To that end, we have a strong global compliance with law program in place. Nonetheless, in recent years, there has been a trend of increasing litigation and government investigations against companies operating in the industries of which we are a part, especially in the US. A number of our subsidiaries are, and will likely continue to be, subject to various legal proceedings that arise from time to time, including proceedings regarding product liability, commercial disputes, employment and wrongful discharge, antitrust, securities, sales and marketing practices, health and safety, environmental, tax, privacy, and intellectual property matters. As a result, we may become subject to substantial liabilities that may not be covered by insurance. Litigation is inherently unpredictable, and large verdicts sometimes occur. As a consequence, we may in the future incur judgments or enter into settlements of claims that could have a material adverse effect on our results of operations or cash flows.

In particular, governments and regulatory authorities have been stepping up their compliance and law enforcement activities in recent years in key areas, including corruption, marketing practices, antitrust and trade restrictions. Responding to such investigations is costly, and a significant diversion of management's attention from our business. In addition, such investigations may affect our reputation and create a risk of potential exclusion from US federal government reimbursement programs. These factors have contributed to decisions by us and other companies in our industry to enter into settlement agreements with governmental, and particularly federal, authorities. Those settlements have involved and may continue to involve very large cash payments, including the potential repayment of amounts allegedly obtained improperly and penalties up to treble damages. In addition, settlements of healthcare fraud cases often require companies to enter into a corporate integrity agreement, which is intended to regulate company behavior for a period of years. Also, matters underlying governmental investigations and settlements may be the subject of separate private litigation.

Our businesses have been subject, from time to time, to such governmental investigations and information requests by regulatory authorities. For example, we have been cooperating with parallel civil and criminal investigations by the US Attorney's Office for the Eastern District of Pennsylvania (EDPA) into allegations of potential off-label marketing and promotion of our epilepsy drug, *Trileptal*, as well as certain payments made to healthcare providers in connection with this medicine. One of our affiliates recently entered into a plea agreement with the EDPA, which is contingent on court approval, to resolve criminal allegations. Pursuant to the plea agreement, the affiliate will plead guilty to a misdemeanor violation of the US Food, Drug and Cosmetic Act and pay \$185 million. The affiliate is currently negotiating with the EDPA to resolve civil claims relating to *Trileptal*. In the fourth quarter of 2009, we increased provisions relating to the EDPA's *Trileptal* investigation by \$318 million. Total provisions relating to the EDPA's civil and criminal *Trileptal* investigations were \$397 million. Our affiliate is also cooperating with an investigation by the EDPA regarding potential off-label marketing and promotion as well as payments made to healthcare providers in connection with five other products: *Diovan*, *Exforge*, *Sandostatin*, *Tekturna* and *Zelnorm*. We are unable to assess with reasonable certainty the outcome of the investigation related to these five products or the amounts, which could be material, that we might be required to pay to resolve this investigation.

At the same time, our Sandoz Division may, from time to time, seek approval to market a generic version of a product before the expiration of patents claimed by one of our competitors for the branded product. We do this in cases where we believe that the relevant patents are invalid, unenforceable, or



Table of Contents

would not be infringed by our generic product. As a result, affiliates of our Sandoz Division frequently face patent litigation, and in certain circumstances, we may elect to market a generic product even though patent infringement actions are still pending. Should we elect to proceed in this manner and conduct a "launch at risk," we could face substantial damages if the final court decision is adverse to us.

Separately, the US affiliates of our Pharmaceuticals and Sandoz Divisions are the subjects of lawsuits brought by private plaintiffs and a number of state and local governments alleging that they have fraudulently overstated the Average Wholesale Price and "best price," which are, or have been, used by the US federal and state governments in the calculation of, respectively, US Medicare reimbursements and Medicaid rebates. While a Novartis affiliate was successful on appeal in one of these actions, juries have awarded plaintiffs substantial damages in three trials against Novartis affiliates to date. More trials are expected in the future.

Adverse judgments or settlements in any of these cases could have a material adverse effect on our business, financial condition and results of operations.

In addition, in many countries, particularly less-developed markets, we rely heavily on third-party distributors and other agents for the marketing and distribution of our products. Many of these third parties are small and do not have internal compliance resources comparable to those within our organization. Some of these countries are plagued by corruption. If our efforts to screen our third-party agents and detect cases of potential misconduct fail, we could be held responsible for the noncompliance of these third parties with applicable laws and regulations, which may have a negative effect on our reputation and our business.

For more detail regarding specific legal matters currently pending against us and provisions for such matters, see "Item 18. Financial Statements note 20."

***An increasing amount of intangible assets and goodwill on our books may lead to significant impairment charges in the future.***

The amount of goodwill and other intangible assets on our consolidated balance sheet has increased significantly in recent years, primarily due to acquisitions. Although no significant additional impairments are currently anticipated, impairment testing could lead to material impairment charges in the future.

We regularly review our long-lived intangible and tangible assets, including identifiable intangible assets, investments in associated companies and goodwill, for impairment. Goodwill, acquired research and development, and acquired development projects not yet ready for use are subject to impairment review at least annually. Other long-lived assets are reviewed for impairment when there is an indication that an impairment may have occurred. Impairment testing under IFRS may lead to impairment charges in the future. Any significant impairment charges could have a material adverse effect on our results of operations. For a detailed discussion of how we determine whether an impairment has occurred, what factors could result in an impairment and the increasing impact of impairment charges on our results of operations, see "Item 5.A Operating Results Critical Accounting Policies and Estimates Impairment of Long-Lived Intangible and Tangible Assets" and "Item 18. Financial Statements note 11."

***Risks related to our expected acquisition of a majority interest in Alcon and subsequent merger with Alcon.***

On January 4, 2010, we announced that we had exercised our option obtained in 2008 to acquire Nestlé's remaining 52% majority stake in Alcon (such that, with the 25% we previously purchased from Nestlé, we would become a 77% shareholder of Alcon). We also separately proposed to enter into an all-share direct merger with Alcon to acquire the remaining 23% publicly-held stake.

Our acquisition of the 52% majority stake from Nestlé is conditioned upon the receipt of certain governmental clearances or approvals, including the expiration or termination of the applicable waiting period under the US Hart-Scott-Rodino Act, the issuance by the European Commission (EC) of a

Table of Contents

decision under the EC Merger Regulation declaring the merger compatible with the common market, and the clearance or approval of the merger by the antitrust regulators in a number of other countries. While Nestlé and Novartis have agreed to use their reasonable best efforts to obtain these clearances and approvals, there can be no assurance that they will be obtained, or that the governmental authorities will not seek to impose material conditions on the acquisition or require the divestment of material assets.

In addition, our proposed merger with Alcon is conditioned both on the completion of the 52% stake acquisition from Nestlé and on the approval by the Boards of Directors of Novartis and Alcon. The merger would also require two-thirds approval by the shareholders of Novartis and Alcon voting at their respective meetings. If the merger is delayed, the timing and/or realization of the anticipated benefits and cost savings from fully integrating the businesses of Novartis and Alcon will be adversely affected. Once the acquisition and merger with Alcon is approved and completed, its success will depend, in part, on the combined company's ability to realize these benefits and cost savings and to retain and motivate its executives and key employees.

***Our indebtedness could adversely affect our operations.***

As of December 31, 2009 we had \$8.7 billion of non-current financial debt and \$5.3 billion of current financial debt. In addition, we expect to increase our indebtedness by \$16 billion to finance our acquisition of Nestlé's 52% stake in Alcon. Our current and future debt requires us to dedicate a portion of our cash flow to service interest and principal payments and may limit our ability to engage in other transactions and otherwise place us at a competitive disadvantage to our competitors that have less debt. We may have difficulty refinancing our existing debt or incurring new debt on terms that we would consider to be commercially reasonable, if at all.

***We may not be able to realize the expected benefits of our significant investments in emerging growth markets.***

At a time of slowing growth in sales of pharmaceuticals in industrialized countries, many emerging markets have experienced comparatively strong economies, leading to proportionally higher growth and an increasing contribution to the industry's global performance. In 2009, we generated approximately 65% (2008: 64%) of our net sales from continuing operations in the world's seven largest developed markets, while the six leading emerging markets—Brazil, China, India, Russia, South Korea and Turkey—contributed 9% (2008: 9%) of net sales. However, combined net sales in these six priority emerging markets grew 17% in local currency in 2009, compared to 10% sales growth in local currency in the seven largest developed markets during the same period. As a result of this trend, we have been taking steps to increase our presence in these priority emerging markets and in other emerging markets. For example, a cross-divisional operating structure is being expanded following its initial implementation in 2007 to accelerate growth in smaller emerging markets and better position the comprehensive presence of all Novartis products. These types of markets include Northern and Sub-Saharan Africa, Central Asia and some countries in Southeast Asia.

There is no guarantee that our efforts to expand our sales in these countries will succeed, or that these countries will continue to experience growth rates in excess of the world's largest markets. Some emerging countries may be especially vulnerable to the after-effects of the recent global financial crisis, or may have very limited resources to spend on healthcare. See "The after-effects of the recent economic and financial crisis may have a material adverse effect on our results" below. Many of these countries have a relatively limited number of persons with the skills and training suitable for employment at an enterprise such as ours. See also "An inability to attract and retain qualified personnel could adversely affect our business" below. In other emerging countries, we may be required to rely on third-party agents, which may put us at risk of liability. See also "Legal proceedings may have a significant negative effect on our results of operations" above. A failure to continue to expand our business in emerging growth markets could have a material adverse effect on our business, financial condition or results of operations.

Table of Contents

***The after-effects of the recent global economic and financial crisis may have a material adverse effect on our results.***

Many of the world's largest economies and financial institutions continue to be impacted by the recent global economic and financial crisis, with some continuing to face financial difficulty, a decline in asset prices, liquidity problems and limited availability of credit. It is uncertain how long these effects will last, or whether economic and financial trends will worsen or improve. Such uncertain economic times may have a material adverse effect on our revenues, results of operations, financial condition and ability to raise capital. Some of our businesses, including the business units of our Consumer Health Division, may be particularly sensitive to declines in consumer spending. In addition, our Pharmaceuticals, Vaccines and Diagnostics, and Sandoz Divisions may not be immune to consumer cutbacks, particularly given the increasing requirements that patients pay a larger contribution toward their own healthcare costs. As a result, there is a risk that consumers may cut back on prescription drugs and vaccines, as well as consumer health products, to help cope with rising costs and difficult economic times.

The economic crisis may also lead to a disruption or delay in the performance of third parties on which we rely for parts of our business, including licensees and collaboration partners, distributors, clinical trial providers and suppliers of products, intermediates and other goods or services. Such disruptions or delays could have an adverse effect on our business and results of operations.

In addition, the varying impact of difficult economic times on the economies of different countries has impacted, and may continue to unpredictably impact, the translation of our operating results into US dollars, our reporting currency. The financial crisis may also cause the value of our investments in our pension plans to decrease, requiring us to increase our funding of those pension plans. In addition, the financial crisis may also result in a lower return on our financial investments, and a lower value on some of our assets. The financial crisis could also negatively impact the cost of financing or our ability to finance the second step of the Alcon acquisition on favorable terms.

At the same time, significant changes and volatility in the consumer environment, the equity, credit and foreign exchange markets, and in the competitive landscape make it increasingly difficult for us to predict our revenues and earnings into the future. As a result, any revenue or earnings guidance or outlook which we have given or might give may be overtaken by events, or may otherwise turn out to be inaccurate. Though we endeavor to give reasonable estimates of future revenues and earnings at the time we give such guidance, under current market conditions there is a significant risk that such guidance or outlook will turn out to be, or to have been, incorrect.

***Failure to obtain marketing exclusivity periods for new generic products, or to develop differentiated products, as well as intense competition from branded pharmaceuticals companies, may have an adverse effect on the success of our Sandoz Division.***

Our Sandoz Division achieves significant revenue opportunities when it secures and maintains exclusivity periods granted for generic products in certain markets particularly the 180-day exclusivity period granted in the US by the Hatch-Waxman Act and when it is able to develop differentiated, "difficult-to-make" products with few, if any, generic competitors. Failure to obtain and maintain these market opportunities could have an adverse effect on the success of Sandoz. In addition, the division faces intense competition from branded pharmaceuticals companies, which commonly take aggressive steps to limit the availability of exclusivity periods or to reduce their value. These activities may increase the costs and risks associated with our efforts to introduce generic products and may delay or entirely prevent their introduction.

***Sandoz may not be able to realize the expected benefits of our significant investments in "biosimilar" drugs.***

Sandoz has made, and expects to continue to make, significant investments in the development of biotechnology-based products intended for sale as bioequivalent or "biosimilar" generic versions of

Table of Contents

currently marketed biotechnology products. The development of such products is costly and complex. In addition, to date, many countries, most notably the US, do not yet have a legislative or regulatory pathway which would permit such products to be sold in a manner in which the biosimilar product would be readily substitutable for the originator product. Significant delays in the development of such pathways, or significant impediments that may be built into such pathways, could diminish the value of the investments that Sandoz has made, and will continue to make, in its biotechnology operations.

There is no guarantee that our efforts to develop and market these products will be successful or that we will be able to realize the expected benefits from our significant investment in this area. A failure to build and expand our position in biosimilars or to achieve the expected benefits from our investments in this area could have an adverse effect on our business, financial condition and results of operations.

***A failure to develop differentiated vaccines or to bring key products to market in time for the relevant disease seasons could have an adverse effect on the success of our Vaccines and Diagnostics Division.***

The demand for some products marketed by our Vaccines and Diagnostics Division, such as influenza vaccines, is seasonal, while the demand for other vaccines, such as pediatric combination vaccines, depends on changes in birth rates in developed countries. Some vaccines that make an important contribution to the division's net sales and profits, particularly the key seasonal influenza vaccine products, are considered commodities, meaning that there are few therapeutic differences among the vaccines offered by competitors. As a result, these vaccines may suffer from price erosion due to excess product supply across the industry, or from intense price competition. In addition, the market for pandemic and seasonal influenza vaccines is experiencing an unprecedented period of significant volatility given the global A (H1N1) influenza pandemic. While deliveries of pandemic vaccines provided significant contributions to results in 2008 (from A (H5N1) vaccines) and 2009 (from A (H1N1) vaccines), no guarantee can be made that these types of influenza vaccines will provide contributions in 2010 and the future. The ability to develop differentiated, effective and safe vaccines, to gain approval for inclusion in national immunization recommendation lists, and to consistently produce and deliver high-quality vaccines in time for the relevant disease seasons are critical to the success of our Vaccines and Diagnostics Division. In particular, our Vaccines and Diagnostics Division has been working to develop two vaccines to combat different strains of meningococcal meningitis. These products are the primary products in the division's pipeline. If our Vaccines and Diagnostics Division were unable to successfully develop one or both of these products, or if the approval of either or both of these products were significantly delayed, it could have a material adverse effect on the medium- to long-term success of the division.

***Our OTC Business Unit faces adverse impacts from increased competition, as well as potential questions of safety and efficacy.***

The OTC Business Unit of our Consumer Health Division sells over-the-counter medicines, many of which contain ingredients also sold by competitors in the OTC industry. Particularly in the US, our branded OTC products compete against "store brand" products that are made with the same active ingredients as ours. These products do not carry our trusted brand names, but they also do not carry the burden of the expensive advertising and marketing that helped to establish demand for the product. As a result, the store brands may be sold at lower prices. In recent years, consumers have increasingly begun to purchase store brand OTC products instead of branded products. In addition, in recent years, significant questions have arisen regarding the safety, efficacy and potential for misuse of certain products sold by our OTC Business Unit and its competitors. As a result, health authorities around the world have begun to re-evaluate some important over-the-counter products, leading to restrictions on the sale of some of them and even the banning of certain products. For example, in October 2008, acting in consultation with the FDA, we voluntarily re-labeled our US cough and cold medicines to indicate that these products should not be used in children under four years of age. Litigation has often followed actions such as these, particularly in the US. Additional actions and litigation regarding OTC products are possible in the future. These trends have had, and may continue to have, a significant adverse effect on the success of our OTC

Table of Contents

Business Unit. See also " The after-effects of the recent economic and financial crisis may have a material adverse effect on our results" above.

***The manufacture of our products is highly regulated and complex, and may encounter a variety of issues that lead to supply disruptions.***

The products we market, distribute and sell are either manufactured at our own dedicated manufacturing facilities or by third parties. In either case, we need to ensure that manufacturing processes comply with applicable regulations and manufacturing practices, as well as our own high quality standards. In particular, the manufacture of our products is heavily regulated by governmental authorities around the world, including the FDA. If we or our third-party suppliers fail to comply fully with such regulations then there could be a government-enforced shutdown of production facilities or production lines, which in turn could lead to product shortages. A failure to comply fully with such regulations could also lead to a delay in the approval of new products. For example, in August 2008, our Wilson, North Carolina facility received a Warning Letter from the FDA that raised concerns regarding the Wilson facility's compliance with FDA Good Manufacturing Practice regulations, and stated that until the FDA confirmed that the deficiencies had been corrected, the FDA could recommend disapproval of any pending NDAs, abbreviated NDAs or export certificate requests submitted by our Sandoz US affiliate. Voluntary recalls were made in September and in the fourth quarter of 2008 as part of the FDA review of the facility. While this Warning Letter was resolved in August 2009 following a successful FDA inspection, there can be no guarantee that we will not face similar issues in the future, or that we will successfully manage such issues when they arise.

In addition, many of our products involve technically complex manufacturing processes or require a supply of highly specialized raw materials. For some products and raw materials, we may also rely on a single source of supply. As a result of these factors, the production of one or more of our products may be disrupted from time to time.

A disruption in the supply of certain key products, or our failure to accurately predict demand, could have a material adverse effect on our business, financial condition or results of operations. And because our products are intended to promote the health of patients, for some of our products, a supply disruption could subject us to lawsuits or to allegations that the public health, or the health of individuals, has been endangered.

***If any of numerous key assumptions and estimates in calculating our pension plan obligations turn out to be different than our actual experience, we may be required to increase substantially our contributions to pension plans as well as our pension-related costs in the future.***

We sponsor pension and other post-employment benefit plans in various forms. These plans cover a significant portion of our current and former associates. We are required to make significant assumptions and estimates about future events in calculating the present value of expected future expense and liability related to these plans. These include assumptions about discount rates we apply to estimated future liabilities, expected returns on plan assets and rates of future compensation increases. In addition, our actuarial consultants provide our management with historical statistical information such as withdrawal and mortality rates in connection with these estimates. Assumptions and estimates used by Novartis may differ materially from the actual results we experience due to changing market and economic conditions (including the effects of the recent global economic and financial crisis), higher or lower withdrawal rates, or longer or shorter life spans of participants, among other variables. For example, a decrease in the discount rate we apply in determining the present value of expected future obligations of one-half of one percent would have increased our year-end defined benefit obligation by \$1.1 billion. Any differences between our assumptions and estimates and our actual experience could have a material effect on our results of operations and financial condition. For more information on obligations under retirement and other post-employment benefit plans and underlying actuarial assumptions, see "Item 5. Operating and Financial Review and Prospects Item 5.A Operating Results Critical Accounting Policies and

Table of Contents

Estimates Retirement and other post-employment plans" and "Item 18. Financial Statements note 25". See also " The after-effects of the recent economic and financial crisis may have a material adverse effect on our results" above.

***Changes in tax laws or their application could adversely affect our results of operations.***

The integrated nature of our worldwide operations enables us to reduce the effective tax rate on our earnings because a portion of our earnings are taxed at more favorable rates in some jurisdictions. Changes in tax laws or their application with respect to matters such as transfer pricing, intercompany dividends, controlled corporations, and limitations on tax relief allowed on the interest on intercompany debt, could increase our effective tax rate and adversely affect our financial results.

***Ongoing consolidation among our distributors may increase both the purchasing leverage of key customers and the concentration of credit risk.***

Increasingly, a significant portion of our global sales are made to a relatively small number of US drug wholesalers, retail chains and other purchasing organizations. For example, our three most important customers globally are all in the US, and accounted for approximately 8%, 7% and 6%, respectively, of Group net sales from continuing operations in 2009. The largest trade receivables outstanding were for these three customers, amounting to 9%, 6% and 6%, respectively, of the Group's trade receivables at December 31, 2009. The trend has been toward further consolidation among our distributors, especially in the US. As a result, our distributors are gaining additional purchasing leverage, which increases the pricing pressures facing our businesses. Moreover, we are exposed to a concentration of credit risk as a result of this concentration among our customers. If one or more of our major customers experienced financial difficulties, the effect on us would be substantially greater than in the past. This could have a material adverse effect on our business, financial condition and results of operations.

***An inability to attract and retain qualified personnel could adversely affect our business.***

We highly depend upon skilled personnel in key parts of our organization, and we invest heavily in recruiting and training qualified individuals. The loss of the service of key members of our organization particularly senior members of our scientific and management teams could delay or prevent the achievement of major business objectives. In addition, the success of our research and development activities is particularly dependent on our ability to attract and retain sufficient numbers of high-quality researchers and development specialists.

Future economic growth will demand more talented associates and leaders, yet the market for talent will become increasingly competitive. Shifting demographic trends will result in fewer students, fewer graduates and fewer people entering the workforce in the Western world in the next 10 years. The supply of talent for key functional and leadership positions is decreasing, and a talent gap is clearly visible for some professions and geographies engineers in Germany, for example. Recruitment is increasingly regional or global in specialized fields such as clinical development, biosciences, chemistry and information technology.

Emerging markets are expected to be a driving force in global growth, but in countries like Russia and China there is a limited pool of executives with the training and international experience needed to work successfully in a global organization like Novartis. Moreover, younger generations around the world have changing expectations toward careers, engagement and the integration of work in their overall lifestyles. Geographic mobility is expected to decrease, and talent in emerging countries anticipate ample career opportunities closer to home than in the past.

We face intense competition for an increasingly limited pool of qualified individuals from numerous pharmaceutical and biotechnology companies, universities, governmental entities and other research

Table of Contents

institutions. As a result, we may be unable to attract and retain qualified individuals in sufficient numbers, which would have an adverse effect on our business, financial condition and results of operations.

***Environmental liabilities may adversely impact our results of operations.***

The environmental laws of various jurisdictions impose actual and potential obligations on us to remediate contaminated sites. While we have set aside substantial provisions for worldwide environmental liabilities, there is no guarantee that additional costs will not be incurred beyond the amounts for which we have provided in the Group consolidated financial statements. If we are required to further increase our provisions for environmental liabilities in the future, or if we fail to properly manage environmental risks, this could have a material adverse effect on our business, financial condition and results of operations. For more detail regarding environmental matters, see "Item 4.D Property, Plants and Equipment Environmental Matters" and "Item 18. Financial Statements note 20."

***Foreign exchange fluctuations may adversely affect our earnings and the value of some of our assets.***

In the recent past, the US dollar, our reporting currency, has suffered significant decreases in value against other world currencies. Because a significant portion of our earnings and expenditures are in currencies other than the US dollar, these decreases have had a significant impact on our reported net sales and earnings. In 2009, 35% of our net sales from continuing operations were made in US dollars, 31% in euros, 8% in Japanese yen, 3% in Swiss francs and 23% in other currencies. During the same period, 33% of our expenses from continuing operations arose in US dollars, 31% in euros, 12% in Swiss francs, 4% in Japanese yen and 20% in other currencies. As has happened in the recent past, changes in exchange rates between the US dollar and other currencies can result in increases or decreases in our sales, costs and earnings. Fluctuations in exchange rates between the US dollar and other currencies may also affect the reported value of our assets measured in US dollars and the components of shareholders' equity. For more information on the effects of currency fluctuations on our consolidated financial statements and on how we manage currency risk, see "Item 5.A Operating Results Effects of Currency Fluctuations" and "Item 11. Quantitative and Qualitative Disclosures about Non-Product-Related Market Risk." See also "The after-effects of the recent economic and financial crisis may have a material adverse effect on our results" above.

***Significant disruptions of information technology systems or breaches of data security could adversely affect our business.***

Our business is increasingly dependent on increasingly complex and interdependent information technology systems, including Internet-based systems, to support business processes as well as internal and external communications. The size and complexity of our computer systems make them potentially vulnerable to breakdown, malicious intrusion and computer viruses which may result in the loss of key information or impairment of production and business processes. Data security breaches whether by employees or others may expose sensitive data to unauthorized persons. Such disruptions and breaches of security could materially and adversely affect our business.

***Earthquakes could adversely affect our business.***

Our corporate headquarters, the headquarters of our Pharmaceuticals and Consumer Health Divisions, and certain of our major Pharmaceuticals Division production facilities are located near earthquake fault lines in Basel, Switzerland. In addition, other major facilities of our Pharmaceuticals, Vaccines and Diagnostics, Sandoz and Consumer Health Divisions are located near major earthquake fault lines in various locations around the world. In the event of a major earthquake, we could experience business interruptions, destruction of facilities and loss of life, all of which could have a material adverse effect on our business, financial condition and results of operations.

Table of Contents

**Risks Related To Our ADSs**

*The price of our ADSs and the US dollar value of any dividends may be negatively affected by fluctuations in the US dollar/Swiss franc exchange rate.*

Our American Depositary Shares (ADSs) trade on the New York Stock Exchange (NYSE) in US dollars. Since the shares underlying the ADSs are listed in Switzerland on the SIX Swiss Exchange (SIX) and trade in Swiss francs, the value of the ADSs may be affected by fluctuations in the US dollar/Swiss franc exchange rate. In addition, since any dividends that we may declare will be denominated in Swiss francs, exchange rate fluctuations will affect the US dollar equivalent of dividends received by holders of ADSs. If the value of the Swiss franc decreases against the US dollar, the price at which our ADSs trade may and the value of the US dollar equivalent of any dividend will decrease accordingly.

*Holders of ADSs may not be able to exercise preemptive rights attached to shares underlying ADSs.*

Under Swiss law, shareholders have preemptive rights to subscribe for cash for issuances of new shares on a pro rata basis. Shareholders may waive their preemptive rights in respect of any offering at a general meeting of shareholders. Preemptive rights, if not previously waived, are transferable during the subscription period relating to a particular offering of shares and may be quoted on the SIX. US holders of ADSs may not be able to exercise the preemptive rights attached to the shares underlying their ADSs unless a registration statement under the US Securities Act of 1933 is effective with respect to such rights and the related shares, or an exemption from this registration requirement is available. In deciding whether to file such a registration statement, we would evaluate the related costs and potential liabilities, as well as the benefits of enabling the exercise by ADS holders of the preemptive rights associated with the shares underlying their ADSs. We cannot guarantee that a registration statement would be filed, or, if filed, that it would be declared effective. If preemptive rights could not be exercised by an ADS holder, JPMorgan Chase Bank, N.A., as depositary, would, if possible, sell the holder's preemptive rights and distribute the net proceeds of the sale to the holder. If the depositary determines, in its discretion, that the rights could not be sold, the depositary might allow such rights to lapse. In either case, the interest of ADS holders in Novartis would be diluted and, if the depositary allowed rights to lapse, holders of ADSs would not realize any value from the granting of preemptive rights.

**Item 4. Information on the Company**

**4.A History and Development of Novartis**

**Novartis AG**

Novartis AG was incorporated on February 29, 1996 under the laws of Switzerland as a stock corporation (*Aktiengesellschaft*) with an indefinite duration. On December 20, 1996, our predecessor companies, Ciba-Geigy and Sandoz, merged into this new entity, creating Novartis. We are domiciled in and governed by the laws of Switzerland. Our registered office is located at the following address:

Novartis AG  
Lichtstrasse 35  
CH-4056 Basel, Switzerland  
Telephone: 011-41-61-324-1111  
Web: [www.novartis.com](http://www.novartis.com)



Table of Contents

The Novartis Group is a multinational group of companies specializing in the research, development, manufacturing and marketing of a broad range of healthcare products led by innovative pharmaceuticals. Novartis AG, our Swiss holding company, owns, directly or indirectly, 100% of all significant operating companies. For a list of our significant operating subsidiaries, see "Item 18. Financial Statements note 31."

**Important Corporate Developments 2007-January 2010**

The following is an overview of certain important developments between 2007 and January 2010:

**2010**

January            Novartis announces its intention to gain full ownership of Alcon Inc. by first completing the April 2008 agreement with Nestlé S.A. to acquire a 77% majority stake in Alcon, and subsequently entering into an all-share direct merger with Alcon for the remaining 23% minority stake.

**2009**

December        Novartis enters into an agreement to acquire Corthera Inc. for \$120 million plus potential milestone payments related to the successful development and commercialization of relaxin, a potential treatment for acute decompensated heart failure. The agreement is subject to regulatory approvals.

Novartis licenses to Prometheus Laboratories the rights to sell *Proleukin* in the US, commencing in February 2010. Novartis retains the right to sell *Proleukin* outside of the US.

November        Novartis announces \$1 billion investment over the next five years to significantly expand the China Novartis Institutes for BioMedical Research so that it would become the largest pharmaceutical research and development institute in China, and the third largest Novartis research institute worldwide.

Novartis enters into agreement to acquire 85% stake in Chinese vaccines company Zhejiang Tianyuan Bio-Pharmaceutical Co., Ltd., which offers marketed vaccine products in China and research and development projects focused on viral and bacterial diseases, for \$125 million.

Novartis opens large-scale flu cell culture vaccine and adjuvant manufacturing facility in Holly Springs, North Carolina, in partnership with US Department of Health and Human Services, Biomedical Research and Development Authority.

Novartis announces agreement to obtain rights outside the US to INC424, a promising Janus kinase inhibitor in Phase III development as well as worldwide rights to potential c-Met inhibitor compound, from Incyte Corporation for a combined upfront payment of \$150 million as well as an immediate \$60 million milestone payment and rights to potential future milestone payments and royalties based on future sales.

October            Novartis gains exclusive worldwide rights to PTK796, a potential first-in-class IV and oral broad-spectrum antibiotic in Phase III development, from Paratek Pharmaceuticals for upfront payment and eligibility for future milestone payments as well as royalties based on future sales.

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### Table of Contents

Novartis enters into agreement for exclusive US and Canadian rights to *Fanapt*, an FDA-approved oral therapy for schizophrenia, with Vanda Pharmaceuticals Inc. for an upfront payment of \$200 million, eligibility for additional milestone payments and sales royalties.

June Novartis completes an open offer to acquire an additional stake in its majority-owned Indian subsidiary, Novartis India Ltd., increasing its holding to nearly 76.4% from the previous level of 50.9%. The transaction represented a total value of approximately \$80 million.

Novartis successfully launches a EUR 1.5 billion notes issue.

May Novartis signs definitive agreement to acquire for EUR 925 million (\$1.3 billion) the specialty generic injectables business of EBEWE Pharma, providing Sandoz the Group's generics division an opportunity to create a global platform for growth while improving access for patients to many generic oncology medicines. The transaction closed in September.

February Novartis gains worldwide rights to elinogrel (PRT128), a Phase II anti-clotting compound with potential to reduce risk of heart attack and stroke, from Portola Pharmaceuticals Inc. for an upfront payment of \$75 million and rights to future milestone payments and royalties based on future sales.

Novartis successfully completes a \$5 billion debt offering in the US.

### **2008**

October Novartis enters into an agreement to acquire the pulmonary business unit of Nektar Therapeutics for \$115 million. The transaction closed in December.

July Novartis acquires majority ownership in Speedel, a Swiss-based pharmaceuticals company, and commits to acquire all remaining shares in a mandatory public tender offer (completed in September 2008), with total costs estimated at approximately \$888 million.

Novartis enters into a strategic partnership with Lonza, a Swiss pharmaceuticals manufacturing company, to accelerate growth of its biologic pharmaceuticals pipeline.

June Novartis gains rights to PTZ601, a promising hospital antibiotic in clinical development, through the full acquisition of Protez Pharmaceuticals for \$102 million in total and potential future payments of an additional \$300 million.

Two Swiss franc bonds are successfully issued totaling CHF 1.5 billion.

April Novartis strengthens its healthcare portfolio through an agreement with Nestlé S.A. under which Novartis obtained the right to acquire majority ownership in Alcon Inc., the world leader in eye care, including pharmaceutical, surgical and consumer products, in two steps. In the first step, completed in July 2008, Novartis acquired a 25% stake in Alcon from Nestlé for \$10.4 billion. The optional second step provides Novartis the right to buy, and Nestlé the right to sell, the remaining 52% stake in Alcon held by Nestlé between January 2010 and July 2011 for up to approximately \$28 billion.

### **2007**

December Novartis announces a new strategic initiative called "Forward" to enhance productivity by simplifying organizational structures, accelerating and decentralizing decision-making

Table of Contents

and redesigning the way we operate. Through this initiative, we aim to reduce our cost base by approximately \$1.6 billion by 2010 compared to 2007 levels. The initiative resulted in a restructuring charge of \$444 million.

November	Novartis completes its fifth share repurchase program, initiated in July 2007. A total of 63,173,000 Novartis shares were repurchased for CHF 4 billion.
October	Novartis Biologics is established as a focused unit to accelerate and optimize research and development of innovative biologic medicines, which make up 25% of the Novartis pre-clinical product pipeline.
September	Novartis completes the sale of its Gerber Business Unit to Nestlé for \$5.5 billion.  Novartis and Bayer Schering Pharma AG (Bayer Schering) receive regulatory approval to complete an agreement related to various rights for the multiple sclerosis treatment Betaseron®. Novartis received a one-time payment of approximately \$200 million, principally for manufacturing facilities transferred to Bayer Schering, and received rights to market its own version of Betaseron® starting in 2009.
July	Novartis completes the sale of its Medical Nutrition Business Unit to Nestlé for \$2.5 billion. Novartis enhances vaccines pipeline by gaining access to Intercell's key technologies and vaccines programs through an expanded strategic alliance.  Novartis completes its fourth share repurchase program, initiated in August 2004. A total of 47,575,000 Novartis shares were repurchased for CHF 3 billion.
April	Novartis announces a definitive agreement to divest Gerber to Nestlé for \$5.5 billion, the final step in a divestment program to focus the Group's strategy on healthcare, with pharmaceuticals at the core.  For information on our principal expenditures on property, plants and equipment, see "Item 4. Information on the Company 4.D Property, Plants & Equipment." For information on our significant investments in research and development, see the sections headed "Research and Development" included in the descriptions of our four operating divisions under "Item 4. Information on the Company 4.B Business Overview."

**4.B Business Overview**

**OVERVIEW**

Novartis provides healthcare solutions that address the evolving needs of patients and societies worldwide. Our broad portfolio includes innovative medicines, preventive vaccines and diagnostic tools, generic pharmaceuticals and consumer health products. Novartis is the only company to have leadership positions in each of these areas.

The Group's businesses are organized in four global operating divisions:

Pharmaceuticals: Innovative patent-protected prescription medicines

Vaccines and Diagnostics: Human vaccines and blood-testing diagnostics

Sandoz: Generic pharmaceuticals

Consumer Health: OTC (over-the-counter medicines), Animal Health and CIBA Vision (contact lenses and lens-care products)

Table of Contents

Our strategy is to strengthen this healthcare portfolio through sustained investments in innovation, as well as through targeted acquisitions. In April 2008, we announced a significant agreement with Nestlé S.A. providing the right to acquire 77% majority ownership of Alcon Inc. (NYSE: ACL) in two steps and add this world leader in eye care to our portfolio. In July 2008, the first step was completed when Novartis acquired a 25% stake in Alcon for \$10.4 billion in cash. On January 4, 2010, Novartis announced its intention to gain full ownership of Alcon Inc. (NYSE: ACL) by first completing the April 2008 agreement with Nestlé S.A. by taking the second step and acquiring Nestlé's remaining 52% majority stake in Alcon, and subsequently entering into an all-share direct merger with Alcon for the remaining 23% minority stake. Novartis believes this proposed merger, which would be implemented under the Swiss Merger Act, is in the interest of all stakeholders and will provide the needed clarity on Alcon's future. Alcon is expected to strengthen the Group's portfolio focused on healthcare and provide greater access to the fast-growing global eye care sector. Following the expected successful completion of the merger, Alcon would be established as a new Novartis division that incorporates Novartis and Alcon's highly complementary eye care assets.

Novartis completed the divestment of its remaining non-healthcare businesses in 2007 with the sale of the Medical Nutrition (effective July 1) and Gerber (effective September 1) Business Units, which were previously included in the Consumer Health Division. These businesses were sold in separate transactions to Nestlé S.A.

Novartis achieved net sales of \$44.3 billion in 2009, while net income amounted to \$8.5 billion. We invested \$7.5 billion in Research & Development in 2009.

Headquartered in Basel, Switzerland, we employed 99,834 full-time equivalent associates as of December 31, 2009, and have operations in approximately 140 countries around the world.

**Pharmaceuticals Division**

Our Pharmaceuticals Division researches, develops, manufactures, distributes and sells branded prescription medicines in the following therapeutic areas: Cardiovascular and Metabolism; Oncology; Neuroscience and Ophthalmics; Respiratory; Immunology and Infectious Diseases; and Other. The Pharmaceuticals Division is organized into global business franchises responsible for the development and marketing of various products, as well as a business unit called Novartis Oncology, responsible for the global development and marketing of oncology products. Novartis Oncology is not required to be disclosed separately as a segment since it shares common long-term economic perspectives, customers, research, development, production, distribution and regulatory factors with the rest of the division. In 2009, the Pharmaceuticals Division accounted for \$28.5 billion, or 65%, of Group net sales, and for \$8.4 billion, or 78%, of Group operating income (excluding Corporate income and expense, net).

**Vaccines and Diagnostics Division**

Our Vaccines and Diagnostics Division researches, develops, manufactures, distributes and sells preventive vaccines and diagnostic tools. Novartis Vaccines is a leading global developer and manufacturer of human vaccines. Key products include influenza, meningococcal, pediatric and travel vaccines. Novartis Diagnostics is a blood testing and molecular diagnostics business dedicated to preventing the spread of infectious diseases through novel blood-screening tools that protect the world's blood supply. In 2009, the Vaccines and Diagnostics Division accounted for \$2.4 billion, or 5%, of Group net sales, and provided \$372 million, or 3%, of the Group's operating income (excluding Corporate income and expense, net).

**Sandoz Division**

Our Sandoz Division is a leading global generic pharmaceuticals company that develops, manufactures, distributes and sells prescription medicines, as well as pharmaceutical and biotechnological active substances, which are not protected by valid and enforceable third-party patents. The Sandoz

Table of Contents

Division has activities in Retail Generics, Anti-Infectives, Biopharmaceuticals and Oncology Injectables (following the acquisition of EBEWE Pharma, which was completed in September 2009). In Retail Generics, Sandoz develops, manufacture, distributes and sells active ingredients and finished dosage forms of medicines, as well as supplying active ingredients to third parties. In Anti-Infectives, Sandoz develops, manufactures, distributes and sells active pharmaceutical ingredients and intermediates, mainly antibiotics, for internal use by Retail Generics and for sale to third-party customers. In Biopharmaceuticals, Sandoz develops, manufactures, distributes and sells protein- or biotechnology-based products (known as "biosimilars" or follow-on biologics) and sells biotech manufacturing services to other companies. In Oncology Injectables, Sandoz develops, manufactures, distributes and sells cytotoxic products for the hospital market. Sandoz offers approximately 1,000 compounds in more than 130 countries. In 2009, Sandoz accounted for \$7.5 billion, or 17%, of Group net sales, and for \$1.1 billion, or 10%, of Group operating income (excluding Corporate income and expense, net).

**Consumer Health Division**

Our Consumer Health Division consists of three business units: OTC (over-the-counter medicines), Animal Health and CIBA Vision. Each has its own research, development, manufacturing, distribution and selling capabilities. However, none are material enough to the Group to be separately disclosed as a segment. OTC offers readily available consumer medicine. Animal Health provides veterinary products for farm and companion animals. CIBA Vision markets contact lenses and lens care products. The Medical Nutrition and Gerber Business Units, which were previously included in the Consumer Health Division, were divested during 2007. The results of these business units have been reclassified and disclosed in this Form 20-F as discontinued operations in all applicable periods. In 2009, the Consumer Health Division (excluding discontinued operations) accounted for \$5.8 billion, or 13%, of Group net sales, and for \$1.0 billion, or 9%, of Group operating income (excluding Corporate income and expense, net).

**PHARMACEUTICALS**

**Overview**

Our Pharmaceuticals Division is a world leader in offering innovation-driven, patent-protected medicines to patients and physicians.

The Pharmaceuticals Division researches, develops, manufactures, distributes and sells branded pharmaceuticals in the following therapeutic areas:

Cardiovascular and Metabolism

Oncology (including Hematology and Molecular Diagnostics)

Neuroscience and Ophthalmics

Respiratory

Immunology and Infectious Diseases

Other

The Pharmaceuticals Division is organized into global business franchises responsible for the marketing of various products as well as a business unit called Novartis Oncology responsible for the global development and marketing of oncology products. The Oncology Business Unit is not required to be separately disclosed as a segment in our consolidated financial statements since it shares common long-term economic perspectives, customers, research, development, production, distribution and regulatory environments with the remainder of the Pharmaceuticals

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Division. The Pharmaceuticals Division is the largest contributor among the four divisions of Novartis and reported consolidated net sales of \$28.5 billion in 2009, which represented 65% of the Group's net sales from continuing operations.

Table of Contents

The division is made up of approximately 80 affiliated companies which together employed 56,310 full-time equivalent associates as of December 31, 2009, and sell products in approximately 140 countries. The product portfolio of the Pharmaceuticals Division includes more than 50 key marketed products, many of which are leaders in their respective therapeutic areas. In addition, the division's portfolio of development projects includes 145 potential new products, new indications or new formulations for existing products in various stages of clinical development.

**Pharmaceuticals Division Products**

The following table and summaries describe certain key marketed products and recently launched products in our Pharmaceuticals Division. While we intend to sell all of our marketed products throughout the world, not all products and indications are currently available in every country. Compounds and new indications in development are, unless otherwise indicated, subject to required regulatory approvals and, in certain instances, contractual limitations. These compounds and indications are in various stages of development throughout the world. For some compounds, the development process is ahead in the US; for others, development in one or more other countries or regions is ahead of that in the US. It may not be possible to obtain regulatory approval for any or all of the new compounds and new indications referred to in this Form 20-F. In addition, for some of our products, we are required to conduct post-approval studies (Phase IV) to evaluate long-term effects or to gather information on the use of the products under special conditions. See " Regulation" for further information on the approval process. Certain of the products listed below have lost patent protection or are otherwise subject to generic competition. Others are subject to patent challenges by potential generic competitors. See below and " Intellectual Property" for further information on the patent status of our Pharmaceuticals Division's products.

Table of Contents**Key Marketed Products**

<b>Therapeutic area</b>	<b>Product</b>	<b>Common name</b>	<b>Indication<sup>(1)</sup></b>	<b>Formulation</b>
<b>Cardiovascular and Metabolism</b>	<i>Diovan</i>	valsartan	Hypertension Heart failure Post-myocardial infarction	Capsule Tablet
	<i>Diovan HCT/ Co-Diovan</i>	valsartan and hydrochlorothiazide	Hypertension	Tablet
	<i>Eucreas</i>	vildagliptin and metformin	Type 2 diabetes	Tablet
	<i>Exforge</i>	valsartan and amlodipine besylate	Hypertension	Tablet
	<i>Exforge HCT</i>	valsartan, amlodipine besylate and hydrochlorothiazide	Hypertension	Tablet
	<i>Galvus</i>	vildagliptin	Type 2 diabetes	Tablet
	<i>Lescol/ Lescol XL</i>	fluvastatin sodium	Hypercholesterolemia and mixed dyslipidemia in adults. Secondary prevention of major adverse cardiac events. Slowing the progression of atherosclerosis Heterozygous familial hypercholesterolemia in children and adolescents.	Capsule Tablet
	<i>Lotensin/ Cibacen</i>	benazepril hydrochloride	Hypertension Adjunct therapy in congestive heart failure Progressive chronic renal insufficiency	Tablet
	<i>Lotensin HCT/ Cibadrex</i>	benazepril hydrochloride and hydrochlorothiazide	Hypertension	Tablet
	<i>Lotrel</i>	amlodipine besylate and benazepril hydrochloride	Hypertension	Capsule
	<i>Starlix</i>	nateglinide	Type 2 diabetes	Tablet
	<i>Tekturna/Rasilez</i>	aliskiren	Hypertension	Tablet
	<i>Tekturna HCT/Rasilez HCT</i>	aliskiren and hydrochlorothiazide	Hypertension	Tablet
	<i>Valturna</i>	aliskiren and valsartan	Hypertension	Tablet

<sup>(1)</sup> Not all indications are available in all countries.



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Table of Contents

<b>Therapeutic area Oncology</b>	<b>Product</b>	<b>Common name</b>	<b>Indication<sup>(1)</sup></b>	<b>Formulation</b>
	<i>Afinitor</i>	everolimus	mTor inhibitor for advanced renal cell carcinoma	Tablet
	<i>Exjade</i>	deferasirox	Chronic iron overload due to blood transfusions	Dispersible tablet for oral suspension
	<i>Femara</i>	letrozole tablets/letrozole	Early breast cancer in postmenopausal women following surgery (upfront adjuvant therapy) Early breast cancer in post-menopausal women following standard tamoxifen therapy (extended adjuvant therapy) Advanced breast cancer in post-menopausal women (both as first- and second-line therapies)	Tablet
	<i>Gleevec/ Glivec</i>	imatinib mesylate/imatinib	Certain forms of chronic myeloid leukemia Certain forms of gastrointestinal stromal tumor Certain forms of acute lymphoblastic leukemia Dermatofibrosarcoma protuberans Hypereosinophilic syndrome Aggressive systemic mastocytosis Myelodysplastic/myeloproliferative diseases	Tablet
	<i>Proleukin</i>	aldesleukin	Metastatic renal cell carcinoma Metastatic melanoma	Lyophilized powder for IV infusion upon reconstitution and dilution
	<i>Sandostatin LAR &amp; Sandostatin SC</i>	octreotide acetate for injectable suspension & octreotide acetate	Acromegaly Symptoms associated with carcinoid tumors and other types of gastrointestinal neuroendocrine and pancreatic tumors	Vial Ampoule/pre-filled syringe
	<i>Tasigna</i>	nilotinib	Certain forms of chronic myeloid leukemia in patients resistant or intolerant to prior treatment including <i>Gleevec/Glivec</i>	Capsule
	<i>Zometa</i>	zoledronic acid	Reduce or delay skeletal-related events from bone metastases (cancer that has spread to the bones)	zoledronic acid for injection/zoledronic acid 4 mg

<sup>(1)</sup> Not all indications are available in all countries.

Table of Contents

<b>Therapeutic area</b>	<b>Product</b>	<b>Common name</b>	<b>Indication<sup>(1)</sup></b>	<b>Formulation</b>
<b>Neuroscience and Ophthalmics</b>	<i>Clozaril/</i> <i>Leponex</i>	clozapine	Treatment-resistant schizophrenia Prevention and treatment of recurrent suicidal behavior in patients with schizophrenia and schizoaffective disorder	Tablet
	<i>Comtan</i>	entacapone	Parkinson's disease	Tablet
	<i>Exelon &amp;</i> <i>Exelon Patch</i>	rivastigmine tartrate & rivastigmine transdermal system	Alzheimer's disease Dementia associated with Parkinson's disease	Capsule Oral solution Transdermal patch
	<i>Extavia</i>	Interferon beta-1b	Single demyelinating event with active inflammatory processes and relapsing forms of Multiple Sclerosis	Subcutaneous injection
	<i>Fanapt</i>	iloperidone	Schizophrenia	Tablet
	<i>Focalin &amp;</i> <i>Focalin XR</i>	dexmethylphenidate HCl & dexmethylphenidate modified release	Attention deficit hyperactivity disorder	Tablet Capsule
	<i>Ritalin &amp;</i> <i>Ritalin LA</i>	methylphenidate HCl & methylphenidate HCl modified release	Attention deficit hyperactivity disorder and narcolepsy Attention deficit hyperactivity disorder	Tablet Capsule
	<i>Lucentis</i>	ranibizumab	Wet age-related macular degeneration	Intravitreal injection
	<i>Stalevo</i>	carbidopa, levodopa and entacapone	Parkinson's disease	Tablet
	<i>Tegretol</i>	carbamazepine	Epilepsy Pain associated with trigeminal neuralgia Acute mania and bipolar affective disorders	Tablet Chewable tablet Oral suspension Suppository
	<i>Trileptal</i>	oxcarbazepine	Epilepsy	Tablet Oral suspension
	<i>Visudyne</i>	verteporfin	Wet age-related macular degeneration Pathological myopia Ocular histoplasmosis	Vial, intravenous infusion activated by non-thermal laser light
	<i>Zaditor/</i> <i>Zaditen</i>	ketotifen	Allergic conjunctivitis	Eye drops

<sup>(1)</sup> Not all indications are available in all countries.

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Table of Contents

<b>Therapeutic area</b>	<b>Product</b>	<b>Common name</b>	<b>Indication<sup>(1)</sup></b>	<b>Formulation</b>
<b>Respiratory</b>	<i>Foradil</i>	formoterol	Asthma Chronic obstructive pulmonary disease	Aerolizer (capsules) Aerosol
	<i>Tobi</i>	tobramycin	Pseudomonas aeruginosa infection in cystic fibrosis	Inhalation solution
	<i>Xolair</i>	omalizumab	Allergic asthma	Lyophilized powder for reconstitution as subcutaneous injection
<b>Immunology and Infectious Diseases</b>	<i>Certican/Zortress</i>	everolimus	Prevention of organ rejection (heart and kidney)	Tablet Dispersible tablet for oral suspension
	<i>Coartem/Riamet</i>	artemether and lumefantrine	Plasmodium falciparum malaria or mixed infections that include Plasmodium falciparum Standby emergency malaria treatment	Tablet Dispersible tablet for oral suspension
	<i>Cubicin</i>	daptomycin	Complicated skin and soft tissue infections (cSSTI) Right-sided endocarditis (RIE) due to Staphylococcus aureus Staphylococcus aureus bacteremia when associated with RIE or cSSTI	Powder for solution, injection or infusion
	<i>Ilaris</i>	canakinumab	Cryopyrin-associated periodic syndrome (CAPS)	Lyophilized powder for reconstitution
	<i>Lamisil</i>	terbinafine	Fungal infection of the skin and nails caused by dermatophyte fungi Tinea capitis. Fungal infections of the skin for the treatment of tinea corporis, tinea cruris, tinea pedis and yeast infections of the skin caused by the genus Candida (e.g. Candida albicans)	Tablet Cream DermGel Solution Spray
	<i>Myfortic</i>	mycophenolic acid/mycophenolate sodium, USP	Prevention of graft rejection following kidney transplantation	Tablet
	<i>Neoral</i>	cyclosporine, USP Modified	Prevention of rejection following organ and bone marrow transplantation Non-transplantation autoimmune conditions such as severe psoriasis, nephrotic syndrome, severe rheumatoid arthritis, atopic dermatitis or endogenous uveitis	Capsule Oral solution

<sup>(1)</sup> Not all indications are available in all countries.

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### Table of Contents

<b>Therapeutic area</b>	<b>Product</b>	<b>Common name</b>	<b>Indication<sup>(1)</sup></b>	<b>Formulation</b>
	<i>Reclast/ Aclasta</i>	zoledronic acid/zoledronic acid 5 mg	Treatment of osteoporosis in postmenopausal women to reduce the incidence of hip vertebral and non-vertebral fractures, and to increase bone mineral density Prevention of clinical fractures after hip fracture in men and women Treatment of osteoporosis in men Treatment and prevention of glucocorticoid-induced osteoporosis Prevention of postmenopausal osteoporosis Treatment of Paget's disease of the bone	Intravenous infusion
	<i>Simulect</i>	basiliximab	Prevention of acute organ rejection in de novo renal transplantation	Vial for injection or infusion
	<i>Tyzeka/Sebivo</i>	telbivudine	Chronic hepatitis B	Tablet
	<i>Voltaren/Cataflam</i>	diclofenac sodium/potassium	Inflammatory forms of rheumatism Pain management	Tablet Capsule Drop Ampoule Suppository Gel Powder in sachet Transdermal patch
<b>Other</b>	<i>Combipatch/ Estalis/Estalis Sequi</i>	estradiol hemihydrate and norethisterone acetate	Treatment of symptoms of estrogen deficiency in postmenopausal women with an intact uterus Prevention of osteoporosis in postmenopausal women with an intact uterus	Transdermal patch
	<i>Elidel</i>	pimecrolimus	Atopic dermatitis (eczema)	Cream
	<i>Estraderm TTS/ Estraderm MX</i>	estradiol hemihydrate	Treatment of signs and symptoms of estrogen deficiency due to menopause Prevention of accelerated postmenopausal bone loss	Transdermal patch
	<i>Estragest TTS Sequidot</i>	estradiol hemihydrate and norethisterone acetate	Treatment of symptoms of estrogen deficiency in postmenopausal women with an intact uterus Prevention of postmenopausal osteoporosis in women with an intact uterus	Transdermal patch
	<i>Enablex/Emselex</i>	darifenacin	Overactive bladder	Tablet

<sup>(1)</sup> Not all indications are available in all countries.

Table of Contents

Therapeutic area	Product	Common name	Indication <sup>(1)</sup>	Formulation
	<i>Famvir</i>	famciclovir	Acute herpes zoster including ophthalmic herpes zoster and decreased duration of post herpetic neuralgia Acute treatment of first episode and recurrent genital herpes infections, and for the suppression of recurrent genital herpes Treatment of recurrent herpes labialis (cold sores) Indicated in immunocompromised patients with herpes zoster or herpes simplex infections	Tablet
	<i>Miacalcin/ Miacalcic</i>	salmon calcitonin	Osteoporosis Bone pain associated with osteolysis and/or osteopenia Paget's disease Neurodystrophic disorders (synonymous with algodystrophy or Sudeck's disease) Hypercalcemia	Nasal spray Ampoule & multi-dose Vial for injection or infusion
	<i>Vivelle Dot/ Estradot</i>	estradiol hemihydrate	Estrogen replacement therapy for the treatment of the symptoms of menopause Prevention of postmenopausal osteoporosis	Transdermal patch

(1) Not all indications are available in all countries.

**Selected Leading Products***Cardiovascular and Metabolism*

*Diovan* (valsartan), together with *Diovan HCT/Co-Diovan* (valsartan and hydrochlorothiazide), is the world's No. 1 selling branded high blood pressure medicine (IMS data). *Diovan* is the only agent in its class approved to treat all of the following: high blood pressure (including children 6-16 years), high-risk heart attack survivors and patients with heart failure. First launched in 1996, *Diovan* is available in more than 120 countries for treating high blood pressure, in more than 90 countries for heart failure, and in more than 70 countries for heart attack survivors. First launched in 1997, *Diovan HCT/Co-Diovan* is approved in over 100 countries worldwide. In July 2008, the FDA approved *Diovan HCT* for the first-line treatment of hypertension in patients unlikely to achieve blood pressure control on a single agent. In January 2009, *Co-Diovan* was approved for treatment of high blood pressure in Japan.

*Exforge* (valsartan and amlodipine besylate) is a single-pill combination of the angiotensin receptor blocker *Diovan* and the calcium channel blocker amlodipine besylate. First approved in Switzerland in 2006, and in the US and EU in 2007 for the treatment of high blood pressure, it is now approved in over 90 countries and available in more than 70. In July 2008, the FDA approved *Exforge* for the first-line treatment of hypertension in patients likely to need multiple drugs to achieve their blood pressure goals. *Exforge* was approved in Japan in January 2010. *Exforge HCT* (valsartan, amlodipine besylate and hydrochlorothiazide) is a new single pill combining three widely prescribed high blood pressure treatments ARB (valsartan), CCB (amlodipine) and HCT (hydrochlorothiazide). In April 2009, the FDA approved *Exforge HCT* for patients who have tried taking dual combinations of these classes without success. In September 2009, *Exforge HCT* was approved in Switzerland for patients uncontrolled on any dual therapy, and in October 2009 *Exforge HCT* was approved in the EU as substitution therapy for patients controlled on all three agents (individual or in combination).

Table of Contents

*Tekturna/Rasilez* (aliskiren), and *Valturna* (aliskiren and valsartan) are treatments for high blood pressure based on the first and only approved direct renin inhibitor. *Tekturna/Rasilez* was approved in the US and EU in 2007, and is now available in more than 80 countries. The product is known as *Tekturna* in the US and *Rasilez* in the rest of the world. We are investigating various *Tekturna/Rasilez* single-pill combination products. The first single-pill combination product, *Tekturna/Rasilez* with hydrochlorothiazide called *Tekturna HCT* was approved by the US in January 2008 and in the EU in January 2009, where it is known as *Rasilez HCT*. Another single-pill combination product, *Tekturna/Rasilez* with valsartan called *Valturna* in the US (and to be called *Rasival* in the EU) has been approved by the FDA and was launched in the US in October 2009. *Rasival* was filed with the EMEA in August 2009. In addition, we initiated the ASPIRE HIGHER clinical development program, the largest ongoing cardio-renal outcomes program worldwide, involving more than 35,000 patients in 14 trials. Data from the ALOFT (heart failure) and AVOID (kidney disease) studies, which are part of the ASPIRE HIGHER program, have been added to European product information. Also in Phase III development are *Tekturna/Rasilez* with the calcium channel blocker amlodipine besylate and a triple-combination therapy with *Tekturna/Rasilez*, amlodipine besylate and a diuretic.

*Galvus* (vildagliptin), an oral treatment for type 2 diabetes, and *Eucreas*, a single-pill combination of vildagliptin and metformin, have shown promising results during the rollout in Europe following approvals in 2007. *Eucreas* was the first single-pill combination product including a DPP-4 inhibitor and another medication to be launched in Europe. *Galvus* is currently approved in approximately 70 countries and launched in 37 countries. *Galvus* was approved in Japan in January 2010 under the tradename *Equa*. *Eucreas* is currently approved in approximately 50 countries and launched in more than 40, including markets in the EU, Latin America and Asia.

*Oncology*

*Gleevec/Glivec* (imatinib mesylate tablets/imatinib) is a signal transduction inhibitor approved to treat certain forms of chronic myeloid leukemia (CML) and gastrointestinal stromal tumors (GIST). First launched in 2001, *Gleevec/Glivec* is available in more than 90 countries. *Gleevec/Glivec* is indicated for the treatment of newly diagnosed adult and pediatric patients with a form of CML. *Gleevec/Glivec* is approved in the US, EU and Japan to treat Philadelphia chromosome positive (Ph+) acute lymphoblastic leukemia (ALL), a rapidly progressive form of leukemia; dermatofibrosarcoma protuberans, a rare solid tumor; hypereosinophilic syndrome and myelodysplastic/myeloproliferative diseases; and other rare blood disorders. In the US, *Gleevec/Glivec* is also approved for aggressive systemic mastocytosis. *Gleevec/Glivec* received EU and Swiss regulatory approval in 2009 as a post-surgery (adjuvant setting) therapy for GIST following the US approval in 2008. The *Gleevec/Glivec* International Patient Assistance Program is now available in 80 countries, and is currently providing access to *Gleevec/Glivec* for free to more than 20,000 patients worldwide.

*Tasigna* (nilotinib) is a signal transduction inhibitor of the tyrosine kinase activity of Bcr-Abl, Kit and the PDGF-receptor. Since 2007, *Tasigna* has gained regulatory approval in more than 80 countries including the US, the EU, Switzerland and Japan, to treat a form of chronic myeloid leukemia (CML) in chronic and/or accelerated phase patients resistant or intolerant to existing treatment including *Gleevec/Glivec*. Japanese approval was achieved in January 2009.

*Zometa* (zoledronic acid for injection/zoledronic acid 4 mg) is a leading treatment to reduce or delay skeletal-related events from bone metastases (cancer that has spread to the bones). First approved in the US in 2001, *Zometa* is available in more than 88 countries. *Zometa* is approved for the treatment of patients with multiple myeloma and patients with documented bone metastasis from solid tumors, including prostate, breast and lung tumors. *Zometa* is also approved in most key markets for the treatment of hypercalcemia of malignancy (tumor-induced excessive levels of

Table of Contents

calcium). Zoledronic acid, the active ingredient in *Zometa*, is also available under the trade names *Reclast/Aclasta* for use in non-oncology indications. *Zometa* and *Reclast/Aclasta* may face significant competition in 2010 from denosumab, a new product under development by Amgen.

*Femara* (letrozole tablets/letrozole) is a once-daily oral aromatase inhibitor for the treatment of early stage or advanced breast cancer in postmenopausal women. *Femara* was first launched in 1996 and is currently available in more than 90 countries. *Femara* is approved in the US, EU and other countries as adjuvant therapy for postmenopausal women with hormone receptor-positive early breast cancer. It is also approved in the US, EU and other countries as extended adjuvant therapy for early breast cancer in postmenopausal women who are within three months of completing five years of adjuvant tamoxifen therapy. *Femara* is also approved in the US, EU and other countries as first-line treatment for postmenopausal women with hormone receptor-positive locally advanced or metastatic breast cancer, and as treatment for advanced breast cancer in postmenopausal women with disease progression following anti-estrogen therapy. In some countries, *Femara* is approved as neo-adjuvant (pre-operative) therapy for early stage breast cancer. In Japan, *Femara* is approved for the treatment of all hormone receptor-positive breast cancer in postmenopausal women.

*Sandostatin SC/Sandostatin LAR* (octreotide acetate/octreotide acetate for injectable suspension) is indicated for the treatment of patients with acromegaly, a chronic disease caused by over-secretion of pituitary growth hormone in adults. *Sandostatin* is also indicated for the treatment of certain symptoms associated with carcinoid tumors and other types of gastrointestinal neuroendocrine and pancreatic tumors. *Sandostatin* was first launched in 1988 and is approved in more than 85 countries. *Sandostatin SC* faces worldwide generic competition. However, patent protection continues in major markets for *Sandostatin LAR*.

*Exjade* (deferasirox) is an oral iron chelator approved for the treatment of chronic iron overload due to blood transfusions in patients who have a wide range of underlying anemias. Patients with congenital and acquired chronic anemias, such as thalassemia, sickle cell disease and myelodysplastic syndromes require transfusions as support for their anemia. *Exjade* was first approved in 2005 and is now approved in more than 90 countries including the US, EU and Japan. Approval in China anticipated in 2010. *Exjade* recently received regulatory approvals in the US, EU, Switzerland, and other countries for a new 40 mg/kg dose which provides a new option for patients who require higher dose titration for iron chelation. A New Drug Application for a potential competitive oral iron chelation product is under review by FDA, seeking broad labeling, including cardiac benefits, with possible late 2010 launch. We submitted new safety information to health authorities worldwide in July and August 2009 regarding the use of *Exjade* in myelodysplastic syndrome (MDS) and malignant disease patients. New labeling approved in the EU in November 2009 provides guidance on the selection of appropriate MDS and malignant disease patients for *Exjade* therapy. The review of this data is ongoing by the FDA and other health authorities.

*Afinitor* (everolimus) is an oral inhibitor of the mTOR pathway. It was launched in March 2009 in the US following regulatory approval as the first therapy for patients with advanced renal cell carcinoma (advanced kidney cancer) after failure of treatment with sunitinib or sorafenib. European regulatory approval was received in August 2009 and Japanese approval was received in January 2010. Everolimus, the active ingredient in *Afinitor*, is also available outside of the US under the brand name *Certican* for use in transplantation.

*Other Pharmaceuticals Products*

*Lucentis* (ranibizumab) is a recombinant humanized high affinity antibody fragment that binds to vascular endothelial growth factors. *Lucentis* is the first approved drug for wet age-related macular degeneration (AMD) that has been shown to improve vision and vision-related quality of life. *Lucentis* was approved in the US in June 2006 and the EU in January 2007. It is now approved in

Table of Contents

more than 75 countries. *Lucentis* is developed in collaboration with Genentech, which holds the rights to market the product in the US.

*Exelon* and *Exelon Patch* (rivastigmine tartrate): *Exelon* capsules have been available since 1997 to treat mild to moderate Alzheimer's disease (AD) in more than 70 countries. In 2006, *Exelon* became the only cholinesterase inhibitor to be approved for mild to moderate Parkinson's disease dementia in addition to AD in both the US and EU. *Exelon Patch* (rivastigmine transdermal system) was approved in 2007 in the US and EU and has been launched in more than 60 countries. The once-daily *Exelon Patch* has shown comparable efficacy to the highest recommended doses of *Exelon* capsules, with significant improvement in cognition and overall functioning compared to placebo.

*Neoral* (cyclosporine, USP Modified) is an immunosuppressant to prevent organ rejection following a kidney, liver or heart transplant. This micro-emulsion formulation of cyclosporine is also indicated for treating selected autoimmune disorders such as psoriasis and rheumatoid arthritis. First launched in 1995, *Neoral* is marketed in approximately 100 countries. This product is subject to generic competition.

*Voltaren/Cataflam* (diclofenac sodium/potassium/Resinate/Free Acid) is a leading non-steroidal anti-inflammatory drug (NSAID) for the relief of symptoms in rheumatic diseases such as rheumatoid arthritis and osteoarthritis, and for various other inflammatory and pain conditions. *Voltaren/Cataflam* was first launched in 1973 and is available in more than 140 countries. This product, which is subject to generic competition, is marketed by the Pharmaceuticals Division in a wide variety of dosage forms, including tablets, drops, suppositories, ampoules and topical therapy. In addition, in various countries, our Consumer Health Division's OTC Business Unit markets low-dose oral forms and the topical therapy of *Voltaren* as over-the-counter (OTC) products.

*Lescol/Lescol XL* (fluvastatin sodium) are lipid-lowering drugs used to reduce cholesterol. *Lescol/Lescol XL* are indicated as an adjunct to diet for the treatment of hypercholesterolemia and mixed dyslipidemia in adults, and to reduce cholesterol in children over nine years and adolescents with heterozygous familial hypercholesterolemia. In addition, for patients with coronary artery disease, *Lescol/Lescol XL* are indicated for secondary prevention of major adverse cardiac events and to slow the progression of coronary atherosclerosis. *Lescol* was first launched in 1994 and *Lescol XL* in 2000. Both are available in more than 90 countries.

*Comtan*, *Stalevo* (entacapone, carbidopa, levodopa and entacapone) are indicated for the treatment of Parkinson's disease. *Stalevo* is indicated for certain Parkinson's disease patients who experience end-of-dose motor (or movement) fluctuations, known as "wearing off." *Stalevo* was approved in the US and EU in 2003, and is available from Novartis in more than 50 countries. *Comtan* (entacapone) is also indicated for the treatment of Parkinson's disease patients who experience end-of-dose wearing off and is marketed in approximately 50 countries under a licensing agreement with the Orion Corporation. *Stalevo* and *Comtan* were developed and are manufactured by Orion, and are marketed by Novartis and Orion in their respective territories.

*Ritalin*, *Ritalin LA*, *Focalin*, *Focalin XR* (methylphenidate HCl, methylphenidate HCl extended release, dexamethylphenidate HCl and dexamethylphenidate HCl extended release) are indicated for the treatment of attention deficit hyperactivity disorder (ADHD) in children and adults. *Ritalin* is also indicated for pediatric and adult narcolepsy. *Ritalin* was first marketed during the 1950's and is available in over 50 countries. *Ritalin LA* (long lasting) is available in 20 countries. *Focalin* comprises the active d-isomer of methylphenidate and therefore requires half the dose of *Ritalin*. *Focalin* and *Focalin XR* (extended release) are only available in the US, although *Focalin XR* was approved in Switzerland in December 2009. Immediate-release *Focalin* is subject to generic competition.



Table of Contents

*Reclast/Aclasta* (zoledronic acid 5 mg) is the first and only once-yearly bisphosphonate infusion for the treatment of different forms of osteoporosis. Sold as *Reclast* in the US and *Aclasta* in the rest of the world, the product is approved in 90 countries including the US, EU and Canada, and is the only osteoporosis treatment approved to reduce the incidence of fractures at all three key fracture sites (hip, spine and non-spine) in the treatment of postmenopausal osteoporosis. It is also approved in more than 80 countries for the treatment of Paget's disease of the bone for men and women. The *Reclast/Aclasta* label was expanded in the EU and US to include the reduction in the incidence of clinical fractures after a low trauma hip fracture. The EU has also approved *Aclasta* for the treatment of osteoporosis in men and for the treatment of osteoporosis associated with long-term systemic glucocorticoid therapy in post-menopausal women and in men at increased risk of fracture. *Reclast* is also approved in the US as a treatment to increase bone mass in men with osteoporosis, the prevention and treatment of glucocorticoid-induced osteoporosis in men and women as well as for the prevention of osteoporosis in postmenopausal women. Zoledronic acid, the active ingredient in *Reclast/Aclasta*, is also available under the trade name *Zometa* for use in oncology indications.

*Tegretol* (carbamazepine) has been a mainstay for the treatment of epileptic seizures since 1962. *Tegretol* is also indicated in the US for the treatment of pain associated with trigeminal neuralgia, which is characterized by attacks of intense pain affecting the face, as well as for the treatment of acute mania and bipolar affective disorders in the EU. *Tegretol* is subject to generic competition.

*Foradil* (formoterol fumarate) is a long-acting bronchodilator that offers a fast onset and a 12-hour duration of action for patients with asthma and chronic obstructive pulmonary disease (COPD). It was first registered and launched in Europe in 1994. US approval was granted in 2001, and in 2002 we licensed *Foradil* in the US to Merck (formerly Schering Plough). Novartis markets and distributes *Foradil* in other areas of the world. *Foradil Aeroliser* is a single-dose dry powder inhaler. A pressurized metered-dose inhaler is also available in some countries. The patent on *Foradil* has expired.

*Myfortic* (enteric-coated formulation of mycophenolate sodium) is approved in more than 90 countries for the prevention of acute rejection of kidney allografts, and is indicated in combination with cyclosporine and corticosteroids. *Myfortic* was first approved in the US in 2004 and in the EU in 2003.

*Lotrel* (amlodipine besylate and benazepril hydrochloride) is a high blood pressure treatment which is a single-pill combination of the angiotensin-converting enzyme (ACE) inhibitor benazepril, used in *Lotensin/Cibacen*, and the calcium channel blocker (CCB) amlodipine. Launched in 1995 and only available in the US, *Lotrel* received generic competition in May 2007 as a result of a "launch at risk" of a generic product by Teva Pharmaceuticals, despite a US patent valid until 2017. Our Sandoz Division has also launched an authorized generic version of this high blood pressure medicine. See " Intellectual Property" for further information.

*Trileptal* (oxcarbazepine) is an anti-epileptic drug for the treatment of partial seizures as adjunctive or monotherapy in both adults and children aged four years and above. In the US, *Trileptal* is approved for the treatment of epilepsy. *Trileptal* acts by stabilizing neuronal functions, thereby controlling and limiting the spread of seizures. It was first approved in Denmark in 1990, in the rest of the EU in 1999, and in the US in 2000. Today it is approved in over 100 countries. *Trileptal* is subject to generic competition.

*Xolair* (omalizumab) is the first humanized monoclonal antibody approved for the treatment of moderate to severe allergic asthma in the US in adolescents (aged 12 and above) and adults. It is approved for severe allergic asthma in the EU in children (aged 6 and above), adolescents, and adults. *Xolair* is approved in more than 80 countries, including the US in 2003 and the EU in 2005.

Table of Contents

*Xolair* is being jointly developed with Genentech and is co-promoted in the US by Novartis and Genentech.

*Extavia* (interferon beta-1b) is an injectable disease modifying therapy for relapsing forms of multiple sclerosis (MS). It is the Novartis brand of interferon beta-1b, a product also marketed by Bayer Healthcare Pharmaceuticals Inc. under the brand name Betaseron® in the US and by Bayer Schering Pharma under the brand name Betaferon® in the EU. Bayer Schering supplies the product to Novartis under a contract manufacturing arrangement. *Extavia* was approved in the EU in May 2008 and since January 2009 has been launched in more than 20 markets, including the US in September 2009. Additional launches are planned in 2010. *Extavia* represents the first entry of Novartis into the treatment of MS.

*Ilaris* (canakinumab) is a fully human monoclonal antibody providing specific and highly selective blockade of interleukin-1 $\beta$  (IL-1 $\beta$ ), a cytokine linked to inflammation. *Ilaris* began Phase III development in 2007 for cryopyrin-associated periodic syndrome (CAPS), a group of rare disorders characterized by chronic recurrent fever, urticaria, occasional arthritis, deafness, and potentially life threatening amyloidosis. Clinical studies in CAPS patients treated with *Ilaris* show rapid and long-lasting clinical response. *Ilaris* was approved in the US, the EU and some other markets to treat children four years and older and adults with CAPS.

*Fanapt* (iloperidone) is a dopamine type 2 (D2) and serotonin type 2 (5-HT2A) receptor antagonist antipsychotic agent. *Fanapt* is indicated in the US for the acute treatment of schizophrenia in adults and was launched in January 2010. *Fanapt* belongs to the class of medication for schizophrenia known as atypical antipsychotics.

**Compounds in Development**

The traditional model of development comprises three phases, which are defined as follows:

**Phase I:** First clinical trials of a new compound, generally performed in a small number of healthy human volunteers, to assess the clinical safety, tolerability as well as metabolic and pharmacologic properties of the compound.

**Phase II:** Clinical studies that are performed on patients with the targeted disease, with a view to continuing Phase I safety assessment in a larger group, to assess the efficacy of the drug in the patient population, and to determine the appropriate doses for further testing.

**Phase III:** Large scale clinical studies with several hundred to several thousand patients, to establish the safety and effectiveness of the drug for regulatory approval for indicated uses. Phase III trials may also be used to compare a new drug against a current standard of care, in order to evaluate the overall benefit risk relationship of the new drug.

Novartis, while essentially using the same model as a platform, has tailored the process to be simpler, more flexible and efficient. Our development paradigm consists of two parts: Exploratory and Confirmatory development. Exploratory development consists of clinical "proof of concept" (PoC) studies which are small clinical trials (typically 5-15 patients) that combine elements of traditional Phase I/II testing. These customized trials are designed to give early insights into issues such as safety, efficacy and toxicity for a drug in a given indication. Once a positive proof of concept has been established, the drug moves to the Confirmatory development stage. Confirmatory development has elements of traditional Phase II/III testing and includes trials aimed at confirming the safety and efficacy of the drug in the given indication leading up to submission of a dossier to health authorities for approval. Like traditional Phase III testing, this stage can also include trials which compare the drug to the current standard of care for the disease, in order to evaluate the drug's overall risk/benefit profile.

The following table and summaries describe certain key compounds and new indications for existing products currently in Confirmatory development within our Pharmaceuticals Division

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Table of Contents

<b>Project/Product</b>	<b>Common name</b>	<b>Mechanism of action</b>	<b>Potential indication/Disease area</b>	<b>Therapeutic area</b>	<b>Formulation/Route of administration</b>	<b>Planned filing dates/Current phase</b> US, EU (registration)
ABF656	albinterferon alfa-2b	Interferon alpha-type activity (direct antiviral and immunomodulatory)	Chronic hepatitis C	Immunology and Infectious Diseases	Injection	US, EU (registration)
ACZ885	canakinumab	Anti IL-1 $\beta$ monoclonal antibody	Refractory gout	Immunology and Infectious Diseases	Injection	2010/III
			Systemic onset juvenile idiopathic arthritis	Immunology and Infectious Diseases		2011/III
			Type 2 Diabetes Mellitus	Cardiovascular and Metabolism		2012/II
AEB071	sotrastaurin	Protein kinase C inhibitor	Prevention of organ rejection	Immunology and Infectious Diseases	Oral	$\geq$ 2013/II
			Psoriasis			$\geq$ 2013/II
AFQ056	TBD	mGluR5 antagonist	L-dopa induced dyskinesia in Parkinson's disease	Neuroscience And Ophthalmics	Oral	2012/II
AGO178	agomelatine	MT1 and MT2 agonist and 5-HT <sub>2c</sub> antagonist	Major depressive disorder	Neuroscience And Ophthalmics	Oral dispersible	2012/III
AIN457	TBD	Anti IL-17 monoclonal antibody	Uveitis	Neuroscience And Ophthalmics	Subcutaneous Intravenous injection	2011/III
			Psoriasis	Immunology and Infectious Diseases		$\geq$ 2013/II
			Rheumatoid arthritis	Immunology and Infectious Diseases		$\geq$ 2013/II
ASA404	vadimezan	Tumor vascular disrupting agent	Non-small cell lung cancer	Oncology	Intravenous	2011/III
BAF312	TBD	Sphingosine-1-phosphate (S1P) receptor modulator	Multiple sclerosis	Neuroscience And Ophthalmics	Tablet	$\geq$ 2013/II
BGS649	TBD	Aromatase inhibitor	Refractory endometriosis	Immunology and Infectious Diseases	Tablet	$\geq$ 2013/II
CAD106	TBD	Beta-amyloid-protein immunotherapy	Alzheimer's disease	Neuroscience And Ophthalmics	Subcutaneous Intramuscular injection	$\geq$ 2013/II

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<i>Certican/Zortress</i>	everolimus	Growth-factor-induced immune cell proliferation inhibitor	Prevention of organ rejection kidney	Immunology and Infectious Diseases	Oral	US (registration)
			Prevention of organ rejection liver			2011/III
<i>Diovan and Starlix (free combination)</i>	valsartan and nateglinide	ARB and insulin secretagogue	Prevention of new onset type 2 diabetes, cardiovascular morbidity and mortality (NAVIGATOR)	Cardiovascular and Metabolism	Oral	2010/III
<i>Elidel</i>	pimecrolimus	Topical calcineurin inhibitor	Atopic dermatitis in infants	Other	Cream	2011/III

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Table of Contents

<b>Project/Product</b>	<b>Common name</b>	<b>Mechanism of action</b>	<b>Potential indication/Disease area</b>	<b>Therapeutic area</b>	<b>Formulation/Route of administration</b>	<b>Planned filing dates/Current phase</b>
EPO906	patupilone	Microtubule depolymerization inhibitor	Ovarian cancer	Oncology	Intravenous	2010/III
FTY720	fingolimod	Sphingosine-1-phosphate receptor modulator	Multiple sclerosis	Neuroscience And Ophthalmics	Oral	US, EU (registration)
INC424	TBD	Janus kinase (JAK) inhibitor	Myelofibrosis	Oncology	Oral	2011/III
<i>Joicela</i>	lumiracoxib	Cyclooxygenase 2 inhibitor	Osteoarthritis	Immunology and Infectious Diseases	Oral	EU (registration)
LBH589	panobinostat	Histone deactelylase inhibitor	Multiple Myeloma  Hodgkin's lymphoma	Oncology	Oral	≥ 2013/III  2010/II
LCI699	TBD	Aldosterone synthase inhibitor	Heart failure	Cardiovascular and Metabolism	Intravenous infusion	≥ 2013/II
LCQ908	TBD	Diacylglycerol acyl transferase-1 inhibitor	Type 2 Diabetes Mellitus	Cardiovascular and Metabolism	Tablet	≥ 2013/II
LCZ696	TBD	ARB/NEP inhibitor	Heart failure	Cardiovascular and Metabolism	Oral	≥ 2013/III
LDE225	TBD	Smoothened receptor/hedgehog signaling inhibitors	Gorlin's syndrome	Immunology and Infectious Diseases	Cream	2010/II
<i>Lucentis</i>	ranibizumab	Anti-VEGF monoclonal antibody fragment	Diabetic macular edema  Retinal Vein occlusion	Neuroscience And Ophthalmics	Intravitreal injection	EU (registration)  2011/II
<i>Mycograb</i>	efungumab	Antibody fragment vs. fungal HSP90	Invasive candidiasis	Immunology and Infectious Diseases	Intravenous infusion	≥ 2013/III
NIC002	TBD	Nicotine Qbeta therapeutic vaccine	Smoking cessation	Respiratory	Injection	≥ 2013/II
NVA237	glycopyrronium bromide	Long-acting muscarinic antagonist	Chronic obstructive pulmonary disease	Respiratory	Inhalation	2011/III
PKC412	midostaurin	Signal transduction inhibitor	Acute myeloid leukemia	Oncology	Oral	≥ 2013/III

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			Aggressive systemic mastocytosis			2011/II
PRT128	elinogrel	P2Y12 inhibitor	Acute coronary syndrome, Chronic coronary heart disease	Cardiovascular and Metabolism	IV, Oral	≥ 2013/II
PTK796	TBD	Inhibition of bacterial protein synthesis	Complicated Staphylococcal skin and subcutaneous tissue infections	Immunology and Infectious Diseases	Intravenous, oral	2012/III
PTZ601	TBD	Inhibition of bacterial cell wall synthesis	Staphylococcal skin and subcutaneous tissue infections, Hospital acquired bacterial infections such as pneumonia	Immunology and Infectious Diseases	Intravenous infusion	2012/II

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Table of Contents

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QAB149	indacaterol	Long-acting beta-2 agonist	Chronic obstructive pulmonary disease	Respiratory	Inhalation	EU (approved) US (registration)
QAX028	TBD	Long-acting muscarinic antagonist	Chronic obstructive pulmonary disease	Respiratory	Inhalation	≥ 2013/II
QMF149	indacaterol and mometasone furoate	Long-acting beta-2 agonist and inhaled corticosteroid	Chronic obstructive pulmonary disease	Respiratory	Inhalation	≥ 2013/II
			Asthma			≥ 2013/II
QTI571 ( <i>Glivec</i> )	imatinib mesylate/imatinib	Signal transduction inhibitor	Pulmonary arterial hypertension	Respiratory	Oral	2011/III
QVA149	indacaterol and glycopyrronium bromide	Long-acting beta-2 agonist and long-acting muscarinic antagonist	Chronic obstructive pulmonary disease	Respiratory	Inhalation	2012/II
RAD001 ( <i>Afinitor</i> )	everolimus	mTOR inhibitor	Neuroendocrine tumors	Oncology	Tablet	2010/III
			Tuberous Sclerosis Complex subependymal giant cell astrocytomas			2010/III
			Tuberous Sclerosis Complex Angiomyolipoma			2011/III
			Breast cancer, Estrogen receptor positive			2012/III
			Breast cancer Her2-over-expressing, 1st line			≥ 2013/III
			Breast Her2-over-expressing 2nd/3rd line			≥ 2013/III
			Advanced Gastric Cancer			2012/III
			Diffuse large B-cell lymphoma			≥ 2013/III
			Solid tumors			≥ 2013/II

Table of Contents

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SBR759	TBD	Calcium-free polymeric iron (III)-based phosphate binder	Hyperphosphatemia	Immunology and Infectious Diseases	Powder for oral suspension	2011/II
SMC021	salmon calcitonin	Protects articular cartilage and strengthens subchondral bone	Osteoarthritis	Immunology and Infectious Diseases	Oral	2011/III
		Inhibition of osteoclast activity	Osteoporosis			2011/III
SOM230	pasireotide	Somatostatin analogue	Cushing's disease	Oncology	Subcutaneous injection	2010/III
			Refractory/resistant carcinoid syndrome		Intramuscular injection (monthly depot)	2011/III
			Acromegaly		Intramuscular injection (monthly depot)	2011/III
<i>Tasigna</i>	nilotinib	Signal transduction inhibitor	Newly diagnosed chronic myeloid leukemia	Oncology	Capsule	US, EU (registration)
			First line metastatic Gastrointestinal stromal tumor		Capsule	≥ 2013/III
			metastatic melanoma and KIT mutations		Capsule	2012/II



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Table of Contents

Project/Product	Common name	Mechanism of action	Potential indication/Disease area	Therapeutic area	Formulation/Route of administration	Planned filing dates/Current phase
TBM100	tobramycin	Aminoglycoside antibiotic	Pseudomonas aeruginosa infection in cystic fibrosis patients	Respiratory	Inhalation	EU (registration) US 2010/III
<i>Tekturna</i> ATMOSPHERE	aliskiren	Direct renin inhibitor	Heart failure	Cardiovascular and Metabolism	Tablet	≥2013/III
<i>Tekturna</i> ALTITUDE	aliskiren	Direct renin inhibitor	Renal and cardiovascular events in type 2 diabetes	Cardiovascular and Metabolism	Tablet	2012/III
<i>Tekturna/Rasilez</i> single-pill combination	aliskiren and amlodipine	Direct renin inhibitor and calcium channel blocker	Hypertension	Cardiovascular and Metabolism	Tablet	US, EU (registration)
<i>Tekturna/Rasilez</i> single-pill combination	aliskiren, amlodipine and hydrochlorothiazide	Direct renin inhibitor, calcium channel blocker and diuretic	Hypertension	Cardiovascular and Metabolism	Tablet	2010/III
TKI258	Dovitinab lactate	VEGFR1-3, FGFR 1-3, PDGFR angiogenesis inhibitor	Renal cell carcinoma	Oncology	Oral	2012/II
<i>Valturna/Rasival</i> single-pill combination	aliskiren and valsartan	Direct renin inhibitor and angiotensin II receptor antagonist	Hypertension	Cardiovascular and Metabolism	Tablet	US (approved) EU (registration)
<i>Xolair</i>	omalizumab	Anti-IgE monoclonal antibody	Allergic asthma in patients aged 6 to less than 12 years	Respiratory	Lyophilized powder for reconstitution as subcutaneous injection	US (registration)
<i>Zometa</i>	zoledronic acid	Osteoclast inhibitor	Adjuvant breast cancer	Oncology	Intravenous	US, EU (registration)

**Key Compounds in Development (select products in Phases II, III and Registration)**

ABF656 (albinterferon alfa-2b) is a novel long-acting fusion protein with interferon alpha-type activity. The compound is in registration for the treatment of chronic hepatitis C in combination with ribavirin. ABF656 was licensed from, and is being co-developed with, Human Genome Sciences Inc. Novartis has co-promotion rights in the US and exclusive promotion and marketing rights in the rest of the world. Phase III clinical trial results show that 900-mcg albinterferon alfa-2b dosed every two weeks has efficacy comparable to weekly doses of Pegasys® (peginterferon alfa-2a) in treatment-naïve patients with hepatitis C genotypes 1, 2 and 3, with a comparable rate of severe or serious adverse events and a safety profile that is generally similar in nature to that of this class of product. We submitted ABF656 to the EU for approval in December 2009. Human Genome Sciences submitted the product to the FDA for approval in November 2009. If approved by the respective health authorities, this product will be sold under the trade name *Zalbin* in the US and under the trade name *Joulferon* outside the US.

ACZ885 (canakinumab): Phase III trials have been initiated for the treatment of systemic onset juvenile idiopathic arthritis. A Phase III program has started in refractory gout following Phase II data that show superior pain relief and a 94% reduced risk of flares compared to an injectable corticosteroid. A Phase II study is ongoing in prevention of acute flares in refractory gout/chronic gouty arthritis patients who have been started on allopurinol therapy. ACZ885 is also being investigated in Phase II for the treatment of Type 2 Diabetes. Inhibition of IL-1 $\beta$  may represent a novel approach to treat diabetes.

Table of Contents

AEB071 (sotrastaurin) is a low molecular weight, selective inhibitor of protein kinase-C (PKC). The molecule is in Phase II clinical development for the treatment of autoimmune indications (including psoriasis) and, as part of a treatment regimen, for the prevention of solid organ allograft rejection. Inhibition of PKC reduces T-cell activation through inhibition of a novel calcineurin-independent T cell signaling pathway.

AFQ056 is a metabotropic glutamate receptor 5 (mGluR5) antagonist in Phase II development for the treatment of Parkinson's disease levodopa-induced dyskinesia. No therapy has previously been approved for this condition, which represents a complication after dopamine-replacement therapy in Parkinson's patients and which is characterized by a variety of hyperkinetic movements.

AGO178 (agomelatine) is an MT1/MT2 receptor agonist and 5-HT<sub>2c</sub> antagonist for the treatment of major depressive disorder. It has a novel, synergistic mechanism of action. Three Phase III trials have recently been completed in the US. Data confirmed the known efficacy and safety profile of the drug. AGO178 will now be studied in additional Phase III trials to further explore its benefit/risk and pharmacokinetic profile. We have licensed from Servier the exclusive rights to develop and market the compound in the US and several other countries.

AIN457 is a monoclonal antibody neutralizing Interleukin-17A, a key pro-inflammatory cytokine expressed by TH17 cells. The compound is in Phase III development in uveitis. AIN457 is also in Phase II development in psoriasis and rheumatoid arthritis, where initial studies suggested that AIN457 provides a new mechanism of action for the treatment of immune-mediated diseases.

ASA404 is a potentially first-in-class tumor-vascular disrupting agent being developed for non-small cell lung cancer (NSCLC). Two Phase III trials are evaluating ASA404 in combination with standard chemotherapy as a treatment for locally advanced or metastatic NSCLC of squamous or non-squamous histology. The ATTRACT-1 Phase III trial investigating ASA404 as first-line therapy completed enrollment in the third quarter of 2009. The ATTRACT-2 Phase III trial investigating ASA404 as second-line therapy is currently enrolling patients. Pending trial outcomes, regulatory submission for use in NSCLC is expected in 2011. ASA404 was licensed from Antisoma in 2007.

BAF312 is an oral, second-generation sphingosine 1-phosphate receptor modulator in Phase II development for relapsing-remitting multiple sclerosis. BAF312 binds selectively to the sphingosine 1-phosphate receptor subtypes 1 and 5, and has a relatively short half life.

*Certican/Zortress* (everolimus): In the US, everolimus is in registration for the prevention of organ rejection in kidney transplantation, under the brand name *Zortress*. The FDA issued a Complete Response letter in December 2009 requesting additional changes to proposed labeling and the proposed Risk Evaluations and Mitigations Strategies (REMS) for *Zortress*, as well as a safety update. But the FDA did not request additional clinical studies. We will work with the FDA to address all additional issues to finalize FDA's review of the product. In 2008, Phase III development was initiated worldwide for the prevention of organ rejection in liver transplantation. The active ingredient in *Certican/Zortress*, everolimus, is also sold for an oncology indication under the brand name *Afinitor*.

*Diovan* (valsartan): *Diovan* and *Starlix* (nateglinide), oral type 2 diabetes medications, are being evaluated for the prevention of new-onset type 2 diabetes and cardiovascular disease in patients with impaired glucose tolerance.

EPO906 (patupilone) is in Phase III development in platinum resistant/refractory ovarian cancer. With 829 patients enrolled this is the largest clinical trial ever conducted in this difficult-to-treat patient population. Final results are expected in the first half of 2010 with filing planned for the second half of 2010 assuming that data are positive.



Table of Contents

*Femara* (letrozole tablets/letrozole): In August 2009, *The New England Journal of Medicine* published results from the landmark BIG 1-98 study that affirmed five-year up-front use of *Femara* following surgery as a superior treatment approach versus tamoxifen for postmenopausal women with early stage breast cancer (hormone-receptor positive). Novartis submitted these data to the FDA and the EMEA requesting an update to the *Femara* prescribing information.

FTY720 (fingolimod), a sphingosine 1-phosphate receptor modulator, is in registration as an oral disease-modifying treatment for patients with relapsing multiple sclerosis, a disabling neurological condition estimated to affect up to 2.5 million people worldwide. Two Phase III studies examining two doses of FTY720 (0.5 mg and 1.25 mg) in relapsing-remitting multiple sclerosis, have been completed. Results from the Phase III TRANSFORMS study showed superior relapse-related efficacy at one year compared to interferon beta-1a IM, a current standard of care. Results from the FREEDOMS Phase III study showed that FTY720 significantly reduced relapse rates and disability progression at two years compared to placebo. The trial showed no significant difference in efficacy between the two doses of FTY720. FTY720 was generally well tolerated with a lower incidence of certain adverse events at the 0.5 mg dose than the 1.25 mg dose. Phase III efficacy and safety data provided a positive benefit-risk profile for the 0.5 mg dose. The regulatory submissions in the US and EU were completed at the end of 2009. FTY720 is licensed from Mitsubishi Tanabe Pharma Corporation.

*Gleevec/Glivec* (QTI571, imatinib mesylate tablets/imatinib): *Gleevec/Glivec* is currently in development for Pulmonary Arterial Hypertension (PAH). PAH is a rare, progressive, proliferative disease with high morbidity and mortality. A Phase III program in severe PAH patients started in 2009.

INC424 is a Janus kinase (JAK) inhibitor. This oral targeted therapy is now in Phase III clinical trials for the treatment of myelofibrosis, a life-threatening neoplastic condition with no effective medical treatment that is characterized by varying degrees of bone marrow failure, splenomegaly (enlarged spleen) and debilitating symptoms. INC424 has the potential to become a first-in-class therapeutic agent for the treatment of this and other hematologic diseases. Long-term data regarding INC424 presented at the American Society of Hematology (ASH) in 2009 demonstrated durable clinical, functional and symptomatic responses with acceptable hematological safety in patients with myelofibrosis. Other data presented at ASH also show clinical activity in advanced polycythemia vera essential thrombocythemia refractory to hydroxyurea. We licensed the rights to develop and market this compound outside of the US from Incyte Corporation.

*Joicela* (lumiracoxib) is an oral COX-2 inhibitor for osteoarthritis, which we formerly marketed under the brand name *Prexige*. Based on requests from several worldwide health authorities, most marketing authorizations for lumiracoxib were withdrawn due to concerns related to its post-marketing liver safety profile. As of November 30, 2009, lumiracoxib continues to be commercially available under the *Prexige* name in Mexico, Ecuador and the Bahamas. A specific genetic biomarker has recently been identified which predicts the risk of severe liver injury in patients. In December 2009, Novartis submitted a new marketing authorization application in the EU for lumiracoxib (100 mg once daily) under the brand name *Joicela* for symptomatic relief in the treatment of osteoarthritis of the knee and hip in patients who are non-carriers of this genetic biomarker. Similar recommendations related to pre-treatment genetic testing are being implemented wherever the product remains commercially available for osteoarthritis.

LBH589 (panobinostat) is a highly potent pan-histone deacetylase inhibitor targeting multiple oncogenic pathways, with development focused on hematological disease. In Hodgkin's lymphoma, a pivotal Phase II third-line trial completed enrollment, with regulatory submissions planned for 2010, pending the outcome of the trial. A Phase III trial in Hodgkin's lymphoma is planned to start in 2010, while a Phase III trial for multiple myeloma began in December 2009.

Table of Contents

LCI699 is a potential first-in-class aldosterone synthase inhibitor. In Phase II studies with more than 500 patients, the compound has demonstrated potent aldosterone- and blood pressure-lowering efficacy in primary as well as in secondary hypertension. The compound is set to be further evaluated in Phase II studies for heart failure.

LCQ908 is a diacylglycerol acyltransferase-1 (DGAT-1) inhibitor. DGAT-1 catalyzes the final committed step in triglyceride synthesis and is believed to play a key role in whole body energy homeostasis. Inhibition of DGAT-1 represents a novel approach to treat metabolic disease. LCQ908 is in Phase II development for the treatment of type 2 diabetes.

LCZ696 is a dual-acting compound that blocks the angiotensin receptor and inhibits the neutral endopeptidase (NEP) enzyme. The compound entered Phase III development at the end of 2009 in the treatment of heart failure, an indication in which ACE inhibitors are the current standard of care. A Phase II pivotal study demonstrated that LCZ696 provides superior blood pressure lowering as compared to valsartan. LCZ696 was well tolerated.

*Lucentis* (ranibizumab): We submitted a filing in Europe in December 2009 for the indication of treatment of visual impairment secondary to Diabetic Macular Edema. A Phase III development program for the Retinal Vein Occlusion indication is expected to start in 2010.

*Mycograb* (efungumab) is an antibody fragment used in combination with antifungal agents for treatment of invasive candida infections. *Mycograb* was acquired as part of the Novartis acquisition of NeuTec Pharma in 2006. In 2007, the EU Committee for Medicinal Products for Human Use (CHMP) upheld its negative opinion from 2006 on the *Mycograb* submission by NeuTec, citing issues concerning the manufacturing process. We continue to address these concerns and plan to consult Health Authorities in 2010.

NVA237 (glycopyrronium bromide), is a long-acting muscarinic antagonist (LAMA) providing sustained bronchodilation and is being developed as a once-daily treatment for COPD in a single-dose dry-powder inhaler. Phase II trials have concluded successfully, indicating that NVA237 has a comparable efficacy profile compared to tiotropium, the only LAMA presently on the market, with potential for improved tolerability and a faster onset of action. Phase III commenced in 2009, and first submissions are planned in 2011.

PKC412 (midostaurin) is an oral, multi-targeted, kinase inhibitor in Phase III development for treatment of acute myeloid leukemia (AML) and in Phase II development for aggressive systemic Mastocytosis. PKC412 administered as single-agent treatment as well as in combination with standard chemotherapy (daunorubicin and high dose cytarabine) has demonstrated improved clinical response rates of FLT3-mutated AML patients compared to FLT-3 wild-type patients.

PRT128 (elinogrel) is a P2Y<sub>12</sub> inhibitor which is direct acting, reversible and offers both intravenous and oral routes of administration. The compound is set to enter Phase III development in late 2010 for acute coronary syndrome and chronic coronary heart disease (secondary prevention of atherothrombosis). Currently, PRT128 is in Phase II and results from this trial are expected in Q2 2010.

PTK796 is a broad-spectrum antibiotic recently in-licensed from Paratek Pharmaceuticals Inc. The compound is an aminomethylcycline, derived from tetracycline, and has shown broad-spectrum in vitro activity against a wide range of bacteria, including both Gram-positive and Gram-negative strains and also atypical and anaerobic bacteria. PTK796 is currently in Phase III development as an intravenous infusion or oral tablet to treat complicated skin and skin structure infections. Clinical trials are planned in a number of other potential indications, including infections caused by highly resistant bacteria such as methicillin-resistant *Staphylococcus aureus* (MRSA) and multi-drug resistant *Streptococcus pneumoniae*. Novartis has gained exclusive worldwide rights to market PTK796.



Table of Contents

PTZ601 (razupenem) is a broad-spectrum carbapenem antibiotic for the treatment of complicated community and hospital infections, including infections caused by multidrug-resistant Gram-positive pathogens methicillin-resistant staphylococcus aureus and vancomycin-resistant enterococci. PTZ601 was acquired through the acquisition of Protez Pharmaceuticals Inc. in 2008. The efficacy and safety of PTZ601 have been assessed in a Phase II complicated skin and skin structure infection study. Additional Phase I study is ongoing to further assess optimal dosing and safety profile.

QAB149 (indacaterol) is a once-daily beta2-agonist that offers sustained 24-hour bronchodilation with fast onset of action for the treatment of chronic obstructive pulmonary disease (COPD). QAB149 is being developed in a single-dose dry-powder inhaler. Results from Phase III studies demonstrated a statistically significant improvement in lung function compared to placebo within five minutes of taking the first dose, and a favorable risk/benefit profile. QAB149 was submitted for regulatory approval in the US and EU in December 2008, and was approved by the EU in November 2009 for two dose strengths, 150 mcg and 300 mcg, for maintenance bronchodilator treatment in adult COPD patients. The FDA issued a Complete Response letter in October 2009 requesting that Novartis further characterize the QAB149 dose-response profile. Novartis is reviewing with the FDA the additional studies that will be required and has targeted the second half of 2010 for resubmission to the FDA.

QMF149 is a once-daily fixed dose combination of the long-acting beta2-agonist QAB149 and the Merck (formerly Schering-Plough) product mometasone. The global collaboration with Merck was restructured on May 18, 2009, and under the new agreement Novartis assumes exclusive worldwide development and marketing rights to QMF149. Phase II development for asthma and COPD is currently ongoing.

QVA149 is a once-daily fixed dose combination of the long-acting beta2-agonist QAB149 and the long-acting muscarinic antagonist NVA237 (glycopyrronium bromide). QVA149 is in Phase II development for the treatment of COPD, in a single-dose dry-powder inhaler. Results from Phase II demonstrated that the fixed dose combination QVA149 provided superior bronchodilation compared to QAB149 or placebo, which was sustained over 24 hours. The compound had a fast onset of action and was well tolerated with a good safety profile. Phase III development is scheduled to start in 2010.

RAD001 (*Afinitor*): Positive early data show potential for RAD001 in breast cancer, gastric cancer, hepatocellular carcinoma, lymphoma and pancreatic neuroendocrine tumors. RAD001 is being studied in many cancer types: Enrollment has been completed in Phase III studies in neuroendocrine tumors with potential regulatory submissions planned by the end of 2010. Phase III studies are also underway in breast cancer, lymphoma, gastric cancer and tuberous sclerosis complex. A pivotal study in liver cancer is planned.

*Sandostatin SC/Sandostatin LAR* (octreotide acetate/octreotide acetate for injectable suspension): Phase III data published in 2009 demonstrated a significant delay in tumor progression in patients with metastatic neuroendocrine tumors of the midgut who were treated with *Sandostatin LAR*. These data formed the basis of the 2009 US National Comprehensive Cancer Network (NCCN) update on treatment guidelines for neuroendocrine tumors.

SBR759 is a novel calcium-free polymeric iron (III)-based phosphate binder for treating hyperphosphataemia in patients with end-stage renal disease undergoing dialysis. It was in-licensed from SeBo GmbH in 2005 and is currently in Phase II clinical development, with results expected in 2010.

SOM230 (pasireotide) is a somatostatin analogue in development for Cushing's disease, acromegaly and carcinoid syndrome that is refractory/resistant to Sandostatin. Data from Phase II studies show significant hormone reductions in Cushing's disease and acromegaly patients, and



Table of Contents

achievement of partial or complete symptom control in patients with refractory/resistant carcinoid syndrome. Based on results from a pivotal trial in Cushing's disease, regulatory submission is planned for 2010. A Phase III trial for acromegaly recently reached its patient accrual target, while a Phase III trial in patients with carcinoid tumors is also ongoing.

*Tasigna* (nilotinib): Results from the global, randomized Phase III trial called Evaluating Nilotinib Efficacy and Safety in Clinical Trials of Newly Diagnosed Ph+ CML Patients (ENESTnd), the largest head-to-head comparison of an oral therapy against *Glivec* ever conducted show that *Tasigna* produces faster and deeper responses than *Glivec* in adult patients with newly-diagnosed Ph+ CML. *Tasigna* showed superiority to *Glivec* in major molecular response at 12 months, complete cytogenetic response by 12 months, and showed a significant reduction in transformation to accelerated phase and blast crisis. Based on these data *Tasigna* was submitted to the FDA and EMEA for approval for first-line use in CML. Novartis is also investigating the potential of *Tasigna* for patients with GIST. Although a Phase III trial of *Tasigna* as a third-line therapy for GIST did not meet its primary endpoint, results showed a two-month improvement in median overall survival for patients on *Tasigna*. Based on these data, Novartis will not file for use of *Tasigna* in the third-line indication. However, a Phase III registration trial evaluating *Tasigna* versus *Glivec* as first-line treatment for unresectable or metastatic GIST is actively recruiting.

*Tekturna/Rasilez*, *Valturna/Rasival* (aliskiren, aliskiren and valsartan): The single-pill combination of aliskiren and valsartan, to be called *Rasival* outside of the US, was filed with the EMEA in August 2009. In addition, we initiated the ASPIRE HIGHER clinical development program, the largest ongoing cardio renal outcomes program worldwide, involving more than 35,000 patients in 14 trials. Data from the ALOFT (heart failure) and AVOID (kidney disease) studies, which are part of the ASPIRE HIGHER program, have been added to European product information. Also in Phase III development are *Tekturna/Rasilez* with the calcium channel blocker amlodipine besylate and a triple combination therapy with *Tekturna/Rasilez*, amlodipine besylate and a diuretic.

*Xolair* (omalizumab): We are pursuing an indication for *Xolair* to treat allergic asthma in children (aged 6 and older) in the US. The FDA issued a Complete Response letter in December 2009 which indicated that the submitted data do not provide a favorable risk/benefit balance to support the use *Xolair* in patients ages 6 through 11 years. Novartis and Genentech, Inc., a wholly-owned member of the Roche Group, will work closely with the FDA to determine appropriate next steps as the companies continue to evaluate this indication for *Xolair*. Separately, in February 2009, we received approval in the EU for a liquid formulation of *Xolair*. In September 2009, we submitted an expansion of the dosing table for European approval, and received a positive opinion from the EU Committee for Medicinal Products for Human Use (CHMP) in December 2009.

*Zometa* (zoledronic acid for injection/zoledronic acid 4 mg): In 2008, new clinical trial results (ABCSSG-12 trial) showed that when *Zometa* was used as an adjuvant breast cancer treatment in premenopausal women, the drug reduced the risk of breast cancer returning. Novartis filed these data with the FDA and the EMEA in December 2009, requesting an update to the *Zometa* prescribing information. Studies are underway to review the potential anti-cancer benefits of *Zometa* in multiple tumor types.

***Projects Terminated in 2009***

ACZ885 (canakinumab) for Rheumatoid arthritis

LBH589 (panobinostat) for Cutaneous T-Cell Lymphoma

*Galvus* (vildagliptin) and *Eucreas* (vildagliptin and metformin). Resubmission for US approval is not currently planned.



Table of Contents

MFF258 (formoterol and mometasone furoate) for COPD and Asthma. MFF258 is the Schering-Plough product mometasone plus the Novartis product *Foradil* (formoterol fumarate). The global collaboration with Merck (formerly Schering-Plough) was restructured on May 18, 2009 and under the new agreement, Merck assumed exclusive rights to develop and commercialize MFF258.

**Principal Markets**

The Pharmaceuticals Division has a commercial presence in approximately 140 countries worldwide, but net sales are generally concentrated in the US, Europe and Japan, which together accounted for 81% of 2009 net sales. At the same time, sales from fast growing "emerging growth markets" have become increasingly important to us. See "Item 5. Operating and Financial Review and Prospects 5.A Operating Results Factors Affecting Results of Operations Fundamental Drivers Remain Strong Emerging Markets Grow Faster than Developed Countries." The following table sets forth certain data relating to our principal markets in the Pharmaceuticals Division.

Pharmaceuticals	2009 Net sales to third parties	
	(\$ millions)	(%)
United States	9,542	33
Americas (except the United States)	2,450	9
Europe	10,467	37
Japan	3,138	11
Rest of the World	2,941	10
<b>Total</b>	<b>28,538</b>	<b>100</b>

Many of our Pharmaceuticals Division's products are used for chronic conditions that require patients to consume the product over long periods of time, from months to years. Net sales of the vast majority of our products are not subject to material changes in seasonal demand.

**Production**

The primary goal of our manufacturing and supply chain management program is to ensure the uninterrupted, timely and cost-effective supply of products that meet all product specifications. Pharmaceutical manufacturing is regulated by "Good Manufacturing Practices" (GMP) and other regulations, which are monitored by regulatory agencies such as the FDA in the US.

We manufacture our products at five bulk chemical and 15 pharmaceutical production facilities as well as three biotechnology sites. Bulk chemical production involves the manufacture of therapeutically active compounds, mainly by chemical synthesis or by a biological process such as fermentation. Pharmaceutical production involves the manufacture of "galenical" forms of pharmaceutical products such as tablets, capsules, liquids, ampoules, vials and creams. Major bulk chemical sites are located in Basel, Switzerland; Grimsby, UK; Ringaskiddy, Ireland and Changshu, China. Significant pharmaceutical production facilities are located in Stein, Switzerland; Wehr, Germany; Torre, Italy; Barbera, Spain; Suffern, New York; Sasayama, Japan and in various other locations in Europe, including Huningue, France, Horsham, UK and Kurtkoy, Turkey. Our three biotechnology plants are in Huningue, France, Basel, Switzerland and Vacaville, California.

During clinical trials, which can last several years, the manufacturing process for a particular product is rationalized and refined. By the time clinical trials are completed and products are launched, the

Table of Contents

manufacturing processes have been extensively tested and are considered stable. However, improvements to these manufacturing processes may continue over time.

Raw materials for the manufacturing process are either produced in-house or purchased from a number of third-party suppliers. Where possible, our policy is to maintain multiple supply sources so that the business is not dependent on a single or limited number of suppliers. However, our ability to do so may at times be limited by regulatory or other requirements. We monitor market developments that could have an adverse effect on the supply of essential materials. Our suppliers of raw materials are required to comply with Novartis quality standards.

While we have not experienced material supply interruptions in the past, there can be no assurance that supply will not be interrupted in the future as a result of unforeseen circumstances. The manufacture of our products is heavily regulated, making supply never an absolute certainty. If we or our third-party suppliers fail to comply fully with regulations then there could be a product recall or an enforced shutdown of production facilities. We have implemented a global manufacturing strategy to maximize business continuity in case of such events or other unforeseen catastrophic events.

### **Marketing and Sales**

The Pharmaceuticals Division serves customers with approximately 5,426 field force representatives in the US (including supervisors), and an additional 18,338 in the rest of the world. These trained representatives, where permitted by law, present the therapeutic and economic benefits of our products to physicians, pharmacists, hospitals, insurance groups and managed care organizations. We are seeing the increasing influence of customer groups beyond the prescribers, and Novartis is responding by adapting our business practices.

Although specific distribution patterns vary by country, Novartis generally sells its prescription drugs primarily to wholesale and retail drug distributors, hospitals, clinics, government agencies and managed healthcare providers.

In the US, certain products are advertised by way of television, newspaper and magazine advertising. Novartis also pursues co-promotion/co-marketing opportunities as well as licensing and distribution agreements with other companies when legally permitted as well as economically attractive.

Since the implementation of a new US business model last year, Novartis has been able to better address customer needs and differences in local market dynamics. The model allows the regional sales forces to be tailored to reach healthcare practitioners in different ways. New account manager positions focused on reaching numerous stakeholders in the treatment decision pathway have been created, and we have geographically adjusted the placement of our representatives to match the local demand for products.

The marketplace for healthcare is evolving with the consumer becoming a more influential stakeholder in their healthcare decisions and looking for added-value solutions to meet their changing needs. Where permitted by law, Novartis is seeking to tap into the power of the patient, delivering innovative solutions to drive loyalty and engagement.

### **Competition**

The global pharmaceutical market is highly competitive, and we compete against other major international corporations with substantial financial and other resources, which sell branded prescription pharmaceutical products. Competition within the industry is intense and extends across a wide range of commercial activities, including pricing, product characteristics, customer service, sales and marketing, and research and development.

As is the case with other pharmaceutical companies selling patented pharmaceuticals, Novartis faces ever-increasing challenges from companies selling generic forms of our products following the expiry of

Table of Contents

patent protection, or of products which compete with our products. Generic companies may also gain entry to the market through successfully challenging our patents, but we vigorously use legally permissible remedies to defend our patent rights from generic challenges. In addition, we also face competition from over-the-counter (OTC) products that do not require a prescription from a physician.

**Research and Development**

We are among the leaders in the pharmaceuticals industry in terms of research and development investment. In 2009, we invested approximately \$5.8 billion in Pharmaceuticals Division research and development, which represented 20.5% of the division's total net sales. Our Pharmaceuticals Division invested \$5.7 billion and \$5.1 billion in research and development in 2008 and 2007 respectively. There are currently 145 projects in clinical development.

The discovery and development of a new drug is a lengthy process, usually requiring 10 to 15 years from the initial research to bringing a drug to market, including six to eight years from Phase I clinical trials to market. At each of these steps, there is a substantial risk that a compound will not meet the requirements to progress further. In such an event, we may be required to abandon a compound in which we have made a substantial investment.

***Research program***

Our Research program is responsible for the discovery of new drugs. In 2003, we established the Novartis Institutes for BioMedical Research (NIBR). NIBR is headquartered in Cambridge, Massachusetts, where more than 1,400 scientists and associates conduct research into disease areas such as cardiovascular and metabolism disease, infectious disease, oncology, muscle disorders and ophthalmology. The Cambridge-based discovery research platforms include Developmental and Molecular Pathways, NIBR Biologics Center and Global Discovery Chemistry. An additional 2,300 scientists and technology experts conduct research in Switzerland, UK, Japan, Austria, China and two other US sites. Research is conducted at these sites in the areas of neuroscience, autoimmune disease, oncology, cardiovascular disease, dermatology, gastrointestinal disease and respiratory disease. In addition, research platforms such as the Center for Proteomic Chemistry are headquartered in the NIBR site in Basel, Switzerland. In November 2009, we announced that we would invest \$1 billion over the next five years to increase the size of the NIBR site in Shanghai, China, so that it would become the largest pharmaceutical research and development institute in China, and the third-largest Novartis research institute worldwide.

Our principal goal is to discover new medicines for diseases with high unmet medical need. To do so we focus our work in areas where we have sufficient scientific understanding and believe we have the potential to dramatically change the practice of medicine. This requires the hiring and retention of the best talent, a focus on fundamental disease mechanisms that are relevant across different disease areas, continuous improvement in technologies for drug discovery and potential therapies, close alliance with clinical colleagues, and the establishment of appropriate external complementary alliances.

All drug candidates are taken to the clinic via "proof-of-concept" trials to enable rapid testing of the fundamental efficacy of the drug while collecting basic information on pharmacokinetics, safety and tolerability, and adhering to the guidance for early clinical testing set forth by health authorities.

Over the past five years, the output from NIBR has grown progressively. The portfolio of pre-clinical and early clinical New Molecular Entities has increased more than 50% in the last four years. Biologic medicines antibodies and protein therapeutics have grown to constitute 25% of NIBR's pre-clinical portfolio.

Table of Contents

***Development program***

The focus of our Development program is to determine whether new drugs are safe and effective in humans. As previously described (see "Compounds in Development"), we view the development process as generally consisting of an Exploratory phase where a "proof of concept" is established, and a Confirmatory phase where this concept is confirmed in large numbers of patients. Within this paradigm, clinical trials of drug candidates generally proceed through the traditional three phases: I, II and III. In Phase I clinical trials, a drug is usually tested with about 5 to 15 patients. The tests study the drug's safety profile, including the safe dosage range. The studies also determine how a drug is absorbed, distributed, metabolized and excreted, and the duration of its action. In Phase II clinical trials, the drug is tested in controlled studies of approximately 100 to 300 volunteer patients to assess the drug's effectiveness and safety, and to establish a proper dose. In Phase III clinical trials, the drug is further tested on larger numbers of volunteer patients in clinics and hospitals. In each of these phases, physicians monitor volunteer patients closely to assess the drug's safety and efficacy. The vast amount of data that must be collected and evaluated makes clinical testing the most time-consuming and expensive part of new drug development. The next stage in the drug development process is to seek registration for the new drug. See "Regulation."

***Alliances and acquisitions***

Our Pharmaceuticals Division enters into business development agreements with other pharmaceutical and biotechnology companies and with academic institutions in order to develop new products and access new markets. We license products that complement our current product line and are appropriate to our business strategy. Therapeutic area strategies have been established to focus on alliances and acquisition activities for key disease areas/indications that are expected to be growth drivers in the future. We review products and compounds we are considering licensing using the same criteria as we use for our own internally discovered drugs.

**Regulation**

The international pharmaceutical industry is highly regulated. Regulatory authorities around the world administer numerous laws and regulations regarding the testing, approval, manufacturing, importing, labeling and marketing of drugs, and also review the safety and efficacy of pharmaceutical products. In particular, extensive controls exist on the non-clinical and clinical development of pharmaceutical products. These regulatory requirements, and the implementation of them by local health authorities around the globe, are a major factor in determining whether a substance can be developed into a marketable product, and the amount of time and expense associated with that development.

Health authorities, including those in the US, EU, Switzerland and Japan, have high standards of technical evaluation. The introduction of new pharmaceutical products generally entails a lengthy approval process. Of particular importance is the requirement in all major countries that products be authorized or registered prior to marketing, and that such authorization or registration be subsequently maintained. In recent years, the registration process has required increased testing and documentation for clearance of new drugs, with a corresponding increase in the expense of product introduction.

To register a pharmaceutical product, a registration dossier containing evidence establishing the quality, safety and efficacy of the product must be submitted to regulatory authorities. Generally, a therapeutic product must be registered in each country in which it will be sold. In every country, the submission of an application to a regulatory authority does not guarantee that approval to market the product will be granted. Although the criteria for the registration of therapeutic drugs are similar in most countries, the formal structure of the necessary registration documents and the specific requirements, including risk tolerance, of the local health authorities varies significantly from country to country. It is possible that a drug can be registered and marketed in one country while the registration authority in another country may, prior to registration, request additional information from the pharmaceutical

Table of Contents

company or even reject the product. It is also possible that a drug may be approved for different indications in different countries.

The registration process generally takes between six months and several years, depending on the country, the quality of the data submitted, the efficiency of the registration authority's procedures and the nature of the product. Many countries provide for accelerated processing of registration applications for innovative products of particular therapeutic interest. In recent years, intensive efforts have been made among the US, the EU and Japan to harmonize registration requirements in order to achieve shorter development and registration times for medical products. However, the requirement in many countries to negotiate selling prices or reimbursement levels with government regulators can substantially extend the time until a product may finally be launched to the market.

The following provides a summary of the regulatory processes in the principal markets served by Pharmaceuticals Division affiliates:

*United States*

In the US, applications for drug registration are submitted to and reviewed by the FDA. The FDA regulates the testing, manufacturing, labeling and approval for marketing of pharmaceutical products intended for commercialization in the US. The FDA continues to monitor the safety of pharmaceutical products after they have been approved for marketing in the US market. The pharmaceutical development and registration process is typically intensive, lengthy and rigorous. When a pharmaceutical company has gathered data which it believes sufficiently demonstrates a drug's quality, safety and efficacy, then the company may file a New Drug Application (NDA) or biologics license application (BLA), as applicable, for the drug. The NDA or BLA must contain all the scientific information that has been gathered about the drug and typically includes information regarding the clinical experiences of all patients tested in the drug's clinical trials. A Supplemental New Drug Application (sNDA) or BLA amendment must be filed for new indications for a previously registered drug. Throughout the life cycle of a product, the FDA also requires compliance with standards relating to good laboratory, clinical and manufacturing practices.

Once an NDA or BLA is submitted, the FDA assigns reviewers from its biopharmaceutics, chemistry, clinical microbiology, pharmacology/toxicology, and statistics staff. After a complete review, these content experts then provide written evaluations of the NDA or BLA. These recommendations are consolidated and are used by the Senior FDA staff in its final evaluation of the NDA/BLA. Based on that final evaluation, FDA then provides to the NDA or BLA's sponsor an approval, or a "complete response" letter if the NDA or BLA application is not approved. If not approved, the letter will state the specific deficiencies in the NDA or BLA which need to be addressed. The sponsor must then submit an adequate response to the deficiencies in order to restart the review procedure.

Once the FDA has approved an NDA or BLA or sNDA or BLA amendment, the company can make the new drug available for physicians to prescribe. The drug owner must submit periodic reports to the FDA, including any cases of adverse reactions. For some medications, the FDA requires additional post-approval studies (Phase IV) to evaluate long-term effects or to gather information on the use of the product under special conditions.

*European Union*

In the EU, there are three main procedures for application for authorization to market pharmaceutical products in the EU Member States, the Centralized Procedure, the Mutual Recognition Procedure and the Decentralized Procedure. It is also possible to obtain a national authorization for products intended for commercialization in a single EU member state only, or for additional indications for licensed products.

Table of Contents

Under the Centralized Procedure, applications are made to the European Medicines Agency (EMA) for an authorization which is valid for the European Community. The Centralized Procedure is mandatory for all biotechnology products and for new chemical entities in cancer, neurodegenerative disorders, diabetes and AIDS, autoimmune diseases or other immune disfunctions and optional for other new chemical entities or innovative medicinal products or in the interest of public health. When a pharmaceutical company has gathered data which it believes sufficiently demonstrates a drug's quality, safety and efficacy, then the company may submit an application to the EMA. The EMA then receives and validates the application, and appoints a Rapporteur and Co-Rapporteur to review it. The entire review cycle must be completed within 210 days, although there is a "clock stop" at day 120, to allow the company to respond to questions set forth in the Rapporteur and Co-Rapporteur's Assessment Report. When the company's complete response is received by the EMA, the clock restarts on day 121. If there are further aspects of the dossier requiring clarification, the EMA will then request an Oral Explanation on day 180, in which the sponsor must appear before the EMA's Scientific Committee (the CHMP) to provide the requested additional information. On day 210, the CHMP will then take a vote to recommend the approval or non-approval of the application. The final decision under this Centralized Procedure is an EU Community decision which is applicable to all Member States. This decision occurs on average 60 days after a positive CHMP recommendation.

Under the Mutual Recognition Procedure (MRP), the company first obtains a marketing authorization from a single EU member state, called the Reference Member State (RMS). In the Decentralized Procedure (DCP) the application is done simultaneously in selected or all Member States if a medicinal product has not yet been authorized in a Member State. During the DCP, the RMS drafts an Assessment Report within 120 days. Within an additional 90 days the Concerned Member States (CMS) review the application and can issue objections or requests for additional information. On Day 90, each CMS must be assured that the product is safe and effective, and that it will cause no risks to the public health. Once an agreement has been reached, each Member State grants national marketing authorization for the product.

After the Marketing Authorizations have been granted, the company must submit periodic safety reports to the EMA (if approval was granted under the Centralized Procedure) or to the National Health Authorities (if approval was granted under the DCP or the MRP). In addition, several Pharmacovigilance measures must be implemented and monitored including Adverse Event collection, evaluation and expedited reporting and implementation as well as up-date of Risk Management Plans.

European Marketing Authorizations have an initial duration of five years. After this time, the Marketing Authorization may be renewed by the competent authority on the basis of re-evaluation of the risk/benefit balance. Once renewed the Marketing Authorization is valid for an unlimited period. Any Marketing Authorization which is not followed within three years of its granting by the actual placing on the market of the corresponding medicinal product shall cease to be valid.

***Japan***

In Japan, applications for new products are made through the Pharmaceutical and Medical Devices Agency (PMDA). Once an NDA is submitted, a review team is formed consisting of specialized officials of the PMDA, including chemistry/manufacturing, non-clinical, clinical and biostatistics. While a team evaluation is carried out, a data reliability survey and Good Clinical Practice inspection are carried out by the Office of Conformity Audit of the PMDA. Team evaluation results are passed to the PMDA's external experts who then report back to the PMDA. After a further team evaluation, a report is provided to the Ministry of Health, Labor and Welfare (MHLW), which makes a final determination for approval and refers this to the Council on Drugs and Foods Sanitation which then advises the MHLW on final approvability. Marketing and distribution approvals require a review to determine whether or not the product in the application is suitable as a drug to be manufactured and distributed by a person who has obtained a manufacturing and distribution business license for the type of drug concerned and



Table of Contents

confirmation that the product has been manufactured in a plant compliant with Good Manufacturing Practices.

Once the MHLW has approved the application and has listed its national health insurance price, the company can make the new drug available for physicians to prescribe and obtain reimbursement. For some medications, the MHLW requires additional post-approval studies (Phase IV) to evaluate safety, effects and/or to gather information on the use of the product under special conditions. The MHLW also requires the drug's sponsor to submit periodic safety update reports. Within three months from the specified re-examination period, which is designated at the time of the approval of the application for the new product, the company must submit a re-examination application to enable the drug's safety and efficacy to be reassessed against approved labeling by the PMDA.

**Price Controls**

In most of the markets where we operate, the prices of pharmaceutical products are subject to both direct and indirect price controls and to drug reimbursement programs with varying price control mechanisms. Due to increasing political pressure and governmental budget constraints, we expect these mechanisms to remain in place and to perhaps even be strengthened and to have a negative influence on the prices we are able to charge for our products.

Direct efforts to control prices.

*United States.* In the US, as a result of the current effort to pass health care reform legislation, there is a significant risk of legislative action to control prices. Specifically, there are provisions in both the Senate and House-passed bills that would increase Medicaid rebates and extend those rebates to Managed Care Organizations. In addition, language to apply Medicaid rebates to Medicare Part D dual-eligible beneficiaries was defeated during the Senate debate, but remains in the House-passed bill. The House bill also includes a requirement for the US government to use its significant purchasing power to demand additional discounts from pharmaceutical companies under the Medicare Part D program. Whatever the results of the current legislative debate, there is a risk that governmental officials will continue to search for ways to reduce or control prices.

*Europe.* In Europe, our operations are subject to significant price and marketing regulations. Many governments are introducing healthcare reforms in a further attempt to curb increasing healthcare costs. In the EU, governments influence the price of pharmaceutical products through their control of national healthcare systems that fund a large part of the cost of such products to consumers. The downward pressure on healthcare costs in general in the EU, particularly with regard to prescription drugs, has become very intense. Increasingly high barriers are being erected against the entry of new products. In addition, prices for marketed products are referenced within Member States and across Member State borders, including new EU Member States.

*Japan.* In Japan, the government generally introduces price cut rounds every other year, and the government additionally mandates price decreases for specific products. In 2008, the National Health Insurance price calculation method for new products and the price revision rule for existing products were reviewed, and the resulting new drug tariffs were effective beginning April 2008. The Japanese government is currently undertaking a healthcare reform initiative with a goal of sustaining the universal coverage of the National Health Insurance program, and is addressing promotion of generic use and enhancement of pricing for new products.

*Rest of World.* Many other countries around the world are also taking steps to rein in prescription drug prices. As just one example, Turkey, one of our most important emerging growth markets, is imposing a 30% price reduction on prescription drugs in 2010.

Table of Contents

Regulations favoring generics. In response to rising healthcare costs, many governments and private medical care providers, such as Health Maintenance Organizations, have instituted reimbursement schemes that favor the substitution of generic pharmaceuticals for more expensive brand-name pharmaceuticals. In the US, generic substitution statutes have been enacted by virtually all states and permit or require the dispensing pharmacist to substitute a less expensive generic drug instead of an original branded drug. Other countries have similar laws. We expect that the pressure for generic substitution will continue to increase.

Cross-Border Sales. Price controls in one country can also have an impact in other countries as a result of cross-border sales. In the EU, products which we have sold to customers in countries with stringent price controls can in some instances legally be re-sold to customers in other EU countries with less stringent price controls, at a lower price than the price at which the product is otherwise available in the importing country. In North America, products which we have sold to customers in Canada, which has relatively stringent price controls, are sometimes re-sold into the US, again at a lower price than the price at which the product is otherwise sold in the US. Such imports from Canada and other countries into the US are currently illegal. However, political efforts continue at the US federal, state and local levels to change the legal status of such imports. During the Senate health care reform debate, amendments were introduced to allow importation into the US of medications from Europe, Canada, Switzerland, Australia, New Zealand and Japan. While these amendments did not garner the necessary votes for inclusion in the Senate's health care reform bill, members of the Senate have stated that they will continue to pursue this legislation.

We expect that pressures on pricing will continue worldwide, and may increase. Because of these pressures, there can be no certainty that in every instance we will be able to charge prices for a product that, in a particular country or in the aggregate, enable us to earn an adequate return on our investment in that product.

**Intellectual Property**

We attach great importance to patents, trademarks, and know-how in order to protect our investment in research and development, manufacturing and marketing. It is our policy to seek the broadest protection available under applicable laws for significant product developments in all major markets. Among other things, patents may cover the products themselves, including the product's active ingredient and its formulation. Patents may cover processes for manufacturing a product, including processes for manufacturing intermediate substances used in the manufacture of the products. Patents may also cover particular uses of a product, such as its use to treat a particular disease, or its dosage regimen. In addition, patents may cover assays or tests for certain diseases or biomarkers, which will improve patient outcomes when administered certain drugs.

The protection offered by such patents extends for varying periods depending on the grant, duration and enforceability of patents in the various countries. The protection afforded, which may vary from country to country, depends upon the type of patent and its scope of coverage. The duration of the protection will further depend on patent expiry data and the availability of patent term extensions, as well as other regulatory provisions for exclusivity such as data exclusivity, orphan drug status and pediatric exclusivity.

The following is a summary of the patent expiration dates for certain key products of our Pharmaceuticals Division. In addition, if a product is subject to significant patent litigation, we describe it below:

*Cardiovascular and Metabolism*

*Diovan/Co-Diovan/Diovan HCT.* We have patent protection (including extensions) on valsartan, the active ingredient used in our best-selling products *Diovan*, *Co-Diovan* and *Diovan HCT*, until

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### Table of Contents

2011 in the major countries of the EU (until February 2011 in Spain, and until May 2011 in France, Germany, Italy and the UK); until September 2012 in the US; and until 2013 in Japan. However, we have regulatory exclusivity for *Co-Diovan* in Japan until 2015. No litigation concerning the *Diovan* patents is currently ongoing in the US.

*Exforge*. *Exforge* is a single-pill combination of amlodipine besylate and valsartan. The valsartan patent expires 2011-13 (see above). The patent on amlodipine besylate has expired. The patent covering the *Exforge* product will expire in 2019 and has been challenged in both the US and Europe. We have regulatory exclusivity for the data generated for *Exforge* in Europe until 2017 and in Japan until 2014.

*Tekturna/Rasilez*. Patent protection for the active ingredient of *Tekturna/Rasilez* will expire in 2018 in the US and between 2015 and 2020 in other markets.

*Galvus*. Patent protection for the active ingredient of *Galvus* is estimated to expire, with extensions, in 2019-24 in markets outside of the US, and in 2024 in the US.

### *Oncology*

*Gleevec/Glivec*. We have patent protection on imatinib, the active ingredient used in our leading product *Gleevec/Glivec*, until July 2015 in the US (including pediatric extension), until 2016 in the major EU countries, and until 2014 in Japan (including extensions). Patent protection on a new crystal form of imatinib has been challenged in the US, but no challenge has been made to the compound patent in the US. In Turkey, where Novartis does not have protection for the compound, we brought suit in 2007 for infringement of the imatinib formulation, indication and crystal form patents against a local company that had obtained generic marketing authorization for a generic version of *Glivec*. We obtained a preliminary injunction in Turkey, but it was lifted in 2008. That litigation is ongoing. In Russia, we have a patent covering the compound and we obtained a permanent injunction preventing a company that had filed for marketing authorization from launching a generic version of *Glivec*. This injunction was confirmed in a final decision by the Supreme Court.

*Tasigna*. Patent protection for the active ingredient in *Tasigna* will expire in 2023 in the US and other major markets.

*Zometa* and *Reclast/Aclasta*. Patent protection on zoledronic acid, the active ingredient in these products, will expire in 2013 in the US and 2012 in other major markets. Patent litigation against a generic manufacturer who has challenged the patent is on-going. An at-risk launch of a generic version of *Zometa* is possible in the US in December 2010 when the 30-month stay period expires, absent a court decision to the contrary before then. For *Reclast*, the 30-month stay period expires in May 2011.

*Femara*. Patent protection for the active ingredient in *Femara* will expire in 2011 in the US as well as in major European markets, and in 2012 in Japan. Data exclusivity in Japan expires in 2014. Patent litigation against a generic manufacturer who challenged the patent for the *Femara* active ingredient in the US has been settled. Generic versions of *Femara* are available in a small number of EU countries, as well as in several developing country markets.

*Sandostatin*. Patent protection for the active ingredient of *Sandostatin* has expired. Generic versions of *Sandostatin SC* are available in the US and elsewhere. Patents protecting the *Sandostatin LAR* formulation, the long-acting version of *Sandostatin* which represents a majority of our *Sandostatin* sales, expire in 2014 and beyond in the US and in July 2010 in other markets outside the US.

*Exjade.* Patent protection for the active ingredient in *Exjade* will expire in 2019 in the US and 2021 in other markets.

Table of Contents

*Afinitor/Certican/Zortress.* Patent protection for the active ingredient in *Afinitor/Certican/Zortress* is expected to expire in 2019 in the US and in 2018 in Europe and other major countries.

*Other Pharmaceutical Products*

*Lucentis.* Patent protection for the active ingredient in *Lucentis* expires in 2018-22 in the EU and Japan. In the US *Lucentis* is marketed by Genentech. In countries other than the US, Genentech has licensed *Lucentis* to Novartis.

*Exelon.* Patent protection for the active ingredient in *Exelon*, granted to Proterra and licensed to Novartis, will expire in 2012 in the US and in 2011 in most other major markets. Novartis holds a patent on a specific isomeric form of the active ingredient used in *Exelon* which expires in 2012-14 in major markets. *Exelon* Patch is further covered by a formulation patent expiring in 2019 in major markets. Generic manufacturers filed applications to market a version of *Exelon* capsules in the US, but not the *Exelon* Patch, and challenged our patents. The resulting US lawsuits have been settled. Under the terms of the settlement agreements, Novartis has granted the generic manufacturers a license to our US patents covering *Exelon*. The agreements generally permit the generic manufacturers to launch a generic version of *Exelon* capsules, but not of the *Exelon* Patch, prior to the patent expiration date. In some European countries generic manufacturers recently obtained marketing approvals for *Exelon* capsules and therefore could launch at risk.

*Neoral.* Patent protection for the cyclosporin ingredient of *Neoral* has expired worldwide.

*Voltaren/Cataflam.* Patent protection for the active ingredient in *Voltaren* has expired worldwide.

*Lescol/Lescol XL.* Patent protection for the active ingredient in *Lescol* will expire in 2012 (including pediatric exclusivity) in the US and has already expired in August 2008 in major European markets. Formulation patents will expire in 2012 and beyond. Patent litigation under the compound patent is ongoing against a generic manufacturer who filed for marketing authorization for a generic version of *Lescol* in the US, challenging the patent on the active ingredient and one formulation patent. An at-risk launch of a generic version of this product is possible in the US beginning in February 2011, at the expiration of the 30-month stay, absent a court decision to the contrary before then. Other generic manufacturers have filed for marketing authorization challenging formulation patents for *Lescol XL* in the US. In Europe, several generic manufacturers have challenged the validity of formulation patents for *Lescol XL* that expire in 2017 in the European Patent Office (EPO), and in court in a number of countries. Conflicting decisions by the EPO, the UK and the Netherlands with the EPO upholding the patent, and the courts revoking it are now on or subject to appeal. Generic manufacturers have launched generic products in Germany, Italy, Spain, France and several smaller markets.

*Comtan.* Patent protection for entacapone, the active ingredient in *Comtan*, which we licensed from Orion, will expire in the US in 2013 and in Europe in 2012. Other patents, such as a polymorph patent, have also been granted. Litigation concerning the patent on entacapone by Orion is ongoing in the US against generic manufacturers who have challenged these patents. Orion has settled the patent litigation with the first-to-file generic challenger. In the remaining patent litigation with the second generic challenger, absent a court decision to the contrary, an at-risk launch of a generic version of this product is possible in the US beginning in February 2010, at the expiration of the 30-month stay. Novartis is not party to the pending litigation.

*Stalevo.* One of the active ingredients in *Stalevo* is entacapone, the active ingredient in *Comtan*. Patent protection for entacapone will expire in 2012-13 (see above). *Stalevo* is protected by additional patents expiring up to 2020. Patent litigation by Orion is ongoing in the US against generic manufacturers who have challenged the patent on entacapone and *Stalevo* formulation patents. Orion has settled the patent litigation with one of the generic challengers. An at-risk launch of a generic version of this product is possible in the US beginning in October 2010, absent



Table of Contents

any court decision to the contrary in the remaining patent litigation with the other generic challenger before then. Novartis is not party to the pending litigation.

*Ritalin LA.* Patent protection for the active ingredient of *Ritalin LA* has expired. The formulation of *Ritalin LA* and its use is covered by patents granted to Celgene and Elan and licensed to Novartis, expiring up to 2018 in the US. Patent litigation against generic manufacturers who challenged these patents is ongoing in the US. An at-risk launch of a generic version of *Ritalin LA* in the US is possible as soon as the FDA grants approval of a generic version of this product. The 30-month stay has already expired, and, to date, the court has not issued any orders preventing such a launch.

*Focalin.* The formulation of *Focalin XR* and its use are covered by patents granted to Celgene and Elan and licensed to Novartis. Protection expires 2015-18 in the US and in other markets. Patent litigation against generic manufacturers who challenged these patents is ongoing in the US. An at-risk launch of a generic version of this product is possible in the US beginning in February 2010, at the expiration of the 30-month stay, absent a court decision to the contrary before then.

*Tegretol.* Patent protection for the active ingredient of *Tegretol* has expired worldwide.

*Foradil.* Patent protection for the active ingredient of *Foradil* has expired worldwide. However, a device patent is in place for the *Foradil Aeroliser* in the EU until 2019.

*Myfortic.* There is no patent protection for the active ingredient in *Myfortic*. Patents covering the formulation will expire in 2017. Patent litigation against the generic manufacturers which challenged these patents is ongoing in the US.

*Lotrel.* *Lotrel* is protected by a patent on compositions containing amlodipine besylate and benazepril in the US until 2017. Patent litigation challenging this patent is ongoing in the US. A trial is expected in 2010. Low-dose generic versions of *Lotrel* have been launched at-risk by one generics manufacturer.

*Trileptal.* Patent protection for the active ingredient of *Trileptal* has expired in most countries.

*Xolair.* Patent protection for the active ingredient in *Xolair* will expire in 2018 in the US and in 2017 in other markets.

*Extavia.* Patent protection for the active ingredient of *Extavia* has expired.

*Famvir.* See "Item 18. Financial Statements note 20."

*Ilaris.* Patent protection for the active ingredient in *Ilaris* is expected to expire in 2023 in the US and in 2024 in Europe.

The loss of patent protection can have a significant adverse impact on our Pharmaceuticals Division. We work to offset these negative effects by developing process and product improvements, protecting those improvements with patents, by positioning many of our products in specific market niches, and marshalling our efforts to discover new therapeutic compounds. However, there can be no assurance that these strategies will be effective in the future to ensure competitive advantage, or that we will be able to avoid substantial adverse effects from the loss of patent protection in the future.

There is also a risk that some countries, particularly countries in the developing world, may seek to impose limitations on the availability of patent protection for pharmaceutical products, or on the extent to which such protections may be enforced. In countries that adopt such measures, generic manufacturers will be able to introduce competing products earlier than they otherwise would under a patent protection

regime.



Table of Contents

In addition, even though we may own or license patents protecting our products, and conduct pre-launch freedom-to-operate analyses, a third party may nevertheless claim that one of our products infringes an unlicensed third-party patent.

**VACCINES AND DIAGNOSTICS**

Our Vaccines and Diagnostics Division is a leader in the research, development, manufacturing and marketing of vaccines and diagnostic tools worldwide. As of December 31, 2009, the Vaccines and Diagnostics Division employed 5,416 full-time equivalent associates worldwide in 20 countries. In 2009, the Vaccines and Diagnostics Division had consolidated net sales of \$2.4 billion representing 5% of total Group net sales from continuing operations.

The Novartis Vaccines and Diagnostics Division is a leading manufacturer of human vaccines, and is growing at double-digit rates. Our vaccine products include influenza, meningococcal meningitis, pediatric, adult and travel vaccines. Our diagnostics business, which operates under the name Chiron, is dedicated to preventing the spread of infectious diseases through the development and marketing of novel blood-screening tools.

The current product portfolio of our Vaccines and Diagnostics Division includes more than 20 marketed products, many of which are their respective market leaders. In addition, the division's portfolio of development projects includes more than 15 potential new products in various stages of clinical development.

Influenza vaccines are a core franchise of the Division, with brands that include *Fluvirin*, *Fluad*, *Agrippal*, *Begrivac*, *Optaflu* and *AgriFlu*. Today Novartis is among the world's largest producers of influenza vaccines, and a major supplier to the US, UK, Italy, Germany and other countries. According to the World Health Organization, every year an estimated 3 million to 5 million people worldwide become seriously ill from influenza, and as many as 500,000 primarily children and the elderly die from the ensuing complications. This year, we completed our entire shipment of 27 million doses of seasonal influenza vaccine to the US for the 2009/2010 season in October, earlier than in previous years, in anticipation of demand for earlier vaccination with seasonal influenza vaccine created by the global A (H1N1) influenza pandemic.

We also produced and shipped our first doses A (H1N1) vaccines within four months after the declaration of the A (H1N1) influenza pandemic by the World Health Organization on June 11, 2009. On September 15 the FDA approved Novartis *Fluvirin* Influenza (A) H1N1 monovalent vaccine. On September 25 *Focetria* A (H1N1) received a positive opinion from CHMP and was approved for marketing in Europe on October 1. And *Celtura* (adjuvanted cell-culture based vaccine) also received its first approvals in November, in Germany and Switzerland.

This activity followed the November 2009 opening of the division's cell culture-based manufacturing facility at Holly Springs, North Carolina. This facility was constructed following the award by the US Department of Health and Human Services to Novartis Vaccines and Diagnostics of a contract to support the design, construction, validation and licensing of the facility, to provide a pre-pandemic supply of avian influenza vaccine, and to provide the capacity to manufacture 150 million doses of pandemic vaccine within six months of declaration of an influenza pandemic. In addition, the FDA approved the new Novartis Site 4 in Liverpool, UK, and production capacity was increased in Marburg, Germany to enable us to increase our production of vaccines.

*Menveo* (MenACWY-CRM), a quadrivalent conjugate vaccine for the prevention of the A, C, Y and W-135 strains of meningococcal meningitis, was submitted for marketing authorization in the US and Europe in 2008 for use in individuals 11-55 years old. In December 2009, the CHMP recommended *Menveo* for approval in the EU. We expect a decision from the European Commission during the first quarter of 2010. In the US, we received a Complete Response letter from the FDA in June 2009, requesting additional information on the clinical and Chemistry Manufacturing and Control sections of

Table of Contents

the Biologics License Application. No new clinical trials were requested. We submitted full responses to all of FDA's questions in August 2009. US approval for the adolescent/adult indication is now expected in the first quarter of 2010. Our *Menveo* Phase III program for the additional indication of the prevention of the disease in persons aged 2 months to 10 years old is ongoing, and submission of *Menveo* for use in infants is expected in 2010 in Europe and 2011 in the US.

The menB vaccine has shown potential to be the first vaccine to protect infants as young as six months from the B strain of meningococcal meningitis. Phase III studies are progressing in Europe, where patient enrollment has been completed and a regulatory submission remains on track for 2010. In the US, discussions are planned for 2010 with the FDA to determine the scope of Phase III clinical trials.

*Ixiaro* vaccine for the prevention of Japanese encephalitis in travelers to Asia received FDA approval on March 30, 2009 and Marketing Authorization in Europe on April 2, 2009. It is the only licensed JE vaccine in the US, and as planned *Ixiaro* was launched starting in the first half of 2009 in the US, UK, Germany and other European countries.

Novartis Vaccines continued to expand geographically, by offering our first vaccine in Japan, and with our announcement in November 2009, that we had entered into an agreement to acquire an 85% stake in the Chinese vaccines company Zhejiang Tianyuan Bio-Pharmaceutical Co., Ltd., which offers marketed vaccine products in China. In addition, *Quinvaxem* (for childhood diseases) continues to penetrate emerging markets, and we have had significant activity in Brazil, entering into an agreement in 2009 with the Fundação Ezequiel Dias in Brazil for meningitis C vaccine technology transfer, and commencing construction of a vaccines manufacturing facility in that country.

Our diagnostics collaboration with Gen-Probe Inc. was extended in early 2009, until 2025. Gen-Probe and Novartis collaborate to develop, manufacture and sell equipment, tests and reagents to test blood donations for the presence of infectious diseases (HIV, HCV, HBV and WNV) using nucleic acid technologies (NAT). The previous agreement was set to expire in 2013. Novartis is responsible for world wide sales, marketing and distribution of instruments and assays used to detect HIV, HCV, HBV and WNV in donated blood. Gen-Probe manufactures these products. The two companies jointly conduct the R&D activities needed to support this product line. During 2009 Novartis also signed a multi-year agreement with the American Red Cross to begin additional testing of blood donations for hepatitis B virus (HBV) DNA using NAT. The division also expanded its line of nucleic acid testing products in Asia Pacific and following validation and testing the diagnostics product *Ultrio Plus* assay was launched in New Zealand and Hong Kong in October 2009.

### **Vaccines and Diagnostics Division Products**

The summary and the tables that follow describe key marketed products and potential products in development in our Vaccines and Diagnostics Division. Subject to required regulatory approvals and, in certain instances, contractual limitations, we intend to sell our marketed products throughout the world. However, our Vaccines and Diagnostics Division products are not currently available in every country. Regarding our products in development, these products and indications are in various stages of development throughout the world. For some products, the development process is ahead in the US; for others, development in one or more other countries or regions is ahead of that in the US. Due to the uncertainties associated with the development process, and due to regulatory restrictions in some countries, it may not be possible to obtain regulatory approval for any or all of the new products referred to in this Form 20-F. See " Regulation" for further information on the approval process.

Table of Contents**Key Marketed Vaccine Products**

<b>Product</b>	<b>Indication</b>
<b>Influenza Vaccines</b>	
<i>Agrippal</i>	A purified surface antigen influenza vaccine for adults and children above six months of age
<i>Begrivac</i>	A preservative free influenza vaccine for adults and children above six months of age
<i>Celtura</i>	A (H1N1) cell culture-based influenza vaccine containing the proprietary MF59 adjuvant
<i>Focetria</i>	A (H1N1) containing the proprietary MF59 adjuvant
<i>Fluad</i>	A purified surface antigen influenza vaccine containing the proprietary MF59 adjuvant for the elderly
<i>Fluvirin</i>	A purified surface antigen influenza vaccine for adults and children above four years of age
<i>Fluvirin A (H1N1)</i>	A (H1N1) A purified surface antigen influenza vaccine for adults and children above four years of age
<i>Optaflu</i>	Cell culture-based influenza vaccine for adults above 18 years of age
<b>Meningococcal Vaccines</b>	
<i>Menjugate</i>	Meningococcal C vaccine for children above 2 months of age
<b>Travel Vaccines</b>	
<i>Encepur Children</i>	
<i>Encepur Adults</i>	Tick-borne encephalitis vaccine for children 1-11 years of age and for adults 12+ years of age
<i>Ixiaro</i>	Prophylactic vaccine against Japanese encephalitis virus
<i>Rabipur/Rabavert</i>	Vaccine for rabies, which can be used before or after exposure (typically animal bites)
<b>Pediatric Vaccines</b>	
<i>Polioral</i>	Live, attenuated, oral poliomyelitis vaccine (Sabin) containing attenuated poliomyelitis virus types 1, 2 and 3 from birth
<i>Quinvaxem</i>	Fully-liquid pentavalent vaccine combining antigens for protection against five childhood diseases: diphtheria, tetanus, pertussis (whooping cough), hepatitis B and Haemophilus influenzae type b for children above 6 weeks of age

**Other Marketed Vaccine Products**

The Vaccines and Diagnostics Division also markets additional products in travel vaccines (*e.g., Typhoral L, Havpur*), pediatric vaccines (*e.g., IPV-Virelon, TD-Virelon, Diftetall, Vaxem-Hib*) and adult vaccines (*e.g., Tetanol, Td-Virelon*).

Table of Contents**Vaccine Key Products in Development**

<b>Therapeutic Area</b>	<b>Project/Compound</b>	<b>Potential Indication/Disease Area</b>	<b>Planned filing dates/ Current phase</b>
<b>Influenza</b>	<i>Optaflu</i>	Cell culture-based trivalent seasonal influenza vaccine	EU registered; US 2009 Filed
	<i>Fluad</i> pediatric	A purified surface antigen influenza vaccine containing the proprietary MF59 adjuvant in development for children 6-36 months of age	Phase III
<b>Meningitis</b>	<i>Aflunov</i>	A (H5N1) influenza vaccine to be used before a pandemic occurs	EU submitted; US Phase II
	<i>Menveo</i>	Quadrivalent meningitis vaccine for strains A, C, Y and W-135 for infants, adolescents and adults	Submitted (adolescents & adults) (US & EU) EU 2010/US 2011/Phase III (infants)
	<i>MenB</i>	Monovalent meningitis vaccine for strain B for infants, adolescents and adults	EU 2010/Phase III
<b>P aeruginosa</b>		Prophylactic vaccine for P aeruginosa infections <sup>(1)</sup>	Phase II
<b>HCV<sup>(1)</sup></b>		Therapeutic Hepatitis C virus (HCV) vaccine	Phase I
		Prophylactic HCV vaccine	Phase I
<b>HIV<sup>(1)</sup></b>		Prophylactic HIV vaccine	Phase I
<b>GBS</b>		Prophylactic Group B Streptococcus (GBS) vaccine	Phase I
<b>H pylori</b>		Prophylactic vaccine for H pylori	Phase I
<b>CMV<sup>(2)</sup></b>		Prophylactic vaccine for cytomegalovirus	Phase I

(1) In collaboration with Intercell.

(2) In collaboration with AlphaVax.

Table of Contents**Key Marketed Diagnostics Products**

<b>Product</b>	<b>Product Description</b>
<i>Procleix</i> eSAS System	<b>Semi automated modular instrument solution supporting Duplex and <i>Ultrio</i> NAT assays</b>
<i>Procleix</i> TIGRIS System	<b>Fully automated instrument solution supporting <i>Ultrio</i> NAT assays</b>
<i>Procleix</i> Duplex Assay	<b>NAT assay designed to detect HIV-1, HCV through a single test</b>
<i>Procleix</i> WNV Assay	<b>First NAT assay approved by the FDA to detect West Nile virus.</b>
<i>Procleix Ultrio</i> Assay	<b>NAT assay designed to detect HIV-1, HCV and HBV through single testing process</b>
<i>Procleix Ultrio</i> + Assay	<b>NAT assay designed to detect HIV-1, HCV and HBV through single testing process with a higher sensitive to HBV</b>

**Diagnostic Products in Development**

<b>Therapeutic Area</b>	<b>Product</b>	<b>Product Description</b>	<b>Planned filing dates/ Current phase</b>
<b>Blood Testing</b>	<i>Parvo test</i>	NAT test designed to detect the Parvo B19 virus	Discovery
	<i>Dengue test</i>	NAT test designed to detect the Dengue virus	Discovery
<b>Clinical Diagnostics</b>	<i>Mis-folded protein assay</i>	Novel technology to detect abnormal protein particles that cause several neurodegenerative diseases such as Diabetes, Alzheimer's, Parkinson's in patients	Discovery
<b>Molecular Diagnostics</b>	<i>Novachip</i>	Multi-analyte detection proprietary platform which enables the diagnostics of complex diseases by providing multi- parameter array technology and multiple-analyte applications	Pre-clinical
	<i>CRM</i>	Markers for diagnostic and early detection of allograft rejection and dysfunction based on gene expression profiling	Pre-clinical
	<i>ACZ</i>	Molecular test that can predict Rheumatoid Arthritis patients' response to Novartis' ACZ885	Pre-clinical

Table of Contents**Principal Markets**

The principal markets for our Vaccines and Diagnostics Division include the US and Europe. The following table sets forth the aggregate 2009 net sales of the Vaccines and Diagnostics Division by region:

Vaccines and Diagnostics	2009 Net sales to third parties	
	(\$ millions)	(%)
United States	973	40
Americas (except the United States)	65	3
Europe	1,083	45
Rest of the World	303	12
<b>Total</b>	<b>2,424</b>	<b>100</b>

Sales of certain vaccines, including influenza and tick borne encephalitis vaccines, are subject to seasonal variation. Sales of the majority of our other products are not subject to material changes in seasonal demand.

**Research and Development**

In 2009, the Vaccines and Diagnostics Division invested \$508 million in research and development, which amounted to 21% of the division's net sales. The Vaccines and Diagnostics Division invested \$360 million and \$295 million in research and development in 2008 and 2007 respectively.

While research and development costs for vaccines traditionally have not been as high as for pharmaceuticals, a robust clinical program including Phase I to Phase III must be performed by the manufacturer to obtain a license for commercialization. See "Pharmaceuticals Compounds in Development" and "Pharmaceuticals Research and Development." Similarly, our diagnostics research and development efforts, which we perform in collaboration with Gen-Probe, Inc., require extensive and expensive research and testing of potential products. At each of these steps, there is a substantial risk that we will not achieve our goals. In such an event, we may be required to abandon a product in which we have made a substantial investment.

**Production**

We manufacture our vaccines products at five facilities in Europe, the US and Asia. Our principal production facilities are located in Liverpool, UK; Marburg, Germany; Siena and Rosia, Italy, and Ankleshwar, India, and the newly-opened site at Holly Springs, North Carolina. We continue to invest and upgrade our existing sites to ensure that previously-initiated remediation efforts are completed and meet quality standards. In addition, certain conjugation and chemistry activities for vaccines are performed at our Emeryville, California site. Our diagnostics products are manufactured for us by Gen-Probe, Inc., an outside supplier. The manufacture of our products is heavily regulated which means that supply can never be an absolute certainty. If we or our suppliers fail to comply fully with such regulations then there could be a product recall or government-enforced shutdown of production facilities which in turn could lead to product shortages.

Raw materials for the manufacturing process are either produced in-house or purchased from a number of third party suppliers. The raw materials we purchase are generally subject to market price fluctuations. We seek to avoid these fluctuations, where possible, through the use of long-term supply

Table of Contents

contracts. We monitor market developments that could have an adverse effect on the supply of essential materials. All raw materials we purchase must comply with our quality standards.

Each year new seasonal influenza vaccines need to be produced in order to confer effective protection against the current circulating strains of the virus, which can change from year to year. Global surveillance of influenza viruses is conducted throughout the year by the World Health Organization (WHO) Influenza Surveillance Network, which provides us with information on currently circulating strains and identifies the appropriate strains to be included in next season's influenza vaccine. Each year, the European Medicines Agency and the US Centers for Disease Control then confirm the vaccine composition for the coming season for the northern hemisphere and the Australian Therapeutic Goods Administration for the southern hemisphere. There can be no guarantee that the division will succeed in producing and having approved an updated flu vaccine within the timeframes necessary to commercialize the vaccine for the applicable flu season.

**Marketing and Sales**

Our main Vaccines marketing and sales organizations are based in Germany, UK, Italy and the US. We are also expanding operations in China where we have agreed to acquire an 85% stake in the Chinese vaccines company Zhejiang Tianyuan Bio-Pharmaceutical Co., Ltd. as well as in India and in various other European and Latin American countries. In the US, we market influenza and rabies vaccines through a network of wholesalers and distributors as well as direct to key customers. Direct sales efforts are focused on public health and distributor channels, and on non-traditional channels, such as employers, chain drug headquarters and service providers.

The Diagnostics marketing and sales efforts are focused exclusively on blood banks. With roughly half of worldwide blood donations not being subjected to updated viral nucleic acid screening, the company will focus on increasing the practice of viral nucleic acid screening using its proprietary systems in emerging areas of the world.

**Competition**

The global market for products of the type sold by our Vaccines and Diagnostics Division is highly competitive, and we compete against other major international corporations with substantial financial and other resources. Competition within the industry is intense and extends across a wide range of commercial activities, including pricing, product characteristics, customer service, sales and marketing, and research and development.

There is no guarantee that any product, even with patent protection, will remain successful if another company develops a new product offering significant improvements over existing products.

**Regulation**

Our vaccines products are subject to essentially the same regulatory procedures as are the products of our Pharmaceuticals Division. See "Pharmaceuticals Regulation." In the US, a company seeking approval of a vaccine submits a Biologics License Application (BLA) for the vaccine, rather than an NDA. Subsequently, the BLA follows substantially the same path for approval as does an NDA. In addition, new registrations for seasonal flu vaccines must be validated and submitted every year, based on the influenza strains provided by WHO and the Centers for Disease Control and Prevention needed for the growth of the vaccine.

Diagnostics products are regulated as medical devices in the US and the EU. These jurisdictions each have risk-based classification systems that determine the type of information which must be provided to the local regulators in order to obtain the right to market a product. In the US, safety and effectiveness information for Class II and III devices must be reviewed by the FDA. There are two review procedures: a Pre-Market Approval (PMA) and a Pre-Market Notification (510(k)) submission. Under a PMA, the

Table of Contents

manufacturer must submit to the FDA supporting evidence sufficient to prove the safety and effectiveness of the device. The FDA has 180 days to review a PMA. Under Pre-Market Notification (510(k)), the manufacturer submits notification to the FDA that it intends to commence marketing the product, with data that establishes the product as substantially equivalent to another product already on the market. The FDA has 90 days to review and clear a 510(k) submission. For specific diagnostics products that are sold into blood banks, or sold for diagnosis of HIV-1 infection, applications are submitted for review by the FDA's Center for Biologics Evaluation and Research (CBER). Under such review, the product is considered a biologic until such time as approval is received, at which time the product becomes a medical device. For products used specifically for screening of blood donors, or biologic reagents sold for further manufacturing use, the medical device is subject to Licensure by CBER. The submission for this purpose follows the same requirements as Vaccines; a Biologic License Application is submitted to CBER. CBER has 240 days to review a BLA.

In the EU, the CE marking is required for all medical devices sold. By affixing the CE marking, the manufacturer certifies that a product is in compliance with provisions of the EU's Medical Device Directive. Diagnostics products are specifically covered by the EU In Vitro Diagnostic (IVD) Directive. Under that Directive, certain products are subject to review and prior approval by a "notified body." Others are subject to a self-certification process by the manufacturer, which requires the manufacturer to confirm that the product performs to appropriate standards. This allows the manufacturer to issue a Declaration of Conformity and to notify competent authorities in the EU that the manufacturer intends to market the product. In order to comply with European regulations, our Vaccines & Diagnostics Division maintains a full Quality Assurance system and is subject to routine auditing by a certified third party (a "notified body") to ensure that this quality system is in compliance with the requirements of the EU's Medical Device Directive as well as the requirements of the ISO quality systems' standard ISO 13485.

### **Intellectual Property**

We attach great importance to patents, trademarks, and know-how in order to protect our investment in research and development, manufacturing and marketing. It is our policy to seek the broadest possible protection for significant product developments in all major markets. Among other things, patents may cover the products themselves, including the product's active substance and its formulation. Patents may also cover the processes for manufacturing a product, including processes for manufacturing intermediate substances used in the manufacture of the products. Patents may also cover particular uses of a product, such as its use to treat a particular disease, or its dosage regimen.

The protection offered by such patents extends for varying periods depending on the legal life of patents in the various countries. The protection afforded, which may also vary from country to country, depends upon the type of patent and its scope of coverage. We monitor our competitors and vigorously challenge infringements of our intellectual property.

### **SANDOZ**

Our Sandoz Division is a world leader in developing, manufacturing and marketing generic pharmaceutical products, follow-on biopharmaceutical products and drug substances that are not protected by valid and enforceable third-party patents. As of December 31, 2009, affiliates of the Sandoz Division employed 23,423 full-time equivalents associates worldwide in more than 130 countries. In 2009, our Sandoz Division achieved consolidated net sales of \$ 7.5 billion, 17% of the Group's total net sales.

The Sandoz Division is active in Retail Generics, Anti-Infectives, Biopharmaceuticals and Oncology Injectables (following the acquisition of EBEWE Pharma which was completed in September 2009). In Retail Generics, we develop and manufacture active ingredients and finished dosage forms of pharmaceuticals, as well as supplying active ingredients to third parties. In Anti-Infectives, we develop and manufacture active pharmaceutical ingredients and intermediates mainly antibiotics for use by Retail Generics and for sale to third-party customers. In Biopharmaceuticals, we develop and manufacture



Table of Contents

protein- or other biotechnology-based products (known as biosimilars or follow-on biologics) and sell biotech manufacturing services to other companies. In Oncology Injectables, we develop and manufacture cytotoxic products for the hospital market.

The worldwide market for generic pharmaceutical products has been growing by about 10% annually and is expected by industry analysts to continue at nearly that rate through 2013, fueled primarily by the growing health needs of an aging population, opportunities created through patent expiries, increasing access to healthcare and pressures to contain healthcare costs. According to IMS Health, Sandoz is the No. 2 company in worldwide generic sales and is positioned as a global leader in Retail Generics. Sandoz Biopharmaceuticals has emerged as the leading global player in biosimilars, with three marketed medicines, and a pipeline of two dozen projects at various stages of development. In addition, Sandoz remains one of the leading manufacturers of antibiotics worldwide. The acquisition of EBEWE Pharma positions Sandoz among the top four global players in oncology injectables, according to IMS Health.

Sandoz has three strategic priorities: to be first-to-market with our products as originators' patents expire or become unenforceable, to be cost competitive by leveraging our economies of scale in development and production, and to differentiate Sandoz based on our extensive global reach and our advanced technical expertise in the development and manufacturing of difficult-to-make generics and biosimilars.

In 2009, despite continued delays on some key product launches, particularly in the US, Retail Generics benefited from key launches including the first-to-market US launch of tacrolimus (Prograf®); and the launches in various European countries of pantoprazole (marketed in the US as Protonix®), clopidogrel (Plavix®), and esomeprazole (Nexium®). Anti-Infectives experienced continued volume growth, with key products globally including amoxicillin/clavulanic acid, ceftriaxone, azithromycin and cefdinir. In Biopharmaceuticals, Sandoz continued to roll out important follow-on products and to expand contract manufacturing. Following the launch in the EU of recombinant growth hormone *Omnitrope* and anemia medicine *Binocrit*, in 2006 and 2007 respectively, oncology medicine *Zarzio/Filgrastim Hexal* was launched in several EU countries in 2009. Meanwhile, *Omnitrope*, the first follow-on biologic to be approved and launched in both the US and the EU, was also introduced in Japan and Canada, the first-ever biosimilar in both of these markets.

In May 2009, Novartis announced it would acquire EBEWE Pharma, an Austrian-based company specializing in oncology injectables with more than 15 marketed products and a strong pipeline with several planned near-term launches, for EUR 925 million. We completed this acquisition in September 2009, and began integration activities immediately with the creation of a Sandoz global center of excellence in oncology injectables.

**Recently Launched Products**

Sandoz launched a number of important products in 2009, including:

*Omnitrope*, a follow-on version of the recombinant human growth hormone Somatropin®, was launched in Japan and Canada.

*Binocrit*, a follow-on version of the recombinant human protein Eprex®/Erypo® for the treatment of anemia, was launched in countries including Spain Switzerland and the Nordics. The higher dosage pre-filled syringes for patients suffering from chemotherapy-related anemia were also launched in countries including Germany and Belgium.

*Zarzio/Filgrastim Hexal*, a follow-on version of the recombinant human granulocyte colony-stimulating factor filgrastim (G-CSF), was approved in the EU and launched in countries including Germany, France, Spain, the UK and Poland.

Tacrolimus, a generic version of the kidney and liver transplantation medication Prograf®, was launched in the US.

Table of Contents

Mycophenolate, a generic version of the transplantation medication Cellcept®, was launched in the US.

Triamcinolone acetonide, a generic version of the topical medication Kenalog®, was launched in the US.

Bicalutamide, a generic version of oncology medicine Casodex®, was launched in the US.

Minocycline, a generic version of broad spectrum antibiotic Solodyn®, was launched in the US (but subsequently withdrawn following a legal settlement).

Pantoprazole, a generic version of the proton pump inhibitor marketed (in the US) as Protonix®, was launched in a number of European countries including Germany, France and the UK.

Clopidogrel, a generic version of the anti-coagulant Plavix®/Iscover®, was launched in a number of European countries including the UK, France, Netherlands and Belgium following the 2008 launch in Germany.

Venlafaxine, a generic version of antidepressant Effexor®, was launched in a number of European countries including Germany, France, Italy, Spain and the UK.

Amoxicillin/clavulanic acid, a generic broad-spectrum combination antibiotic, was launched in a number of European countries including Poland, Russia and Romania.

**Key Marketed Products**

The following tables describe key marketed products for Sandoz (availability varies by market):

**Retail Generics**

<b>Product</b>	<b>Originator Drug</b>	<b>Description</b>
Acetylcysteine	Fluimucil®	Respiratory System
Amlodipine	Norvasc®	Hypertension
Amlodipine/Benazepril	Lotrel®	Hypertension
Amoxicillin	Amoxil®	Anti-infective
Amoxicillin/clavulanic acid	Augmentin®	Anti-infective
Fentanyl	Duragesic®	Analgesic
Metoprolol	Lopressor®	Anti-hypertension
Omeprazole	Prilosec®	Ulcer and heartburn treatment
Simvastatin	Zocor®	Cholesterol lowering treatment
Tacrolimus	Prograf®	Transplantation

Table of Contents**Anti-Infectives**

<b>Active Ingredients</b>	<b>Description</b>
Oral and sterile penicillins	Anti-infectives
Oral and sterile cephalosporins	Anti-infectives
Clavulanic acid and mixtures with clavulanic acid	$\beta$ -lactam inhibitors
Classical and semisynthetic erythromycins	Anti-infectives
Tiamuline	Anti-infectives
Lovastatin, Simvastatin, Pravastatin	Statins
Vancomycin	Anti-infectives
Thyroxine	Hormones

<b>Intermediates</b>	<b>Description</b>
Various cephalosporin intermediates	Anti-infectives
Erythromycin base	Anti-infectives
Various crude compounds produced by fermentation	Cyclosporine, ascomysine, rapamycine, mycophenolic acid, etc.

**Biopharmaceuticals**

<b>Product</b>	<b>Originator Drug</b>	<b>Description</b>
<i>Omnitrope</i>	Somatropin®	Recombinant human growth hormone
<i>Binocrit and Epoetin alfa Hexal</i>	Eprex®/Erypo®	Recombinant protein used for anemia
<i>Zarzio and Filgrastim Hexal</i>	Neupogen®	Recombinant protein used in oncology

**Oncology Injectables**

<b>Product</b>	<b>Originator Drug</b>	<b>Description</b>
Carboplatin	Paraplatin®	Ovarian, lung, head-neck and cervix cancer
Epirubicin	Farmorubicin®	Breast, lung, ovarian, gastric and bladder cancer, and others
Gemcitabine	Gemzar®	Bladder, pancreas, lung, ovarian, and breast cancer
Methotrexate	Folex®, Rheumatrex®	Arthritis; breast, lung, cervix and ovarian cancer, and others
Oxaliplatin	Eloxatin®	Colorectal and colon cancer
Paclitaxel	Taxol®	Breast, lung and ovarian cancer, Kaposi sarcoma

Table of Contents**Principal Markets**

The two largest generics markets in the world – the US and Europe – are the principal markets for Sandoz, although we are active in more than 130 countries. This table sets forth aggregate 2009 net sales by region:

<b>Sandoz</b>	<b>2009 Net Sales to third parties</b>	
	<b>(\$ millions)</b>	<b>(%)</b>
United States	1,847	25
Americas (except the United States)	555	7
Europe	4,271	57
Rest of the World	820	11
<b>Total</b>	<b>7,493</b>	<b>100</b>

Many Sandoz products are used for chronic conditions that require patients to consume the product over long periods of time, from months to years. Sales of our anti-infective products are subject to seasonal variation. Sales of the vast majority of our other products are not subject to material changes in seasonal demand.

**Production**

We manufacture our Sandoz products at 39 production facilities around the world. Among these, our principal production facilities are located in Barleben, Germany; Kundl and Unterach, Austria; Menges and Ljubljana, Slovenia; Broomfield, Colorado; Wilson, North Carolina; Stryków, Poland; Kalwe and Mahad, India; Buenos Aires, Argentina; Boucherville, Canada; Cambé and Taboão, Brazil; Gebze and Syntex, Turkey. In 2007, we restructured our worldwide production network with the sale of our facility in Hvidovre, Denmark, and the acquisition of production sites in Gebze, Turkey, Zhongshan, China, and Jakarta, Indonesia. Although no longer part of our production capacity, we intend to retain a close relationship with the Radebeul, Germany site, which will remain one of our key suppliers.

Active pharmaceutical ingredients are manufactured in our own facilities or purchased from third-party suppliers. We maintain state-of-the-art and cost-competitive processes within our own production network. Those processes include fermentation, chemical syntheses and precipitation processes, such as sterile processing. Many follow-on biologics are manufactured using recombinant DNA derived technology by which a gene is introduced into a host cell, which then produces the human protein. This manufacturing process requires sophisticated technical expertise. We are constantly working to improve current and to develop new manufacturing processes.

Where possible, our policy is to maintain multiple supply sources so that the business is not dependent on a single or limited number of suppliers, and competitive material sourcing can be assured. However, our ability to do so may at times be limited by regulatory or other requirements. We monitor market developments that could have an adverse effect on the supply of essential active pharmaceutical ingredients. All active pharmaceutical ingredients we purchase must comply with high quality standards.

We obtain agricultural raw materials from multiple suppliers based in the EU. We obtain chemicals and other raw materials from suppliers around the world. The raw materials we purchase are generally subject to market price fluctuations. We seek to avoid these fluctuations, where possible, through the use of long-term supply contracts. We also proactively monitor markets and developments that could have an adverse effect on the supply of essential materials. All raw materials we purchase must comply with our quality standards.

Table of Contents

The goal of our supply chain strategy is to produce and distribute high quality products efficiently. The manufacture of our products is heavily regulated, making supply never an absolute certainty. If we, or our third party suppliers, fail to comply fully with such regulations, then there could be product recalls or a government-enforced shutdown of production facilities, which in turn could lead to product shortages. We have experienced supply interruptions in the past and there can be no assurance that supply will not be interrupted again in the future as a result of unforeseen circumstances. For example, in August 2008, our Wilson, North Carolina facility received a Warning Letter from the FDA that raised concerns regarding the Wilson facility's compliance with FDA Good Manufacturing Practice regulations, and stated that until the FDA confirms that the deficiencies have been corrected, the FDA could recommend disapproval of any pending NDAs, abbreviated NDAs or export certificate requests submitted by our Sandoz US affiliate. This Warning Letter was resolved in August 2009 following a successful FDA inspection.

**Marketing and Sales**

The Retail Generics business of Sandoz sells a broad portfolio of generic pharmaceutical products to wholesalers, pharmacies, hospitals and other healthcare outlets. Sandoz adapts its marketing and sales approach to local decision making processes, depending on the structure of the market in each country.

In response to rising healthcare costs, many governments and private medical care providers, such as health maintenance organizations, have instituted reimbursement schemes that favor the substitution of generic products for bioequivalent branded pharmaceutical products. In the US, statutes have been enacted by virtually all states that permit or require pharmacists to substitute a less expensive generic product for the brand-name version of a drug that has been prescribed to a patient. Generic use is growing in Europe, but penetration rates in many EU countries are below those in the US because reimbursement practices do not create efficient incentives for substitution. Legislative or regulatory changes can have a significant impact on our business in a country. In Germany, for example, the generic market is in transition as healthcare reforms increasingly shift decision making from physicians to insurance funds.

Our Anti-Infectives business supplies Retail Generics and the pharmaceutical industry worldwide with active pharmaceutical ingredients and intermediates, mainly in the field of antibiotics.

Our Biopharmaceuticals business operates in an emerging business environment. Regulatory pathways for approving follow-on biologics are either new or still in development, and policies have not yet been defined for substitution and reimbursement of biosimilars in many markets, including the US.

Our Oncology Injectables business supplies hospitals worldwide with cytotoxic products for use in oncology treatment.

**Competition**

The market for generic products is characterized by increasing demand for high-quality pharmaceuticals that can be produced at lower costs due to a comparatively minimal initial research and development investments. Increasing pressure on healthcare expenditures and numerous patent and data exclusivity period expirations have created a favorable market environment for the generics industry. This positive market trend, however, brings increased competition among the companies selling generic pharmaceutical products, leading to ongoing price pressure on generic pharmaceuticals.

In addition, research-based pharmaceutical companies have responded to increased competition from generic products by licensing their branded products to generic companies (the so-called "authorized generic"). By doing so, research-based pharmaceutical companies participate in the conversion of their branded product once generic conversion begins. Consequently, generic companies that were not in a position to compete on a specific product are allowed to enter the generic market using the innovator's product. In the US, the authorized generic is not subject to the US Hatch-Waxman Act rules regarding exclusivity (See " Regulation"). The company that launches an authorized generic typically enters the market at the same time as the generic exclusivity holder. This tends to reduce the value of the exclusivity

Table of Contents

for the company that invested in creating the first generic. Furthermore, certain research-based companies continually seek new ways to protect their market franchise and to decrease the impact of generic competition. For example, some research-based pharmaceutical companies have recently reacted to generic competition by decreasing the prices of their branded product, thus seeking to limit the profit that the generic companies can earn on the competing generic product.

**Development and Registration**

Before a generic pharmaceutical may be marketed, intensive technical and clinical development work must be performed to demonstrate in bio-availability studies the bio-equivalency of the generic product to the reference product. Nevertheless, research and development costs associated with generic pharmaceuticals are much lower than those of the established counterparts, as no clinical trials on dose finding and efficacy must be performed by the generic company. As a result, pharmaceutical products for which the patent and data exclusivity period has expired can be offered for sale at prices much lower than those of products protected by patents and data exclusivity, which must recoup substantial basic research and development costs through higher prices over the life of the product's patent and data exclusivity period.

For follow-on biologic products, the regulatory pathways for approving such products are still in development in many countries. However, at least for certain biopharmaceutical products, at least some clinical trials in patients to determine safety and efficacy do appear to be required. Nonetheless, Sandoz has successfully registered and launched the first biosimilar product in Europe, the US and Japan, as well as two further products in Europe.

Currently, the affiliates of the Sandoz Division employ more than 1,300 Development and Registration staff who explore alternative routes for the manufacture of known compounds and develop innovative dosage forms of well-established medicines. These associates are based worldwide, including major facilities in Holzkirchen and Rudolstadt, Germany; Kundl, Schafteuau and Unterach, Austria; Menges and Ljubljana, Slovenia; Kolshet, India; Boucherville, Canada; Broomfield, Colorado and East Hanover, New Jersey (transferred from Wilson, NC); Cambé, Brazil and Buenos Aires, Argentina.

In 2008, Sandoz invested \$613 million in product development, which amounted to 8.2% of the division's net sales. Our Sandoz Division invested \$667 million and \$563 million in product development in 2008 and 2007 respectively.

**Regulation**

The Hatch-Waxman Act in the US (and similar legislation in the EU and in other countries) eliminated the requirement that generic pharmaceutical manufacturers repeat the extensive clinical trials required for originator products, so long as the generic version could be shown in bioavailability studies to be of identical quality and purity, and to be biologically equivalent to the reference product.

In the US, the decision whether a generic pharmaceutical is bioequivalent to the original branded product is made by the FDA based on an Abbreviated New Drug Application (ANDA) filed by the generic product's manufacturer. The process typically takes approximately eighteen months from the filing of the ANDA until FDA approval. However, delays can occur if issues arise regarding the interpretation of bioequivalence study data, labeling requirements for the generic product, or qualifying the supply of active ingredients. In addition, the Hatch-Waxman Act requires a generic manufacturer to certify in certain situations that the generic product does not infringe on any current applicable patents on the product held by the innovator, or to certify that such patents are invalid or the product is non-infringing. This certification often results in a patent infringement lawsuit being brought by the patent holder against the generic company. In the event of such a lawsuit, the Hatch-Waxman Act imposes an automatic 30-month delay in the approval of the generic product in order to allow the parties to resolve the intellectual property issues. For generic applicants who are the first to file their ANDA containing a certification claiming non-infringement or patent invalidity, the Hatch-Waxman Act provides those

Table of Contents

applicants with 180 days of marketing exclusivity to recoup the expense of challenging the innovator patents. However, generic applicants must launch their products within certain time frames or risk losing the marketing exclusivity that they had gained through being a first-to-file applicant.

In the EU, decisions on the granting of a marketing authorization are made either by the EMEA under the Centralized Procedure, or by a single Member State under the national or decentralized procedure. See " Pharmaceuticals Regulation European Union." Companies may submit Abridged Applications for approval of a generic medicinal product based upon its "essential similarity" to a medicinal product authorized and marketed in the EU following the expiration of the product's data exclusivity period. In such cases, the generic company is able to submit its Abridged Application based on the data submitted by the medicine's innovator, without the need to conduct extensive Phase III clinical trials of its own. For all products that received a marketing authorization in the EU after late 2005, the Abridged Application can be submitted throughout the EU. However, the data submitted by the innovator in support of its application for a marketing authorization for the reference product will be protected for ten years after the first grant of marketing authorization in all Member States, and can be extended for an additional year if a further innovative indication has been authorized for that product, based on pre-clinical and clinical trials filed by the innovator that show a significant clinical benefit in comparison to the existing therapies.

### **Intellectual Property**

Wherever possible, our generic products are protected by our own patents. Among other things, patents may cover the products themselves, including the product's active substance and its formulation. Patents may also cover the processes for manufacturing a product, including processes for manufacturing intermediate substances used in the manufacture of the products. Patents also may cover particular uses of a product, such as its use to treat a particular disease or its dosage regimen. It is our policy to seek the broadest possible protection for significant product developments in all major markets.

We take all reasonable steps to ensure that our generic products do not infringe valid intellectual property rights held by others. Nevertheless, originating companies commonly assert patent and other intellectual property rights in an effort to delay or prevent the launch of competing generic products. As a result, we can become involved in significant litigation regarding our generic products. If we are unsuccessful in defending these suits, we could be subject to injunctions preventing us from selling our generic products, or to damages, which may be substantial.

### **CONSUMER HEALTH**

Our Consumer Health Division is a world leader in the research, development, manufacturing and marketing of a wide range of competitively differentiated products that restore, maintain or improve the health and well-being of consumers, as well as pets and livestock. The business of Consumer Health is conducted by a number of affiliated companies throughout the world. Created in January 2002, the Consumer Health Division's continuing operations consist of the following three business units:

OTC (over-the-counter medicines)

Animal Health

CIBA Vision

Each business unit has its own research, development, manufacturing, distribution and selling capabilities. However, none are material enough to the Group to be separately disclosed as a segment. As of December 31, 2009, the affiliates of our Consumer Health Division continuing operations employed 12,539 full-time equivalent associates worldwide. In 2009, the affiliates of our Consumer Health Division achieved consolidated net sales from continuing operations of \$5.8 billion, which represented 13% of the Group's total net sales from continuing operations.





Table of Contents

Our Consumer Health Division places considerable emphasis on the development of strong, consumer-oriented and trustworthy brands. To deliver accelerated sales growth and to achieve leadership positions in the fields in which we compete, our Consumer Health Division seeks to give voice to the consumer and to determine the needs and desires of consumers.

In the dynamic world of consumer healthcare, consumers are becoming more knowledgeable about health and the benefits of self-medication. The success of each business unit depends upon its ability to anticipate and meet the needs of consumers and health professionals worldwide.

The Medical Nutrition and Gerber Business Units were previously included in the Consumer Health Division, but have been classified as discontinued operations in all periods in the Group's consolidated financial statements, as a consequence of the divestment of these business units. On September 1, 2007, we completed the sale of the Gerber Business Unit to Nestlé S.A., Switzerland for \$5.5 billion. On July 1, 2007, we completed the sale of the remainder of the Medical Nutrition Business Unit to Nestlé S.A., Switzerland for \$2.5 billion.

The following is a description of the three Consumer Health Division Business Units:

OTC (over-the-counter medicines) is a world leader in offering products for the treatment and prevention of common medical conditions and ailments, to enhance people's overall health and well-being. The business of OTC is conducted by a number of affiliated companies in more than 45 countries. The OTC business focuses on a group of strategic global brands in leading product categories that include treatments for cough/cold/respiratory (*Triaminic*, *Otrivin*, *TheraFlu/NeoCitran*), pain relief (*Excedrin*, *Voltaren*), smoking cessation (*Habitrol/Nicotinell*), dermatology (*Lamisil*, *Fenistil*), and gastrointestinal (*Benefiber*, *Prevacid24HR*). *Prevacid24HR* (lansoprazole delayed-release capsules 15 mg) was launched in November 2009 after having been approved in May 2009 by the FDA for the treatment of frequent heartburn. The *Prevacid24HR* launch was one of the biggest prescription-to-OTC switches in all categories of medications and is expected to become one of Novartis OTC's biggest brands based on projected sales.

Animal Health offers products and services to save, prolong and improve animal lives, focusing on both companion and farm animals (including cultivated fish). The business of Animal Health is conducted by affiliated companies in 38 countries. Animal Health has a dedicated research and development team, which benefits from synergies with other Novartis businesses, most notably research in the Pharmaceuticals Division. Key products for companion animals include *Atopica* (atopic dermatitis management), *Deramaxx* (pain relief) and *Sentinel/Milbemax/Interceptor* (intestinal parasite control and heartworm prevention), while leading farm animal products include the farm fly control product *Agita* and the therapeutic anti-infective *Denagard*, an effective broad-spectrum antimicrobial used to treat and control bacteria in swine. In 2009, Animal Health launched *Zolvix*, a sheep drench representing the first new sheep anthelmintic class in 25 years, and *Onsior*, the first coxib class NSAID (non-steroidal anti-inflammatory drug) to be approved for both cats and dogs. Aquaculture products include vaccines and treatments mainly used in salmon farming. In March 2007, we completed the acquisition of the Japanese animal health business of Sankyo Lifetech Co., Ltd., expanding our presence in Japan, particularly in the rapidly-growing companion animal segment.

CIBA Vision is a global leader in the research, development, and manufacturing of contact lenses and lens care products. The business of CIBA Vision is conducted by affiliated companies in nearly 40 countries. CIBA Vision is committed to the research and development of innovative products, lens technology and services. R&D efforts have produced lenses such as the *Air Optix* family of monthly silicone hydrogel lenses, and *Dailies* daily disposable lenses. CIBA Vision is also the world's leading provider of color contact lenses to change and enhance eye color through products such as *FreshLook* lenses. In lens care, CIBA Vision has developed many innovative products,

Table of Contents

particularly multi-purpose solutions in one bottle such as *Aquify/Solocare Aqua* and the *Clear Care/Aosept Plus* peroxide system.

**Principal Markets**

The principal markets for the Consumer Health Division are the US and Europe. The following table sets forth the aggregate 2009 net sales of the Consumer Health Division by region:

Consumer Health	2009 Net sales to third parties	
	(\$ millions)	(%)
United States	1,892	33
Americas (except the United States)	496	8
Europe	2,541	44
Rest of the World	883	15
<b>Total net sales</b>	<b>5,812</b>	<b>100</b>

Sales of our OTC Business Unit are marked by a high degree of seasonality, with our cough, cold and allergy brands significantly affected by the timing and severity of the annual cold and flu and allergy seasons. Sales of our Animal Health Business Unit's livestock segment can also fluctuate seasonally, and can be significantly affected by climatic and economic conditions, or by changing health or reproduction rates of animal populations. Sales of most of our other products are not subject to material changes in seasonal demand.

**Production**

OTC: Products for our OTC Business Unit are produced by the business unit's own plants, strategic third-party suppliers and other Novartis Group plants (which are predominantly owned and operated by the Pharmaceuticals Division). The primary OTC plants are located in Lincoln, Nebraska; Nyon, Switzerland, Humacao, Puerto Rico, and Jamshoro, Pakistan.

Animal Health: Approximately 80% of our production volume is manufactured by third parties and Novartis affiliates in other divisions or business units. Animal Health has production facilities of its own located around the world, with main sites in Wusi Farm, China; Dundee and Braintree, UK; Larchwood, Iowa; Charlottetown, Canada; and Huningue, France.

CIBA Vision: CIBA Vision has major production facilities in Batam, Indonesia; Duluth, Georgia; Des Plaines, Illinois; Grosswallstadt, Germany; Cidra, Puerto Rico; Singapore; Johor, Malaysia; and Mississauga, Canada. In 2008 and 2009, CIBA Vision significantly streamlined its production processes, resulting in consistently high fulfillment rates.

While production practices may vary from business unit to business unit, we generally obtain our raw materials from sources around the world. We obtain raw materials, intermediates and active ingredients from suppliers around the world. The raw materials, intermediates and active ingredients we purchase are generally subject to market price fluctuations. We seek to avoid these fluctuations, where possible, through the use of long-term supply contracts. We also proactively monitor markets and developments that could have an adverse effect on the supply of essential materials. All raw materials we purchase must comply with our quality standards.

The goal of our supply chain strategy is to produce and distribute high quality products efficiently. The manufacture of our products is heavily regulated, making supply never an absolute certainty. If we, or

Table of Contents

our third party suppliers, fail to comply fully with such regulations, then there could be product recalls or a government-enforced shutdown of production facilities, which in turn could lead to product shortages. CIBA Vision has experienced significant supply interruptions in the past and there can be no assurance that CIBA Vision's supply or the supply of OTC or Animal Health will not be interrupted again in the future as a result of unforeseen circumstances.

**Marketing and Sales**

**OTC:** OTC aims to be a leading global participant in fulfilling the needs of patients and consumers for self-medication healthcare. Strong, leading brands and products, innovation led by a worldwide research and development organization, and in-house marketing and sales organizations are key strengths in pursuing this objective. We engage in general public relations activities, including media advertisements, brand websites and other direct advertisements of brands, to the extent permitted by law in each country. We distribute our products through various channels such as pharmacies, food, drug and mass retail outlets.

**Animal Health:** Animal Health's products are mostly prescription-only treatments for both farm and companion animals. The major distribution channel is veterinarians, either directly or through wholesalers of veterinary products. Primary marketing efforts are targeted at veterinarians using such marketing tools as targeted personal selling, printed materials, direct mail, advertisements, articles in the veterinary specialty press, and conferences and educational events for veterinarians. In addition, we engage in general public relations activities and media advertising, including brand websites and other direct advertisements of brands, to the extent permitted by law in each country.

**CIBA Vision:** In most countries, contact lenses are available only by prescription. CIBA Vision lenses can be purchased from eye care professionals, optical chains and large retailers, subject to country regulation. CIBA Vision's lens care products can be found in major drug, food, mass merchandising and optical retail chains in the US, Europe, Japan and elsewhere, subject to country regulations. In addition, mail order and Internet sales of contact lenses are becoming increasingly important channels in major markets worldwide.

**Competition**

The global market for products of the type sold by our Consumer Health Division is highly competitive, and we compete against other major international corporations with substantial financial and other resources. Competition within the industry is intense and extends across a wide range of commercial activities, including pricing, product characteristics, customer service, sales and marketing, and research and development. Particularly in the US, our branded OTC products compete against "store brand" products that are made with the same active ingredients as ours. These products do not carry our trusted brand names, but they also do not carry the burden of the expensive advertising and marketing which helped to establish a demand for the product. As a result, the store brands may be sold at lower prices. In recent years, consumers have increasingly begun to purchase store brand OTC products instead of branded products.

**Research and Development**

**OTC:** In OTC, the focus of research and development activities is primarily on dermatology, analgesics, cough/cold/respiratory, gastrointestinal, and cardiovascular risk reduction (through smoking cessation programs). OTC also works closely with the Pharmaceuticals Division to evaluate appropriate products that can be switched from prescription to OTC status. The development of line extensions to leverage brand equities is also of high importance. These extensions can take many forms including new flavors, new galenical forms and more consumer-friendly packaging.

Table of Contents

**Animal Health:** Novartis Animal Health has dedicated research and development facilities in Switzerland, North America and Australia. The main focus for research is identification of potential new parasiticides and therapeutics in key areas of internal medicine. In addition, in the US and Canada, we devote resources to the quest for new vaccines for farm animals and cultivated fish. Also, our researchers exploit synergy with other Novartis businesses and collaborate with external partners to develop veterinary therapeutics and vaccines. Drug delivery projects, some in collaboration with external partners, concentrate on key treatment areas and aim to improve efficacy and ease of use.

**CIBA Vision:** CIBA Vision invests substantially in internal research and development operations, which yield new chemistries, lens designs and surfaces, and processing technologies. These resources are complemented by licensing agreements and joint research and development partnerships with third parties. For contact lenses our key focus is in two areas: daily disposable lenses and silicone hydrogel lenses. In lens care, our development efforts focus on lens care solutions that complement silicone hydrogel contact lenses, and provide the safety, disinfecting and cleaning power needed to help maintain ocular health.

In 2009, the Consumer Health Division continuing operations invested \$346 million in research and development, which amounted to 6.0% of the division's net sales. Our Consumer Health Division invested \$313 million and \$301 million in research and development in 2008 and 2007 respectively.

**Regulation**

**OTC:** For OTC products, the primary regulatory process for bringing a product to market consists of preparing and filing a detailed dossier with the appropriate national or international registration authority and obtaining approval of the applicable health authority. See " Pharmaceuticals Regulation." In the US, in addition to the NDA process, which also is used to approve prescription pharmaceutical products, an OTC product may be sold if the FDA has determined that the product's active ingredient is generally recognized as safe and effective. FDA makes this determination through a regulatory process known as the OTC Review. In the OTC Review, the FDA has established, in a series of monographs, the conditions under which particular active ingredients may be recognized as safe and effective for OTC use. Pharmaceutical companies can market products containing these active ingredients without the necessity of filing an NDA and going through its formal approval process, so long as the company complies with the terms of the published monograph. These processes do not apply outside the US. Outside the US, countries have their own regulatory processes for approving or allowing the sale of pharmaceutical products, including prescription, OTC, and switching from prescription to OTC status. These processes vary from country to country.

**Animal Health:** The registration procedures for animal medicines are similar to those for human medicines. An animal drug application for product registration must be accompanied by extensive data on target animal and user safety, environmental fate and toxicology, efficacy in laboratory and clinical studies, information on manufacturing, quality control and labeling as well as on residues and food safety if applied to food-producing animals. In the US, animal health products are generally regulated by the FDA's Center for Veterinary Medicine. Certain product categories are regulated by the Environmental Protection Agency (EPA), and vaccines are under the control of the US Department of Agriculture (USDA). In the EU, veterinary medicinal products need marketing authorization from the competent authority of a member-state (national authorization) or from the EU Commission (community authorization) following either the Centralized Procedure, Mutual Recognition Procedure or the Decentralized Procedure. See " Pharmaceuticals Regulation."

**CIBA Vision:** Contact lenses and lens care products are regulated as medical devices in the US, the EU and the majority of other regulated countries. In the US, extended wear contact lenses are considered Class III devices, for which a PMA application is submitted to FDA. Daily wear lenses and lens care products are considered Class II devices for which the manufacturer must submit a Premarket Notification 510(k) application. See " Vaccines & Diagnostics Regulation."

Table of Contents

**Intellectual Property**

Our Consumer Health businesses are strongly brand-oriented. As a result, we consider our trademarks to be of utmost value. Enforceable trademarks protect most of our brands in the majority of the markets where these brands are sold, and we vigorously protect these trademarks from infringement. Our most important trademarks are used in a number of countries. Local variations of these international trademarks are employed where legal or linguistic considerations require the use of an alternative.

Wherever possible our products are protected by patents. Among other things, patents may cover the products themselves, including the product's active substance and its formulation. Patents may also cover the processes for manufacturing a product, including processes for manufacturing intermediate substances used in the manufacture of the products. Patents may also cover particular uses of a product, such as its use to treat a particular disease, or its dosage regimen. It is our policy to seek the broadest possible protection for significant product developments in all major markets.

Our Consumer Health businesses also sell products which are not currently covered by patents. Some of these products have never been patent-protected and others have lost protection due to patent expiry.

In addition, see "Item 18. Financial Statements note 20" for a description of patent litigation involving the CIBA Vision Business Unit of our Consumer Health Division.

**4.C Organizational Structure**

See "Item 4. Information on the Company 4.A History and Development of Novartis," and "Item 4. Information on the Company 4.B Business Overview Overview."

**4.D Property, Plants and Equipment**

Our principal executive offices are located in Basel, Switzerland. Our divisions and business units operate through a number of affiliates having offices, research facilities and production sites throughout the world.

We generally own our facilities. However, a few sites are leased under long-term leases. Some of our principal facilities are subject to mortgages and other security interests granted to secure indebtedness to certain financial institutions. We believe that our production plants and research facilities are well maintained and generally adequate to meet our needs for the foreseeable future.

Table of Contents

The following table sets forth our major production and research facilities.

Location/Division or Business Unit	Size of Site (in square meters)	Major Activity
<b>Major Production facilities:</b>		
<b>Pharmaceuticals</b>		
Ringaskiddy, Ireland	532,000	Drug substances, intermediates
Grimsby, UK	450,000	Drug substances, intermediates
Stein, Switzerland	358,000	Steriles, ampules, vials, tablets, capsules, transdermals
Basel, Switzerland Klybeck	235,000	Drug substances, intermediates
Basel, Switzerland Schweizerhalle	230,000	Drug substances, intermediates
Basel, Switzerland St. Johann	53,000	Drug substances, intermediates, biopharmaceutical drug substance
Torre, Italy	200,000	Tablets, drug substance intermediates
Changshu, China	229,000	Drug substances, intermediates
Suffern, NY	61,000	Tablets, capsules, transdermals, vials
Kurtkoy, Turkey	51,000	Tablets, capsules, effervescent
Horsham, UK	14,000	Tablets, capsules
Sasayama, Japan	104,000	Tablets, capsules, dry syrups, suppositories, creams, powders
Huningue, France	112,000 (includes Animal Health facilities)	Suppositories, liquids, solutions, suspensions, biopharmaceutical drug substances
Singapore	29,000	Bulk tablets
Wehr, Germany	58,000	Tablets, creams, ointments

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Barbera, Spain	51,000	Tablets, capsules
Chang Ping, China	28,000	Tablets, capsules, gel

Table of Contents

Location/Division or Business Unit	Size of Site (in square meters)	Major Activity
<b>Vaccines and Diagnostics</b>		
Holly Springs, NC	130,000	Vaccines and adjuvant
Emeryville, CA	99,000 (production and R&D facilities; includes Pharmaceuticals facilities)	Vaccines and blood testing
Siena/Rosia, Italy	97,000 (production and R&D facilities)	Vaccines
Liverpool, UK	62,000	Vaccines
Marburg, Germany	45,000 (production and R&D facilities)	Vaccines and adjuvant
Ankleshwar, India	11,000	Vaccines
<b>Sandoz</b>		
Taboão da Serra, Brazil	501,000	Capsules, tablets, syrups, suspensions, drop solutions
Kundl and Schafotenau, Austria	449,000 (production and R&D facilities)	Biotech products, intermediates, active drug substances, final steps (finished pharmaceuticals)
Menges, Slovenia	131,000 (production and R&D facilities)	Biotech products and active drug substances
Barleben, Germany	95,000	Broad range of finished dosage forms
Ljubljana, Slovenia	83,000 (production and R&D facilities)	Broad range of finished dosage forms
Broomfield, CO	60,000	Broad range of finished dosage forms
Kalwe, India	47,000	Broad range of finished dosage forms
Mahad, India	43,000	Active drug substances
Gebze, Turkey	42,000	Broad range of finished dosage forms
Cambé, Brazil	32,000	Broad range of finished dosage forms
Wilson, NC	31,000	Broad range of finished dosage forms





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Table of Contents

Location/Division or Business Unit	Size of Site (in square meters)	Major Activity
Rudolstadt, Germany	37,000 (production and R&D facilities)	Inhalation technology, ophthalmics and nasal products
Stryków, Poland	20,000	Broad range of finished dosage forms
Kolshet, India	20,000 (production and R&D facilities)	Generic pharmaceuticals
Boucherville, Canada	14,000 (production and R&D facilities)	Injectable products
Holzkirchen, Germany	17,000 (production and R&D facilities)	Oral dispersable films, transdermal delivery systems, reservoir and matrix patches
Unterach, Austria	15,000 (production and R&D facilities)	Oncology injectables
<b>Consumer Health</b>		
<b>OTC</b>		
Lincoln, NE	46,000 (production and R&D facilities)	Tablets, liquids, creams, ointments, capsules, patches
Nyon, Switzerland	15,000 (production and R&D facilities)	Liquids and creams
Humacao, Puerto Rico	13,000	Tablets, capsules, medicated chocolates, softgels and Thin Strips
Jamshoro, Pakistan	24,000	Tablets, liquids, creams
<b>Animal Health</b>		
Wusi Farm, China	39,000	Insecticides, antibacterials, acaricides, powders
Larchwood, IA	13,000 (production and R&D facilities)	Veterinary immunologicals
Dundee, UK	11,000	Packaging, formulation of liquids, solids, creams, sterile filling
Braintree, UK	6,000	Veterinary immunologicals
Huningue, France	5,000	Formulation and packaging of tablets, creams, ointments, suspensions and liquids



Table of Contents

Location/Division or Business Unit	Size of Site (in square meters)	Major Activity
Charlottetown, Canada	5,000	Veterinary immunologicals for aquaculture
<b>CIBA Vision</b>		
Johor, Malaysia	35,000	Contact lenses
Duluth, GA	34,000	Contact lenses
Pulau Batam, Indonesia	27,000	Contact lenses
Des Plaines, IL	27,000	Contact lenses
Singapore	19,000	Contact lenses
Cidra, Puerto Rico	6,000	Contact lenses
Toronto, Canada	15,000	Lens care products
<b>Major Research and Development Facilities:</b>		
<b>Pharmaceuticals</b>		
East Hanover, NJ	177,000	General pharmaceutical products
Basel, Switzerland St. Johann	150,000	General pharmaceutical products
Basel, Switzerland Klybeck	140,000	General pharmaceutical products
Cambridge, MA	116,000	General pharmaceutical products
Horsham, UK	38,000	Respiratory and nervous system diseases
Emeryville, CA	(included in Vaccines and Diagnostics facilities)	Oncology
Shanghai, China	5,000	Oncology
<b>Vaccines and Diagnostics</b>		
Emeryville, CA	99,000 (production and R&D facilities; includes Pharmaceuticals facilities)	Vaccines and blood testing
Siena/Rosia, Italy	97,000 (production and R&D facilities)	Vaccines

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Marburg, Germany

45,000  
(production and R&D facilities)

Vaccines

Cambridge, MA

9,000

Vaccines

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Table of Contents

Location/Division or Business Unit	Size of Site (in square meters)	Major Activity
<b>Sandoz</b>		
Kundl and Schafteuau, Austria	449,000 (production and R&D facilities)	Biotech processes, innovations in antibiotic technologies
Menges, Slovenia	131,000 (production and R&D facilities)	Biotech products and active drug substances
Ljubljana, Slovenia	83,000 (production and R&D facilities)	Broad range of finished dosage forms and new delivery systems
East Hanover, NJ	6,000	Broad range of finished dosage forms
Rudolstadt, Germany	37,000 (production and R&D facilities)	Generic oral solid formulations and active drug substances
Holzkirchen, Germany	17,000 (production and R&D facilities)	Broad range of innovative dosage forms, including implants and transdermal therapeutic systems
Boucherville, Canada	14,000 (production and R&D facilities)	Injectable products
Kolshet, India	20,000 (production and R&D facilities)	Generic pharmaceuticals
Unterach, Austria	15,000 (production and R&D facilities)	Oncology injectables
<b>Consumer Health</b>		
<b>OTC</b>		
Lincoln, NE	46,400 (production and R&D facilities)	Tablets, capsules, liquids, ointments, creams and high potent compounds
Nyon, Switzerland	15,000 (production and R&D facilities)	Over-the-counter medicine products
Thane, India	2,000 (R&D facilities)	Tablets, capsules, powders, creams, ointments, oral liquids
<b>Animal Health</b>		
St. Aubin, Switzerland	26,000	Parasiticides, therapeutics for companion and farm animals
Larchwood, IA	13,000 (production and R&D facilities)	Veterinary immunologicals



Table of Contents

Location/Division or Business Unit	Size of Site (in square meters)	Major Activity
Yarrandoo, Australia	3,000	Animal Health products
Basel, Switzerland	2,000	Animal Health products
<b>CIBA Vision</b>		
Duluth, GA	13,000	Vision-related medical devices
Grosswallstadt, Germany	4,000	Vision-related medical devices
Singapore	5,000	Vision-related medical devices

Substantial progress has been made in the long-term redevelopment of our St. Johann headquarters site in Basel, Switzerland. This project, called "Campus," was started in 2001 with the aim of transforming the site into a center of knowledge with a primary emphasis on international corporate functions and research activities. At that time, changes needed to be made to the Campus, since the site had originally been designed primarily for pharmaceuticals production, but Research and Development had come to account for a greater proportion of our activities at the site. Through December 31, 2009, the total amount paid and committed to be paid on the Campus Project is \$1.6 billion. We expect that, through 2015, we will spend more than \$2.1 billion on the Campus and to transfer production facilities from the Campus to other sites in the Basel region. We intend to fund these expenditures from internally developed resources.

In 2009, our Pharmaceuticals Division opened a new technical Research and Development and manufacturing facility in Changshu, China, to support the production of *Tekturna/Rasilez* and other products. The site was officially opened at the end of 2009, and commercial production is expected to commence at the beginning of 2010. We invested approximately \$56 million into this site during 2009, bringing our total investment at the site to \$265 million.

In 2007, NIBR opened a start-up facility for our new R&D center in Shanghai, China (CNIBR). In 2008, we broke ground on a new facility that was to be home to approximately 400 R&D scientists and approximately 400 other Pharmaceuticals Division personnel. In 2009, we announced that we would expand the scope of the site and invest \$1 billion over the next five years to increase the size of CNIBR so that it would become the largest pharmaceutical research and development institute in China, and the third largest Novartis research institute worldwide.

In June 2008, the division also broke grounds on a new rabies and tick-borne encephalitis manufacturing facility in Marburg, Germany which is expected to require a total investment of approximately \$230 million. Construction is proceeding as planned and the official opening of the facility is anticipated in 2010. As of December 31, 2009, the total amount paid and committed to be paid on this project is \$149 million.

In November 2009, the Vaccines and Diagnostics Division opened the division's new cell culture-based influenza vaccine manufacturing site in Holly Springs, North Carolina. As of December 31, 2009, the total amount spent on the project is \$536 million, including amounts reimbursed by the US government. The total investment in this new facility is expected to be least \$900 million, partly supported by grants from the US government and prior investments in flu cell culture technologies at the Novartis Vaccines site in Marburg, Germany.

In September 2009, the Vaccines and Diagnostics Division set the cornerstone for a new vaccine manufacturing facility in Goiana, in the Pernambuco region of Brazil. The manufacturing plant is part of Novartis Vaccines' strategy to enter the Brazilian market, and is aligned with the government's goal to become self-sufficient in vaccine production. Our total investment in the facility is expected to be up to \$500 million. The facility is expected to be operational by the end of 2014.



Table of Contents

**Environmental Matters**

We integrate core values of environmental protection into our business strategy to add value to the business, manage risk and enhance our reputation.

We are subject to laws and regulations concerning the environment, safety matters, regulation of chemicals and product safety in the countries where we manufacture and sell our products or otherwise operate our business. These requirements include regulation of the handling, manufacture, transportation, use and disposal of materials, including the discharge of pollutants into the environment. In the normal course of our business, we are exposed to risks relating to possible releases of hazardous substances into the environment which could cause environmental or property damage or personal injuries, and which could require remediation of contaminated soil and groundwater. Under certain laws, we may be required to remediate contamination at third party sites, or at certain of our properties regardless of whether the contamination was caused by us, or by previous occupants of the property.

See also "Item 3. Key Information Risk Factors Environmental liabilities may impact our results of operations" and "Item 18. Financial Statements note 20."

**Item 4A. Unresolved Staff Comments**

Not applicable

**Item 5. Operating and Financial Review and Prospects**

**5.A Operating Results**

This operating and financial review should be read together with the Group's consolidated financial statements in this Form 20-F. The consolidated financial statements and the financial information discussed below have been prepared in accordance with International Financial Reporting Standards (IFRS) as published by the International Accounting Standards Board (IASB).

**OVERVIEW**

Novartis provides healthcare solutions that address the evolving needs of patients and societies worldwide. Our portfolio includes innovative medicines, preventive vaccines and diagnostic tools, generic pharmaceuticals and consumer health products. Novartis is the only company to have leadership positions in each of these areas.

The Group's businesses are organized in four global operating divisions:

Pharmaceuticals: Innovative patent-protected prescription medicines

Vaccines and Diagnostics: Human vaccines and blood-testing diagnostics

Sandoz: Generic pharmaceuticals

Consumer Health: OTC (over-the-counter medicines), Animal Health and CIBA Vision (contact lenses and lens-care products)

We believe our strategy will enable Novartis to continue as an industry leader. One of our strategic priorities is to strengthen this portfolio through sustained investments in innovation. Reflecting the benefits of these investments, more than 30 positive regulatory decisions throughout the Group were achieved in 2009 in the US, European Union and Japan. In Japan, a historic six regulatory approvals were granted during the

year. Expansions of the portfolio through targeted acquisitions included the 2009 purchase of EBEWE Pharma's generic injectables business in the Sandoz Division, creating a global growth platform and improving access to generic oncology medicines.

Table of Contents

Results from continuing operations in 2008 and 2007 exclude contributions from the Medical Nutrition and Gerber Business Units, which were divested in 2007 and resulted in a combined after-tax divestment gain of \$5.2 billion. The sale of these businesses in separate transactions to Nestlé S.A. completed the divestment of remaining non-healthcare businesses. Both were previously included in the Consumer Health Division, but are now classified as discontinued operations in the consolidated financial statements.

The underlying double-digit expansion in Pharmaceuticals, ranked as one of the industry's fastest-growing businesses based on market share, led the Group's healthcare portfolio in 2009 to another year of record results. Vaccines and Diagnostics achieved exceptionally high sales by rapidly developing and delivering influenza A (H1N1) pandemic vaccines to address the public health threat.

Net sales rose 7% (+11% in local currencies, lc) to \$44.3 billion on the underlying expansion in all divisions: Pharmaceuticals (+12% lc), Vaccines and Diagnostics (+39% lc), Sandoz (+5% lc) and Consumer Health (+5% lc). Top-performing regions included Europe (\$18.4 billion, +10% lc) and the United States (\$14.3 billion, +11% lc) as well as the top six emerging markets (\$4.0 billion, +17% lc) of Brazil, China, India, Russia, South Korea and Turkey. Higher volumes contributed 10 percentage points of growth, while acquisitions and price changes together added one percentage point of sales growth. The stronger US dollar compared to 2008 reduced full-year growth by four percentage points.

Operating income grew 11% to \$10.0 billion in 2009, which resulted in the operating income margin rising to 22.5% of net sales from 21.6% in 2008. The stronger US dollar compared to 2008 reduced operating income growth by nine percentage points. Core operating income, which excludes exceptional items and amortization of intangible assets in both periods, grew 11% to \$11.4 billion on improvements in Pharmaceuticals and Vaccines and Diagnostics as well as productivity gains in all divisions. The core operating income margin rose to 25.8% of net sales from 25.0% in 2008.

Net income rose 4% to \$8.5 billion, while basic EPS was up 3% to \$3.70. Core net income of \$10.3 billion (+8%) rose at a slower pace than operating income as increased contributions from associated companies were partially reduced by Alcon-related financing costs. Core earnings per share were \$4.50 in 2009, up from \$4.18 in 2008.

Headquartered in Basel, Switzerland, the Group employed approximately 100,000 full-time equivalent associates as of December 31, 2009, with operations in approximately 140 countries around the world.

**FACTORS AFFECTING RESULTS OF OPERATIONS**

A number of key factors influence the Group's results of operations and the development of our businesses during a period in which the global healthcare market faces an unprecedented range of opportunities and challenges.

Fundamentals of the healthcare industry remain robust amid expectations for ongoing growth due to long-term demographic and socioeconomic trends worldwide. Both in industrialized countries and emerging markets, the aging of the population, along with sedentary lifestyles and poor nutritional habits, are producing a rising incidence of chronic diseases. These and other factors are prompting greater use of medicines. Consistent investments in innovation and advancing technologies also are supporting the development of new medicines to better treat many diseases.

At the same time, adverse factors have created a business environment that has reduced expectations for growth and increased concerns about industrywide risks. The growing burden of healthcare costs as a percentage of Gross Domestic Product in many countries has led governments and payors to focus on controlling spending even more tightly. This has been exacerbated by the lingering effects of the recent global economic and financial crisis.

As a result, the healthcare industry operates in an increasingly challenging environment. Payors around the world are intensifying actions to cut costs and restrict access to higher-priced new medicines

Table of Contents

while also creating initiatives to increase utilization of generic pharmaceuticals. At the same time, investment costs necessary for the successful research and development of new medicines have risen dramatically, in part because of increasing scrutiny of drug safety and efficacy. Consolidation in the pharmaceutical industry has led to the emergence of larger competitors, but it also has provided opportunities to attract new high-caliber associates as some competitors significantly reduce staffs through massive integration and cost-cutting measures.

In response to this fast-changing environment, Novartis has been building its presence for many years in businesses that go beyond the traditional focus on patent-protected medicines a strategy now being adopted by some competitors. These areas include preventive vaccines and diagnostics (Vaccines and Diagnostics), generic pharmaceuticals and biosimilars (Sandoz), and readily available consumer health products (Consumer Health). We have invested heavily in all of these businesses through internal initiatives intended to drive organic growth as well as through targeted acquisitions. Our strategy is to continue to invest in strengthening these businesses.

Novartis believes this portfolio is well-positioned to address the needs of patients and customers, providing a broad range of products that offer important treatment benefits while helping to reduce overall healthcare costs.

This strategy also helps Novartis to mitigate the negative impact of economic challenges faced by healthcare systems and many patients, particularly in the area of patent-protected medicines. It also offers attractive opportunities for future growth in diverse market segments.

**Fundamental Drivers Remain Strong**

With demographics and socioeconomic developments driving long-term growth in demand for healthcare, Novartis expects its businesses to keep expanding in the coming years, both in the established markets of the US, Western Europe and Japan as well as in many emerging markets.

***Aging Population Faces Increasing Healthcare Needs***

People age 65 and older represent a growing proportion of the world's population. The overall population has doubled in the last 50 years to approximately seven billion and is expected to surpass nine billion by 2050. While the overall population grows, increasing life expectancy and declining birth rates are increasing the proportion of the elderly around the world.

Nearly 500 million people worldwide were age 65 and older in 2006, and this number is expected to increase to one billion by 2030, according to a study published in 2007 by the US National Institute of Aging and the US Department of State. The proportion of this age group in the US is projected to rise to 13% from 8% by 2030, surpassing the number of children in the coming decade. In addition, the number of people over age 85 is increasing rapidly.

While the elderly represent a greater percentage of the population in developed countries, in emerging markets older populations generally are growing more rapidly as a proportion of the overall population. The increase in life expectancy is partly due to improving healthcare, but the aging of the population also brings burdens in the form of increasing medical costs for governments, healthcare systems and patients. Studies show the incidence of disease, and use of medicines and healthcare resources, rises with age.

Novartis has many products in its portfolio that could provide benefits to the aging population by treating diseases and conditions that disproportionately afflict the elderly, including cardiovascular disease, cancer, Alzheimer's disease, osteoporosis, age-related macular degeneration and influenza.

***Emerging Markets Grow Faster than Developed Countries***

The global pharmaceuticals market (both patent-protected and generic pharmaceuticals) is expected to grow 4-6% in 2010 in local currencies, a similar pace to 2008 and 2009, to more than \$825 billion,

Table of Contents

according to IMS Health, a leading provider of industry data. Further, IMS Health has predicted a 4-7% compound annual growth rate for the industry through 2013, taking into account the impact of the global economy, the changing mix of products and the rising influence of healthcare access and funding issues.

Key trends of recent years including faster growth in emerging markets than in established markets, tougher regulations, more stringent cost-control measures and patent expirations for many top-selling branded medicines may become even more pronounced in 2010 and in the coming years.

Among developed countries, the US the world's largest pharmaceuticals market is forecast by IMS to grow approximately 3-5% in 2010 to approximately \$310 billion, while the top five European countries (France, Germany, Italy, Spain and the United Kingdom) are forecast to grow 1-3% to approximately \$150 billion as rising costs continue to pressure governments. In Japan, overall pharmaceutical sales are expected to contract slightly to approximately \$90 billion due to the biennial price reductions.

At a time of slowing pharmaceutical sales growth in many industrialized countries, the longer-term economic expansion in many emerging markets has led to higher growth rates and an increasing contribution to the industry's global performance.

The leading emerging markets (defined by IMS Health as Brazil, China, India, Mexico, Russia, South Korea and Turkey) are forecast by IMS to sustain an aggregated 12-14% pace in 2010 and reach more than \$105 billion in annual sales. Despite challenging economic conditions, many of these countries are benefiting from increasing government spending on healthcare as a percentage of Gross Domestic Product as well as broader public and private funding to improve access to medicines. However, some of these countries are expected to face slowing growth in 2010 given the difficult economic conditions, increasing government deficits and initiatives to reduce healthcare spending.

Many of these emerging markets have hybrid conditions with little, if any, distinction between pharmaceuticals, OTC and generic brands. Given the Group's portfolio, Novartis has a unique ability to operate across a broad spectrum of medicines to treat various diseases and has launched initiatives to take better advantage of growth opportunities. Emerging markets and other markets excluding the US, Europe and Japan accounted for approximately 22% of Group net sales in 2009, and they are expected to make increasingly significant contributions to future results of operations.

Market	2010 industry growth forecast	2010 industry sales forecast	2008-2013 industry CAGR	2013 industry sales
Global	4-6%	\$820-30 billion	4-7%	\$975 billion to 1.0 trillion
US	3-5%	\$310-320 billion	2-5%	\$325-355 billion
Top 5 Europe	1-3%	\$145-155 billion	1-4%	\$160-190 billion
Top emerging markets <sup>(1)</sup>	12-14%	\$105-115 billion	13-16%	\$160-190 billion
Japan	-2% to 0%	\$86-90 billion	1-4%	\$97-107 billion
Rest of World	6-8%	\$160-170 billion	5-8%	\$185-215 billion

Source: IMS Health

(1) Defined by IMS Health as Brazil, China, India, Mexico, Russia, South Korea and Turkey.

***Lifestyle Changes Boost Prevalence of Chronic Illnesses***

Economic growth and shifting nutritional habits have led to dramatic changes in lifestyles. Obesity and sedentary lifestyles are important risk factors for diabetes, cardiovascular conditions, cancer and other

Table of Contents

serious diseases. Once considered a problem only in wealthy countries, the prevalence of people who are overweight or are obese is dramatically increasing in low- and middle-income countries, the World Health Organization (WHO) reported in a 2006 study. For example, the WHO has predicted the global diabetes population will grow to more than 200 million in 2010, and to 330 million in 2025, compared to only 30 million in 1985, with developing countries bearing the brunt of this epidemic. Novartis offers many products to help patients with chronic diseases, and will continue to make significant R&D investments in new treatments for these growing health threats.

***Scientific Advances Drive the Discovery of New Medicines***

Ongoing developments in technologies and advances in the understanding of diseases are laying a foundation for the creation of new treatments for medical conditions for which current treatment options are inadequate or non-existent. R&D investments by the global pharmaceutical industry have risen more than tenfold during the last 20 years, according to the US industry trade association PhRMA, leading to a significant increase in the number of drugs in development pipelines.

Based on recent advances in technologies, particularly the analysis of human genome data, the number of drugs in development is expected to rise further based on improving information about the role of specific genes and proteins in the human body. Like other research-based pharmaceutical companies, Novartis is making major investments in these new technologies. These could have a fundamental effect on product development and, in turn, could affect future results of operations.

**Increasingly Challenging Business Environment**

While the global healthcare market has grown steadily, the competitive operating environment has become increasingly more challenging for pharmaceutical companies. Factors include increasing cost pressures from payors, the threat of patent expirations for leading products, a period of relatively low industrywide R&D productivity and greater scrutiny of drug safety by regulatory agencies. Novartis believes it is well-positioned to address these challenges.

***Patent Expirations and Generic Competition Pressure Industry***

The pharmaceutical industry faces an unprecedented level of patent expirations in the coming years, a primary factor cited by experts as limiting global industry growth. During the next five years, IMS Health estimates that products currently generating approximately \$140 billion in annual sales are expected to face generic competition. At the same time, the introduction of new products is not expected to generate the same magnitude of industry sales as the products losing market exclusivity. The pharmaceuticals industry faces a continuing high level of patent expirations, with branded products representing approximately \$24 billion in combined annual sales set to lose patent protection in 2009, similar to levels seen in recent years, according to IMS Health.

Ability to successfully secure and defend intellectual property rights is particularly important for the Pharmaceuticals Division. The loss of exclusivity for one or more important products due to patent expiration, generic challenges, competition from new branded products or changes in regulatory status could have a material negative impact on the Group's results of operations.

Novartis takes legally permissible steps to defend its intellectual property rights. These include initiating patent infringement lawsuits against generic drug manufacturers and, to a lesser degree, against other research-based pharmaceutical companies.

Competition could come in a number of forms: patent challenges, the entry of generic versions of another medicine in the same therapeutic class, greater utilization of generic medicines in other therapeutic classes, or the regular expiration of patents in various markets, particularly the US and Europe.

Table of Contents

Some of our best-selling products are expected to face significant competition in the coming years due to the end of market exclusivity following the expiry of patent protection:

The patent on valsartan, the active ingredient of our top-selling medicine *Diovan/Co-Diovan/Diovan HCT* (high blood pressure), expires in major countries of the European Union during 2011, in the US in September 2012 and in Japan in late 2013. A competitor product, Cozaar®, is expected to become the first branded medicine in the same therapeutic class as Diovan to lose market exclusivity (EU: 2010, US: 2010). The active ingredient valsartan is also used in the single-pill combination therapies *Exforge/Exforge HCT* (high blood pressure), so there is a risk it may also face generic competition in the US in September 2012. However, market exclusivities are expected to remain in effect in Europe and Japan beyond 2012.

The patent on *Femara* (breast cancer) will expire in 2011 in the US and major European markets, while generic versions have already been launched in some smaller European markets.

Patents protecting the *Sandostatin LAR* (acromegaly) formulation, the long-acting version of this drug that represents a majority of our *Sandostatin* sales, expire in July 2010 in major markets outside the US, and in 2014 and beyond in the US.

Some pharmaceutical products are also the subject of ongoing patent litigation. *Zoledronic acid*, the active ingredient in *Zometa* as well as in *Reclast/Aclasta* (osteoporosis), is currently the subject of US patent litigation.

***Pressures Mount to Reduce Drug Prices and Increase Access to Medicines***

Prices for healthcare products, primarily patented medicines, continue to generate controversy and political debate in both industrialized and developing countries. These debates focus on the relative costs of medicines at a time of rapidly rising overall expenditures for healthcare and in the midst of an economic slowdown. Payors primarily government-controlled agencies as well as insurance companies and managed care organizations in the US have been exerting pressure for some time to cut prices, urging physicians to use more generic pharmaceuticals and restricting access to new medicines. Patients also are being forced to pay a larger portion of their own healthcare costs, which has limited sales growth of patented pharmaceuticals in countries such as the US, where generic medicines now account for approximately 70% of total prescription volumes. At the same time, this trend has led to growth in the use of generic pharmaceuticals and OTC products, market segments in which Novartis is one of the world leaders.

***Regulatory Approvals Drop Amid Intense Competition and Safety Scrutiny Rises***

Although scientific advances continue to lead to breakthroughs for patients, the pharmaceutical industry has suffered from a dearth of regulatory approvals for new drugs in recent years coupled with a dramatic increase in the cost per drug approved.

For example, the US Food and Drug Administration (FDA) approved 26 entirely new drugs (new molecular entities) in 2009. This follows 24 new approvals in 2008 and only 18 in 2007, one of the lowest single-year totals since 1983, when there were 14. These approval levels compare with the average annual approval rate of more than 30 new medicines per year in the period from 1996 to 2004.

This decline in productivity comes at a time when the worldwide pharmaceutical industry is spending nearly \$50 billion each year on R&D activities, according to the Tufts Center for the Study of Drug Development. As a result, industry R&D spending per new molecular entity approved has risen more than 200% to \$3.7 billion for 2006-2008 compared to only \$1.2 billion per drug for 1998-2000.

Healthcare regulators around the world are increasingly focusing not just on product safety and efficacy, but also the risk/benefit profile of developmental drugs in light of several widely publicized issues in recent years. Regulators are requiring more clinical trial data with a significantly higher number of

Table of Contents

patients and more detailed analyses. As a result, obtaining regulatory approvals has become more challenging.

The post-approval regulatory burden on pharmaceutical companies has also been growing. Approved drugs have increasingly been subject to requirements such as risk evaluation and mitigation strategies, comparative effectiveness studies and requirements to conduct post-approval Phase IV clinical trials to gather detailed safety and other data on products. These requirements have the effect of making the maintenance of regulatory approvals increasingly expensive, and further heightening the risk of recalls or loss of market share.

Similar to our industry peers, we have suffered setbacks in recent years in gaining regulatory approvals for new products as well as being able to keep products on the market.

***Other Novartis Businesses Face Opportunities and Challenges***

Businesses within the Group's healthcare portfolio are all affected to some extent by the opportunities and challenges facing the industry, but at the same time have specific factors impacting their own specific operations.

*Sandoz*

The strong longer-term growth outlook for the generic pharmaceuticals market and the ongoing loss of exclusivity for several important industry products can create significant opportunities for Sandoz, but competition in this sector is very intense. Sandoz believes it has competitive advantages based on leadership positions in the world's top generics markets, presence in countries covering 90% of the world's population, as well as a track record in gaining regulatory approvals for differentiated generics that apply advanced technologies or are challenging to manufacture.

However, many of the division's products are considered commodities, with multiple sellers competing aggressively on price. In addition, pressure is increasing in some markets, particularly Europe and the US, to further reduce prices for generic pharmaceuticals. These pressures stem from government regulations seeking to reduce healthcare costs as well as from various distributors aggressively seeking to increase their own profit margins at the expense of generic manufacturers.

In addition, a number of factors have tended to limit the availability or decrease the value of marketing exclusivity periods granted to generic companies in certain markets for marketing the first generic version of a medicine. These can be a significant source of revenue for generic companies, particularly the 180-day exclusivity period granted in the US by the Hatch-Waxman Act. Among the negative factors are aggressive steps taken by branded pharmaceutical companies to counter the growth of generics, and increased competition among generic companies to achieve these periods of exclusivity.

*Vaccines and Diagnostics*

The demand for some products such as influenza vaccines is seasonal, while the demand for others such as pediatric combination vaccines depends upon birth rates in developed countries and emerging markets. Some vaccines that make an important contribution to the division's net sales and profits, particularly the key influenza vaccines, are considered commodities, meaning there are few therapeutic differences among products offered by a number of competitors. In addition, the market for pandemic and seasonal influenza vaccines is experiencing an unprecedented period of significant volatility given the global A (H1N1) influenza pandemic. While deliveries of pandemic vaccines provided significant contributions to results in 2008 (from A (H5N1) vaccines) and 2009 (from A (H1N1) vaccines), no guarantee can be made that these types of influenza vaccines will provide contributions in 2010 and the future. The most important vaccine development projects involve two vaccines *Menveo* and *MenB* to combat different serogroups of meningococcal meningitis. If successful, we expect the development and



Table of Contents

regulatory approvals of these vaccines to be important to the medium- and longer-term success of our vaccines business.

*Consumer Health*

Consumer spending, economic conditions, intense competition and efforts in many countries to shift healthcare costs to patients are among factors influencing results in Consumer Health, which relies on consumer acceptance and loyalty to leading brands in order to generate growth. All of the Consumer Health businesses have been negatively impacted by the ongoing economic crisis. OTC additionally faces significant competition from other major healthcare companies as well as from growing use in the US of so-called "private label" brands (when a retailer sells consumer products under the retailer's own brand names). In Animal Health, industry consolidation has changed the competitive landscape, prompting this business to maximize its R&D potential through closer collaboration with other divisions. In CIBA Vision, trends in the use of contact lenses are dependent upon factors that include economic cycles, consumer acceptance of new and existing products, innovations in lens technologies and consumer preference for these products.

*Legal proceedings may have a significant negative effect on results of operations*

In recent years, there has been a trend of increasing litigation against the industries of which we are a part, especially in the US. A number of our subsidiaries are, and will likely continue to be, subject to various legal proceedings that arise from time to time. As a result, we may become subject to substantial liabilities that may not be covered by insurance. Litigation is inherently unpredictable, and large verdicts occur. As a consequence, we may in the future incur judgments or enter into settlements of claims that may have a material adverse effect on our results of operations or cash flows.

Governments and regulatory authorities have been stepping up their compliance and law enforcement activities in recent years in key areas, including corruption, marketing practices, antitrust and trade sanctions. Our businesses have been subject to significant civil litigation as well as governmental investigations and information requests by regulatory authorities.

For example, Novartis Pharmaceutical Corporation (NPC) has recently entered into a plea agreement with the US Attorney's Office for the Eastern District of Pennsylvania (the EDPA) to resolve criminal allegations related to the marketing and promotion of our epilepsy therapy *Trileptal*. NPC is currently negotiating with the EDPA to resolve civil claims relating to *Trileptal*. In the fourth quarter of 2009, Novartis increased its provision relating to these matters by \$318 million to a total of \$397 million. Novartis is also cooperating with a US federal investigation regarding potential off-label marketing and promotion and payments to healthcare providers in connection with five other products: *Diovan*, *Exforge*, *Sandostatin*, *Tekturna* and *Zelnorm*. It is not possible at this time to predict the outcomes of this investigation. For further information on various legal proceedings, see "Item 18. Financial statements note 20".

**Novartis Strategies for Sustainable Growth**

Novartis believes it has an excellent portfolio to address the demands of the fast-changing healthcare environment.

We are implementing longer-term strategic initiatives to create sustainable growth. Key actions include strengthening our healthcare portfolio, driving innovation through R&D investments, expanding in high-growth markets, improving operational efficiency and developing our people in a performance-oriented culture.

Table of Contents

*Selectively Strengthen Healthcare Portfolio*

Each of the Novartis divisions is expected to play a significant role in the future success of the Group, providing opportunities for growth by offering a range of medicines and vaccines to patients, physicians and payors. We will continue to evaluate internal and external opportunities to improve the competitiveness of these businesses and better position the Group for success. The diversification of these Novartis businesses also helps to balance industry risks.

*Innovative Medicines*

The aim of the Pharmaceuticals Division is to provide patients and physicians with new and better prescription medicines that deliver improved efficacy and fewer side effects, as well as to address unmet medical needs. Novartis ranks as one of the top 10 companies worldwide based on sales of patent-protected medicines, with leading positions in cardiovascular and cancer treatments and an expanding presence in neuroscience. Viewed as having one of the most respected pipelines in the industry, we will continue to invest heavily in Research & Development. We are also reviewing ways to more efficiently support new product launches by using new commercial models focused on delivering health outcomes for patients and payors, particularly in the US and Europe. We are also committed to being a preferred partner for strategic alliances with biotechnology companies, both for development compounds and new technologies, and these collaborations will remain important to future business developments.

*Prevention*

The Vaccines and Diagnostics Division markets vaccines (Novartis Vaccines) as well as blood-testing diagnostics (Novartis Diagnostics) that protect against many life-threatening diseases. We further strengthened this business in September 2007 through a strategic R&D alliance with Intercell, an Austrian biotechnology company focusing on vaccines development. Along with innovation, geographic expansion is a top priority, which was underscored by an agreement in late 2009 to acquire a majority stake in Zhejiang Tianyuan to build a vaccines leader in China. Payors around the world are increasingly recognizing the important role that vaccines play in disease prevention. Given the capabilities, strong pipeline and high barriers to entry in this industry segment, Vaccines and Diagnostics is expected to be a source of future growth.

*Cost-Saving Alternatives*

Sandoz markets generic products that replace branded medicines after patent expiry, providing cost-effective alternatives for patients, physicians and payors. Sandoz is the world's second-largest generic pharmaceuticals company based on sales. Competitive advantages include strengths in providing regular as well as differentiated generics, particularly extended-release and injectable formulations of medicines and biosimilars (follow-on versions of previously approved biotechnology drugs). The acquisition in 2009 of EBEWE Pharma's specialty medicines business provided a new growth platform in differentiated products and is expected to improve access to generic injectable oncology medicines. Given these broad capabilities, which provide access to higher-value areas of the generic pharmaceuticals market, Sandoz is expected to become an increasing contributor to our future results of operations.

*Patient and Consumer Empowerment*

The Consumer Health Division comprises the OTC, Animal Health and CIBA Vision Business Units, all of which provide high-quality consumer healthcare products with well-known brands achieved through marketing excellence. These businesses have gained share in their respective segments through a focus on strategic brands, product innovation and expansion in emerging markets. While divesting non-healthcare activities, these three businesses have been strengthened through internal investments in product innovation, geographic expansion and targeted acquisitions.

Table of Contents

*Eye Care*

On January 4, 2010, Novartis announced its intention to gain full ownership of Alcon Inc. (NYSE: ACL) by first completing the April 2008 agreement with Nestlé S.A. to acquire a 77% majority stake and subsequently entering into an all-share direct merger with Alcon for the remaining 23% minority stake. Novartis believes this merger, which will be implemented under the Swiss Merger Act, is in the interest of all stakeholders and will provide the needed clarity on Alcon's future. Alcon will strengthen the Group's healthcare portfolio with greater access to the fast-growing global eye care sector, which is driven by an aging population, innovation and emerging markets. Alcon and Novartis have attractive global activities in eye care, each offering their own competitive positions in highly complementary segments that together cover more than 70% of activities in the global vision care sector. Aligning these strengths can result in offering even more compelling products that make a difference for patients around the world. Following successful completion of the merger, Alcon would be established as a new Novartis division that incorporates these highly complementary assets. This new eye care division will have enhanced opportunities to accelerate expansion in high-growth regions, generate greater value from combined product portfolios and capitalize on strengthened R&D capabilities.

*Step Up Innovation*

Maintaining a competitive advantage in the healthcare industry requires significant R&D investments. The ability of Novartis to continue to grow all of our businesses and replace sales lost due to the end of exclusivity for important products depends upon the capability of the Group's R&D activities to identify and develop high-potential products and bring them quickly to market.

Like our competitors, Novartis will continue making significant investments in the discovery of novel pharmaceuticals and vaccines. We are also taking steps to accelerate R&D activities throughout the Group and to find ways to lower attrition rates among late-stage pipeline products. For example, a reorganization of the Pharmaceuticals Development organization has strengthened project focus, streamlined organizational structures and simplified decision-making processes.

Novartis has built capabilities and drug discovery expertise at the Novartis Institutes for BioMedical Research (NIBR). Scientists are seeking ways to understand molecular pathways to provide new and proprietary targets for drugs. NIBR scientists have been successful in using this approach to discover treatments for disorders from cancer to degenerative diseases.

An outcome of the work at NIBR has been a major expansion of targets involving biologic therapies, which now represent more than 25% of our preclinical pharmaceuticals research portfolio. Biologic treatments, often referred to as "large molecules," are made from living cells and stimulate a response against specific disease targets. They often are intended to treat diseases that have been difficult to treat with "small molecule" medicines based on chemical substances.

The quality of our current development pipeline reflects investments made in the Group's own R&D activities, in many cases more than 10-20 years ago, as well as recent acquisitions and licensing collaborations. We have consistently had one of the highest R&D investment rates as a percentage of net sales in the industry, reflecting our commitment to bringing innovative and differentiated products to patients with novel therapeutic benefits.

Our Pharmaceuticals Division uses up to one-third of its annual R&D expenditures to reach licensing agreements with other companies, particularly specialized biotechnology firms, to co-develop promising compounds. These collaborations enable us to capitalize on the potential of these compounds and to expand our development pipeline. Complementing internal R&D activities, Novartis (like other companies) has entered into a significant number of alliances in recent years. Equity investments are sometimes made in a licensing partner, or a decision is made to fully acquire a company to gain exclusive access to novel compounds. The industrywide decline in R&D productivity in recent years, however, has led to increasing competition for collaborations with specialized players at the forefront of their fields.

Table of Contents

Funding requirements for R&D activities are likely to continue to grow in the future and are expected to continue rising at a faster rate than net sales. These investments, however, are critical to our continuing success. In 2009, we invested \$7.5 billion in R&D activities throughout the Group, a 3% increase from 2008 and representing 16.9% of net sales.

***Expand in High-Growth Markets***

Novartis is expanding in high-growth markets around the world, particularly the top markets of Brazil, China, India, Russia, South Korea and Turkey. Even in light of weakened economic conditions in some of these countries, long-term investments are crucial to capturing market share and being well-positioned for their eventual economic recovery.

Novartis has been taking significant actions to increase its presence in a number of these priority markets as well as adapting commercial models to better meet the needs of other emerging markets.

A key market for expansion is China, where Novartis announced plans in 2009 to invest \$1 billion over five years to build the country's largest pharmaceutical R&D institute. The Chinese market is expected to continue growing at more than 20% annually and contribute 20% of overall global industry growth through 2013, even becoming a top-three market by 2013 based on annual sales compared to its current status as the tenth largest, according to IMS Health.

A cross-divisional operating structure is being expanded following its initial implementation in 2007 to accelerate growth in smaller emerging markets and better position the comprehensive presence of all Novartis products. These types of markets include Northern and Sub-Saharan Africa, Central Asia and some countries in Southeast Asia.

In 2009, Novartis generated \$28.7 billion, or approximately 65% (2008: 64%) of the Group's net sales in the world's seven largest developed markets, while \$4.0 billion, or approximately 9% (2008: 9%) of net sales came from the Group's six priority emerging markets of Brazil, China, India, Russia, South Korea and Turkey. This relative contribution was adversely impacted in 2009 by the strength of the US dollar. At the same time, combined net sales in these six priority emerging markets grew at a far more rapid pace of 17% lc in 2009 compared to 10% lc growth achieved in the seven largest developed markets. As a result, emerging markets are expected to make increasingly significant contributions to our future results of operations.

***Improve Organizational Efficiency***

Novartis is integrating the drive for greater productivity and increased efficiency into its operations, improving speed while freeing up resources to focus on customers and growth initiatives. Forward, the Group-wide initiative launched in late 2007 to simplify structures and redesign the way Novartis operates, has been completed a year ahead of schedule after progressing rapidly and achieving more than \$2.3 billion of cumulative cost savings since 2007 and exceeding its 2010 goal of \$1.6 billion.

Other initiatives are underway throughout the Group, underscoring how productivity has become integrated in the organization. These include Customer First, launched in initial countries in 2009 to maximize the cross-divisional potential of the Novartis portfolio for customers. In the US, a new sales and marketing organizational structure started on January 1, 2009, for the primary care portfolio of the Pharmaceuticals Division. The Customer Centric Initiative implemented a new regional US business model to better address diverging customer needs. Five new regional units were created, replacing national sales forces.

Programs also are being implemented to streamline manufacturing operations, seeking to match production capacity more closely to market demands and leveraging the Group's network of sites to ensure greater flexibility and to sustain growth amid changing conditions.

Table of Contents

***Sustain Our Performance-Oriented Culture***

We are proud of our inspiring and challenging work environment. Novartis rewards those who invest their talent and ideas to create value for patients and customers. Our associates should mirror the societies in which we do business, so creating a diverse and inclusive working environment is critical to success. We want to develop leaders internally by providing opportunities for growth. Novartis is implementing programs to reduce the turnover of associates in emerging markets, as well as to ensure talent identification and promotion throughout the organization.

**Acquisitions, Divestments and Other Significant Transactions**

Novartis has made several acquisitions, strategic investments and divestments in recent years that have had a significant and ongoing impact on its financial condition and results of operations, see "Item 18. Financial Statements note 2".

In 2007, we narrowed our focus solely to healthcare through the divestments of the Medical Nutrition (effective July 1) and Gerber Business Units (effective September 1).

At the same time, contributions from strategic acquisitions have a significant impact on the Group's results of operations. The remaining stake in Chiron Corporation was acquired in April 2006 to create the new Vaccines and Diagnostics Division, while Sandoz strengthened its position as a world leader in generic pharmaceuticals through the 2005 acquisitions of Hexal AG and Eon Labs, Inc.

As a result of these acquisitions and also through the planned full acquisition of Alcon the Group's results of operations are increasingly affected by charges for the amortization of intangible assets as well as impairment charges and other one-time costs related to the integration of acquisitions. These are described in more detail under "Core results as defined by Novartis".

Novartis continually evaluates potential opportunities for targeted acquisitions or other strategic transactions, including product licensing agreements, that would improve our competitive position and create value for shareholders.

***Acquisitions in 2009***

***Sandoz EBEWE Pharma***

On May 20, Novartis announced a definitive agreement for Sandoz to acquire the specialty generic injectables business of EBEWE Pharma for EUR 925 million (\$1.3 billion) in cash, to be adjusted for any cash or debt assumed at closing. This transaction was completed on September 22, 2009. The first payment of EUR 600 million (\$0.9 billion) was made in 2009, with the balance to be paid in 2010. Based on a final purchase price allocation, EBEWE's identified net assets were \$0.7 billion, which resulted in goodwill of \$0.5 billion in 2009. Results of operations from this acquisition, which were not material in 2009, were included from the completion date of this transaction.

***Vaccines and Diagnostics Zhejiang Tianyuan***

On November 4, Novartis announced a definitive agreement to acquire an 85% stake in the Chinese vaccines company Zhejiang Tianyuan Bio-Pharmaceutical Co., Ltd. as part of a strategic initiative to build a vaccines industry leader in China and expand the Group's limited presence in this fast-growing market segment. China is the world's third largest vaccines market, with annual industry sales of more than \$1 billion and expectations for sustained double-digit growth given the government's commitment to improve access to quality healthcare. Terms call for Novartis to purchase an 85% majority interest for approximately \$125 million in cash. The transaction, which is expected to be completed in 2010, is subject to certain closing conditions, including receipt of government and regulatory approvals in China.

Table of Contents

*Pharmaceuticals Corthera*

On December 23, Novartis announced a definitive agreement to acquire Corthera Inc., gaining worldwide rights to relaxin for the treatment of acute heart failure. Novartis will assume full responsibility for the development and commercialization of relaxin. The purchase price consists of an initial payment of \$120 million. Corthera's current shareholders are eligible to receive additional payments of up to \$500 million contingent upon clinical milestones, regulatory approvals and the achievement of commercialization targets. The transaction, which is subject to certain closing conditions and regulatory approvals, is expected to be completed in 2010.

***Other Significant Transactions in 2009***

*Corporate Issuance of bond in US dollars*

On February 5, Novartis issued a two-tranche bond totaling \$5 billion registered with the US Securities and Exchange Commission as part of a shelf registration statement filed by Novartis in 2008. A 4.125% five-year tranche totaling \$2 billion was issued by the Group's US entity, Novartis Capital Corp., while a 5.125% 10-year tranche totaling \$3 billion was issued by the Group's Bermuda unit, Novartis Securities Investment Ltd. Both tranches are unconditionally guaranteed by Novartis AG.

*Corporate Issuance of bond in euros*

On June 2, Novartis issued a EUR 1.5 billion bond (approximately \$2.1 billion) with a coupon of 4.25% under its EUR 15 billion Euro Medium Term Note Programme. The seven-year bond, issued by Novartis Finance S.A., Luxembourg, has a maturity date of June 15, 2016, and is guaranteed by Novartis AG.

*Corporate Novartis India Ltd.*

On June 8, Novartis completed a tender offer to acquire additional shares from public shareholders and increased its stake in the majority-owned Indian subsidiary, Novartis India Ltd., to 76.4% from 50.9% for approximately INR 3.8 billion (\$80 million). Almost all large institutional investors and quasi-institutional shareholders participated in the offer. This transaction resulted in \$57 million of goodwill.

*Pharmaceuticals Idenix*

On August 5, Novartis did not participate in an underwritten public offering by Idenix Pharmaceuticals, which reduced the Group's stake to 47% from the pre-offering level of 53%. As a result of this offering, Novartis no longer controls this company, so Idenix was deconsolidated with effect from September 1, 2009. Idenix has been accounted for on an equity basis since this date, which had no material impact on the Group's consolidated income statement.

*2009 Subsequent Event Alcon*

In 2008, Novartis entered into an agreement to purchase Nestlé's 77% stake in Alcon Inc. for up to \$38.5 billion, or an average price of \$168 per share. Under the terms of the agreement, Novartis acquired a 25% Alcon stake from Nestlé in 2008 for \$10.4 billion, or \$143 per share. The purchase of the 25% stake was financed from internal cash reserves and external short-term financing.

On January 4, 2010, Novartis exercised its call option to acquire Nestlé's remaining 52% Alcon stake for \$28.1 billion (contains the 17% control premium for the 77% stake over Alcon's share price of \$143 at the time of the April 2008 announcement), or \$180 per share. Upon completion of this transaction, Novartis will own a 77% majority stake in Alcon. The purchase of the 52% stake, which is subject to required regulatory approvals, is expected to be completed in the second half of 2010. Novartis will not

Table of Contents

control Alcon prior to the closing of the purchase of the 52% stake. This purchase will be funded from available liquidity and external debt financing.

On January 4, 2010, Novartis also announced its proposal to, upon completion of the Nestlé transaction, enter into an all-share direct merger with Alcon for the remaining 23% minority stake. Novartis believes this merger, which is governed under the Swiss Merger Act, is in the interest of all stakeholders and will provide the needed clarity on Alcon's future. Novartis proposed a fixed exchange ratio of 2.80 Novartis shares for each remaining Alcon share. Based on the Novartis closing share price of CHF 56.50 on December 30, 2009 (the last trading day on the SIX Swiss Stock Exchange before the announcement) and an exchange rate of CHF 1.04 = \$1.00, this proposal represents an implied price of \$153 per Alcon share and a 12% premium to Alcon's unaffected publicly traded share price as determined by Novartis of \$137 per share. Alcon's closing share price was \$164.35 on December 31, 2009 (the last trading day on the New York Stock Exchange before the announcement). The merger would be conditional on the closing of the 52% stake purchase from Nestlé and would require approval by the Boards of Directors of Novartis and Alcon. The merger would also require two-thirds approval by the shareholders of Novartis and Alcon voting at their respective meetings. Under Swiss law, Novartis has the right to vote its Alcon stake in favor of the proposed merger.

***Acquisitions in 2008****Corporate Alcon*

On April 7, Novartis announced an agreement with Nestlé S.A. under which Novartis obtained rights to acquire majority ownership of Alcon Inc. (NYSE: ACL), a Swiss-registered company listed only on the New York Stock Exchange. The potential total value of this transaction is up to approximately \$38.5 billion. On July 7, 2008, Novartis acquired a 25% stake in Alcon, representing 74 million shares, from Nestlé for \$10.4 billion in cash. At December 31, 2009, Alcon's share price on the New York Stock Exchange (NYSE) was \$164.35, which was above the Group's carrying value of \$136.88 per share for this strategic investment.

*Pharmaceuticals Speedel*

On July 10, Novartis announced the all-cash purchase of an additional 51.7% stake in Speedel Holding AG (SIX: SPPN) through off-exchange transactions together with plans to buy all remaining shares in the Swiss biopharmaceuticals company in a mandatory public tender offer. In September 2009, Speedel shares were delisted from the SIX Swiss Exchange and Novartis holds now all shares. The price for the 90.5% interest not previously held was CHF 939 million (\$888 million) excluding \$26 million of cash held by Speedel as of the July 2008 acquisition date of majority control. Speedel has been fully consolidated as a subsidiary since the July acquisition of a majority stake. Based on a final purchase price allocation, Speedel's identified net assets were \$472 million, which resulted in goodwill of \$493 million in 2008. As a result of this purchase price allocation, the value of the initial 9.5% stake rose by \$38 million, which was recorded in the consolidated statement of comprehensive income. The consolidation of Speedel resulted in immaterial amounts being included in the Group's consolidated income and operating cash flow statements for 2008 and 2009.

*Pharmaceuticals Protez*

On June 4, Novartis agreed to acquire Protez Pharmaceuticals, a privately held US biopharmaceuticals company, gaining access to PTZ601, a broad-spectrum antibiotic in Phase II development against potentially fatal drug-resistant bacterial infections. Novartis paid in total \$102 million in cash to acquire 100% of Protez, whose owners are eligible for additional payments of up to \$300 million contingent upon the future success of PTZ601. Protez has been consolidated since the transaction completion on July 17. Based on the purchase price allocation, identified net assets from Protez amounted to \$72 million, which resulted in goodwill of \$30 million. The consolidation of Protez resulted in

Table of Contents

immaterial amounts being included in the Group's consolidated income and operating cash flow statements for 2008 and 2009.

*Pharmaceuticals Nektar pulmonary business*

On October 21, Novartis agreed to acquire Nektar Therapeutics Inc.'s pulmonary business unit for \$115 million in cash. In this transaction, which was completed on December 31, 2008, Novartis acquired research, development and manufacturing assets of Nektar's pulmonary business unit, including tangible assets as well as intellectual property, intangible assets and related expertise. The full purchase price was allocated to the net assets acquired with no residual goodwill.

***Other Significant Transactions in 2008***

*Corporate Issuance of Swiss franc bonds*

On June 26, Novartis issued two Swiss franc bonds totaling CHF 1.5 billion (approximately \$1.4 billion) in the Swiss capital market, with each listed on the SIX Swiss Exchange. One was a 3.5% four-year bond for a total of CHF 700 million issued by Novartis Securities Investment Ltd. and guaranteed by Novartis AG. The other was a 3.625% seven-year bond of CHF 800 million issued by Novartis AG.

***Divestments/Discontinued Operations in 2007***

*Consumer Health Gerber Business Unit*

On September 1, Novartis completed the divestment of the Gerber infant products Business Unit for approximately \$5.5 billion to Nestlé S.A. resulting in a pre-tax divestment gain of approximately \$4.0 billion and an after-tax gain of \$3.6 billion.

*Consumer Health Medical Nutrition Business Unit*

On July 1, Novartis completed the divestment of the remainder of the Medical Nutrition Business Unit for approximately \$2.5 billion to Nestlé S.A. resulting in a pre-tax divestment gain of \$1.8 billion and an after-tax gain of \$1.6 billion.

Gerber and Medical Nutrition are reported as discontinued operations in all periods in the Group's consolidated financial statements. These businesses in total had 2007 net sales of \$1.7 billion and operating income of \$311 million before their respective divestment.

***Other Significant Transactions in 2007***

*Vaccines and Diagnostics Intercell*

On September 28, Novartis entered into a strategic alliance with Intercell AG, an Austrian biotechnology company focused on vaccines development. In accordance with the agreement, Novartis paid \$383 million (EUR 270 million), and also recorded \$207 million (EUR 146 million) of intangible assets and acquired an additional 4.8 million shares for \$176 million (EUR 124 million) that increased the Novartis holding in Intercell to 15.9%. The equity investment is accounted for as an available-for-sale marketable security within the financial assets of the division.

*Pharmaceuticals Betaseron®*

On September 14, Novartis and Bayer Schering Pharma AG received regulatory approval to complete an agreement related to various rights for the multiple sclerosis treatment Betaseron® under an earlier agreement between Schering and Chiron Corporation transferred to Novartis in April 2006. Under the new agreement, Novartis received a one-time payment of \$200 million, principally for manufacturing



Table of Contents

facilities transferred to Bayer Schering, as well as receiving rights to market a Novartis-branded version of Betaseron® called *Extavia* starting in 2009 in the EU and later in the US following anticipated approval. As a result of the clarification of the intangible product rights, a reassessment was made of the related assets from the Chiron acquisition as of April 20, 2006. This resulted in an increase of \$235 million in identified net assets in 2007 relating to the Chiron 2006 acquisition.

**CORE RESULTS AS DEFINED BY NOVARTIS**

The Group's operating income, net income and earnings per share from continuing operations have been significantly affected by acquisition-related factors, including the amortization of intangible assets, impairment charges, expenses relating to the integration of acquisitions as well as other items over a \$25 million threshold that management deems exceptional.

In order to improve transparency and better present the underlying performance of the business, Novartis decided in the fourth quarter of 2009 to introduce these core measures as an additional view of performance. Novartis believes that investor understanding of the Group's performance is enhanced by disclosing these performance measures.

Novartis intends to use these core measures as important factors in assessing the Group's performance in conjunction with other performance metrics. The following are examples of how these core measures will be utilized:

In addition to monthly reports containing financial information prepared under International Financial Reporting Standards (IFRS), senior management will receive a monthly analysis incorporating these core measures.

Annual budgets will be prepared for both IFRS and core measures starting in 2010.

Despite the importance of these measures to management in setting goals and measuring the Group's performance, these are non-IFRS measures that have no standardized meaning prescribed by IFRS. As a result, they have limits in usefulness to investors. Because of their non-standardized definitions, the core measures (unlike IFRS measures) may not be comparable to the calculation of similar measures of other companies. These core measures are presented solely to permit investors to more fully understand how the Group's management assesses underlying performance. These core measures are not, and should not be viewed as, a substitute for IFRS measures.

As an internal measure of Group performance, these core measures have limitations, and the performance management process is not solely restricted to these metrics. A limitation of the core measures is that they provide a view of the Group's operations without including all events during a period, such as the effects of an acquisition or amortization of purchased intangible assets.

Table of Contents

The following tables reconcile IFRS results to core results:

**2009, 2008 AND 2007 RECONCILIATION OF IFRS RESULTS TO CORE RESULTS**

2009	IFRS results (\$ millions)	Amortization of intangible assets <sup>(1)</sup> (\$ millions)	Impairments <sup>(2)</sup> (\$ millions)	Acquisition- related restructuring and integration <sup>(3)</sup>		Core results (\$ millions)
				items <sup>(3)</sup> (\$ millions)	Exceptional items <sup>(4)</sup> (\$ millions)	
<b>Net sales</b>	<b>44,267</b>					<b>44,267</b>
Other revenues	836				(28)	808
Cost of Goods Sold	(12,179)	938	(69)	18		(11,292)
<b>Gross profit</b>	<b>32,924</b>	<b>938</b>	<b>(69)</b>	<b>18</b>	<b>(28)</b>	<b>33,783</b>
Marketing & Sales	(12,050)					(12,050)
Research & Development	(7,469)	87	95			(7,287)
General & Administration	(2,281)					(2,281)
Other income	782				(65)	717
Other expense	(1,924)		49		430	(1,445)
<b>Operating income</b>	<b>9,982</b>	<b>1,025</b>	<b>75</b>	<b>18</b>	<b>337</b>	<b>11,437</b>
Income from associated companies	293	569	92		97	1,051
Financial income	198					198
Interest expense	(551)					(551)
<b>Income before taxes</b>	<b>9,922</b>	<b>1,594</b>	<b>167</b>	<b>18</b>	<b>434</b>	<b>12,135</b>
Taxes	(1,468)					(1,868) <sup>(5)</sup>
<b>Net income</b>	<b>8,454</b>					<b>10,267</b>
Attributable to:						
Shareholders of Novartis AG	8,400					10,213
Non-controlling interests	54					54
<b>Average number of shares outstanding Basic (million)</b>	<b>2,267.9</b>					<b>2,267.9</b>
Basic earnings per share (\$) <sup>(6)</sup>	3.70					4.50
<b>Average number of shares outstanding Diluted (million)</b>	<b>2,276.6</b>					<b>2,276.6</b>
Diluted earnings per share (\$) <sup>(6)</sup>	3.69					4.49

(1) Amortization of intangible assets: Cost of Goods Sold includes recurring amortization of acquired rights to in-market products and other production-related intangible assets; R&D includes the recurring amortization of acquired rights for core technology platforms; Income from associated companies includes the recurring amortization of the purchase price allocation related to intangible assets, primarily for the Roche and Alcon investments.

(2) Impairments: Cost of Goods Sold includes impairments of acquired rights to in-market products and other production-related impairment charges, including a partial reversal of \$100 million in Pharmaceuticals for an impairment taken in 2007 for *Famvir*; R&D includes write-offs related to in-process R&D; Other expense includes impairments, primarily for financial assets; Income from associated companies reflects the \$92 million impairment charge taken for an Alcon pharmaceutical development project.



Table of Contents

- (3) Acquisition-related restructuring and integration items: Cost of Goods Sold includes charges of \$18 million related to the EBEWE Pharma specialty generics business acquisition.
- (4) Exceptional items: Other revenues reflects a \$28 million gain from a settlement of Vaccines and Diagnostics; Other income reflects divestments gains in Pharmaceuticals; Other expense includes an increase of \$345 million in legal provisions principally for the *Trileptal* and *Tobi* US government investigations; Income from associated companies reflects a \$97 million one-time charge for the Novartis share of Roche's restructuring charges for Genentech.
- (5) Taxes on the adjustments between IFRS and core results take into account the tax rate applicable in the jurisdiction where the adjustment arises.
- (6) Earnings per share (EPS) is calculated on the amount of net income attributable to shareholders of Novartis AG.

Table of Contents

2008	IFRS	Amortization	Acquisition-	Exceptional	Core
	results <sup>(1)</sup>	of	related	items <sup>(5)</sup>	results
		intangible	restructuring		
		assets <sup>(2)</sup>	and		
		Impairments <sup>(3)</sup>	integration		
			items <sup>(4)</sup>		
			(\$	(\$	
			millions)	millions)	
	(\$ millions)	(\$ millions)	(\$ millions)	(\$ millions)	(\$ millions)
<b>Net sales</b>	<b>41,459</b>			<b>(154)</b>	<b>41,305</b>
Other revenues	1,125			(49)	1,076
Cost of Goods Sold	(11,439)	969	29		(10,441)
<b>Gross profit</b>	<b>31,145</b>	<b>969</b>	<b>29</b>	<b>(203)</b>	<b>31,940</b>
Marketing & Sales	(11,852)				(11,852)
Research & Development	(7,217)	126	315		(6,776)
General & Administration	(2,245)				(2,245)
Other income	826			(186)	640
Other expense	(1,693)		106	17	(1,388)
<b>Operating income</b>	<b>8,964</b>	<b>1,095</b>	<b>450</b>	<b>17</b>	<b>10,319</b>
Income from associated companies	441	398			839
Financial income	384				384
Interest expense	(290)				(290)
<b>Income before taxes</b>	<b>9,499</b>	<b>1,493</b>	<b>450</b>	<b>17</b>	<b>11,252</b>
Taxes	(1,336)				(1,751) <sup>(6)</sup>
<b>Net income</b>	<b>8,163</b>				<b>9,501</b>
Attributable to:					
Shareholders of Novartis AG	8,125				9,463
Non-controlling interests	38				38
<b>Average number of shares</b>					
<b>outstanding Basic (million)</b>	<b>2,265.5</b>				<b>2,265.5</b>
Basic earnings per share (\$) <sup>(7)</sup>	3.59				4.18
<b>Average number of shares</b>					
<b>outstanding Diluted (million)</b>	<b>2,284.2</b>				<b>2,284.2</b>
Diluted earnings per share (\$) <sup>(7)</sup>	3.56				4.14

(1) Only continuing operations.

(2) Amortization of intangible assets: Cost of Goods Sold includes recurring amortization of acquired rights to in-market products and other production-related intangible assets; R&D includes the recurring amortization of acquired rights for core technology platforms; Income from associated companies includes the amortization of the purchase price allocation related to intangible assets, primarily for the Roche and Alcon investments.

(3) Impairments: Cost of Goods Sold includes impairment charges for acquired rights to in-market products and production-related impairment charges; R&D includes an impairment of \$223 million for the Pharmaceuticals development project *Aurograb* and other write-offs related to in-process R&D; Other expense includes impairments, primarily for financial assets.

(4) Acquisition-related restructuring and integration items includes various charges of \$17 million related to acquisitions during the year.

(5) Exceptional items: Net sales adjustments reflect a \$104 million gain from a release of US government rebate provisions in Pharmaceuticals and \$50 million due to a change in contractual terms in Vaccines and Diagnostics; Other revenues reflects \$49 million from a settlement in Vaccines and Diagnostics; Other income includes \$141 million of divestment gains and



Table of Contents

\$45 million from the release of pre-launch inventory provisions in Pharmaceuticals. Other expenses includes \$79 million for exceptional increases in legal provisions in Pharmaceuticals and various restructuring charges of \$75 million and \$28 million of product recall costs in Sandoz.

(6) Taxes on the adjustments between IFRS and core results take into account the tax rate applicable in the jurisdiction where the adjustment arises.

(7) Earnings per share (EPS) is calculated on the amount of net income from continuing operations attributable to shareholders of Novartis AG.

Table of Contents

2007	IFRS results <sup>(1)</sup>	Amortization of intangible assets <sup>(2)</sup>	Impairments <sup>(3)</sup>	Acquisition- related restructuring and integration		Core results
				items <sup>(4)</sup>	Exceptional items <sup>(5)</sup>	
	(\$ millions)	(\$ millions)	(\$ millions)	(\$ millions)	(\$ millions)	(\$ millions)
<b>Net sales</b>	<b>38,072</b>				<b>68</b>	<b>38,140</b>
Other revenues	875					875
Cost of Goods Sold	(11,032)	970	359		7	(9,696)
<b>Gross profit</b>	<b>27,915</b>	<b>970</b>	<b>359</b>		<b>75</b>	<b>29,319</b>
Marketing & Sales	(11,126)					(11,126)
Research & Development	(6,430)	121	123			(6,186)
General & Administration	(2,133)					(2,133)
Other income	1,039				(340)	699
Other expense	(2,484)		109	34	1,064	(1,277)
<b>Operating income</b>	<b>6,781</b>	<b>1,091</b>	<b>591</b>	<b>34</b>	<b>799</b>	<b>9,296</b>
Income from associated companies	412	118				530
Financial income	531					531
Interest expense	(237)					(237)
<b>Income before taxes</b>	<b>7,487</b>	<b>1,209</b>	<b>591</b>	<b>34</b>	<b>799</b>	<b>10,120</b>
Taxes	(947)					(1,640) <sup>(6)</sup>
<b>Net income</b>	<b>6,540</b>					<b>8,480</b>
Attributable to:						
Shareholders of Novartis AG	6,518					8,458
Non-controlling interests	22					22
<b>Average number of shares outstanding Basic (million)</b>	<b>2,317.5</b>					<b>2,317.5</b>
Basic earnings per share (\$) <sup>(7)</sup>	2.81					3.65
<b>Average number of shares outstanding Diluted (million)</b>	<b>2,328.9</b>					<b>2,328.9</b>
Diluted earnings per share (\$) <sup>(7)</sup>	2.80					3.63

(1) Only continuing operations.

(2) Amortization of intangible assets: Cost of Goods Sold includes recurring amortization of acquired rights to in-market products and other production-related intangible assets; R&D includes the recurring amortization of acquired rights for core technology platforms; Income from associated companies includes the amortization of the purchase price allocation related to intangible assets, primarily for the Roche and Alcon investments.

(3) Impairments: Cost of Goods Sold includes impairment charges for acquired rights to in-market products and production-related impairment charges, including an impairment charge for *Famvir* of \$320 million; R&D includes write-offs related to in-process R&D; Other expense includes impairments, primarily for financial assets.

(4) Acquisition-related restructuring and integration items includes charges of \$25 million in Vaccines and Diagnostics and \$9 million in Consumer Health.



Table of Contents

- (5) Exceptional items: Net sales adjustments reflect a \$68 million loss from the withdrawal of *Zelnorm* in Pharmaceuticals; Cost of Goods Sold reflect a \$7 million loss from the withdrawal of *Zelnorm* in Pharmaceuticals; Other income includes \$166 million of divestment gains in Pharmaceuticals (mainly consists of a \$117 million gain from the sale of Tanox shares to Genentech), \$67 million from legal settlements in Vaccines and Diagnostics, and \$107 million from the release of pre-launch inventory provisions in Pharmaceuticals; Other expenses mainly includes \$444 million for the "Forward" initiative restructuring charges and an increase of \$590 million in the environmental provisions in Corporate.
- (6) Taxes on the adjustments between IFRS and core results take into account the tax rate applicable in the jurisdiction where the adjustment arises.
- (7) Earnings per share (EPS) is calculated on the amount of net income from continuing operations attributable to shareholders of Novartis AG.

Table of Contents**2009 AND 2008 RECONCILIATION OF DIVISIONAL OPERATING INCOME TO CORE OPERATING INCOME**

	Pharmaceuticals		Vaccines and Diagnostics		Sandoz		Consumer Health		Corporate		Total	
	2009 (\$ millions)	2008 (\$ millions)	2009 (\$ millions)	2008 (\$ millions)	2009 (\$ millions)	2008 (\$ millions)	2009 (\$ millions)	2008 (\$ millions)	2009 (\$ millions)	2008 (\$ millions)	2009 (\$ millions)	2008 (\$ millions)
<b>Operating income</b>	<b>8,392</b>	<b>7,579</b>	<b>372</b>	<b>78</b>	<b>1,071</b>	<b>1,084</b>	<b>1,016</b>	<b>1,048</b>	<b>(869)</b>	<b>(825)</b>	<b>9,982</b>	<b>8,964</b>
<b>Amortization of intangible assets</b>	<b>366</b>	<b>414</b>	<b>312</b>	<b>318</b>	<b>260</b>	<b>284</b>	<b>84</b>	<b>77</b>	<b>3</b>	<b>2</b>	<b>1,025</b>	<b>1,095</b>
<b>Impairments</b>												
Intangible assets	(11)	320	18	1	6	23	13				26	344
Property, plant & equipment	4	13				2	5			1	9	16
Financial assets	37	53							3	37	40	90
<b>Total impairments</b>	<b>30</b>	<b>386</b>	<b>18</b>	<b>1</b>	<b>6</b>	<b>25</b>	<b>18</b>		<b>3</b>	<b>38</b>	<b>75</b>	<b>450</b>
<b>Acquisition-related restructuring and integration items (including acquisition-related accounting impact of inventory adjustments), net</b>		<b>6</b>		<b>11</b>	<b>18</b>						<b>18</b>	<b>17</b>
<b>Exceptional items</b>												
Exceptional gains from divesting brands, subsidiaries and financial investments	(65)	(141)									(65)	(141)
Other restructuring expenses		75			40						40	75
Legal provisions, litigations and exceptional settlements	345	79	17	(49)							362	30
Product recall costs							28					28
Release of pre-launch inventory provisions		(45)										(45)
Release of US government rebate provision		(104)										(104)
Change in contractual terms triggering revenue recognition				(50)								(50)
<b>Total exceptional items</b>	<b>280</b>	<b>(136)</b>	<b>17</b>	<b>(99)</b>	<b>40</b>	<b>28</b>					<b>337</b>	<b>(207)</b>
<b>Total adjustments</b>	<b>676</b>	<b>670</b>	<b>347</b>	<b>231</b>	<b>324</b>	<b>337</b>	<b>102</b>	<b>77</b>	<b>6</b>	<b>40</b>	<b>1,455</b>	<b>1,355</b>
<b>Core operating income</b>	<b>9,068</b>	<b>8,249</b>	<b>719</b>	<b>309</b>	<b>1,395</b>	<b>1,421</b>	<b>1,118</b>	<b>1,125</b>	<b>(863)</b>	<b>(785)</b>	<b>11,437</b>	<b>10,319</b>
<b>Core return on net sales</b>	<b>31.8%</b>	<b>31.5%</b>	<b>29.7%</b>	<b>18.1%</b>	<b>18.6%</b>	<b>18.8%</b>	<b>19.2%</b>	<b>19.4%</b>			<b>25.8%</b>	<b>25.0%</b>

Table of Contents**2008 AND 2007 RECONCILIATION OF DIVISIONAL OPERATING INCOME TO CORE OPERATING INCOME**

	Pharmaceuticals		Vaccines and Diagnostics		Sandoz		Consumer Health		Corporate		Total	
	2008 (\$ millions)	2007 (\$ millions)	2008 (\$ millions)	2007 (\$ millions)	2008 (\$ millions)	2007 (\$ millions)	2008 (\$ millions)	2007 (\$ millions)	2008 (\$ millions)	2007 (\$ millions)	2008 (\$ millions)	2007 (\$ millions)
<b>Operating income</b>	<b>7,579</b>	<b>6,086</b>	<b>78</b>	<b>72</b>	<b>1,084</b>	<b>1,039</b>	<b>1,048</b>	<b>812</b>	<b>(825)</b>	<b>(1,228)</b>	<b>8,964</b>	<b>6,781</b>
<b>Amortization of intangible assets</b>	<b>414</b>	<b>411</b>	<b>318</b>	<b>295</b>	<b>284</b>	<b>293</b>	<b>77</b>	<b>89</b>	<b>2</b>	<b>3</b>	<b>1,095</b>	<b>1,091</b>
<b>Impairments</b>												
Intangible assets	320	446	1		23	32		4			344	482
Property, plant & equipment	13				2	31			1		16	31
Financial assets	53	41				27			37	10	90	78
<b>Total impairments</b>	<b>386</b>	<b>487</b>	<b>1</b>		<b>25</b>	<b>90</b>		<b>4</b>	<b>38</b>	<b>10</b>	<b>450</b>	<b>591</b>
<b>Acquisition-related restructuring and integration items (including acquisition-related accounting impact of inventory adjustments), net</b>	<b>6</b>		<b>11</b>	<b>25</b>				<b>9</b>			<b>17</b>	<b>34</b>
<b>Exceptional items</b>												
Exceptional gains from divesting brands, subsidiaries and financial investments	(141)	(166)									(141)	(166)
Forward initiative restructuring expense		307						97		40		444
Other restructuring expenses	75	25									75	25
Environmental provision increase										590		590
Legal provisions, litigations and exceptional settlements	79		(49)	(67)							30	(67)
Suspension of <i>Zelnorm</i>		80										80
Other product recall costs					28						28	
Release of pre-launch inventory provisions	(45)	(107)									(45)	(107)
Release of US government rebate provision	(104)										(104)	
Change in contractual terms triggering revenue recognition			(50)								(50)	
<b>Total exceptional items</b>	<b>(136)</b>	<b>139</b>	<b>(99)</b>	<b>(67)</b>	<b>28</b>			<b>97</b>		<b>630</b>	<b>(207)</b>	<b>799</b>
<b>Total adjustments</b>	<b>670</b>	<b>1,037</b>	<b>231</b>	<b>253</b>	<b>337</b>	<b>383</b>	<b>77</b>	<b>199</b>	<b>40</b>	<b>643</b>	<b>1,355</b>	<b>2,515</b>
<b>Core operating income</b>	<b>8,249</b>	<b>7,123</b>	<b>309</b>	<b>325</b>	<b>1,421</b>	<b>1,422</b>	<b>1,125</b>	<b>1,011</b>	<b>(785)</b>	<b>(585)</b>	<b>10,319</b>	<b>9,296</b>
<b>Core return on net sales</b>	<b>31.5%</b>	<b>29.6%</b>	<b>18.1%</b>	<b>22.4%</b>	<b>18.8%</b>	<b>19.8%</b>	<b>19.4%</b>	<b>18.6%</b>			<b>25.0%</b>	<b>24.4%</b>

Table of Contents**EFFECTS OF CURRENCY FLUCTUATIONS**

We transact our business in many currencies other than the US dollar, our reporting currency.

The following provides an overview of net sales and expenses from continuing operations for 2009, 2008 and 2007 for currencies most important to the Group:

<b>Currency</b>	<b>2009 in %</b>	<b>2008 in %</b>	<b>2007 in %</b>
<b>US dollar (\$)</b>			
Net sales	35	34	39
Operating expenses	33	31	36
<b>Euro (EUR)</b>			
Net sales	31	32	30
Operating expenses	31	28	28
<b>Swiss franc (CHF)</b>			
Net sales	3	2	2
Operating expenses	12	16	14
<b>Japanese yen (JPY)</b>			
Net sales	8	7	6
Operating expenses	4	5	5
<b>Other currencies</b>			
Net sales	23	25	23
Operating expenses	20	20	17

We prepare our consolidated financial statements in US dollars. As a result, fluctuations in the exchange rates between the US dollar and other currencies may have a significant effect on both the Group's results of operations as well as on the reported value of our assets, liabilities, revenue and expenses as measured in US dollars. This in turn may significantly affect reported earnings (both positively and negatively) and the comparability of period-to-period results of operations.

For purposes of our consolidated balance sheets, we translate assets and liabilities denominated in other currencies into US dollars at the prevailing market exchange rates as of the relevant balance sheet date. As a result, even if the amounts or values of these items remain unchanged in the respective local currency, changes in exchange rates have an impact on the amounts or values of these items in our consolidated financial statements. For purposes of the Group's consolidated income statements, revenue and expense items in local currencies are translated into US dollars at average exchange rates prevailing during the relevant period.

We seek to manage currency exposure by engaging in hedging transactions where management deems appropriate. For 2009, we entered into various contracts that change in value with movements in foreign exchange rates in order to preserve the value of assets, commitments and expected transactions. We also use forward contracts and foreign currency options to hedge expected net revenues in foreign currencies. For more information on how these transactions affect our consolidated financial statements and on how foreign exchange rate exposure is managed, "Item 18. Financial Statements note 1," "note 5" and "note 16".

The average value of the US dollar against some important currencies for Novartis in particular the euro increased significantly in 2009. The following table sets forth the foreign exchange rates of the

Table of Contents

US dollar against the Swiss franc, euro and Japanese yen, respectively, used for foreign currency translation when preparing the Group's consolidated financial statements:

\$ per unit	2009		2008		2007	
	Average for year	Year end	Average for year	Year end	Average for year	Year end
EUR	1.393	1.436	1.470	1.411	1.371	1.465
CHF	0.923	0.965	0.925	0.948	0.834	0.881
JPY (100)	1.070	1.086	0.970	1.107	0.850	0.884

The following table provides a summary of the currency translation impact on key Group figures due to the conversions into \$, the Group's reporting currency, of the financial data from entities reporting in non-US dollars. The impact of currency movements related to transactions of an entity conducted in a foreign currency other than the reporting currency of the entity, are excluded.

**Currency translation impact on key figures**

	Local Currencies	Local Currencies	\$ Change in %	\$ Change in %
	Change in % 2009	Change in % 2008	2009	2008
Net sales	11	5	7	9
Operating income	13	20	11	32
Net income	5	13	4	25
Core operating income	13	2	11	11
Core net income	11	1	8	12

For additional information on the effects of currency fluctuations see "Item 11. Quantitative and Qualitative Disclosures about Non-Product-Related Market Risk."

**CRITICAL ACCOUNTING POLICIES AND ESTIMATES**

Our principal accounting policies are set out in "Item 18. Financial Statements note 1" and are prepared in accordance with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB). Given the uncertainties inherent in our business activities, we must make certain estimates and assumptions that require difficult, subjective and complex judgments. Because of uncertainties inherent in such judgments, actual outcomes and results may differ from our assumptions and estimates which could materially affect the Group's consolidated financial statements. Application of the following accounting policies requires certain assumptions and estimates that have the potential for the most significant impact on our consolidated financial statements.

**Revenue**

We recognize product sales when there is persuasive evidence that a sales arrangement exists, title and risk and rewards for the products are transferred to the customer, the price is fixed and determinable, and collectability is reasonably assured. In particular the Vaccines and Diagnostics Division enters into

Table of Contents

substantial vaccines related contracts with governmental agencies. Sales related to these contracts are accounted for following the acceptance criteria stipulated in these contracts. At the time of the sale, we also record estimates for a variety of sales deductions, including rebates, discounts, refunds and incentives, and product returns. Sales deductions are reported as a reduction of revenue.

**Deductions from Revenues**

As is typical in the pharmaceutical industry, our gross sales are subject to various deductions, primarily composed of rebates and discounts to retail customers, government agencies, wholesalers, health insurance companies and managed healthcare organizations. These deductions represent estimates of the related obligations, requiring the use of judgment when estimating the effect of these sales deductions on gross sales for a reporting period. These adjustments are deducted from Gross Sales to arrive at Net Sales.

The following summarizes the nature of some of these deductions and how the deduction is estimated. The US market has the most complex arrangements related to revenue deductions. Specific reference is therefore made to the US market and where applicable to the Pharmaceuticals Division's US operating unit, Novartis Pharmaceuticals Corporation (NPC). However, in a number of countries outside the US, including major European countries, we provide rebates to government and other entities. These rebates are often mandated by government regulations or laws.

The US Medicaid program is administered by State governments using State and Federal funds to provide assistance to certain vulnerable and needy individuals and families. In 1990, the Medicaid Drug Rebate Program was established to reduce State and Federal expenditures for prescription drugs. Under the rebate program, Novartis subsidiaries have signed agreements to provide rebates on drugs paid for by a State. Calculating the rebates to be paid involves interpreting relevant regulations, which are subject to challenge or change in interpretative guidance by government authorities. Provisions for estimating Medicaid rebates are calculated using a combination of historical experience, product and population growth, product price increases, the mix of contracts and specific terms in the individual State agreements. These provisions are adjusted based on established processes and experiences from refiling data with individual States.

On January 1, 2006, an additional prescription drug benefit was added to the US Federal Medicare program which funds healthcare benefits to individuals age 65 or older, referred to as Medicare Part D. Individuals who previously had dual Medicaid/Medicare drug benefit eligibility had their Medicaid prescription drug coverage replaced as of January 1, 2006, by the new Medicare Part D coverage. This benefit is provided through private prescription drug plans, and this change led to a significant shift of plan participants between the two programs in which some of our US subsidiaries participate. Provisions for estimating Medicare Part D rebates are calculated based on the terms of individual plan agreements, product sales and population growth, product price increases and the mix of contracts.

Any rebate adjustments may involve revisions to provisions for several periods since Medicaid and Medicare rebate claims are typically submitted to Novartis up to six months after products are dispensed to patients.

Our US subsidiaries participate in industry- and government-sponsored programs designed to offer savings on prescription drugs to eligible patients. These savings depend on a patient's current drug reimbursement coverage and personal income level. Provisions for obligations resulting from these programs are based on historical experience, trend analysis and current program terms.

Chargebacks occur where our subsidiaries have arrangements with indirect customers in the US to sell products at prices that are lower than the price charged to wholesalers. A chargeback represents the difference between the invoice price to the wholesaler and the indirect customer's contract price. We account for vendor chargebacks by reducing accounts receivable by an amount equal to our estimate of chargebacks attributable to a sale and they are generally settled within one

Table of Contents

to three months of incurring the liability. Provisions for estimated chargebacks are calculated using a combination of factors such as historical experience, product growth rates, payments, level of inventory in the distribution channel, the terms of individual agreements and our estimate of claims processing time lag.

We offer rebates to key managed healthcare plans, group purchasing organizations and other direct and indirect customers to sustain and increase market share for our products. These rebate programs provide customers a rebate after they attain certain performance parameters related to product purchases, formulary status or pre-established market share milestones relative to competitors. Since rebates are contractually agreed upon, rebates are estimated based on the terms of individual agreements, historical experience, expected mix of reimbursement programs and projected product growth rates. We adjust provisions related to customer rebates periodically to reflect actual experience.

To evaluate the adequacy of provision balances, we use internal and external estimates of the level of inventory in the distribution channel, actual claims data received and the lag time for processing rebate claims. Management estimates the level of inventory of the relevant product held by retailers and in transit. External data sources include reports of wholesalers and third-party market data purchased by Novartis.

When we sell a product providing a customer the right to return, we record a provision for estimated sales returns based on our sales returns policy and historical rates. Other factors considered include product recalls, expected marketplace changes and the remaining shelf life of the product, and in the US, the entry of generic products. In 2009, sales returns amounted to approximately 1% of gross product sales for NPC. Especially in the Vaccines and Diagnostics Division, where no Novartis-specific historical return rate experience is available, sales are only recorded based on evidence of product consumption or when the right of return has expired.

In 2008, we started to enter into innovative pay for performance arrangements with certain healthcare providers, especially in the United Kingdom and Germany. Under these agreements, we may be required to make refunds to the healthcare providers or to provide additional medicines free of charge if anticipated treatment outcomes do not meet predefined targets. Potential refunds and the delivery of additional medicines at no cost are estimated and recorded as a reduction of revenue at the time the related revenues are recorded. Estimates are based on historical and clinical data. In cases where historical experience and clinical data are not sufficient for a reliable estimation of the outcome, revenue recognition would be deferred.

We adjust shipping patterns for our pharmaceutical products to maintain customer inventories consistent with underlying patient demand. In the US we monitor inventories at the wholesaler level based on gross sales volume and prescription volume information obtained from third-party data providers as well as information received from key wholesalers. Based on this information, inventories of NPC's pharmaceutical products on hand at wholesalers and other distribution channels in the US were approximately one month at December 31, 2009.

NPC has entered into fee-for-service agreements with certain US pharmaceutical wholesalers. These agreements cover items such as product returns, payment timing, chargeback processing, inventory data provisions and inventory levels held by the wholesaler. These agreements provide a financial disincentive for wholesalers to purchase product quantities exceeding current customer demand.

We offer cash discounts to customers in the US and other countries to encourage prompt payment. Cash discounts, which are typically 2% of gross sales in the US, are accrued at the time of invoicing and deducted from revenue.

Table of Contents

Following a decrease in the price of a product, we generally grant customers a "shelf stock adjustment" for a customer's existing inventory for the involved product. Provisions for shelf stock adjustments, which are primarily relevant within the Sandoz Division, are determined at the time of the price decline or at the point of sale if a price decline can be reasonably estimated based on inventory levels of the relevant product.

Other sales discounts, such as consumer coupons and discount cards, are offered in some markets. These discounts are recorded at the time of sale, or when the coupon is issued, and are estimated utilizing historical experience and the specific terms for each program. If a discount for a probable future transaction is offered as part of a sales transaction then an appropriate portion of revenue is deferred to cover this estimated obligation.

Discounts, rebates or other deductions shown on invoices to customers are generally deducted directly from gross sales without recording them in the revenue deduction provision.

The following tables show the worldwide extent of our revenue deductions, related payment experiences and provisions:

**Provision for revenue deductions**

2009	Provisions offset against gross trade accounts receivable	Provisions at January 1, 2009	Effect of currency translation	Payments/ utilizations	Adjustments of prior years	Income Statement charge Current year	Provisions offset against gross trade accounts receivable	Provisions at December 31, 2009
	at January 1, 2009	at January 1, 2009	Effect of currency translation	Payments/ utilizations	Adjustments of prior years	Income Statement charge Current year	at December 31, 2009	at December 31, 2009
	(\$ millions)	(\$ millions)	(\$ millions)	(\$ millions)	(\$ millions)	(\$ millions)	(\$ millions)	(\$ millions)
US Medicaid, Medicare and State program rebates & credits including prescription drug saving card rebates		381	2	(911)		1,018		490
US managed healthcare rebates		269		(515)	(10)	547		291
Non-US healthcare plans & programs rebates		315	8	(281)		387		429
Chargebacks (including hospitals)	218	66	60	(2,135)	3	2,313	(416)	109
Direct customer discounts, cash discounts & other rebates	311	101	16	(1,165)	(9)	1,321	(434)	141
Sales returns & other deductions		533	1	(575)	11	664		634
<b>Total</b>	<b>529</b>	<b>1,665</b>	<b>87</b>	<b>(5,582)</b>	<b>(5)</b>	<b>6,250</b>	<b>(850)</b>	<b>2,094</b>



Table of Contents

2008	Provisions offset against gross trade accounts receivable	Provisions at January 1, 2008	Effect of currency translation	Payments/ utilizations	Adjustments of prior years	Income Statement charge Current year	Provisions offset against gross trade accounts receivable	Provisions at December 31, 2008	
	at January 1, 2008	at January 1, 2008	(\$)	(\$)	(\$)	(\$)	at December 31, 2008	at December 31, 2008	
	(\$ millions)	(\$ millions)	(\$ millions)	(\$ millions)	(\$ millions)	(\$ millions)	(\$ millions)	(\$ millions)	
US Medicaid, Medicare and State program rebates & credits including prescription drug saving card rebates		490		(754)	(117)	762		381	
US managed healthcare rebates		197		(423)	2	493		269	
Non-US healthcare plans & programs rebates		174	(12)	(281)	(16)	450		315	
Chargebacks (including hospitals)	296		(14)	(1,934)		1,936	(218)	66	
Direct customer discounts, cash discounts & other rebates	336	159	(5)	(1,298)	(3)	1,223	(311)	101	
Sales returns & other deductions		492	(24)	(496)	(12)	573		533	
<b>Total</b>		<b>632</b>	<b>1,512</b>	<b>(55)</b>	<b>(5,186)</b>	<b>(146)</b>	<b>5,437</b>	<b>(529)</b>	<b>1,665</b>

2007	Provisions offset against gross trade accounts receivable	Provisions at January 1, 2007	Effect of currency translation	Payments/ utilizations	Adjustments of prior years	Income Statement charge Current year	Provisions offset against gross trade accounts receivable	Provisions at December 31, 2007	
	at January 1, 2007	at January 1, 2007	(\$)	(\$)	(\$)	(\$)	at December 31, 2007	at December 31, 2007	
	(\$ millions)	(\$ millions)	(\$ millions)	(\$ millions)	(\$ millions)	(\$ millions)	(\$ millions)	(\$ millions)	
US Medicaid, Medicare and State program rebates & credits including prescription drug saving card rebates		538		(780)	(91)	823		490	
US managed healthcare rebates		235		(477)	(21)	460		197	
Non-US healthcare plans & programs rebates		76	14	(133)	5	212		174	
Chargebacks (including hospitals)	329		(16)	(2,319)	(5)	2,307	(296)		
Direct customer discounts, cash discounts & other rebates	273	108	4	(1,243)	(23)	1,376	(336)	159	
Sales returns & other deductions		471	(30)	(515)	(20)	586		492	
<b>Total</b>		<b>602</b>	<b>1,428</b>	<b>(28)</b>	<b>(5,467)</b>	<b>(155)</b>	<b>5,764</b>	<b>(632)</b>	<b>1,512</b>

Table of Contents**Gross to Net sales reconciliation**

2009	Income Statement charge		Total 2009 (\$ millions)	In % of 2009 gross sales
	Charged through revenue deduction provisions 2009 (\$ millions)	Charged directly without being recorded in revenue deduction provisions 2009 (\$ millions)		
<b>Gross sales subject to deductions from continuing operations</b>			<b>54,691</b>	<b>100.0</b>
US Medicaid, Medicare and State program rebates and credits, including prescriptions drug savings card rebates	(1,018)	(122)	(1,140)	(2.1)
US managed healthcare rebates	(537)		(537)	(1.0)
Non-US healthcare plans and program rebates	(387)	(266)	(653)	(1.2)
Chargebacks (including hospitals)	(2,316)	(142)	(2,458)	(4.5)
Direct customer discounts, cash discounts and other rebates	(1,312)	(3,096)	(4,408)	(8.1)
Sales returns and other deductions	(675)	(553)	(1,228)	(2.2)
<b>Total gross to net sales adjustments</b>	<b>(6,245)</b>	<b>(4,179)</b>	<b>(10,424)</b>	<b>(19.1)</b>
<b>Net sales</b>			<b>44,267</b>	<b>80.9</b>

2008	Income Statement charge		Total 2008 (\$ millions)	In % of 2008 gross sales
	Charged through revenue deduction provisions 2008 (\$ millions)	Charged directly without being recorded in revenue deduction provisions 2008 (\$ millions)		
<b>Gross sales subject to deductions from continuing operations</b>			<b>49,972</b>	<b>100.0</b>
US Medicaid, Medicare and State program rebates and credits, including prescriptions drug savings card rebates	(645)	(96)	(741)	(1.5)
US managed healthcare rebates	(494)		(494)	(1.0)
Non-US healthcare plans and program rebates	(434)	(105)	(539)	(1.1)
Chargebacks (including hospitals)	(1,936)	(146)	(2,082)	(4.2)
Direct customer discounts, cash discounts and other rebates	(1,220)	(2,328)	(3,548)	(7.1)
Sales returns and other deductions	(562)	(547)	(1,109)	(2.2)
<b>Total gross to net sales adjustments</b>	<b>(5,291)</b>	<b>(3,222)</b>	<b>(8,513)</b>	<b>(17.1)</b>
<b>Net sales</b>			<b>41,459</b>	<b>82.9</b>

Table of Contents

2007	Income Statement charge		Total 2007 (\$ millions)	In % of 2007 gross sales
	Charged through revenue deduction provisions 2007 (\$ millions)	Charged directly without being recorded in revenue deduction provisions 2007 (\$ millions)		
<b>Gross sales subject to deductions from continuing operations</b>			<b>46,426</b>	<b>100.0</b>
Gross sales subject to deductions from discontinued operations			1,985	
<b>Group gross sales subject to deductions</b>			<b>48,411</b>	
US Medicaid, Medicare and State program rebates and credits, including prescriptions drug savings card rebates	(731)	(57)	(788)	(1.7)
US managed healthcare rebates	(439)		(439)	(0.9)
Non-US healthcare plans and program rebates	(217)	(113)	(330)	(0.7)
Chargebacks (including hospitals)	(2,247)	(73)	(2,320)	(5.0)
Direct customer discounts, cash discounts and other rebates	(1,330)	(1,988)	(3,318)	(7.1)
Sales returns and other deductions	(561)	(598)	(1,159)	(2.5)
<b>Total gross to net sales adjustments from continuing operations</b>	<b>(5,525)</b>	<b>(2,829)</b>	<b>(8,354)</b>	<b>(17.9)</b>
<b>Net sales from continuing operations</b>			<b>38,072</b>	<b>82.1</b>
Total gross to net sales adjustments from discontinued operations	(84)	(173)	(257)	
<b>Total gross to net sales adjustments</b>	<b>(5,609)</b>	<b>(3,002)</b>	<b>(8,611)</b>	
<b>Net sales</b>			<b>39,800</b>	

**Acquisition accounting**

Our consolidated financial statements reflect an acquired business after the acquisition has been completed. We account for acquired businesses using the purchase method of accounting, which requires the acquired assets and assumed liabilities to be recorded as of the acquisition date at their respective fair values. Any excess of the purchase price over the estimated fair values of acquired identified net assets is recorded as goodwill in the balance sheet and denominated in the local currency of the related acquisition. Goodwill is allocated to an appropriate cash-generating unit, which is defined as the smallest group of assets that generates cash inflows that support the goodwill. These units are largely independent of the cash inflows from other assets or group of assets.

In-Process Research & Development (IPR&D) is valued as part of the process of allocating an acquisition's purchase price. Payments for other acquired assets in development, such as those related to initial and milestone payments for licensed or acquired compounds, are capitalized as IPR&D intangible assets. This occurs even if uncertainties continue to exist as to whether the R&D projects will ultimately be successful in producing a commercial product. Estimating the fair value assigned to each class of

Table of Contents

acquired assets and assumed liabilities is based on expectations and assumptions that have been deemed reasonable by management.

**Impairment of long-lived intangible and tangible assets**

We review long-lived assets, other than goodwill and IPR&D, for impairment whenever events or changes in circumstance indicate that the asset's balance sheet carrying amount may not be recoverable. In order to assess if there is an impairment, we estimate the future cash flows expected to result from the asset and its eventual disposal.

Goodwill has an indefinite life, so impairment testing is done at least annually. Any goodwill impairment charge is recorded in the income statement under "Other expenses." IPR&D is also assessed for impairment at least on an annual basis, with any impairment charge recorded in the income statement under "Research & Development expenses." Once a project included in IPR&D has been successfully developed and is available for use, it is amortized over its useful life in the income statement under "Cost of Goods Sold," where any related future impairment charge is also recorded.

If an asset's balance sheet carrying amount exceeds the higher of its "value in use" to Novartis or "fair value less costs to sell," we will recognize an impairment loss for the difference. "Value in use" is defined as the net present value of future cash flows expected from an asset or cash-generating unit. For intangible assets, including IPR&D or product and marketing rights, we typically use the Discounted Cash Flow method for both determining the value in use and fair value less costs to sell. This method starts with a forecast of all expected future net cash flows. These cash flows, which reflect the risks and uncertainties associated with the assets, are then discounted at an appropriate rate to net present value. The cash flows of value in use are based on management's forecast. They are adjusted as necessary to use market participant assumptions for a fair value less costs to sell calculation.

The net present values involve highly sensitive estimates and assumptions specific to the nature of the Group's activities with regard to:

The amount and timing of projected future cash flows;

The selected discount and tax rate;

The outcome of R&D activities (compound efficacy, results of clinical trials, etc.);

The amount and timing of projected costs to develop IPR&D into commercially viable products;

The probability of obtaining regulatory approval;

Long-term sales forecasts for periods of up to 20 years;

Sales erosion rates after the end of patent protection and timing of the entry of generic competition; and

The behavior of competitors (launch of competing products, marketing initiatives, etc.).

Factors that could result in shortened useful lives or impairments include:

Lower-than-expected sales for acquired products or for sales associated with patents and trademarks;

Lower-than-anticipated future sales resulting from acquired IPR&D;

The closing of facilities; and

Changes in the planned use of property, plant & equipment.

Table of Contents

We have adopted a uniform method for assessing goodwill for impairment and any other intangible asset indicated as being possibly impaired. Generally, for intangible assets we use cash flow projections for the whole useful life of these assets, and for goodwill, we utilize cash flow projections for a five-year period based on management forecasts, with a terminal value based on sales projections usually in line with or lower than inflation rates for later periods. Three probability-weighted scenarios are typically used.

Discount rates used in these scenarios are based on the Group's weighted average cost of capital as an approximation of the weighted average cost of capital of a comparable market participant, which are adjusted for specific country and currency risks associated with cash flow projections.

Due to the above factors, actual cash flows and values could vary significantly from forecasted future cash flows and related values derived using discounting techniques.

The recoverable amount of a cash-generating unit and related goodwill is usually based on the higher of "fair value less costs of sale" or on the "value in use" derived from applying discounted future cash flows based on the key assumptions in the following table:

	<b>Pharmaceuticals</b>	<b>Vaccines and Diagnostics</b>	<b>Sandoz</b>	<b>Consumer Health</b>
	(%)	(%)	(%)	(%)
Sales growth rate assumptions after forecast period	2.0	2.0	0.1 to 6.0	(10.0) to 2.0
Discount rate	7.0	7.0	7.0 to 15.1	7.0 to 8.0

In 2009, impairment charges of \$132 million were recorded. This is relating to various impairment charges of \$88 million, mainly for upfront and milestone payments in the Pharmaceuticals Division and \$44 million in the Vaccines and Diagnostics, Sandoz and Consumer Health Divisions. Changes in circumstances on products formerly impaired lead to reversals in 2009 that amounted to \$106 million mainly relating to *Famvir* product rights.

In 2008, we recorded impairment charges of \$344 million, which included a full impairment of \$223 million for the termination of the *Aurograb* (infections) development project and \$97 million for various impairments of upfront and milestone payments and product rights in the Pharmaceuticals Division. Additionally, various impairments totaling \$24 million were recorded in the other divisions.

In 2007, impairment charges of \$482 million were recorded, of which \$320 million represented a partial impairment charge for *Famvir* product rights following the launch of an "at risk" generic version by a competitor and subsequent loss of sales in the Pharmaceuticals Division. Various other additional impairment charges totaling \$162 million were recorded in the divisions.

The amount of goodwill and other intangible assets on our consolidated balance sheet has increased significantly in recent years, primarily due to acquisitions. Although no significant additional impairments are currently anticipated, impairment testing could lead to material impairment charges in the future. For more information, see "Item 18. Financial Statements note 11".

**Investments in associated companies**

We use the equity method to account for investments in associated companies (defined as investments in companies that correspond to holdings of between 20% and 50% of a company's voting shares or over which we otherwise have significant influence).

Table of Contents

Various estimates are used in applying the equity method, so subsequent adjustments may be required once an associated company publishes financial results or makes public other information. This applies in particular to our investments in Roche Holding AG and Alcon Inc.

We review investments in associated companies for impairment whenever events or changes in circumstance indicate that the asset's balance sheet carrying amount may not be recoverable. Where a significant or prolonged decline in fair value has occurred, such as a decline in a company's share price, to a level below the carrying value in our balance sheet, we calculate the "value in use" taking into account anticipated dividend streams and a discounted cash flow analysis of the company's operations. These assessments utilize external data and internal Novartis projections to determine whether the investment is impaired.

We consider investments in associated companies for impairment testing whenever a company's quoted share price has fallen to a fair value below our per-share carrying value. For unquoted investments in associated companies, the latest available financial information is used to assess whether impairment testing is necessary. Where there is an indication that separately identified assets of the associated company, other than implicit goodwill, might be impaired an impairment test is performed. Any impairment charge is recorded in the income statement under "Income from associated companies."

If the asset's balance sheet carrying amount exceeds the higher of its "value in use" or "fair value less costs of sale," we will recognize an impairment loss for the difference. "Value in use" is defined as the present value of future cash flows expected from an asset or cash-generating unit. For investments in associated companies, we typically use the Discounted Cash Flow method that is based on a forecast of all expected future net cash flows. As an alternative methodology we may also use the Discounted Dividend Method that is based on the value of all future dividends and the residual value of our investment, less disposal cost. These cash flows, which reflect risks and uncertainties associated with an investment, are discounted at an appropriate rate to net present value.

Net present values for associated companies are highly sensitive to several assumptions including:

Long-term sales forecasts for periods of up to 20 years;

Sales erosion rates after the end of patent protection and timing of the entry of generic competition;

The behavior of competitors (launch of competing products, marketing initiatives, etc.);

The outcome of R&D activities (compound efficacy, results of clinical trials, etc.) including the probability of obtaining regulatory approval and development timelines;

The amount and timing of projected future cash flows; and

The selected discount and tax rates.

Factors that could result in impairments include:

Lower-than-expected sales for acquired products or sales associated with patents and trademarks;

Lower-than-anticipated future sales resulting from acquired In-process R&D (IPR&D);

Lower-than-expected profit margins caused by pricing pressure, exchange rate effects or other factors;

Failure of material R&D programs; and

Product recalls or withdrawals and associated product liabilities.



Table of Contents

We have adopted a method for assessing investments in associated companies for impairment that utilizes cash flow projections based on a range of management forecasts, with a terminal value based on sales projections usually in line or lower than GDP nominal growth forecasts for later periods.

Discount rates are based on the associated company's estimated weighted average cost of capital, which are adjusted for specific country and currency risks associated with cash flow projections.

Due to the above factors, actual cash flows and values could vary significantly from forecasted future cash flows and dividends as well as related values derived using discounting techniques.

The amount of investments in associated companies on our consolidated balance sheet has increased significantly in recent years, primarily due to the Alcon investment in 2008. Our assessment of the recoverable value of the Alcon investment as at December 31, 2009 and 2008 is discussed in detail in "Item 18. Financial Statements note 4".

**Retirement and other post-employment benefit plans**

We sponsor pension and other post-employment benefit plans in various forms that cover a significant portion of our current and former associates. We are required to make significant assumptions and estimates about future events in calculating the expense and the present value of the liability related to these plans. These include assumptions about the discount rates we apply to estimate future liabilities, expected returns on plan assets and rates of future compensation increases. In addition, our actuarial consultants provide our management with historical statistical information such as withdrawal and mortality rates in connection with these estimates.

Assumptions and estimates used by the Group may differ materially from the actual results we experience due to changing market and economic conditions, higher or lower withdrawal rates, or longer/shorter life spans of participants among other factors. For example, a decrease in the discount rate we apply in determining the present value of the obligations of one-half of one percent would have increased our year-end defined benefit obligation by approximately \$1.1 billion. If the 2009 discount rate had been one-half of one percentage point lower than actually assumed, pension expense would have risen by approximately an additional \$7 million, and if the same decrease were assumed for the return on assets, pension expense would have increased by \$84 million. We record differences between assumed and actual income and expense as "Actuarial gains/losses" in the consolidated statement of comprehensive income. These differences could have a material effect on our total equity. For more information on obligations under retirement and other post-employment benefit plans and underlying actuarial assumptions, see "Item 18. Financial Statements note 25".

**Derivative financial instruments and related cash flow hedging**

Derivative financial instruments are initially recognized in the balance sheet at fair value and subsequently remeasured to their current fair value. Any gain or loss on the hedging instrument relating to the effective portion of changes in the fair value of derivatives in cash flow hedges are recognized in the statement of comprehensive income. The gain or loss relating to the ineffective portion is recognized immediately in the income statement.

When a hedging instrument expires or is sold, or when a hedge no longer meets the criteria for hedge accounting, any cumulative gain or loss existing in the consolidated statement of comprehensive income at that time is recognized in the income statement when the committed or forecasted transaction is ultimately recognized. Management assesses the probability of the forecasted transaction occurring when determining whether the impact of a cash flow hedge can be deferred in the consolidated statement of comprehensive income. Amounts are only deferred when management judges the forecasted transaction to be probable.

Table of Contents

**Equity-based compensation**

The fair value of Novartis shares, Novartis American Depositary Shares (ADS) and related options granted to associates as compensation are recognized as an expense over the related vesting or service period. An option's fair value at grant date is calculated using the trinomial valuation method. Accurately measuring the value of share options is difficult and requires an estimate of factors used in the valuation model. These key factors involve uncertain future events, expected share price volatility and expected dividend yield. Novartis shares and ADSs are valued using the market value on grant date. The amounts for shares and options are charged to income over the relevant vesting or service periods, adjusted to reflect actual and expected vesting levels. The charge for equity-based compensation is included in personnel expenses in the subsidiaries where associates receiving equity-based compensation are employed. For detailed information on the Group's equity-based compensation plans and underlying assumptions for valuation of share options granted in 2009, see "Item 18. Financial Statements note 26".

**Provisions**

A number of our subsidiaries are involved in various government investigations and legal proceedings (intellectual property, product liability, commercial, employment and wrongful discharge, environmental claims, etc.) arising out of the normal conduct of their businesses. For more information, see "Item 18. Financial Statements note 20".

We record provisions when it is probable that a liability has been incurred and the amount can be reliably estimated. These accruals are adjusted periodically as assessments change or additional information becomes available. For product liability claims, a significant portion of the overall accrual is actuarially determined. We consider factors such as past experience, amount and number of claims reported, and estimates of claims incurred but not yet reported. We provide for individually significant cases when probable and the amount can be reliably estimated. Legal defense costs are accrued when they are expected to be incurred in connection with a loss contingency and the amount can be reliably estimated.

In some instances, the inherent uncertainty of litigation, the resources required to defend against governmental actions, the potential impact on our reputation, and the potential for exclusion from US federal government reimbursement programs have contributed to decisions by companies in our industry to enter into settlement agreements with governmental authorities. These settlements have had in the past, and may continue in the future, to involve large cash payments, including potential repayment of amounts that were allegedly improperly obtained and penalties of up to treble damages. In addition, matters underlying governmental investigations and settlements may be the subject of separate private litigation.

Provisions are recorded for environmental remediation costs when expenditure on remedial work is probable and the cost can be reliably estimated. Remediation costs are provided for under "Non-current liabilities" in the Group's consolidated balance sheet. They are estimated by calculating the present value of expected costs. Provisions relating to estimated future expenditure for liabilities do not usually reflect any insurance or other claims or recoveries, since these are only recognized when the amount is reasonably estimable and collection is virtually certain.

**Research and Development**

Internal Research & Development (R&D) costs are fully charged to the income statement in the period in which they are incurred. We consider that regulatory and other uncertainties inherent in the development of new products preclude the capitalization of internal development expenses as an intangible asset until marketing approval from the regulatory authority is obtained in a relevant major market, such as for the US, the EU, Switzerland or Japan.

Table of Contents

Payments made to third parties such as contract research and development organizations are expensed as internal R&D expenses in the period in which they are incurred unless the criteria for recognition of an internally generated intangible asset are met usually when marketing approval has been achieved from a regulatory authority in a major market.

Payments made to third parties in order to in-license or acquire intellectual property rights, compounds and products (In-Process Research and Development assets, "IPR&D"), including initial upfront and subsequent milestone payments, are capitalized, as are payments for other assets, such as core technologies to be used in R&D activities. Subsequent internal R&D costs in relation to IPR&D and other assets are expensed as incurred, unless marketing approval has been achieved from a regulatory authority in a major market. Costs for post-approval studies performed to support the continued registration of a marketed product are recognized as marketing expenses. Costs of activities that are required by regulatory authorities as a condition for approval are charged as development expenses as they are incurred unless the activities are conducted beyond the product sale period. In this case the total estimated post-approval costs are expensed over the period in which related product sales are made.

IPR&D assets are amortized once the related project has been successfully developed and regulatory approval for a product launch obtained and acquired core technologies are amortized over their estimated useful lives. The following

**New accounting pronouncements**

The following new or amended IFRS standards or interpretations which, based on a Novartis analysis, are the only ones of significance to the Group, have not yet been adopted but require to be adopted by January 1, 2010: IFRS 3 (revised) "*Business Combinations*". The revised standard requires Novartis to include in the purchase consideration the estimated amount of any contingent considerations and the measurement to fair value, through the income statement, of any interest in an acquired company that had been previously held. Furthermore, transaction costs are expensed as incurred and no longer form part of the acquisition price. Amendments to IAS 27: "*Consolidated and Separate Financial Statements*": The result of changes in the Novartis ownership percentage in a subsidiary that do not result in a loss of control will be accounted for in equity. Amendments to IAS 39 "*Financial instruments: recognition and measurement*". This revised standard requires adoption from January 1, 2010. It requires that any options, including those concerning Alcon, related to potential acquisitions which up to December 31, 2009 do not require recognition, are recorded at their fair values, initially into opening equity at January 1, 2010, and subsequent fair value adjustments into the income statement. We do not anticipate any significant impact from the adoption of this revised standard.

IFRS 9 "*Financial Instruments: Classification and Measurement*" only requires to be adopted by January 1, 2013. This standard will substantially change the classification and measurement of financial instruments and hedging requirements. We are currently evaluating the potential impact that this standard will have on the Group's consolidated financial statements.

**SEGMENT REPORTING**

Novartis is divided on a worldwide basis into four operating divisions (Pharmaceuticals, Vaccines and Diagnostics, Sandoz and Consumer Health) and Corporate activities. These four operating divisions reflect the Group's internal management structure. They are managed separately because they each manufacture, distribute and sell distinct products that require differing marketing strategies.

Inter-divisional sales are made at amounts considered to approximate arm's-length transactions. Where practicable, the same accounting policies are applied by the Group as well as the Divisions. Currently, we principally evaluate divisional performance and allocate resources based on operating income.

Table of Contents

**Pharmaceuticals Division**

Pharmaceuticals researches, develops, manufactures, distributes, and sells branded prescription medicines in the following therapeutic areas: Cardiovascular and Metabolism; Oncology; Neuroscience and Ophthalmics; Respiratory; Immunology and Infectious Diseases; and Other. Pharmaceuticals is organized into global business franchises responsible for the development and marketing of various products as well as a business unit, called Novartis Oncology, responsible for the global development and marketing of oncology products. Novartis Oncology Business Unit is not required to be disclosed separately as a segment since it shares common long-term economic perspectives, customers, research, development, production, distribution and regulatory factors with the rest of the division.

Pharmaceuticals is the largest contributor among the four divisions, accounting in 2009 for \$28.5 billion, or 65%, of net sales and for \$8.4 billion, or 77%, of operating income (excluding Corporate Income & Expense, net).

**Vaccines and Diagnostics Division**

Vaccines and Diagnostics researches, develops, manufactures, distributes and sells preventive vaccines and diagnostic tools. Novartis Vaccines is a leading global developer and manufacturer of human vaccines. Key products include influenza, meningococcal, pediatric and traveler vaccines.

Novartis Diagnostics is a blood testing and molecular diagnostics business dedicated to preventing the spread of infectious diseases through novel blood-screening tools that protect the world's blood supply.

In 2009, Vaccines and Diagnostics accounted for \$2.4 billion, or 5%, of net sales and provided \$372 million, or 3%, of operating income (excluding Corporate Income & Expense, net).

**Sandoz Division**

Sandoz is a leading global generic pharmaceuticals company that develops, manufactures, distributes and sells prescription medicines, as well as pharmaceutical and biotechnological active substances, which are not protected by valid and enforceable third-party patents. Sandoz has activities in Retail Generics, Anti-Infectives, Biopharmaceuticals and Oncology Injectables (following the acquisition of EBEWE Pharma, which was completed in September 2009). In Retail Generics, Sandoz develops, manufactures, distributes and sells active ingredients and finished dosage forms of medicines, as well as supplying active ingredients to third parties. In Anti-Infectives, Sandoz develops, manufactures, distributes and sells active pharmaceutical ingredients and intermediates, mainly antibiotics, for internal use by Retail Generics and for sale to third-party customers. In Biopharmaceuticals, Sandoz develops, manufactures, distributes and sells protein- or biotechnology-based products (known as "biosimilars" or follow-on biologics) and sells biotech manufacturing services to other companies. In Oncology Injectables, Sandoz develops, manufactures, distributes and sells cytotoxic products for the hospital market.

Sandoz offers more than 1,000 compounds in more than 130 countries. Sandoz is the Group's second largest division, both in terms of contributions to net sales and operating income from continuing operations. In 2009, Sandoz accounted for \$7.5 billion, or 17%, of net sales and for \$1.1 billion, or 10% of operating income (excluding Corporate Income & Expense, net).

**Consumer Health Division**

Consumer Health consists of three Business Units: OTC (over-the-counter medicines), Animal Health and CIBA Vision. Each has its own research, development, manufacturing, distribution and selling capabilities. However, none are material enough to the Group to be separately disclosed as a segment. OTC offers readily available consumer medicine; Animal Health provides veterinary products for farm and companion animals; and CIBA Vision markets contact lenses and lens care products.

Table of Contents

Medical Nutrition and Gerber, which were previously included in Consumer Health, were divested during 2007. The results of these Business Units have been reclassified and disclosed as discontinued operations in all periods in our consolidated financial statements included in this Financial Report. For more detail, see "Factors Affecting Results of Operations Acquisitions, Divestments and Other Significant Transactions" and "Item 18. Financial Statements note 2".

In 2009, Consumer Health accounted for \$5.8 billion, or 13%, of net sales and for \$1.0 billion, or 9%, of operating income (excluding Corporate Income & Expense, net).

**Corporate**

Income and expenses relating to Corporate include the costs of our headquarters and corporate coordination functions in major countries. In addition, Corporate includes certain items of income and expense that are not attributable to specific divisions, including global IT infrastructure.

**FACTORS AFFECTING COMPARABILITY OF YEAR-ON-YEAR RESULTS OF OPERATIONS**

**Recent Acquisitions and Divestments**

The comparability of the year-on-year results of our operations for the total Group can be significantly affected by a number of acquisitions and divestments. For more detail how these actions have affected our results, see "Factors Affecting Results of Operations Acquisitions, Divestments and Other Significant Transactions" above.

**Currency Fluctuations**

Significant changes in the value of the US dollar, our reporting currency, in 2009 against various currencies particularly the Swiss franc and euro had an overall negative currency translation effect on sales and results of operations in 2009, and as a result affected the comparability of results of operations for 2009 and 2008. For more information, see "Effects of Currency Fluctuations" above.

Table of Contents**RESULTS OF OPERATIONS****2009 Compared to 2008****Key Figures**

	Year ended December 31,		Change (%)
	2009 (\$ millions)	2008 (\$ millions)	
<b>Net sales from continuing operations</b>	<b>44,267</b>	<b>41,459</b>	<b>7</b>
Other revenues	836	1,125	(26)
Cost of goods sold	(12,179)	(11,439)	6
Marketing & sales	(12,050)	(11,852)	2
Research & development	(7,469)	(7,217)	3
General & administration	(2,281)	(2,245)	2
Other income	782	826	(5)
Other expense	(1,924)	(1,693)	14
<b>Operating income</b>	<b>9,982</b>	<b>8,964</b>	<b>11</b>
Income from associated companies	293	441	(34)
Financial income	198	384	(48)
Interest expense	(551)	(290)	90
<b>Income before taxes</b>	<b>9,922</b>	<b>9,499</b>	<b>4</b>
Taxes	(1,468)	(1,336)	10
<b>Net income from continuing operations</b>	<b>8,454</b>	<b>8,163</b>	<b>4</b>
Net income from discontinued operations		70	
<b>Group net income</b>	<b>8,454</b>	<b>8,233</b>	<b>3</b>
<i>Attributable to:</i>			
Shareholders of Novartis AG	8,400	8,195	3
Non-controlling interests	54	38	42
<b>Basic earnings per share from continuing operations (\$)</b>	<b>3.70</b>	<b>3.59</b>	<b>3</b>

**Core Key Figures**

	Year ended December 31,		Change (%)
	2009 (\$ millions)	2008 (\$ millions)	
<b>Core net sales</b>	<b>44,267</b>	<b>41,305</b>	<b>7</b>
<b>Core operating income</b>	<b>11,437</b>	<b>10,319</b>	<b>11</b>
<b>Core net income</b>	<b>10,267</b>	<b>9,501</b>	<b>8</b>
<b>Core basic earnings per share (\$)</b>	<b>4.50</b>	<b>4.18</b>	<b>8</b>

*Overview Results Operations*

The underlying double-digit expansion in Pharmaceuticals, ranked as one of the industry's fastest-growing businesses based on market share, led the Group's healthcare portfolio in 2009 to another year of

Table of Contents

record results. Vaccines and Diagnostics achieved exceptionally high sales by rapidly developing and delivering influenza A (H1N1) pandemic vaccines to address the public health threat.

Net sales rose 7% (+11% in local currencies, lc) to \$44.3 billion on the underlying expansion in all divisions: Pharmaceuticals (+12% lc), Vaccines and Diagnostics (+39% lc), Sandoz (+5% lc) and Consumer Health (+5% lc). Top-performing regions included Europe (\$18.4 billion, +10% lc) and the United States (\$14.3 billion, +11% lc) as well as the top six emerging markets (\$4.0 billion, +17% lc) of Brazil, China, India, Russia, South Korea and Turkey. Higher volumes contributed 10 percentage points of growth, while acquisitions and price changes together added one percentage point of sales growth. The stronger US dollar compared to 2008 reduced full-year growth by four percentage points.

Operating income grew 11% to \$10.0 billion in 2009, which resulted in the operating income margin rising to 22.5% of net sales from 21.6% in 2008. The stronger US dollar compared to 2008 reduced operating income growth by nine percentage points. Core operating income, which excludes exceptional items and amortization of intangible assets in both periods, grew 11% to \$11.4 billion on improvements in Pharmaceuticals and Vaccines and Diagnostics as well as productivity gains in all divisions. The core operating income margin rose to 25.8% of net sales from 25.0% in 2008.

Net income rose 4% to \$8.5 billion, while basic EPS was up 3% to \$3.70. Core net income of \$10.3 billion (+8%) rose at a slower pace than operating income as increased contributions from associated companies were partially reduced by Alcon-related financing costs. Core earnings per share were \$4.50 in 2009, up from \$4.18 in 2008.

**Net Sales from continuing operations**

	Year ended December 31,			Change in local currencies (%)
	2009 (\$ millions)	2008 (\$ millions)	Change (%)	
Pharmaceuticals	28,538	26,331	8	12
Vaccines and Diagnostics	2,424	1,759	38	39
Sandoz	7,493	7,557	(1)	5
Consumer Health	5,812	5,812		5
<b>Net sales</b>	<b>44,267</b>	<b>41,459</b>	<b>7</b>	<b>11</b>

***Pharmaceuticals Division***

All geographic regions and therapeutic areas contributed to the double-digit expansion in local currencies, driven by recently launched products (\$4.7 billion, +81% lc) that increased their share of net sales to 16% in 2009 from 10% in 2008. This group of rapidly growing products including *Lucentis*, *Exforge*, *Exjade*, *Exelon Patch*, *Reclast/Aclasta*, *Tekturna/Rasilez*, *Afinitor* and *Ilaris* provided eight percentage points of the division's 12% lc net sales growth in 2009.

Oncology (\$9.0 billion, +14% lc) remained the largest franchise and ranks No. 2 in the global oncology segment, led by sustained growth of *Gleevec/Glivec* (\$3.9 billion, +12% lc) and three additional products *Zometa*, *Femara* and *Sandostatatin* that each achieved more than \$1 billion of sales. *Exforge* and *Tekturna/Rasilez* (high blood pressure) and *Galvus* (type 2 diabetes) drove expansion of Cardiovascular and Metabolism (\$8.8 billion, +9% lc), complementing *Diovan* (\$6.0 billion, +6% lc) as Novartis

Table of Contents

expanded its position as the global leader in hypertension. *Lucentis* (\$1.2 billion, +47% lc) and *Exelon* (\$954 million, +22% lc) fueled growth in Neuroscience and Ophthalmics (\$4.9 billion, +12% lc).

All regions benefited from the product portfolio transformation, particularly Europe (\$10.5 billion, +12% lc) as the largest region and generating more than 20% of sales from recently launched products. Also delivering top performances were Latin America and Canada (\$2.5 billion, +13% lc), while the US (\$9.5 billion, +11% lc) and Japan (\$3.1 billion, +9% lc) both showed renewed growth. All six top emerging markets (\$2.6 billion, +19% lc) Brazil, China, India, Russia, South Korea and Turkey advanced at robust double-digit rates.



Table of Contents**Top Twenty Pharmaceuticals Division Product Net Sales 2009**

Brands	Therapeutic area	United States	Change in local	Rest of world	Change in local	Total	Change in local	
		(\$ millions)	(%)	(\$ millions)	(%)	(\$ millions)	(%)	(%)
<i>Diovan/Co-Diovan</i>	Hypertension	2,492	4	3,521	7	6,013	5	6
<i>Gleevec/Glivec</i>	Chronic myeloid leukemia	1,088	21	2,856	9	3,944	7	12
<i>Zometa</i>	Cancer complications	718	8	751	9	1,469	6	9
<i>Femara</i>	Breast cancer	572	18	694	14	1,266	12	16
<i>Lucentis</i>	Age-related macular degeneration			1,232	47	1,232	39	47
<i>Sandostatin (group)</i>	Acromegaly	458	6	697	8	1,155	3	7
<i>Exelon (group)</i>	Alzheimer's disease	362	30	592	18	954	17	22
<i>Neoral/Sandimmun</i>	Transplantation	90	(8)	829		919	(4)	(1)
<i>Voltaren (group)</i>	Inflammation/pain	5		792	1	797	(2)	1
<i>Exforge (group)</i>	Hypertension	229	53	442	83	671	65	72
<b>Top ten products total</b>		<b>6,014</b>	<b>11</b>	<b>12,406</b>	<b>13</b>	<b>18,420</b>	<b>9</b>	<b>12</b>
<i>Exjade (group)</i>	Iron chelator	247	16	405	34	652	23	27
<i>Lescol</i>	Cholesterol reduction	121	(21)	442	(8)	563	(13)	(11)
<i>Comtan/Stalevo (group)</i>	Parkinson's disease	217	9	337	17	554	10	14
<i>Aclasta</i>	Osteoporosis	328	84	144	97	472	86	88
<i>Ritalin (group)</i>	Attention Deficit/Hyperactive Disorder	343	(1)	106	21	449	2	4
<i>Tegretol (incl. CR/XR)</i>	Epilepsy	91	(38)	284	(1)	375	(17)	(13)
<i>Foradil</i>	Asthma	14		343	3	357	(8)	3
<i>Myfortic</i>	Transplantation	135	42	218	22	353	22	28
<i>Xolair</i>	Asthma	90	181	248	45	338	60	65
<i>Lotrel</i>	Hypertension	322	(17)			322	(17)	(17)
<b>Top 20 products total</b>		<b>7,922</b>	<b>10</b>	<b>14,933</b>	<b>13</b>	<b>22,855</b>	<b>9</b>	<b>12</b>
<i>Rest of portfolio</i>		1,620	13	4,063	10	5,683	7	11
<b>Total Division net sales</b>		<b>9,542</b>	<b>11</b>	<b>18,996</b>	<b>12</b>	<b>28,538</b>	<b>8</b>	<b>12</b>

**Pharmaceuticals Division product highlights Selected leading products**

Notes: Net sales growth data refer to 2009 worldwide performance in local currencies. Growth rates are not provided for some recently launched products since they are not meaningful.

**Cardiovascular and Metabolism**

*Diovan* (\$6.0 billion, +6% lc) achieved solid worldwide growth based on its status as the only medicine in the angiotensin receptor blocker (ARB) class approved to treat high blood pressure, high-risk heart attack survivors and heart failure. Japan now accounts for 20% of annual sales, while growth was seen in Europe, where the expected entry of generic versions of losartan, another medicine in the ARB segment, was delayed until the first half of 2010. In the US (+4%), *Diovan* increased its leadership of the

Table of Contents

ARB segment despite the overall shrinking of the branded anti-hypertension market due to increasing use of generic medicines in other anti-hypertensive classes.

*Exforge* (\$671 million, +72% lc), a single-pill combination of the angiotensin receptor blocker *Diovan* (valsartan) and the calcium channel blocker amlodipine, has delivered above-market growth and set new standards for high blood pressure combination therapies since its launch in 2007. *Exforge HCT*, which adds a diuretic, was launched in the US in April 2009 as a single-pill therapy with three medicines.

*Tekturna/Rasilez* (\$290 million, +104% lc), the first in a new class of medicines known as direct renin inhibitors to treat high blood pressure, has been growing consistently since its launch in 2007 based on positive clinical data demonstrating its prolonged efficacy in lowering blood pressure for more than 24 hours and superiority in clinical trials over ramipril, a leading ACE inhibitor. *Valturna* a single-pill combination with *Diovan* (valsartan) was launched in the US in late 2009, joining the group of single-pill combinations that involve aliskiren, the active ingredient in *Tekturna/Rasilez*. A single-pill combination of aliskiren and amlodipine was submitted for US and European approvals in 2009, and a triple-combination with amlodipine and a diuretic is expected to be submitted in 2010.

*Lotrel* (\$322 million, -17% lc, only in the US), a single-pill combination therapy for high blood pressure, still has market exclusivity for higher-dose formulations, but sales contributions have fallen sharply after an "at risk" launch in mid-2007 by a generic competitor despite a US patent valid until 2017.

*Galvus/Eucreas* (\$181 million, +327% lc), oral treatments for type 2 diabetes, have achieved rapid success in many European, Latin American and Asia-Pacific markets since first launched in 2007. *Galvus* and *Eucreas*, a single-pill combination of *Galvus* with metformin that accounts for the majority of sales, have outperformed a competitor medicine in the DPP-4 segment in some countries. *Galvus* was approved in Japan in January 2010 with the brand name *Equa*.

*Oncology*

*Gleevec/Glivec* (\$3.9 billion, +12% lc), a targeted therapy for some forms of chronic myeloid leukemia (CML) and gastrointestinal stromal tumors (GIST), achieved sustained double-digit growth based on its leadership position in treating these cancers backed by new clinical data and regulatory approvals. The latest approval in 2009 was for use in adjuvant (post-surgery) GIST patients, which is now approved in more than 55 countries in North America, Europe and Asia-Pacific.

*Tasigna* (\$212 million, +145% lc), a second-line therapy for patients with a form of chronic myeloid leukemia (CML) resistant or intolerant to prior therapy, including *Gleevec/Glivec*, has gained rapid acceptance following its approval in more than 80 countries. In December 2009, *Tasigna* was submitted for US and European regulatory approvals for first-line use in CML after new data from the global ENESTnd trial, the largest head-to-head comparison of a targeted therapy against *Glivec* ever conducted, showed *Tasigna* produced faster and deeper responses than *Glivec* in newly diagnosed CML patients. Trials are underway examining the use of *Tasigna* in CML with suboptimal response to *Glivec*, as well as a Phase III trial in patients with GIST.

*Zometa* (\$1.5 billion, +9% lc), an intravenous bisphosphonate therapy for patients with certain types of cancer that has spread to bones, is growing due to improved compliance and use in existing indications. US and European regulatory submissions were completed in late 2009 for the use of *Zometa* in adjuvant breast cancer in premenopausal women based on published anticancer data for this indication. Studies are underway to review potential benefits in other tumor types.

*Femara* (\$1.3 billion, +16% lc), an oral therapy for postmenopausal women with hormone-sensitive breast cancer, saw strong sales growth in 2009 due to growth in the initial adjuvant (post-surgery) setting. In August 2009, "The New England Journal of Medicine" published results from the landmark BIG 1-98 study affirming that the five-year upfront use of *Femara* after surgery was an optimal treatment approach

Table of Contents

for postmenopausal women with early-stage, hormone-receptor positive breast cancer. These data were submitted in the US and Europe for inclusion in product information.

*Sandostatin* (\$1.2 billion, +7% 1c), for patients with acromegaly and symptoms associated with neuroendocrine tumors of the gastrointestinal tract and pancreas, has grown from increasing use of *Sandostatin LAR*, the once-monthly version that accounts for nearly 90% of net sales. Recent clinical trial data demonstrated a significant delay in tumor progression in patients with metastatic neuroendocrine tumors of the midgut treated with *Sandostatin LAR*. These data formed the basis of a recent US National Comprehensive Cancer Network (NCCN) update on treatment guidelines for neuroendocrine tumors.

*Exjade* (\$652 million, +27% 1c), currently approved in more than 90 countries as the only once-daily oral therapy for transfusional iron overload, received regulatory approvals in 2009 in the US, Europe, Switzerland and other countries to extend the dose range to 40 mg/kg. This new dosing range provides a new option to patients who require dose intensification due to high iron burdens. Novartis submitted new safety information to health authorities worldwide in mid-2009. The new labeling was approved in Europe in November, providing new guidance on the selection of appropriate myelodysplastic syndrome (MDS) and malignant disease patients for *Exjade* therapy. US and Japanese regulatory authorities are also reviewing this data.

*Afinitor* (\$70 million), an oral inhibitor of the mTOR pathway, was launched in the US, Europe and Switzerland after gaining regulatory approvals in 2009 as a treatment for advanced renal cell carcinoma (RCC, kidney cancer) following VEGF-targeted therapy. *Afinitor* is being studied in many cancer types. Phase III studies are underway in patients with neuroendocrine tumors (NET), breast cancer, lymphoma, tuberous sclerosis complex (TSC) and gastric cancer. Two potential regulatory submissions are planned for 2010 based on the outcome of clinical trials of this medicine in patients with neuroendocrine tumors (NET) as well as tuberous sclerosis complex (TSC). A late-stage trial is planned to start in patients with hepatocellular carcinoma (HCC) in early 2010. The active ingredient, everolimus, is the same as in the transplant therapy *Certican*.

*Other Pharmaceuticals products*

*Lucentis* (\$1.2 billion, +47% 1c), a biotechnology eye therapy now approved in more than 80 countries, delivered sustained growth on top performances in France, the United Kingdom, Australia and Japan. *Lucentis* is the only treatment proven to maintain and improve vision in patients with "wet" age-related macular degeneration, a leading cause of blindness in people over age 50. *Lucentis* was submitted in December 2009 for European regulatory approval for treatment of visual impairment due to diabetic macular edema (DME), an eye condition related to longstanding diabetes that may lead to blindness. Late-stage clinical trials are underway in other eye conditions. Genentech holds the US rights to this medicine.

*Exelon/Exelon Patch* (\$954 million, +22% 1c), a therapy for mild to moderate forms of Alzheimer's disease dementia as well as dementia linked with Parkinson's disease, achieved more than half of its sales from *Exelon Patch*, the novel skin patch launched in late 2007 that is now available in more than 60 countries worldwide.

*Neoral/Sandimmun* (\$919 million, -1% 1c), for organ transplantation, has experienced modestly declining sales despite ongoing generic competition in recent years based on its pharmacokinetic profile, reliability and use in treating a life-threatening condition.

*Voltaren* (\$797 million, +1% 1c, excluding OTC sales), a treatment for various inflammation and pain conditions, no longer has patent protection in key markets around the world, but has continued to generate growth in regions such as Latin America, the Middle East, Africa and Asia based on long-term trust in the brand.

Table of Contents

*Lescol* (\$563 million, -11% lc), a statin drug used to reduce cholesterol, has experienced declining sales in the US following the 2007 launch of a generic version of simvastatin, another medicine in this class. Europe and other regions also have been hurt by the entry of generic versions of rival drugs in this class.

*Comtan/Stalevo* (\$554 million, +14% lc), a treatment for Parkinson's disease, has grown mainly due to growing prescriber familiarity and continued geographical expansion of *Stalevo*, an enhanced levodopa therapy.

*Reclast/Aclasta* (\$472 million, +88% lc), a once-yearly infusion therapy for osteoporosis, continues to expand on increasing patient access to infusion centers and a broad range of use in patients with various types of this debilitating bone disease. Approvals have been received for up to six indications, including the treatment of osteoporosis in men and postmenopausal women.

*Ritalin/Focalin* (\$449 million, +4% lc), for treatment of Attention Deficit/Hyperactivity Disorder (ADHD), has benefited from use of the long-acting *Ritalin LA* and *Focalin XR* patent-protected versions that involve methylphenidate, the active ingredient in Ritalin that has faced generic competition for some time in many countries.

*Xolair* (\$338 million, +65% lc, Novartis sales), a biotechnology drug for moderate to severe persistent allergic asthma in the US and severe persistent allergic asthma in Europe, maintained solid growth due to its global presence and approvals in more than 80 countries, including Japan since early 2009. In August 2009, *Xolair* received European regulatory approval to treat children age six and older. Novartis co-promotes *Xolair* with Genentech in the US and shares a portion of operating income. In 2009, Genentech's US sales were \$571 million.

*Certican* (\$118 million, +31% lc), a transplantation medicine, generated solid growth based on its availability in more than 70 countries. In the US, the FDA issued a Complete Response letter in December 2009 for this medicine (under brand name *Zortress*), for prevention of organ rejection in adult kidney transplant patients. The FDA discussions focus on product labeling and a Risk Evaluation Mitigation Strategy (REMS) as well as a safety update, but no request for more clinical studies. This medicine, which has the same active ingredient as *Afinitor* (everolimus), has been shown to have good immunosuppressive efficacy and a manageable side-effect profile.

*Extavia* (\$49 million), for relapsing forms of multiple sclerosis (MS), was launched in 2009 in the US and more than 20 other countries, marking the entry of Novartis into the field of MS. *Extavia* is the Novartis-branded version of Betaferon®/Betaseron®.

*Ilaris*, a fully human monoclonal antibody that blocks action of the inflammatory protein interleukin-1 beta, has been launched after receiving first regulatory approvals during 2009 in the US, Europe and some other markets for treatment of cryopyrin-associated periodic syndrome (CAPS), a group of rare auto-inflammatory disorders. Trials are ongoing in other diseases in which IL-1 beta is believed to play an important role. Other diseases include refractory gout, chronic obstructive pulmonary disease (COPD), type 2 diabetes and systemic juvenile idiopathic arthritis (SJIA).

***Vaccines and Diagnostics Division***

A rapid response after the outbreak of the A (H1N1) pandemic in April 2009 enabled Vaccines and Diagnostics to deliver more than 100 million vaccine doses to governments around the world in only a few months, providing \$1.0 billion of net sales from pandemic vaccines and adjuvants. Pediatric vaccines and strong growth in emerging markets helped offset price pressure on seasonal influenza vaccines and a decline in tick-borne encephalitis vaccines in Europe. Diagnostics sales were slightly lower.

Table of Contents**Sandoz Division**

Consistent growth in 2009 at a stronger pace than in 2008 reflected the impact of new product launches, a sharper commercial focus in both mature and emerging markets, and the US returning to growth. To the benefit of customers, a price decline of seven percentage points from price erosion was more than offset by volume growth of 11 percentage points from new product launches. Retail generics and biosimilars in Germany (+4% lc) reached a leading 29% share from new product launches and volume growth in a challenging market. A total of 25 new product launches, eight more than in 2008, underpinned US retail generics and biosimilars (+5% lc). Asia-Pacific (+17% lc) and Russia (+19% lc) were also among top performers. The EBEWE acquisition in September provided a strong platform for growth in injectable oncology medicines.

**Consumer Health Division**

All businesses achieved faster underlying growth than their respective markets despite the difficult economic conditions. CIBA Vision was the industry's fastest-growing contact lens and lens care company on the strength of new product introductions. OTC delivered an increasingly positive performance, driven by portfolio innovation and the successful US launch of *Prevacid 24HR* in November 2009. Animal Health grew ahead of the competition in the US.

**Operating Income by Divisions from continuing operations**

	Year ended December 31, 2009		Year ended December 31, 2008		Change (%)
	Net sales (\$ millions)	Net sales (%)	Net sales (\$ millions)	Net sales (%)	
Pharmaceuticals	8,392	29.4	7,579	28.8	11
Vaccines and Diagnostics	372	15.3	78	4.4	377
Sandoz	1,071	14.3	1,084	14.3	(1)
Consumer Health	1,016	17.5	1,048	18.0	(3)
Corporate income & expense, net	(869)		(825)		
<b>Operating income from continuing operations</b>	<b>9,982</b>	<b>22.5</b>	<b>8,964</b>	<b>21.6</b>	<b>11</b>

**Core Operating Income by Divisions**

	Year ended December 31, 2009		Year ended December 31, 2008		Change (%)
	Net sales (\$ millions)	Net sales (%)	Net sales (\$ millions)	Net sales (%)	
Pharmaceuticals	9,068	31.8	8,249	31.5	10
Vaccines and Diagnostics	719	29.7	309	18.1	133
Sandoz	1,395	18.6	1,421	18.8	(2)
Consumer Health	1,118	19.2	1,125	19.4	(1)
Corporate income & expense, net	(863)		(785)		10
<b>Core operating income</b>	<b>11,437</b>	<b>25.8</b>	<b>10,319</b>	<b>25.0</b>	<b>11</b>

Table of Contents**Pharmaceuticals Division**

Operating income rose 11% to \$8.4 billion and the operating income margin was 29.4% of net sales, up from 28.8% in 2008. Core operating income (\$9.1 billion, +10%, including adverse currency impact of six percentage points) also grew well ahead of net sales on the strong volume expansion in local currencies and productivity gains of nearly \$1 billion, which resulted in the core operating income margin rising 0.3 percentage points to 31.8% of net sales.

The improved core operating income performance also absorbed a dilution of 1.1 percentage points in lower Other Revenues, mainly due to the end of Betaseron® royalties in late 2008. The operational expansion, along with reinvestments of some productivity gains, enabled major investments in new product launches and rapid expansion of top emerging markets such as China. Marketing & Sales expenses fell 1.6 percentage points to 29.3% of net sales in 2009 as productivity improvements more than offset costs for the ongoing worldwide launches of many new products including *Galvus*, *Exelon Patch*, *Valturna* and the *Tekturna/Rasilez* portfolio. R&D investments supported the start of 14 new Phase III trials in 2009, with R&D representing 20.0% of net sales in 2009 compared to 20.3% in 2008. Among items excluded from core operating income in 2009 that totaled \$676 million, which was largely unchanged from \$670 million in 2008, were a \$318 million increase in legal provisions as part of pending settlements to resolve US federal investigations into the past marketing practices of *Trileptal*. Also in 2009 the ongoing strong sales performance of *Famvir* outside the US enabled the partial reversal of an impairment charge taken in 2007 providing a one-time gain of \$100 million.

**Vaccines and Diagnostics Division**

Operating income of \$372 million rose sharply from \$78 million in 2008, with the operating income margin rising to 15.3% from 4.4% in 2008. Core operating income of \$719 million in 2009 included substantial contributions from Influenza A (H1N1) pandemic vaccine sales enabled by significant development and manufacturing investments earlier in the year. Clinical trials for the pandemic vaccines and investments in the late-stage meningitis development vaccines led to R&D costs still rising as a percentage of net sales in 2009 compared to 2008. Results in 2008 included sales from major deliveries of Influenza A (H5N1) pandemic vaccines.

**Sandoz Division**

Operating income declined 1% to \$1.1 billion, which included an adverse currency impact of 11 percentage points, with the operating income margin unchanged at 14.3% of net sales. Core operating income fell 2% to \$1.4 billion. Improved business conditions in key markets and productivity gains, particularly in Marketing & Sales and R&D, reduced the total cost base while supporting investments in emerging markets and new products. However, the underlying improvements were more than offset by significant price erosion and the adverse currency impact, which resulted in the core operating income margin falling 0.2 percentage points to 18.6% of net sales.

**Consumer Health Division Continuing Operations**

Operating income fell 3% to \$1.0 billion, which included an adverse currency impact of 10 percentage points, and the operating income margin in 2009 fell 0.5 percentage points to 17.5% of net sales. Core operating income benefited from the strong underlying business expansion and productivity gains. However, it declined 1% to \$1.1 billion due to the adverse currency impact and major investments to launch the OTC product *Prevacid24HR* in the US, which resulted in the core operating income margin declining slightly to 19.2% of net sales in 2009 from 19.4% in 2008.

Table of Contents**Corporate Income & Expense, Net**

Corporate income and expense net, as well as related core measures increased mainly due to higher pension expenses.

**Other Revenues and Operating Expenses from continuing operations**

	Year ended December 31,		
	2009	2008	Change
	(\$ millions)	(\$ millions)	(%)
<b>Net sales</b>	<b>44,267</b>	<b>41,459</b>	<b>7</b>
Other revenues	836	1,125	(26)
Cost of goods sold	(12,179)	(11,439)	6
Marketing & sales	(12,050)	(11,852)	2
Research & development	(7,469)	(7,217)	3
General & administration	(2,281)	(2,245)	2
Other income	782	826	(5)
Other expense	(1,924)	(1,693)	14
<b>Operating income</b>	<b>9,982</b>	<b>8,964</b>	<b>11</b>

**Core Revenues and Operating Expenses**

	Year ended December 31,		
	2009	2008	Change
	(\$ millions)	(\$ millions)	(%)
<b>Net sales</b>	<b>44,267</b>	<b>41,305</b>	<b>7</b>
Other revenues	808	1,076	(25)
Cost of goods sold	(11,292)	(10,441)	8
Marketing & sales	(12,050)	(11,852)	2
Research & development	(7,287)	(6,776)	8
General & administration	(2,281)	(2,245)	2
Other income	717	640	12
Other expense	(1,445)	(1,388)	4
<b>Core operating income</b>	<b>11,437</b>	<b>10,319</b>	<b>11</b>

***Other Revenues***

Other revenues declined 26% to \$0.8 billion mainly due to the end of a royalty income agreement in Pharmaceuticals at the end of 2008 involving Bayer Schering and the launch of *Extavia*. Other revenues also included profit contributions from sales of the asthma medicine *Xolair* in the US, where it is co-marketed and co-developed in collaboration with Genentech.

Table of Contents

***Cost of Goods Sold***

Cost of Goods Sold rose 6% to \$12.2 billion in 2009, but declined by 0.1 percentage points to 27.5% of net sales as productivity savings in Pharmaceuticals and lower sourcing costs in some divisions were partially offset by changes in the Group's product mix and geographic sales. Cost of Goods Sold in core results increased 8% to \$11.3 billion.

***Marketing & Sales***

Marketing & Sales rose 2% to \$12.1 billion, as productivity improvements in Pharmaceuticals and field-force efficiency gains in Sandoz more than compensated for actions taken in 2009 to launch new products across the Group. As a result, Marketing & Sales fell to 27.2% of net sales from 28.6% in 2008. For core results, Marketing & Sales also rose 2% to \$12.1 billion, with the same operating income margin for 2009.

***Research & Development***

Research & Development grew 3% to \$7.5 billion to advance a broad range of innovative pipeline projects throughout the Group. The Group's R&D investments represented 16.9% of net sales in 2009 compared to 17.4% in 2008. Nearly 80% of R&D investments were in Pharmaceuticals, amounting to \$5.8 billion, or 20.5% of the division's sales. Core R&D increased 8% to \$7.3 billion.

***General & Administration***

General & Administration expenses were up only 2% to \$2.3 billion in 2009 from the benefits of productivity gains and good cost management across all divisions, with core results showing the same trends.

***Other Income and other Expense***

Other income, which largely consists of gains from the disposal of intangible assets and property, plant & equipment, declined 5% to \$782 million in 2009. For core results, other income rose 12% in 2009, due mainly to the elimination of various exceptional gains exceeding a \$25 million threshold in 2008.

Other expense, which largely consists of litigation settlement costs, impairment of financial assets and pension expenses, grew 14% to \$1.9 billion in 2009. Among factors for the increase were higher pension expenses and litigation charges, which included increased legal provisions for *Trileptal* related to a plea agreement reached with the US federal government regarding the criminal allegations and the ongoing negotiations for a settlement of the civil claims and for *Tobi* related to an agreement to settle in principle all civil claims and state Medicaid claims reached with US federal and state government offices in 2009. For core results, which eliminate exceptional charges exceeding a \$25 million threshold, other expense was up 4% on a comparable basis to \$1.4 billion in 2009.



Table of Contents**Non-Divisional Income & Expense from continuing operations**

	Year ended December 31,		
	2009	2008	Change
	(\$ millions)	(\$ millions)	(%)
<b>Operating income</b>	<b>9,982</b>	<b>8,964</b>	<b>11</b>
Income from associated companies	293	441	(34)
Financial income	198	384	(48)
Interest expense	(551)	(290)	90
<b>Income before taxes</b>	<b>9,922</b>	<b>9,499</b>	<b>4</b>
Taxes	(1,468)	(1,336)	10
<b>Net income</b>	<b>8,454</b>	<b>8,163</b>	<b>4</b>
Net income from discontinued operations		70	
<b>Group net income</b>	<b>8,454</b>	<b>8,233</b>	<b>3</b>
<i>Attributable to:</i>			
<i>Shareholders of Novartis AG</i>	<i>8,400</i>	<i>8,195</i>	<i>3</i>
<i>Non-controlling interests</i>	<i>54</i>	<i>38</i>	<i>42</i>
<b>Basic earnings per share (\$)</b>	<b>3.70</b>	<b>3.59</b>	<b>3</b>

**Core Non-Divisional Income & Expense**

	Year ended December 31,		
	2009	2008	Change
	(\$ millions)	(\$ millions)	(%)
<b>Core operating income</b>	<b>11,437</b>	<b>10,319</b>	<b>11</b>
Income from associated companies	1,051	839	25
Financial income	198	384	(48)
Interest expense	(551)	(290)	90
<b>Core income before taxes</b>	<b>12,135</b>	<b>11,252</b>	<b>8</b>
Taxes	(1,868)	(1,751)	7
<b>Core net income</b>	<b>10,267</b>	<b>9,501</b>	<b>8</b>
<i>Attributable to:</i>			
<i>Shareholders of Novartis AG</i>	<i>10,213</i>	<i>9,463</i>	<i>8</i>
<i>Non-controlling interests</i>	<i>54</i>	<i>38</i>	<i>42</i>
<b>Basic earnings per share (\$)</b>	<b>4.50</b>	<b>4.18</b>	<b>8</b>
<i>Income from Associated Companies</i>			

Associated companies are accounted for using the equity method when Novartis holds between 20% and 50% of the voting shares of these companies, or where Novartis has otherwise significant influence over them. Income from associated companies is mainly derived from the Group's investments in Roche Holding AG and Alcon Inc.

Table of Contents

In 2009, exceptional charges totaling \$189 million for actions taken by Roche and Alcon were the factors for the 34% reduction in income from associated companies to \$293 million in 2009.

The Group's 33.3% interest in Roche's voting shares, which represents a 6.3% interest in Roche's total equity, generated income of \$321 million in 2009, down from \$439 million in 2008. The 2009 contribution reflects an estimated \$593 million share of Roche's net income in 2009 and a negative prior-year adjustment of \$40 million. This contribution, however, was reduced by \$135 million for the amortization of intangible assets arising from the allocation of the purchase price paid by Novartis for this investment to Roche's intangible assets and an exceptional charge of \$97 million taken in 2009 as part of Roche's restructuring charge for the Genentech acquisition.

Results from the 25% stake in Alcon, which were included for the first time in 2008, provided \$28 million of loss compared to a loss of \$11 million in 2008. Anticipated net income of approximately \$493 million from Alcon for 2009 and a positive prior-year adjustment of \$5 million were reduced by \$434 million for the amortization of intangible assets and other charges as well as an impairment charge of \$92 million taken after Alcon stopped the Retaane® pharmaceutical development project.

Adjusting for the exceptional items in both years, core income from associated companies increased 25% to \$1.1 billion.

A survey of analyst estimates is used to predict the Group's share of net income in Roche and Alcon. Any differences between these estimates and actual results will be adjusted in the 2010 financial statements.

Idenix, which became an associated company in September after its deconsolidation, contributed a loss of \$9 million and other investments contributed \$9 million.

***Financial Income and Interest Expense***

Financial income declined 48% to \$198 million in 2009, mainly due to lower financial yields and currency losses in 2009. Interest expense rose 90% to \$551 million in 2009 following the issuance of US dollar and euro bonds in the first half of the year.

***Taxes***

Tax expenses in 2009 were \$ 1.5 billion, a 10% increase from 2008. The tax rate (taxes as a percentage of pre-tax income) rose to 14.8% in 2009 from an unusually low rate of 14.1% in 2008, due mainly to a change in profit mix within the Group's businesses. The effective tax rate is different than the expected tax rate due to various adjustments made to the IFRS results to arrive at taxable income. For further information on the main elements contributing to the difference, see "Item 18. Financial Statements note 6". The core tax rate at 15.4% was slightly lower than the 2008 rate of 15.6%.

***Net Income***

Net income rose 4% to \$8.5 billion in 2009. Core net income was up 8% to \$10.3 billion.

***Basic Earnings per Share***

Basic earnings per share were \$3.70, up 3% from \$3.59 in 2008, but less than the net income increase due to higher income attributable to non-controlling minority interests. Core earnings per share grew 8% to \$4.50 in 2009 from \$4.18 in 2008.

Table of Contents**2008 Compared to 2007**Key Figures

	Year ended December 31,		
	2008	2007	Change
	(\$ millions)	(\$ millions)	(%)
<b>Net sales from continuing operations</b>	<b>41,459</b>	<b>38,072</b>	<b>9</b>
Other revenues	1,125	875	29
Cost of goods sold	(11,439)	(11,032)	4
Marketing & sales	(11,852)	(11,126)	7
Research & development	(7,217)	(6,430)	12
General & administration	(2,245)	(2,133)	5
Other income	826	1,039	(21)
Other expense	(1,693)	(2,484)	32
<b>Operating income<sup>(1)</sup></b>	<b>8,964</b>	<b>6,781</b>	<b>32</b>
Income from associated companies	441	412	7
Financial income	384	531	(28)
Interest expense	(290)	(237)	22
<b>Income before taxes</b>	<b>9,499</b>	<b>7,487</b>	<b>27</b>
Taxes	(1,336)	(947)	41
<b>Net income from continuing operations<sup>(1)</sup></b>	<b>8,163</b>	<b>6,540</b>	<b>25</b>
Net income from discontinued operations	70	5,428	
<b>Group net income</b>	<b>8,233</b>	<b>11,968</b>	
<i>Attributable to:</i>			
<i>Shareholders of Novartis AG</i>	<i>8,195</i>	<i>11,946</i>	<i>(31)</i>
<i>Non-controlling interests</i>	<i>38</i>	<i>22</i>	<i>73</i>
<b>Basic earnings per share from continuing operations(\$)</b>	<b>3.59</b>	<b>2.81</b>	<b>28</b>

(1) Operating and net income in 2007 include exceptional charges of \$1,034 million (\$788 million after tax) for Corporate environmental provision increase of \$590 million and Forward restructuring charges of \$444 million.

Core Key Figures

	Year ended December 31,		
	2008	2007	Change
	(\$ millions)	(\$ millions)	(%)
<b>Core net sales</b>	<b>41,305</b>	<b>38,140</b>	<b>8</b>
<b>Core operating income</b>	<b>10,319</b>	<b>9,296</b>	<b>11</b>
<b>Core net income</b>	<b>9,501</b>	<b>8,480</b>	<b>12</b>
<b>Core basic earnings per share (\$)</b>	<b>4.18</b>	<b>3.65</b>	<b>15</b>

Table of Contents**Overview Results of Operations**

Pharmaceuticals led the strong performance supported by contributions from Vaccines and Diagnostics and Consumer Health. Net sales rose 9% (+5% in local currencies, or lc) to \$41.5 billion. Higher sales volumes provided six percentage points of growth, while positive currency translation added four percentage points. Price changes had a negative effect of one point, while acquisitions had no impact. The US remained the Group's largest country market with 31% of net sales in 2008 (34% in 2007). The European region increased its contribution to 44% of net sales (42% in 2007), while the rest of the world provided 25% (24% in 2007) of net sales.

Operating income advanced 32% to \$9.0 billion due to the solid business expansion as well as productivity gains from Forward, the Group's efficiency initiative that is freeing up resources for investments in innovation and expansion in high-growth markets. The 2007 results included exceptional charges of approximately \$1.0 billion (\$590 million for a Corporate environmental provision increase and \$444 million of Forward restructuring charges). The core operating income which excludes exceptional items and amortization of intangible assets in both periods, grew 11% to \$10.3 billion. The core operating income margin rose to 25.0% of net sales from 24.4% in 2007.

Net income grew 25% to \$8.2 billion in 2008, rising at a slower pace than operating income due to an unusually low tax rate in 2007 that included various one-time factors. Also affecting net income were the start of financing costs in July 2008 for the acquisition of a 25% stake in Alcon Inc. The agreement with Nestlé S.A. provides future rights to majority control of Alcon, the world leader in eye care. Excluding the 2007 exceptional charges for the environmental provision and Forward, net income rose 11%. Basic earnings per share grew 28% to \$3.59 from \$2.81 in 2007 on fewer outstanding shares. Core net income was up 12% to \$9.5 billion. Core basic earnings per share grew 15% to \$4.18.

**Net Sales**

	Year ended December 31,			Change in local currencies
	2008	2007	Change	
	(\$ millions)	(\$ millions)	(%)	(%)
Pharmaceuticals	26,331	24,025	10	5
Vaccines and Diagnostics	1,759	1,452	21	20
Sandoz	7,557	7,169	5	1
Consumer Health continuing operations	5,812	5,426	7	4
<b>Net sales from continuing operations</b>	<b>41,459</b>	<b>38,072</b>	<b>9</b>	<b>5</b>
Net sales from discontinued operations		1,728		
<b>Net sales</b>	<b>41,459</b>	<b>39,800</b>		

**Pharmaceuticals Division**

Accelerating momentum in Pharmaceuticals in 2008 was driven by ongoing dynamic growth in Oncology, sustained expansion of the cardiovascular portfolio and \$2.9 billion of contributions in 2008 from recently launched products including *Aclasta/Reclast*, *Tekturna/Rasilez*, *Exforge*, *Exjade*, *Lucentis*, *Exelon Patch*, *Tasigna* and *Xolair*.

Table of Contents

Outside North America, all regions achieved solid performances: Europe (\$10.1 billion, +10% lc), Latin America (\$1.7 billion, +8% lc), Japan (\$2.6 billion, +4% lc) and rest of the world with \$2.6 billion (+15% lc). The priority emerging markets of China, Russia, South Korea and Turkey together delivered more than 20% lc net sales growth. In the US, net sales fell 2% to \$8.6 billion, returning to growth in the second half of 2008 and nearly offsetting the 2007 impact of generic competition and the *Zelnorm* suspension.

Oncology (\$8.2 billion, +14% lc) growth was led by *Gleevec/Glivec* (\$3.7 billion, +15% lc). Other products achieving annual net sales of more than \$1 billion were *Zometa* (\$1.4 billion) as well as *Femara* and *Sandostatin* (each \$1.1 billion). Cardiovascular strategic products (\$6.7 billion, +10% lc) advanced on gains from the new medicines *Exforge* (\$406 million) and *Tekturna/Rasilez* (\$144 million), which together provided over half of the franchise's incremental growth, while the Group's flagship product *Diovan* (\$5.7 billion, +10% lc) expanded at a steady pace.

Top performers among recently launched medicines included the once-yearly osteoporosis therapy *Aclasta/Reclast* (\$254 million), the age-related macular degeneration drug *Lucentis* (\$886 million) and the addition of *Exelon Patch*, a skin patch formulation for Alzheimer's disease that has reinvigorated the *Exelon* franchise (\$815 million).

Table of Contents**Top Twenty Pharmaceuticals Division Product Net Sales 2008**

Brands	Therapeutic area	United States	Change in local	Rest of world	Change in local	Total	Change in local	
		(\$ millions)	(%)	(\$ millions)	(%)		(%)	
<i>Diovan/Co-Diovan</i>	Hypertension	2,404	10	3,336	10	5,740	15	10
<i>Gleevec/Glivec</i>	Cancers	902	26	2,768	12	3,670	20	15
<i>Zometa</i>	Cancer complications	666	3	716	3	1,382	7	3
<i>Femara</i>	Breast cancer	483	18	646	17	1,129	20	17
<i>Sandostatin (incl. LAR)</i>	Acromegaly	431	5	692	6	1,123	9	6
<i>Neoral/Sandimmun</i>	Transplantation	98	(9)	858	(4)	956	1	(4)
<i>Lucentis</i>	Age-related macular degeneration			886	122	886	125	122
<i>Exelon/Exelon Patch</i>	Alzheimer's disease	279	32	536	20	815	29	24
<i>Voltaren (excl. OTC)</i>	Inflammation/pain	5	(44)	809	4	814	9	3
<i>Lescol</i>	Cholesterol reduction	154	(26)	491	(1)	645	(3)	(9)
<b>Top ten products total</b>		<b>5,422</b>	<b>10</b>	<b>11,738</b>	<b>13</b>	<b>17,160</b>	<b>17</b>	<b>12</b>
<i>Exjade</i>	Iron chelator	213	22	318	66	531	49	45
<i>Comtan/Stalevo</i>	Parkinson's disease	200	12	302	17	502	20	15
<i>Tegretol (incl. CRXR)</i>	Epilepsy	146	19	305	1	451	9	6
<i>Ritalin/Focalin</i>	Attention Deficit/Hyperactivity Disorder	347	16	93	18	440	17	16
<i>Exforge</i>	Hypertension	150	329	256	274	406	294	292
<i>Foradil</i>	Asthma	14	(33)	373	2	387	7	0
<i>Lotrel</i>	Hypertension	386	(48)			386	(48)	(48)
<i>Trileptal</i>	Epilepsy	135	(73)	197	(2)	332	(52)	(53)
<i>Tobi</i>	Cystic fibrosis	194	11	101	(4)	295	8	6
<i>Myfortic</i>	Transplantation	95	40	195	50	290	50	47
<b>Top 20 products total</b>		<b>7,302</b>	<b>1</b>	<b>13,878</b>	<b>15</b>	<b>21,180</b>	<b>14</b>	<b>9</b>
<i>Rest of portfolio</i>		1,314	(13)	3,837	(7)	5,151	(4)	(9)
<b>Total Division net sales<sup>(1)</sup></b>		<b>8,616</b>	<b>(2)</b>	<b>17,715</b>	<b>9</b>	<b>26,331</b>	<b>10</b>	<b>5</b>

(1) Net sales in 2008 include a one-time contribution of \$104 million from a brand-specific provision reversal following a Novartis review of accounting for rebate programs to US government health agencies. Individual brand sales may include contributions from the reversal of these provisions.

**Pharmaceuticals Division product highlights Selected leading products**

Note: Net sales growth data refer to 2008 worldwide performance in local currencies. Growth rates are not provided for some recently launched products since they are not meaningful.

*Diovan* (\$5.7 billion, +10% lc), the world's top-selling branded medicine for high blood pressure, grew steadily in all key markets worldwide, with areas outside the US now accounting for about 58% of net sales and delivering 10% lc growth. US sales also rose 10% as *Diovan* strengthened its 40% leading share of the angiotensin receptor blockers (ARBs) segment despite an overall slowdown in the

Table of Contents

antihypertensive market, including ARBs. *Diovan* has benefited from its status as the only medicine in the ARB class approved to treat high blood pressure, high-risk heart attack survivors and heart failure.

*Gleevec/Glivec* (\$3.7 billion, +15% lc), a targeted therapy for certain forms of chronic myeloid leukemia (CML) and gastrointestinal stromal tumors (GIST), sustained solid double-digit growth in 2008 based on strong clinical data and its status as the leading therapy for these and other life-threatening forms of cancer. In December 2008, *Gleevec* became the first FDA-approved treatment for use after GIST surgery (adjuvant setting). Similar submissions were made in the EU, Switzerland and other countries, with additional launches for this indication expected in 2009. Data from the landmark IRIS study at the American Society of Hematology meeting showed nearly 90% of CML patients in the study were still alive seven years after diagnosis when treated with *Gleevec*, demonstrating the longest overall survival observed to date in this disease area.

*Zometa* (\$1.4 billion, +3% lc), an intravenous bisphosphonate therapy for patients with cancer that has spread to the bones, returned to growth thanks to improved compliance for existing indications and new data showing significant anticancer benefits of this therapy. A study in premenopausal women with hormone-sensitive, early-stage breast cancer showed the addition of *Zometa* to hormone therapy after surgery significantly reduced the risk of recurrence or death beyond benefits achieved with hormone therapy alone. Other new data in 2008 showed the addition of *Zometa* to standard chemotherapy before breast cancer surgery reduced the size of breast tumors more effectively than chemotherapy alone in women with early-stage disease. More studies are underway to review potential anticancer benefits of *Zometa*.

*Femara* (\$1.1 billion, +17% lc), an oral therapy for women with hormone-sensitive breast cancer, continued with strong growth. New data from the BIG 1-98 trial suggested a reduced risk of death for patients taking *Femara* instead of tamoxifen in initial adjuvant treatment. Although the results did not meet statistical significance, these were the first data to suggest this survival benefit for an aromatase inhibitor versus tamoxifen in the monotherapy setting immediately following surgery. The entry of generic competition in some markets, including some European countries, had a modest negative impact on global growth.

*Sandostatin* (\$1.1 billion, +6% lc), for acromegaly and symptoms associated with carcinoid syndrome, benefited from growth of *Sandostatin LAR*, the once-monthly version that accounts for 85% of net sales, particularly in key regions such as Latin America and in emerging markets. New competition in the US in this segment had a minimal impact on *Sandostatin LAR* sales in 2008.

*Neoral/Sandimmun* (\$956 million, -4% lc), for organ transplantation, has experienced a modest overall decline despite ongoing generic competition based on its pharmacokinetic profiles, reliability and use in treating a life-threatening condition.

*Lucentis* (\$886 million, +122% lc), a biotechnology eye therapy now approved in more than 70 countries, has delivered dynamic growth since its first European launch in early 2007. *Lucentis* is the only treatment proven to maintain and improve vision in patients with "wet" age-related macular degeneration, a leading cause of blindness in people over age 50. It has been judged as cost-effective by various government health agencies, including the UK National Institute for Health and Clinical Excellence (NICE) in 2008. Genentech holds the US rights.

*Exelon/Exelon Patch* (\$815 million, +24% lc), a therapy for mild to moderate forms of Alzheimer's disease dementia and also dementia linked with Parkinson's disease, has experienced renewed growth following the introduction of the once-daily *Exelon Patch* formulation in late 2007 that quickly gained broad acceptance by patients and caregivers.

*Voltaren* (\$814 million, +3% lc, excluding OTC sales), a treatment for inflammation and pain, no longer has patent protection in many key markets around the world, but has continued to generate

Table of Contents

consistent growth in regions such as Latin America, the Middle East, Africa and Asia based on long-term trust in the brand.

*Lescol* (\$645 million, -9% lc), a statin drug used to reduce cholesterol, has been impacted by the 2007 launch in the US of a generic version of simvastatin, another medicine in this class. Europe and other regions have seen steady sales, while *Lescol* was launched in China in 2008.

*Exjade* (\$531 million, +45% lc), the first and only once-daily oral therapy for transfusional iron overload, a potentially fatal condition linked to certain blood disorders, had dynamic growth in 2008 and is now available in more than 90 countries.

*Comtan/Stalevo* (\$502 million, +15% lc), a treatment for Parkinson's disease, has grown mainly based on *Stalevo*, an enhanced levodopa therapy. New data in 2008 from the FIRST-STEP Phase III trial showed *Stalevo* provided better symptomatic benefits in early Parkinson's disease patients than those treated with carbidopa/levodopa, a widely-used therapy.

*Tegretol* (\$451 million, +6% lc), a treatment for epilepsy, has grown thanks to increasing use of the long-acting *Tegretol XR/CR* formulations of this medicine. Earlier formulations have faced generic competition for some time.

*Ritalin/Focalin* (\$440 million, +16% lc), for treatment of Attention Deficit/Hyperactivity Disorder (AD/HD), has benefited from use of the long-acting *Ritalin LA* and *Focalin XR* patent-protected versions that involve methylphenidate, the active ingredient in *Ritalin* that has faced generic competition for some time in many countries.

*Exforge* (\$406 million, +292% lc), a single-pill combination of the angiotensin receptor blocker *Diovan* (valsartan) with the calcium channel blocker amlodipine, has set new standards since its launch in late 2007 for the introduction of a high blood pressure combination therapy. The US approved *Exforge* in July 2008 as a first-line therapy, providing a new growth opportunity.

*Foradil* (\$387 million, +0% lc), a long-acting bronchodilator, maintained overall steady sales and is marketed by Novartis predominantly outside the US, where sales rose 2% lc and offset a decline in the US.

*Lotrel* (\$386 million, -48% lc, only in the US), a single-pill combination therapy for high blood pressure, fell sharply after an "at risk" launch in mid-2007 by a generic competitor despite a US patent valid until 2017. Sales in 2008 came from higher-dose formulations that still have market exclusivity.

*Trileptal* (\$332 million, -53% lc), for epilepsy seizures, has been negatively impacted by generic competition for tablet formulations in key markets, including the US, following the end of patent protection in late 2007.

*Tobi* (\$295 million, +6%), for cystic fibrosis, is considered a leading treatment for this potentially fatal genetic disease that mainly affects the lungs and digestive system.

*Myfortic* (\$290 million, +47% lc), which is used in combination with other transplant medicines, has experienced rapid growth in use among kidney transplant patients based on clinical data showing its ability to reduce gastro-intestinal problems.

*Aclasta/Reclast* (\$254 million), the first once-yearly infusion therapy for various forms of osteoporosis, has now been used in more than 350,000 patients and has experienced consistent growth since its launch to treat postmenopausal osteoporosis in late 2007. New indications approved in 2008 have broadened the use of *Aclasta* in Europe and the US (where it is known as *Reclast*) to include treatment of osteoporosis in men. *Aclasta* has been shown to reduce the risk of new fractures in patients who have recently suffered a low-trauma hip fracture, and in the same patient group to reduce all-cause mortality by 28% vs. placebo.

*Xolair* (\$211 million, +42% lc, only Novartis sales), a biotechnology therapy for moderate to severe allergic asthma that targets a root cause of this disease, is now available in over 50 countries worldwide.



Table of Contents

*Xolair* Liquid, a new formulation that will ease administration, received a positive EU opinion in November 2008 supporting approval. In December 2008, *Xolair* was submitted for use in children from 6 to less than 12 years of age in the EU and by Genentech in the US. Novartis co-promotes *Xolair* with Genentech in the US and shares a portion of operating income. Genentech's *Xolair* sales in the US were \$517 million in 2008.

*Tekturna/Rasilez* (\$144 million), the first new type of high blood pressure medicine in more than a decade, showed consistent growth in the US and Europe in a competitive market environment in 2008. Positive data from the ALOFT (heart failure) and AVOID (kidney disease) clinical studies, which are part of the ASPIRE HIGHER cardio-renal outcomes program, were added to European product information. *Rasilez HCT*, a single-pill combination with a diuretic, received European approval in January 2009, while a decision in Switzerland is expected in 2009. This medicine is already approved in the US as *Tekturna HCT*. A single-pill combination with *Diovan* was also submitted for approval in the US.

*Tasigna* (\$89 million) has gained quickly as a new therapy in the second-line setting for patients with a certain form of chronic myeloid leukemia (CML) resistant or intolerant to prior therapy, including *Gleevec/Glivec*. *Tasigna* shows potential to become a leading treatment for certain newly diagnosed CML patients based on new data at the American Society of Hematology meeting in December. A Phase III trial comparing *Tasigna* and *Gleevec/Glivec* in newly diagnosed CML patients has completed recruitment.

*Galvus* (\$43 million), a new oral treatment for type 2 diabetes, and *Eucreas*, a single-tablet combination with metformin, showed promising results in Europe since the first launches in early 2008. The majority of sales have been for *Eucreas*, the first single-pill combination in the DPP-IV inhibitor class launched in Europe. A resubmission for US approval is not planned.

***Vaccines and Diagnostics Division***

Deliveries of A (H5N1) pandemic influenza vaccines to the US government and steady growth in diagnostics led the expansion. Additional growth came from components sold for use in pediatric vaccines, all of which more than offset lower US seasonal influenza vaccine sales.

***Sandoz Division***

Modest growth was achieved as improving performances in many markets were largely offset by a 10% decline in the US on a lack of new product launches in 2008. Central and Eastern Europe advanced 13% lc, with Russia at the forefront. Germany rose 2% lc, leading to 2.5 percentage points of market share gains to 26.4% in fast-changing industry conditions. Canada, Turkey and Brazil were among other top-performing markets.

***Consumer Health Division Continuing Operations***

All businesses delivered higher sales in deteriorating market conditions, particularly CIBA Vision thanks to new product launches. OTC grew dynamically in emerging markets, while US sales declined due to changes in consumer spending that have affected this industry. Animal Health growth came from expansion of the companion animals business.

Table of Contents**Operating Income by Divisions from continuing operations**

	Year ended December 31, 2008	Net sales	Year ended December 31, 2007	Net sales	Change
	(\$ millions)	(%)	(\$ millions)	(%)	(%)
Pharmaceuticals	7,579	28.8	6,086	25.3	25
Vaccines and Diagnostics	78	4.4	72	5.0	8
Sandoz	1,084	14.3	1,039	14.5	4
Consumer Health	1,048	18.0	812	15.0	29
Corporate income & expense, net	(825)		(1,228)		33
<b>Operating income from continuing operations</b>	<b>8,964</b>	<b>21.6</b>	<b>6,781</b>	<b>17.8</b>	<b>32</b>

**Core Operating Income by Divisions**

	Year ended December 31, 2008	% of net sales	Year ended December 31, 2007	% of net sales	Change
	(\$ millions)		(\$ millions)		(%)
Pharmaceuticals	8,249	31.5	7,123	29.6	16
Vaccines and Diagnostics	309	18.1	325	22.4	(5)
Sandoz	1,421	18.8	1,422	19.8	
Consumer Health	1,125	19.4	1,011	18.6	11
Corporate income & expenses, net	(785)		(585)		34
<b>Core operating income</b>	<b>10,319</b>	<b>25.0</b>	<b>9,296</b>	<b>24.4</b>	<b>11</b>

**Pharmaceuticals Division**

Advancing more than twice as fast as net sales, operating income benefited from the accelerating pace of growth in the second half of 2008 and increased productivity as well as from lower exceptional charges. As a result, the operating margin in 2008 rose 3.5 percentage points to 28.8% of net sales from 25.3% in 2007. Marketing & sales costs fell 1.2 percentage points to 30.8% of net sales as productivity initiatives involving new commercial models, particularly in the US and Europe, provided resources to support ongoing new product launches including *Aclasta/Reclast*, *Tekturna/Rasilez*, *Exforge*, *Lucentis* and *Exelon Patch*. R&D investments rose 0.5 percentage points to 21.7% of net sales and included investments in late-stage projects such as QAB149, FTY720, ACZ885 and in Oncology. R&D expenses in 2008 also included a one-time charge of \$223 million for full impairment of the terminated development project *Aurograb*. Cost of goods sold fell 1.6 percentage points to 17.0% of net sales, primarily reflecting the 2007 impairment charge of \$320 million for *Famvir*. The core operating income, which excludes exceptional items and amortization of intangible assets in both periods, grew 16% to \$8.3 billion and resulted in the core operating income margin rising 1.9 percentage points to 31.5% of net sales.

Table of Contents

***Vaccines and Diagnostics Division***

Higher vaccine volumes and a better product mix helped support major R&D investments in the Phase III meningitis vaccine candidates *Menveo* and *MenB* as well as initiatives to improve vaccines manufacturing quality and capacity. The core operating income, which excludes exceptional items and amortization of intangible assets in both periods, decreased 5% to \$309 million and resulted in the core operating income margin reduction of 4.3% to 18.1% of net sales.

***Sandoz Division***

Reduced income from the US overshadowed efficiency improvements and solid growth in emerging markets, as the operating margin fell 0.2 percentage points to 14.3% of net sales. Sandoz made major investments in emerging markets and in several R&D projects involving "difficult-to-make" generics such as biosimilars that provide competitive advantages. Cost of goods sold benefited from a more favorable product mix. The core operating income, which excludes exceptional items and amortization of intangible assets in both periods, remained at prior year level of \$1.4 billion and resulted in the core operating income margin reduction of 1.0% to 18.8% of net sales.

***Consumer Health Division Continuing Operations***

Robust growth in operating income outpaced net sales thanks to the business expansion, particularly in CIBA Vision, and Forward-related productivity gains. Excluding the exceptional Forward restructuring charge of \$97 million in 2007, operating income rose 15% and the operating margin rose 1.2 percentage points to 18.0% of net sales. The core operating income, which excludes exceptional items and amortization of intangible assets in both periods, grew 11% to \$1.1 billion and resulted in the core operating income margin rising 0.8% to 19.4% of net sales.

***Corporate Income & Expense, Net***

Net expenses in 2007 included charges of \$630 million for the environmental provision increase and Corporate-related Forward restructuring charges. For core results in 2008, the higher net expenses came mainly from global IT infrastructure investments, negative currency effects and an increase in provisions for product liabilities.

***2007 Environmental Charge***

Novartis increased its provisions in 2007 for worldwide environmental liabilities by \$614 million following internal and external reviews completed during the year, of which \$590 million was recorded as a Corporate charge. This provision included the related share of any potential remediation costs for historical landfills in the Basel region (including Switzerland, France and Germany). Various governments are responsible for the supervision and decision-making process for any remediation actions. A new Swiss foundation has been created to finance the Novartis-related share of the potential regional landfill remediation costs.

***2007 Forward Initiative Restructuring Charge***

To help Novartis more rapidly meet the needs of patients and customers, the Forward initiative was launched in December 2007 to improve the Group's competitiveness. This initiative, which has been implemented during 2008 and will continue in 2009, has been simplifying organizational structures, accelerating and decentralizing decision-making processes, redesigning the way Novartis operates and providing productivity gains. Pre-tax annual cost savings of \$1.6 billion are expected in 2010, enabling Novartis to maximize resources available to support growth and customer-oriented activities. A pre-tax restructuring charge of \$444 million was taken in the fourth quarter of 2007 (Pharmaceuticals:

Table of Contents

\$307 million, Consumer Health: \$97 million, Corporate: \$40 million). The 2,500 full-time equivalent position reductions announced in 2007 have been completed. Many were handled through normal fluctuation in staffing levels as well as vacancy management and social programs. All reductions were being handled in a socially responsible manner with fair and respectful treatment of associates.

**Other Revenues and Operating Expenses from continuing operations**

	Year ended December 31,		
	2008	2007	Change
	(\$ millions)	(\$ millions)	(%)
<b>Net sales from continuing operations</b>	<b>41,459</b>	<b>38,072</b>	<b>9</b>
Other revenues	1,125	875	29
Cost of goods sold	(11,439)	(11,032)	4
Marketing & sales	(11,852)	(11,126)	7
Research & development	(7,217)	(6,430)	12
General & administration	(2,245)	(2,133)	5
Other income	826	1,039	(21)
Other expense	(1,693)	(2,484)	32
<b>Operating income from continuing operations</b>	<b>8,964</b>	<b>6,781</b>	<b>32</b>

**Core Other Revenues and Operating Expenses**

	Year ended December 31,		
	2008	2007	Change
	(\$ millions)	(\$ millions)	(%)
<b>Net sales</b>	<b>41,305</b>	<b>38,140</b>	<b>8</b>
Other revenues	1,076	875	23
Cost of Goods Sold	(10,441)	(9,696)	8
Marketing & Sales	(11,852)	(11,126)	7
Research & Development	(6,776)	(6,186)	10
General & Administration	(2,245)	(2,133)	5
Other income	640	699	(8)
Other expense	(1,388)	(1,277)	9
<b>Core operating income</b>	<b>10,319</b>	<b>9,296</b>	<b>11</b>

***Other Revenues***

Other revenues rose 29% to \$1.1 billion mainly due to increased royalty income contributions from the blood-testing diagnostics business in Vaccines and Diagnostics. Other revenues also included profit contributions from sales of the asthma medicine *Xolair* in the US, where it is co-marketed and co-developed in collaboration with Genentech.

Table of Contents

***Cost of Goods Sold***

Cost of goods sold rose 4% to \$11.4 billion in 2008, but fell to 27.6% of net sales from continuing operations from 29.0% in 2007. Cost of goods sold fell 0.5 percentage points in 2008 when excluding the impact of a \$320 million intangible asset impairment charge in 2007 in Pharmaceuticals following the start of US generic competition for *Famvir*. Cost of goods sold in core increased 8% to \$10.4 billion.

***Marketing & Sales***

Marketing & sales rose 7% to \$11.9 billion as productivity gains from the Forward initiative helped support the launch of new products in Pharmaceuticals and geographic expansion across all divisions. As a result, Marketing & Sales fell to 28.6% of net sales from 29.2% in 2007. For core results Marketing & Sales also rose 7% to \$11.9 billion.

***Research & Development***

Research & development rose 12% to \$7.2 billion, supporting significant investments in new product innovation throughout the Group. Pharmaceuticals accounted for nearly 80% of R&D investments which totaled \$5.7 billion. R&D expenses for 2008 included a one-time charge of \$223 million for the termination of the *Aurograb* development project in Pharmaceuticals. The Group's R&D investments rose to 17.4% of net sales from continuing operations in 2008 from 16.9% in 2007. Core R&D increased 10% to \$6.8 billion.

***General & Administration***

General & administration expenses increased 5% to \$2.2 billion in 2008, reflecting the positive impact of the Forward initiative to streamline organizational structures and provide resources to support business expansion, with core results showing the same trends.

***Other Income and Other Expense***

Other income, which largely consists of gains from the disposal of non current assets mainly intangible assets declined 21% to \$826 million in 2008. For core results, other income declined 8% to \$640 million.

Other expenses, which largely consist of litigation settlement costs, impairment of financial assets and pension expense decreased 32% to \$1.7 billion in 2008. For core results, which eliminates exceptional charges exceeding a \$25 million threshold, other expense was up 9% on a comparable basis to \$1.4 billion in 2008.

Table of Contents**Non-Divisional Income & Expense**

	Year ended December 31,		Change (%)
	2008 (\$ millions)	2007 (\$ millions)	
<b>Operating income from continuing operations<sup>(1)</sup></b>	<b>8,964</b>	<b>6,781</b>	<b>32</b>
Income from associated companies	441	412	7
Financial income	384	531	(28)
Interest expense	(290)	(237)	22
<b>Income before taxes from continuing operations</b>	<b>9,499</b>	<b>7,487</b>	<b>27</b>
Taxes	(1,336)	(947)	41
<b>Net income from continuing operations<sup>(1)</sup></b>	<b>8,163</b>	<b>6,540</b>	<b>25</b>
Net income from discontinued operations	70	5,428	
<b>Group net income</b>	<b>8,233</b>	<b>11,968</b>	<b>(31)</b>
<i>Attributable to:</i>			
<i>Shareholders of Novartis AG</i>	<i>8,195</i>	<i>11,946</i>	<i>(31)</i>
<i>Minority interests</i>	<i>38</i>	<i>22</i>	<i>73</i>
<b>Basic earnings per share from continuing operations (\$)</b>	<b>3.59</b>	<b>2.81</b>	<b>28</b>

(1) 2007 includes exceptional charges totaling \$1,034 million (\$788 million after tax) for the Corporate environmental provision increase and Forward restructuring charges.

**Core Non-Divisional Income & Expense**

	Year ended December 31,		Change (%)
	2008 (\$ millions)	2007 (\$ millions)	
<b>Core operating income</b>	<b>10,319</b>	<b>9,296</b>	<b>11</b>
Income from associated companies	839	530	58
Financial income	384	531	(28)
Interest expense	(290)	(237)	22
<b>Core income before taxes</b>	<b>11,252</b>	<b>10,120</b>	<b>11</b>
Taxes	(1,751)	(1,640)	7
<b>Core net income</b>	<b>9,501</b>	<b>8,480</b>	<b>12</b>
<i>Attributable to:</i>			
<i>Shareholders of Novartis AG</i>	<i>9,463</i>	<i>8,458</i>	<i>12</i>
<i>Non-controlling interests</i>	<i>38</i>	<i>22</i>	<i>73</i>
<b>Basic earnings per share (\$)</b>	<b>4.18</b>	<b>3.65</b>	<b>15</b>
<i>Income from Associated Companies</i>			

Associated companies are accounted for using the equity method when Novartis holds between 20% and 50% of the voting shares of these companies, or where Novartis has otherwise significant influence over them. Income from associated companies is mainly derived from the Group's investments in Roche Holding AG and Alcon Inc.



Table of Contents

Higher contributions from the Roche investment led to income from associated companies of \$441 million in 2008, up from \$412 million in 2007.

The Group's 33.3% interest in Roche's voting shares, which represents a 6.3% interest in Roche's total equity, generated income of \$439 million in 2008 compared to \$391 million in 2007. The 2008 contribution reflects an estimated \$560 million share of Roche's net income in 2008 and a positive prior-year adjustment of \$11 million. This contribution was reduced by \$132 million for the amortization of intangible assets arising from the allocation of the purchase price paid by Novartis for this investment to Roche's intangible assets.

Results from the acquisition of the 25% stake in Alcon were included for the first time in 2008, and contributed a loss of \$11 million as the anticipated net income contribution since acquisition of \$255 million was more than offset by a charge of \$266 million for the amortization of intangible assets and other charges.

Adjusting for the exceptional items in both years, core income from associated companies increased 58% to \$0.8 billion.

A survey of analyst estimates is used to predict the Group's share of net income in Roche and Alcon. Any differences between these estimates and actual results will be adjusted in the 2009 financial statements.

***Financial Income and Interest Expense from Continuing Operations***

Financing costs to purchase the 25% Alcon stake in July 2008 led to sharply lower average net liquidity, resulting in a decline in net financial income to \$94 million in 2008 from \$294 million in 2007.

***Taxes***

Tax expenses from continuing operations rose 41% to \$1.3 billion from an unusually low level of \$0.9 billion in 2007, which benefited from various favorable one-time benefits. The tax rate for continuing operations (taxes as a percentage of pre-tax income) rose to 14.1% in 2008 from the 2007 level of 12.6%. Among factors for the lower level of taxes in 2007 were benefits from the corporate environmental provision, reduced contributions from higher-tax jurisdictions and a reduction in the German corporate tax rate. The Group's expected tax rate for continuing operations (weighted average tax rate based on the result before tax of each subsidiary) was 14.7%, up from 13.9% in 2007. The effective tax rate is different than the expected tax rate due to various adjustments to expenditures and income tax purposes. For further information on the main elements contributing to the difference, see "Item 18. Financial Statements note 6". The core tax rate at 15.6% was slightly lower than the 2007 rate of 16.2%.

***Net Income from Discontinued Operations***

The 2007 results include net proceeds of \$5.4 billion from the divestments of Medical Nutrition (as of July 1, 2007) and Gerber (as of September 1, 2007) along with the contributions of these businesses before their divestments. Results for 2008 include modest income from various adjustments to accruals related to these divestments.

***Net Income from Continuing Operations***

Net income from continuing operations rose 25% to \$8.2 billion. Excluding the after-tax impact of \$788 million for the two exceptional charges taken in 2007, net income rose 11%. Core net income was up 12% to \$9.5 billion.

***Basic Earnings per Share***

Basic earnings per share from continuing operations rose 28% to \$3.59 in 2008 from \$2.81 in 2007, at a faster pace than net income due to fewer outstanding shares. Core earnings per share grew 15% to \$4.18 in 2008 from \$3.65 in 2007.



Table of Contents**5.B Liquidity and Capital Resources****Cash Flow**

The following table sets forth certain information about the Group's cash flow and net liquidity/debt.

	<b>Year ended December 31,</b>		
	<b>2009</b>	<b>2008</b>	<b>2007</b>
	(\$ millions)	(\$ millions)	(\$ millions)
Cash flow from operating activities of continuing operations	12,191	9,769	9,210
Cash flow used for investing activities of continuing operations	(14,219)	(10,367)	(6,244)
Cash flow used for financing activities of continuing operations	2,809	(2,573)	(9,318)
Cash flow from discontinued operations		(105)	7,595
Currency translation effect on cash and cash equivalents	75	(46)	298
Cash and cash equivalents of discontinued operations			4
<b>Net change in cash and cash equivalents</b>	<b>856</b>	<b>(3,322)</b>	<b>1,545</b>
Change in marketable securities	10,476	(3,762)	3,701
Change in current and non-current financial debts	(6,624)	(1,570)	1,505
<b>Change in net liquidity/ debt</b>	<b>4,708</b>	<b>(8,654)</b>	<b>6,751</b>
Net debt / liquidity at January 1	(1,247)	7,407	656
<b>Net liquidity / debt at December 31</b>	<b>3,461</b>	<b>(1,247)</b>	<b>7,407</b>

The analysis of our cash flow is divided as follows:

1. Cash Flow From Operating Activities
2. Cash Flow Used for Investing Activities
3. Cash Flow Used for Financing Activities
4. Net Liquidity
5. Free Cash Flow

**1. Cash Flow From Operating Activities and Free Cash Flow**

Our primary source of liquidity is cash generated from our operations. Our 2009 cash flow from operating activities rose 25% to \$12.2 billion and reflected \$1.3 billion lower working capital requirements compared to 2008.

In 2008, cash flow from operating activities of continuing operations increased by 6% to \$9.8 billion (\$559 million), due to additional cash flow generated by the solid business expansion that was partially offset by higher tax and Forward restructuring payments.

In 2007, cash flow from operating activities of continuing operations increased by 11% (\$906 million) to \$9.2 billion, due mainly to higher sales proceeds despite increased working capital requirements to support the organic business expansion.



Table of Contents

**2. Cash Flow Used for Investing Activities**

Cash outflows from investing activities rose 37% to \$14.2 billion in 2009 and included \$10.5 billion in marketable securities investments net financed with proceeds from bond offerings as well as \$0.9 billion for the acquisition the EBEWE Pharma generics business in Sandoz and \$1.9 billion for capital expenditures.

In 2008, cash outflow due to continuing investing activities was \$10.4 billion. Acquisitions involving Alcon, Speedel, Protez and the Nektar pulmonary business amounted to \$11.5 billion and investments in property, plant & equipment to \$2.1 billion, while net proceeds from the sale of marketable securities amounted to \$3.3 billion.

In 2007, cash outflow due to continuing investing activities was \$6.2 billion. Investments in property, plant & equipment amounted to \$2.5 billion and in intangible assets to \$0.6 billion while a net amount of \$3.3 billion was spent on the purchase of marketable securities.

**3. Cash Flow Used for Financing Activities**

Cash inflows from financing activities were a net \$2.8 billion in 2009, as proceeds from bond issues totaling \$7.1 billion were partially reduced by the dividend payment for 2008 of \$3.9 billion and other items totaling \$ 0.4 billion.

In 2008, cash outflow used for financing activities was \$2.6 billion, as the dividend payment made in 2008 of \$3.3 billion and \$0.5 billion related to treasury share transactions were partially offset by cash inflows of \$1.3 billion related to net additions to financial debt.

Cash flow used for continuing financing activities in 2007 was \$9.3 billion, an increase of \$4.4 billion from 2006 with \$2.6 billion used for dividend payments, \$2.2 billion net cash outflow was due to the repayment of current and non-current financial debt and \$4.6 billion was due to net purchases of treasury shares.

**4. Net liquidity**

Overall liquidity at the end of 2009 amounted to \$17.4 billion compared to \$6.1 billion at the end of 2008. Taking into account additional debt raised in 2009 through bond issues, the Group had net debt of \$1.2 billion at the end of 2008 compared to net liquidity of \$3.5 billion at the end of 2009.

At December 31, 2008 overall liquidity fell to \$6.1 billion from \$13.2 billion at the end of 2007. Taking into account additional debt raised in 2008, net liquidity at the end of 2007 of \$7.4 billion swung to net debt of \$1.2 billion at the end of 2008.

At December 31, 2007 overall liquidity (cash, cash equivalents and marketable securities including financial derivatives) amounted to \$13.2 billion. Net liquidity (liquidity less current and non-current financial debt) increased by \$6.8 billion to a total of \$7.4 billion at December 31, 2007, with the divestments making a significant contribution during the year.

Net liquidity constitutes a non-IFRS financial measure, which means that it should not be interpreted as a measure determined under International Financial Reporting Standards (IFRS). Net liquidity is presented as additional information as it is a useful indicator of the Group's ability to meet financial commitments and to invest in new strategic opportunities, including strengthening its balance sheet.

We use marketable securities and derivative financial instruments to manage the volatility of our exposures to market risk in interest rates and liquid investments. Our objective is to reduce, where appropriate, fluctuations in earnings and cash flows. We manage these risks by selling existing assets or entering into transactions and future transactions (in the case of anticipatory hedges) which we expect we will have in the future, based on past experience. We therefore expect that any loss in value for those securities or derivative financial instruments generally would be offset by increases in the value of those hedged transactions.

Table of Contents

We use the US dollar as our reporting currency and are therefore exposed to foreign exchange movements primarily in European, Japanese and other Asian and Latin American currencies. We manage the risk associated with currency movements by entering into various contracts to preserve the value of assets, commitments and anticipated transactions. In particular, we enter into forward contracts and foreign currency option contracts to hedge certain anticipated foreign currency revenues in foreign subsidiaries. See "Item 11. Quantitative and Qualitative Disclosures About Non-Product-Related Market Risk," for additional information.

**5. Free Cash Flow**

Novartis defines free cash flow as cash flow from operating activities less purchase or sale of property, plant & equipment, intangible, non-current and financial assets and dividends paid. Cash effects realized in connection with the acquisition or divestment of subsidiaries, associated companies and non-controlling interests are excluded from free cash flow. The following is a summary of the Group's free cash flow:

	Year ended December 31,		
	2009	2008	2007
	(\$millions)	(\$millions)	(\$millions)
<b>Cash flow from operating activities</b>	<b>12,191</b>	<b>9,769</b>	<b>9,210</b>
Purchase of property, plant & equipment	(1,887)	(2,106)	(2,549)
Purchase of intangible assets	(846)	(210)	(584)
Purchase of financial assets	(215)	(131)	(285)
Purchase of non-current non-financial assets	(23)	(5)	(26)
Proceeds from sale of property, plant & equipment	48	58	134
Proceeds from sale of intangible assets	51	169	107
Proceeds from sale of financial assets	124	99	352
Proceeds from sales of non-current non-financial assets	3	3	
<b>Free cash flow before dividend</b>	<b>9,446</b>	<b>7,646</b>	<b>6,359</b>
Dividends paid to shareholders of Novartis AG	(3,941)	(3,345)	(2,598)
<b>Free cash flow from continuing operations</b>	<b>5,505</b>	<b>4,301</b>	<b>3,761</b>
Free cash flow from discontinued operations		(237)	(314)
<b>Group free cash flow</b>	<b>5,505</b>	<b>4,064</b>	<b>3,447</b>

Our 2009 Group free cash flow from continuing operations rose 28% to \$5.5 billion. This rise relates mainly to the solid business expansion, reduced tax payments, lower working capital requirements and a reduction of investments in property, plant & equipment. This was partially offset by increased payments for intangible assets, lower proceeds from assets disposals and higher net financial payments. Capital expenditure for continuing operations on property, plant & equipment in 2009 were \$1.9 billion, or 4.3% of net sales, down from 5.1% of net sales in 2008. Free cash flow before dividends rose 24% to \$9.4 billion in 2009, reflecting the strong focus on business performance and control of fixed and working capital.

Our 2008 Group free cash flow from continuing operations rose 14% to \$4.3 billion on our solid business expansion as well as lower levels of investments in property, plant & equipment and also intangible assets. Capital expenditure for continuing operations on property, plant & equipment for 2008 amounted to \$2.1 billion, or 5.1% of net sales from continuing operations, down from 6.7% of net sales in 2007.

Our 2007 Group free cash flow from continuing operations, excluding the impact of the acquisitions or divestments of subsidiaries, associated companies and minority investments, decreased by 7%

Table of Contents

(\$284 million) to \$3.8 billion in 2007 as the increase in cash flow from operating activities and proceeds from asset disposals were offset by increased payments for property, plant and equipment and intangible assets as well as higher dividend payments.

Free cash flow is presented as additional information because Novartis considers it is a useful indicator of the Group's ability to operate without relying on additional borrowing or the use of existing cash. Free cash flow is a measure of the net cash generated that is available for debt repayment and investment in strategic opportunities.

We use free cash flow as a performance measure when making internal comparisons of the results of Divisions. Free cash flow of the Divisions uses the same definition as for the Group. However no dividends, tax or financial receipts or payments are included in the operating Divisional calculation.

Free cash flow constitutes a non-IFRS financial measure, which means that it should not be interpreted as a measure determined under International Financial Reporting Standards (IFRS). Free cash flow is not intended to be a substitute measure for cash flow from operating activities (as determined under IFRS).

## **Capital Resources**

### *Anticipated funding of the Alcon transaction*

The transaction to acquire Nestlé's remaining 52% majority stake for \$28.1 billion is planned to be funded with available cash resources and up to \$16 billion of external short- and long-term debt funding. The Board of Directors has decided to use equity as a consideration to Alcon's minority shareholders to enable Novartis to maintain its strong credit rating, preserving its firm financial foundation and providing flexibility for future growth.

The transactions are not expected to have an effect on the Group's credit ratings. Moody's rates the Group as Aa2 for long-term maturities and P-1 for short-term maturities and Standard & Poor's has a rating of AA- and A-1+, for long-term and short-term maturities, respectively. Fitch has a long-term rating of AA and a short-term rating of F1+.

### *Share repurchase program*

Novartis suspended its share repurchase program in April 2008 after announcing an agreement to acquire majority ownership in Alcon, a global leader in eye care. Novartis has set a priority of using its strong free cash flow to reduce debt to an appropriate level before considering whether to resume the program.

At the Annual General Meeting in February 2009, a total of six million shares were cancelled that had been purchased during 2008 under the sixth share repurchase program before the Alcon announcement, along with a corresponding reduction in the share capital.

### *Treasury shares*

At December 31, 2009, our holding of treasury shares amounted to 363.3 million shares or 14% of the total number of issued shares. Approximately 189 million treasury shares are held in entities that limit their availability for use. At December 31, 2008, our holding of treasury shares amounted to 378.8 million shares or 14% of the total number of issued shares.

### *Bonds*

On February 5, 2009, Novartis issued a two-tranche bond totaling \$5 billion registered with the US Securities and Exchange Commission as part of a shelf registration statement filed by Novartis in 2008. A 4.125% five-year tranche totaling \$2 billion was issued by the Group's US entity, Novartis Capital Corp.,

Table of Contents

while a 5.125% 10-year tranche totaling \$3 billion was issued by the Group's Bermuda unit, Novartis Securities Investment Ltd. Both tranches are unconditionally guaranteed by Novartis AG.

On June 2, 2009, Novartis issued a 4.25% bond, due in 2016 of EUR 1.5 billion (approximately \$2.1 billion) under its EUR 15 billion Euro Medium Term Note Programme. The seven-year bond, issued by Novartis Finance S.A., Luxembourg, is guaranteed by Novartis AG.

On June 26, 2008, Novartis AG issued a 3.625% bond, due in 2015 of CHF 800 million. Also on June 26, 2008, our affiliate, Novartis Securities Investment Ltd, Bermuda, issued a 3.5% bond, guaranteed by Novartis AG, due in 2012, of CHF 700 million.

On November 14, 2002, our affiliate, Novartis Securities Investment Ltd, Bermuda, issued a 3.75% bond, guaranteed by Novartis AG which was repaid in 2007, of EUR 1 billion.

***Direct Share Purchase Plans***

Since 2001, we have been offering US investors an ADS Direct Plan which provides investors an easy and inexpensive way of directly purchasing Novartis shares and of reinvesting dividends. This plan holds Novartis ADSs that are listed on the New York Stock Exchange under the trading symbol NVS. At the end of 2009, the ADS Direct Plan had 784 participants (2008: 700 participants).

Starting in September 2004, Novartis began offering a Direct Share Purchase Program to investors residing in Switzerland, Liechtenstein, France and the United Kingdom, which was the first of its kind in Europe. This plan offers an easy and inexpensive way for investors to directly purchase Novartis registered shares and for them to be held at no cost in a deposit account with SIX SAG AG. At the end of 2009, a total of 9,287 shareholders were enrolled in this program.

**5.C Research & Development, Patents and Licenses**

Our R&D spending totaled \$7.5 billion, \$7.2 billion and \$6.4 billion for the years 2009, 2008 and 2007, respectively. Each of our divisions has its own R&D and patents policies. Our divisions have numerous products in various stages of development. For further information on these policies and these products in development, see "Item 4. Information on the Company 4.B Business Overview."

As described in the "Risk Factors" section and elsewhere in this Form 20-F, our drug development efforts are subject to the risks and uncertainties inherent in any new drug development program. Due to the risks and uncertainties involved in progressing through pre-clinical development and clinical trials, and the time and cost involved in obtaining regulatory approvals, among other factors, we cannot reasonably estimate the timing, completion dates, and costs, or range of costs, of our drug development program, or of the development of any particular development compound. See "Item 3. Key Information 3.D Risk Factors." In addition, for a description of the research and development process for the development of new drugs and our other products, and the regulatory process for their approval, see "Item 4. Information on the Company 4.B Business Overview."

**5.D Trend Information**

On January 4, 2010, we announced our intention to gain full ownership of Alcon Inc. by first completing our April 2008 agreement with Nestlé S.A. and acquiring Nestlé's remaining 52% majority stake in Alcon (in addition to the 25% we previously purchased from Nestlé), and subsequently entering into an all-share direct merger with Alcon for the remaining 23% minority stake. For further information, see " 5.A Operating Results Factors Affecting Results of Operations Acquisitions, Divestments and Other Significant Transactions 2009 Subsequent Event Alcon."

In addition, please see " 5.A Operating Results Factors Affecting Results of Operations" and "Item 4. Information on the Company 4.B Business Overview" for trend information.

Table of Contents

**5.E Off-Balance Sheet Arrangements**

We have no unconsolidated special purpose financing or partnership entities or other off-balance sheet arrangements that have or are reasonably likely to have a current or future effect on our financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources, that is material to investors. See also "Item 18. Financial Statements note 28" and matters described in "Item 5.F Aggregate Contractual Obligations".

**5.F Aggregate Contractual Obligations**

We have long-term research agreements with various institutions which require us to fund various research projects in the future. As of December 31, 2009, the aggregate total amount of payments, including potential milestones, which may be required under these agreements, was \$3.1 billion. We expect to fund these long-term research agreements with internally generated resources.

As of December 31, 2009, our total financial debt was \$14.0 billion, as compared with \$7.4 billion as of December 31, 2008, and \$5.8 billion as of December 31, 2007. The increase from 2008 to 2009 and from 2007 to 2008 of \$6.6 billion and \$1.6 billion, respectively, was principally due to the issuance of new bonds.

We have \$8.6 billion of bonds outstanding at December 31, 2009. We had \$1.4 billion of bonds outstanding at December 31, 2008, whereas we had no bonds outstanding at December 31, 2007. For details on the maturity profile of debt, currency and interest rate structure, see "Item 18. Financial Statements note 19".

As of December 31, 2009, we had current debt (excluding the current portion of non-current debt) of \$5.3 billion as compared with \$5.2 billion as of December 31, 2008, and \$5.1 billion as of December 31, 2007. This current debt consists mainly of \$3.3 billion (2008: \$3.5 billion; 2007: \$4.1 billion) in other bank and financial debt, including interest bearing employee accounts; \$1.9 billion (2008: \$1.3 billion; 2007: \$0.8 billion) of commercial paper, and \$0.1 billion (2008: \$0.4 billion; 2007: \$0.2 billion) of other current debt. For further details see "Item 18. Financial Statements note 21".

We are in compliance with all covenants or other requirements set forth in our financing agreements. We do not have any rating downgrade triggers that would accelerate maturity of our debt. For details of the maturity profile of debt, currency and interest rate structure, see "Item 18. Financial Statements note 19".

Table of Contents

The following table summarizes our contractual obligations and other commercial commitments at December 31, 2009 and the effect such obligations and commitments are expected to have on our liquidity and cash flow in future periods:

Contractual Obligations	Total (\$ millions)	Payments due by period			
		Less than 1 year (\$ millions)	2-3 years (\$ millions)	4-5 years (\$ millions)	After 5 years (\$ millions)
Non-current financial debt	8,704	29	748	2,027	5,900
Operating leases	2,030	306	378	218	1,128
Unfunded pension and other post-retirement obligations	1,088	60	132	143	753
Research & development					
Unconditional commitments	344	125	85	69	65
Potential milestone commitments	2,762	335	869	866	692
Purchase commitments					
Property, plant & equipment	548	442	53	31	22
<b>Total contractual cash obligations</b>	<b>15,476</b>	<b>1,297</b>	<b>2,265</b>	<b>3,354</b>	<b>8,560</b>

We expect to fund the R&D and purchase commitments with internally generated resources.

For other contingencies, see "Item 4. Information on the Company 4.D Property, Plants and Equipment Environmental Matters" and "Item 8. Financial Information 8.A Consolidated Statements and Other Financial Information 8.A.7 Legal Proceedings."



Table of Contents**Item 6. Directors, Senior Management and Employees****6.A Directors and Senior Management****Board of Directors*****Daniel Vasella, M.D., Swiss, age 56***

**Function at Novartis AG** Daniel Vasella, M.D., has served as Chief Executive Officer and executive member of the Board of Directors since the merger that created Novartis in 1996. He was appointed Chairman of the Board of Directors in 1999. Dr. Vasella has led Novartis through dynamic growth to rank among the world's most successful healthcare companies with a business strategy centered on a focused diversification portfolio, strategically incorporating pharmaceuticals, vaccines, generics and consumer health. He has also implemented several pioneering initiatives to ensure access to medicines in the areas of malaria, cancer and leprosy, among others, dedicating 3% of net sales to these programs in 2009.

**Other activities** Dr. Vasella is a member of the Board of Directors of PepsiCo Inc., United States and of Alcon Inc., Switzerland. He is also a member of the Global Health Program Advisory Panel of the Bill & Melinda Gates Foundation, a foreign honorary member of the American Academy of Arts and Sciences, the International Business Leaders Advisory Council for the Mayor of Shanghai, China, and the International Board of Governors of the Peres Center for Peace in Israel.

**Professional background** Dr. Vasella graduated with an M.D. from the University of Bern, Switzerland, in 1979 and was a practicing physician until he joined Sandoz Pharmaceuticals Corporation in 1988, where he held the position of CEO before the merger. Dr. Vasella has been honored with several awards. He also holds the rank of Chevalier in the Ordre national de la Légion d'honneur (France). He was also awarded an honorary doctorate by the University of Basel. In addition, a readership survey by the "Financial Times" selected Dr. Vasella as the most influential European businessman of the past quarter century. During Dr. Vasella's tenure as Chairman and CEO, Novartis has been included on the Ethisphere Institute's list of the world's most ethical companies, Fortune magazine's list of the world's most admired companies, and the Barron's magazine list of the world's most respected companies.

***Ulrich Lehner, Ph.D., German, age 63***

**Function at Novartis AG** Ulrich Lehner, Ph.D., has been a member of the Board of Directors since 2002. He qualifies as an independent Non-Executive Director. He serves as Vice Chairman, Lead Director and Chairman of the Corporate Governance and Nomination Committee. He is also a member of the Audit and Compliance Committee, the Risk Committee, the Chairman's Committee, and the Compensation Committee. The Board of Directors has appointed him as Audit Committee Financial Expert.

**Other activities** Mr. Lehner is member of the Shareholders Committee of Henkel AG & Co. KGaA, Chairman of the Supervisory Board of Deutsche Telekom AG and serves as a member of the Supervisory Boards of E.ON AG, Thyssen Krupp AG, HSBC Trinkaus & Burkhardt KGaA, Porsche Automobil Holding SE, Dr. Ing. h.c. F. Porsche AG and Henkel Management AG, all in Germany. He is also a member of the shareholders' committee of Dr. August Oetker KG and Krombacher Brauerei, both in Germany.

**Professional background** Mr. Lehner graduated in business administration and mechanical engineering from the Darmstadt University of Technology, Germany, in 1975. From 1975 to 1981, he was an auditor with KPMG Deutsche Treuhand-Gesellschaft AG in Duesseldorf. In 1981, he joined Henkel KGaA. After heading the Controlling Department of Fried. Krupp GmbH in Germany from 1983 to 1986, Mr. Lehner returned to Henkel as Finance Director. From 1991 to 1994, he headed Henkel Asia-Pacific Ltd. in Hong Kong, and from 1995 to 2000, served as Executive Vice President, Finance/Logistics, of Henkel KGaA. From 2000 to 2008, Mr. Lehner served as Chairman of the Management Board of Henkel KGaA.

Table of Contents

***Hans-Joerg Rudloff, German, age 69***

***Function at Novartis AG*** Hans-Joerg Rudloff has been a member of the Board of Directors since 1996. He qualifies as an independent Non-Executive Director. He is Vice Chairman and Chairman of the Compensation Committee. He is also a member of the Audit and Compliance Committee, the Risk Committee, and the Chairman's Committee. The Board of Directors has appointed him as Audit Committee Financial Expert.

***Other activities*** In 2006, Mr. Rudloff joined the Board of Directors of Rosneft, a Russian state-controlled oil company, and became Chairman of the audit committee. He serves as the Chairman of the Board of Directors of Bluebay Asset Management Ltd., United Kingdom, and the Marcuard Group, Switzerland. He is also a member of the Boards of Directors of the Thyssen-Bornemisza Group and of the New World Resources B.V., Netherlands. In addition, Mr. Rudloff is a member of the Advisory Boards of Landeskreditbank Baden-Wuerttemberg and EnBW, both in Germany. In 2005, Mr. Rudloff became Chairman of the International Capital Markets Association (ICMA), Switzerland.

***Professional background*** Mr. Rudloff studied economics at the University of Bern, Switzerland. After graduating in 1965, he joined Credit Suisse in Geneva. He moved to the US-based investment banking firm of Kidder Peabody Inc. in 1968. He later headed Swiss operations and was elected Chairman of Kidder Peabody International. In 1978 he became a member of the Board of Directors of Kidder Peabody Inc., United States. In 1980, he joined Credit Suisse First Boston, Switzerland, was elected Vice Chairman in 1983, and became Chairman and CEO in 1989. From 1986 to 1990, Mr. Rudloff was also a member of the Executive Board of Credit Suisse in Zurich, in charge of all securities and capital-market departments. From 1994 to 1998, Mr. Rudloff was Chairman of MCBBL in Luxembourg. In 1994, he was appointed to the Board of Directors of Sandoz AG in Switzerland. In 1998, Mr. Rudloff joined Barclays Capital, United Kingdom, where he is presently Chairman.

***William Brody, M.D., Ph.D., American, age 65***

***Function at Novartis AG*** William Brody, M.D., Ph.D., has been a member of the Board of Directors since 2009. He qualifies as an independent Non-Executive Director.

***Other activities*** Dr. Brody is a member of the Boards of Directors of the US-based IBM, Koolsmiles, Inc. and Genvault, Inc., and the China-based Novamed. He is also a member of numerous professional associations and also serves on the advisory boards of various government and nonprofit organizations.

***Professional background*** Dr. Brody earned his bachelor's and master's degrees in electrical engineering from the Massachusetts Institute of Technology before completing his M.D. and Ph.D. at Stanford University, all in the United States. Dr. Brody was President of the Johns Hopkins University until the end of 2008 and is President of the US-based Salk Institute for Biological Studies. Previously, he held various academic positions, including Professor for Radiology and Electrical Engineering at Stanford University and Professor and Director of the Department of Radiology at the Johns Hopkins University, both in the United States.

***Srikant Datar, Ph.D., American, age 56***

***Function at Novartis AG*** Srikant Datar, Ph.D., has been a member of the Board of Directors since 2003. He qualifies as an independent Non-Executive Director. He is Chairman of the Audit and Compliance Committee and a member of the Risk Committee and the Compensation Committee. The Board of Directors has appointed him as Audit Committee Financial Expert.

***Other activities*** Mr. Datar is Senior Associate Dean at the Graduate School of Business Administration at Harvard. He is also a member of the Board of Directors of ICF International Inc. and of Stryker Corporation, both in the United States, and of KPIT Cummins Infosystems Ltd., India.

Table of Contents

**Professional background** Mr. Datar graduated with distinction in mathematics and economics from the University of Bombay, India, in 1973. He is a Chartered Accountant and holds two master's degrees and a Ph.D. from Stanford University, United States. Mr. Datar has worked as an accountant and planner in industry, and as a professor at Carnegie Mellon University, Stanford University and Harvard University in the United States. His research interests are in the areas of cost management, measurement of productivity, new product development, time-based competition, incentives and performance evaluation. He is the author of many scientific publications, and has received several academic awards and honors. Mr. Datar has advised and worked with numerous companies in research, development and training.

**Ann Fudge, American, age 58**

**Function at Novartis AG** Ann Fudge has been a member of the Board of Directors since 2008. She qualifies as an independent Non-Executive Director. She is a member of the Corporate Governance and Nomination Committee.

**Other activities** Ms. Fudge serves on the Board of Directors of General Electric, and on the Board of Overseers of Harvard University, both in the United States, and on the Board of Directors of Unilever, UK/Netherlands. She is also a Trustee of the New York-based Rockefeller Foundation and of Atlanta-based Morehouse College, and is Chairman of the US Programs Advisory Panel of the Bill & Melinda Gates Foundation. She is also on the US Council on Foreign Relations.

**Professional background** Ms. Fudge received her bachelor's degree from Simmons College and her M.B.A. from Harvard University Graduate School of Business in the United States. She is former Chairman and CEO of Young & Rubicam Brands. Before that, she served as President of the Beverages, Desserts and Post Division of Kraft Foods.

**Alexandre F. Jetzer-Chung, Swiss, age 68**

**Function at Novartis AG** Alexandre F. Jetzer-Chung has been a member of the Board of Directors since 1996.

**Other activities** Mr. Jetzer-Chung is a member of the Supervisory Board of Compagnie Financière Michelin and of the Board of the Lucerne Festival Foundation, both in Switzerland. He is a member of the International Advisory Panel on Biotechnology Strategy of the Prime Minister of Malaysia, a member of the Investment Advisory Council of the Prime Minister of Turkey, and an economic advisor to the Governor of Guangdong Province, China. He is also a member of the Development Committee of the Neuroscience Center of the University of Zurich, Switzerland.

**Professional background** Mr. Jetzer-Chung graduated with master's degrees in law and economics from the University of Neuchâtel, Switzerland, and is a licensed attorney. From 1967 to 1980, he served as General Secretary of the Swiss Federation of Commerce and Industry (Vorort). Mr. Jetzer-Chung joined Sandoz in 1980. In 1981 he was appointed member of the Sandoz Group Executive Committee in the capacity of Chief Financial Officer and, from 1990 on, as Head of Management Resources and International Coordination. From 1995 to 1996, he was Chairman and Chief Executive Officer of Sandoz Pharmaceuticals Corporation, and at the same time served as President and CEO of Sandoz Corporation in the United States. After the merger that created Novartis in 1996 until 1999, he was Head of International Coordination, Legal & Taxes, and a member of the Executive Committee of Novartis.

**Permanent Novartis management or consultancy engagements** Mr. Jetzer-Chung has a consultancy agreement with Novartis International AG.

**Pierre Landolt, Swiss, age 62**

**Function at Novartis AG** Pierre Landolt has been a member of the Board of Directors since 1996. He qualifies as an independent Non-Executive Director. He is a member of the Corporate Governance and Nomination Committee.

Table of Contents

**Other activities** Mr. Landolt is currently Chairman of the Sandoz Family Foundation and a Director of Syngenta AG, both in Switzerland. He is a partner with unlimited liabilities of the Swiss private bank Landolt & Cie. Mr. Landolt serves, in Brazil, as President of the Instituto Fazenda Tamanduá, the Instituto Estrela de Fomento ao Microcrédito, AxialPar Ltda and Moco Agropecuaria Ltda. In Switzerland, Mr. Landolt is Chairman of Emasan AG and Vaucher Manufacture Fleurier SA, Vice Chairman of Parmigiani Fleurier SA, and is on the Board of the Syngenta Foundation for Sustainable Agriculture, Switzerland. He is a Director of EcoCarbone SA, France, and Swiss Amazentis SA. He is also Vice Chairman of the Montreux Jazz Festival Foundation.

**Professional background** Mr. Landolt graduated with a bachelor's degree in law from the University of Paris-Assas. From 1974 to 1976, he worked for Sandoz Brazil SA. In 1977, he acquired an agricultural estate in the semi-arid Northeast Region of Brazil and, over several years, converted it into a model farm in organic and biodynamic production. Since 1997, Mr. Landolt has been Associate and Chairman of AxialPar Ltda, Brazil, an investment company focused on sustainable development, with investments in fish farming, soybean for human consumption and organic vegetable. In 2000, he co-founded EcoCarbone SA, France, a company active in the design and development of carbon-sequestration processes in Asia, Africa, South America and Europe. In 2007, he co-founded Amazentis SA, Switzerland, a startup company active in the convergence space of medication and nutrition. In addition to his private activities, Mr. Landolt has been President of the Sandoz Family Foundation since 1994 and oversees the development of the foundation in several investment fields, including hotel, watch making and telecommunications.

**Andreas von Planta, Ph.D., Swiss, age 54**

**Function at Novartis AG** Andreas von Planta, Ph.D., has been a member of the Board of Directors since 2006. He qualifies as an independent Non-Executive Director. He is Chairman of the Risk Committee, a member of the Audit and Compliance Committee, and the Corporate Governance and Nomination Committee.

**Other activities** Mr. von Planta is Vice Chairman of Holcim Ltd. and of the Schweizerische National-Versicherungs-Gesellschaft AG, both in Switzerland. He is also a member of the Boards of various Swiss subsidiaries of foreign companies and other non-listed Swiss companies. He is a member of the Board of Editors of the Swiss Review of Business Law and is a former Chairman of the Geneva Association of Business Law. Mr. von Planta is Chairman of the Regulatory Board of the SIX Swiss Exchange AG.

**Professional background** Mr. von Planta holds lic. iur. and Ph.D. degrees from the University of Basel, Switzerland, and an LL.M. from Columbia University School of Law, New York, United States. He passed his bar examinations in Basel in 1982. Since 1983, he has been living in Geneva, working for the law firm Lenz & Staehelin, where he became a partner in 1988. His areas of specialization include corporate law, corporate finance, company reorganizations, and mergers and acquisitions.

**Dr. Ing. Wendelin Wiedeking, German, age 57**

**Function at Novartis AG** Dr. Ing. Wendelin Wiedeking has been a member of the Board of Directors since 2003. He qualifies as an independent Non-Executive Director.

**Other activities** Mr. Wiedeking was Chairman of the executive board of Porsche Automobil Holding SE and of Dr. Ing. h.c. F. Porsche AG, both in Germany until July 2009. Since then he is an entrepreneur.

**Professional background** Mr. Wiedeking graduated in mechanical engineering in 1978 and worked as a scientific assistant in the Machine Tool Laboratory of the Rhine-Westphalian College of Advanced Technology in Germany. His professional career began in 1983 in Germany as Director's Assistant in the Production and Materials Management area of Dr. Ing. h.c. F. Porsche AG in Stuttgart-Zuffenhausen. In 1988, he moved to Glyco Metall-Werke KG in Wiesbaden as Division Manager, where he advanced by 1990 to the position of Chief Executive Officer and Chairman of the Board of Management of Glyco AG.

Table of Contents

In 1991, he returned to Dr. Ing. h.c. F. Porsche AG as Production Director. A year later, the Supervisory Board appointed him spokesman of the Executive Board (CEO), and Chairman in 1993.

**Marjorie Mun Tak Yang, Chinese, age 57**

**Function at Novartis AG** Marjorie Mun Tak Yang has been a member of the Board of Directors since 2008. She qualifies as an independent Non-Executive Director. She is a member of the Compensation Committee.

**Other activities** Ms. Yang is Chairman of the Esquel Group, Hong Kong, China. She is a Non-official Member of the Executive Council of the Hong Kong Special Administrative Region. In China, she is a member of the National Committee of the Chinese People's Political Consultative Conference. She currently serves on the boards of Swire Pacific Limited, and The Hong Kong and Shanghai Banking Corporation Limited in Hong Kong. Ms. Yang has been a member of the MIT Corporation since 2001. She was recently appointed as Chairman of the Council of the Hong Kong Polytechnic University. She also serves on the advisory boards of Harvard Business School and Tsinghua School of Economics and Management.

**Professional background** Ms. Yang graduated with a bachelor's degree in mathematics from Massachusetts Institute of Technology and holds a master's degree from Harvard Business School, both in the United States. From 1976 to 1978, she was an associate in Corporate Finance, Mergers and Acquisitions with the First Boston Corporation in New York, United States. In 1979, she returned to Hong Kong and became a founding member of Esquel Group. She was appointed Chairman of the Group in 1995.

**Rolf M. Zinkernagel, M.D., Swiss, age 65**

**Function at Novartis AG** Rolf M. Zinkernagel, M.D., has been a member of the Board of Directors since 1999. He qualifies as an independent Non-Executive Director. He is a member of the Corporate Governance and Nomination Committee.

**Other activities** Dr. Zinkernagel is Vice-President of the International Union of Immunological Societies. He is also a member of the Scientific Advisory Boards of Bio-Alliance AG, Germany; Aravis General Partner Ltd., Cayman Islands; Telormedix, Switzerland; X-Biotech, Canada; Novimmune, Switzerland; Cancevir, Switzerland; Nuvo Research Inc., Canada; ImVision, Germany; MannKind, United States; Laboratoire Koch, Switzerland; and Biomedical Sciences International Advisory Council Singapore. Dr. Zinkernagel is also a science consultant to Chilka Ltd., Cayman Islands; Ganymed, Germany; and Zhen-Ao Group, China. He is a member of the Advisory Panel of Swiss Re, Switzerland.

**Professional background** Dr. Zinkernagel graduated from the University of Basel, Switzerland, with an M.D. in 1970. From 1992 to 2008, he was a professor and director of the Institute of Experimental Immunology at the University of Zurich and after retirement in 2008 continues to be active at the University of Zurich. Dr. Zinkernagel has received many awards and prizes for his work and contribution to science, notably the Nobel Prize in medicine, which he was awarded in 1996.

**Executive Officers**

**Daniel Vasella, M.D., Swiss, age 56. See " Board of Directors."**

**Raymund Breu, Ph.D., Swiss, age 64**

Raymund Breu, Ph.D., is Chief Financial Officer of Novartis AG since 1996. He is a member of the Executive Committee of Novartis. Mr. Breu joined the Treasury Department of the Sandoz Group in 1975. In 1982, he became Head of Finance for the Sandoz affiliates in the United Kingdom. In 1985, he was appointed Chief Financial Officer of Sandoz Corporation in the United States where he was

Table of Contents

responsible for all US Sandoz finance activities. In 1990, Mr. Breu became Group Treasurer of Sandoz Ltd., Basel, Switzerland, and, in 1993, Head of Group Finance and Member of the Sandoz Executive Board. He is also a member of the Board of Directors of Swiss Re and the Swiss takeover commission. Mr. Breu graduated from the Swiss Federal Institute of Technology (ETH) in Zurich with a Ph.D. in mathematics in 1971.

***Juergen Brokatzky-Geiger, Ph.D., German, age 57***

Juergen Brokatzky-Geiger, Ph.D., is Head of Human Resources of Novartis since 2003. He is a member of the Executive Committee of Novartis. Mr. Brokatzky-Geiger joined Ciba-Geigy Ltd. in 1983 as a Laboratory Head in the Pharmaceuticals Division in Switzerland. After a job rotation in the United States, he held positions of increasing responsibility in Research and Development (R&D), including Group Leader of Process R&D, Head of Process R&D, and Head of Process Development and Pilot Plant Operations. During the merger of Ciba-Geigy and Sandoz in 1996, Mr. Brokatzky-Geiger was appointed Integration Officer of Technical Operations. He later became the Head of Chemical and Analytical Development, and served as the Global Head of Technical R&D from 1999 to 2003. Mr. Brokatzky-Geiger graduated with a Ph.D. in chemistry from the University of Freiburg, Germany, in 1982.

***Mark C. Fishman, M.D., American, age 58***

Mark C. Fishman, M.D., is President of the Novartis Institutes for BioMedical Research (NIBR) since 2002. He is a member of the Executive Committee of Novartis. Before joining Novartis in 2002, Dr. Fishman was Chief of Cardiology and Director of the Cardiovascular Research Center at Massachusetts General Hospital, and Professor of Medicine at Harvard Medical School, both in the United States. Dr. Fishman serves on several editorial boards and has worked with national policy and scientific committees, including those of the US National Institutes of Health (NIH) and the Wellcome Trust. He completed his internal medicine residency, chief residency and cardiology training at Massachusetts General Hospital. Dr. Fishman graduated with a bachelor's degree from Yale College in 1972 and an M.D. from Harvard Medical School in 1976. He has been honored with many awards and distinguished lectureships, and is a member of the Institute of Medicine of the National Academies (US) and a Fellow of the American Academy of Arts and Sciences.

***Joe Jimenez, American, age 50***

Joe Jimenez is Head of the Novartis Pharmaceuticals Division since 2007. He is a member of the Executive Committee of Novartis. Mr. Jimenez began his career in the United States at The Clorox Company, and later served as president of two operating divisions at ConAgra. In 1998, he joined the H.J. Heinz Company, and was named President and Chief Executive Officer of the North America business. From 2002 to 2006, he served as President and Chief Executive Officer of Heinz in Europe. Before joining Novartis, he was a Non-Executive Director of AstraZeneca plc, United Kingdom, from 2002 to 2007; and was an advisor for the private equity organization Blackstone Group, United States. Mr. Jimenez joined Novartis in April 2007 as Head of the Consumer Health Division and was appointed to his present position in October 2007. Mr. Jimenez graduated with a bachelor's degree from Stanford University in 1982 and with an M.B.A. from the University of California, Berkeley, in 1984.

***Joerg Reinhardt, Ph.D., German, age 53***

Joerg Reinhardt, Ph.D. is Chief Operating Officer of Novartis since 2008. He is a member of the Executive Committee of Novartis. Mr. Reinhardt joined Sandoz Pharma Ltd. in 1982, and held positions of increasing responsibility in Research and Development for the company in Switzerland. In 1994, he was named Head of Development for Sandoz Pharma Ltd. After the merger that created Novartis in 1996, Mr. Reinhardt became Head of Preclinical Development and Project Management for Novartis, and

Table of Contents

assumed the position of Head of Pharmaceutical Development in 1999. From 2006 to 2008, he served as Head of the Vaccines and Diagnostics Division. He also chairs the Board of Directors of the Genomics Institute of the Novartis Foundation in the United States. Mr. Reinhardt graduated with a Ph.D. in pharmaceutical sciences from the University of Saarbruecken, Germany, in 1981.

***Andreas Rummelt, Ph.D., German, age 53***

Andreas Rummelt, Ph.D., is Group Head of Quality Assurance and Technical Operations since 2008. He is a member of the Executive Committee of Novartis. He joined Sandoz Pharma Ltd. in 1985 in Switzerland and held various positions of increasing responsibility in Development. In 1994 he was appointed Head of Worldwide Technical Research and Development, a position he retained following the merger that created Novartis in 1996. From 1999 to 2004, Mr. Rummelt served as Head of Technical Operations of the Novartis Pharmaceuticals Division, and from 2004 to 2008, as Head of Sandoz. Mr. Rummelt graduated with a Ph.D. in pharmaceutical sciences from the University of Erlangen-Nuernberg, Germany, in 1983.

***Thomas Wellauer, Ph.D., Swiss, age 54***

Thomas Wellauer, Ph.D., is Head of Corporate Affairs for Novartis comprising the functions Intellectual Property, Public Affairs, Risk Management, Health, Safety, Environment, Procurement, Integrity and Compliance, Security, International Coordination, Novartis Switzerland and the Novartis Foundation for Sustainable Development for Novartis since 2006. He is a member of the Executive Committee of Novartis. Mr. Wellauer started his career with McKinsey & Company, Switzerland, becoming a Partner in 1991 and Senior Partner in 1996. In 1997, he was named CEO of the Winterthur Insurance Group, Switzerland, which later was acquired by Credit Suisse. At Credit Suisse he was a member of the Group Executive Board, initially responsible for the Group's insurance business before becoming CEO of the Financial Services Division. Before joining Novartis, in 2006, Mr. Wellauer headed and completed the Clariant Performance Improvement Program, a global turnaround project at the Swiss specialty chemicals maker. He is also a member of the Supervisory Board of Munich RE. Mr. Wellauer graduated with a Ph.D. in systems engineering and a master's degree in chemical engineering from the Swiss Federal Institute of Technology (ETH) in Zurich, Switzerland, in 1985. He also holds an M.B.A. from the University of Zurich.

***Thomas Werlen, Ph.D., Swiss, age 44***

Thomas Werlen is the General Counsel of Novartis and responsible for the Group's legal affairs. He is a member of the Executive Committee of Novartis. Thomas Werlen is Secretary to the Corporate Governance and Nomination Committee of the Board of Directors of Novartis. In 1995, Thomas Werlen started his professional career with Cravath, Swaine & Moore in New York. In 2000, he moved to the Cravath, Swaine & Moore London office and, after a stint with Davis Polk & Wardwell, he joined Allen & Overy as a Partner in March 2001. Based in the London office, he focused on corporate and capital markets. His clients included multi-national corporations and investment banks. Thomas Werlen holds lic.iur. and Ph.D. (Dr.) degrees in law from the University of Zurich and a master's degree in law from Harvard Law School. He is a member of the New York and the Swiss bar. He is also a member of the Regulatory Board of the SIX Swiss Exchange AG. He has written several books and articles on business and financial law and teaches corporate and capital markets law at the University of Zurich (LL.M. program) and at the University of St. Gallen.

**Permanent Attendees*****David Epstein, American, age 48***

David Epstein is Head of Novartis Oncology since 2000 and leads the new Molecular Diagnostics unit since 2008. He is a permanent attendee of the Executive Committee of Novartis. Before joining Novartis,

Table of Contents

Mr. Epstein was an associate in the Strategy Practice of the consulting firm, Booz Allen & Hamilton. Mr. Epstein joined Sandoz, a predecessor company of Novartis, in 1989, and held various leadership positions of increasing responsibility for the company, including Chief Operating Officer of Novartis Pharmaceuticals Corporation in the United States and Head of Novartis Specialty Medicines. Mr. Epstein graduated with a bachelor's degree in pharmacy from Rutgers University College of Pharmacy in 1984, and with an M.B.A. in finance and marketing from New York's Columbia University Graduate School of Business, in 1987.

***Jeff George, American, age 36***

Jeff George is Head of Sandoz since 2008. He is a permanent attendee of the Executive Committee of Novartis. Before joining Novartis, Mr. George was a Senior Director of Strategy and Business Development at Gap Inc. From 2001 to 2004, he was with McKinsey & Company in San Francisco, United States, where he was an Engagement Manager. Mr. George joined Novartis in the Vaccines and Diagnostics Division in January 2007 as Head of Commercial Operations for Western and Eastern Europe, then advanced to Head of Emerging Markets for the Middle East, Africa, Southeast Asia and CIS at Novartis Pharma. Mr. George graduated in 1999 with a master's degree from the Johns Hopkins University School of Advanced International Studies, where he studied international economics and emerging markets political economy. He received an M.B.A. from Harvard University in 2001.

***George Gunn, MRCVS, British, age 59***

George Gunn is Head of the Novartis Consumer Health Division since 2008. He is a permanent attendee of the Executive Committee of Novartis. Before joining Novartis, Mr. Gunn was president of Pharmacia Animal Health, based in the United States. Previously, he spent more than 15 years in positions of increasing responsibility in healthcare companies. He worked as a veterinary surgeon for nine years before joining the industry. Mr. Gunn joined Novartis in 2003 as Head of Novartis Animal Health, North America. In January 2004, he assumed his position as Head of the Animal Health Business Unit. In addition to this role, he was appointed Head of the Consumer Health Division in December 2008. Mr. Gunn graduated with a bachelor of veterinary medicine and surgery degree from the Royal (Dick) School of Veterinary Studies in the United Kingdom, in 1973. He graduated with a diploma in veterinary state medicine from the same school in 1978. In 2008, he received an honorary doctorate in veterinary medicine and surgery from the University of Edinburgh.

***Andrin Oswald, M.D., Swiss, age 38***

Andrin Oswald, M.D., is Head of the Novartis Vaccines and Diagnostics Division since 2008. He is a permanent attendee of the Executive Committee of Novartis. Before joining Novartis, Dr. Oswald was a delegate of the International Committee of the Red Cross to Nepal from 2002 to 2003 and worked with McKinsey & Company, Switzerland. In 2005, Dr. Oswald joined Novartis and advanced from Assistant to the Chairman and CEO, to Head of the Country Pharma Organization (CPO) and Country President for Novartis in South Korea, to CEO of Speedel and Global Head of Development Franchises at Novartis Pharma in 2008. Dr. Oswald graduated with an M.D. from the University of Geneva, Switzerland, in 1999.

***Jon Symonds, British, age 50***

Jon Symonds is Deputy Chief Financial Officer (CFO) and CFO-designate of Novartis AG since September 1, 2009. He is a permanent attendee of the Executive Committee of Novartis. Before joining Novartis in 2009, Mr. Symonds was Partner and Managing Director in the Investment Banking Division of Goldman Sachs in the United Kingdom. He also has eight years of experience as CFO of AstraZeneca and previously held positions as Group Finance Director at Zeneca and partner at KPMG. From 2004 to 2007, Mr. Symonds was a director of Diageo Plc. and chairman of the Audit Committee. Other previous roles include director and Audit Committee chairman of Qinetiq Plc., chairman of the 100 Group of



Table of Contents

Finance Directors, joint chairman of the Business Tax Forum, board member of the Accounting Standards Board and founder of the Oxford University Centre for Business Taxation Research, all in the United Kingdom. Mr. Symonds graduated with a first class degree in business finance from the University of Hertfordshire, United Kingdom, in 1980 and became a Fellow of Chartered Accountants in 1982. He is a Commander of the British Empire (CBE).

None of the above directors or senior management has any family relationship with any other director or member of our senior management. None of the above directors or senior management were appointed pursuant to an arrangement or understanding between such officer or director and any third party.

**6.B Compensation**

**2009 COMPENSATION REPORT**

The Compensation Committee is the supervisory and governing body for the compensation policies and plans within the Novartis Group and has responsibility for determining, reviewing and proposing compensation policies and plans for approval by the Board of Directors, in line with the Compensation Committee Charter.

The Compensation Committee also reviews and approves members of the employment contracts and the individual compensation for selected key executives, including the Executive Committee.

The Compensation Committee is currently, and was during 2009, composed of four Directors who meet the Novartis Independence Criteria. In 2009, the Compensation Committee held five meetings. The meetings held in January 2009 had the primary purpose of reviewing the performance of the businesses and the respective management teams and determining compensation for the members of the Executive Committee.

The Corporate Governance Guidelines of the SIX Swiss Exchange require listed companies to disclose certain information about the compensation of Directors and the members of the Executive Committee members, their equity participation in the company as well as loans made to them. This Compensation Report fulfills that requirement. In addition, our Compensation Report is in line with the principles of the Swiss Code of Best Practice for Corporate Governance of the Swiss Business Federation (economiesuisse).

All compensation plans and levels are reviewed regularly based on publicly available data as well as on analyses by independent compensation research companies and external compensation advisors. Trends and developments in the field of compensation and corporate governance are carefully analyzed, reviewed and discussed on an ongoing basis with outside experts and consultants.

During the year, the Compensation Committee reviewed the Compensation Principles and confirmed that they are appropriate for Novartis.

The Members of the Compensation Committee

Hans-Joerg Rudloff (chair)

Ulrich Lehner

Marjorie M.T. Yang

Srikant Datar

See "Item 18. Financial Statements note 27" for information on executive officer and Director compensation as calculated under IFRS.

Table of Contents

**INTRODUCTION**

Since Novartis was created from two traditional Swiss conglomerates in 1996, management has forged a distinctive culture, and inspired old and new associates alike with the shared vision of being one of the world's most admired and respected healthcare companies.

Because the skills and experience of associates needed to realize this vision are highly sought after, Novartis broke ranks with Swiss peers by raising compensation to internationally competitive levels. From the outset of operations, pay for performance has been a byword at Novartis.

Compensation includes a significant variable element in addition to a fixed base compensation. The size of the variable element is based on company or divisional results, and on individual performance against a written set of objectives as well as appraisals of values and behaviors. This novel performance evaluation system aims to foster personal accountability as well as underline the importance of integrity as a driver of business success. To encourage superior performance, variable compensation at Novartis can range up to 200% of the target value of an associate's incentive.

To align associates with the interests of shareholders, a large proportion of variable compensation for executives is paid in the form of equity Novartis shares or share options. A share option plan originally encompassed 400 key executives, but within two years was expanded to an additional 1,000 leaders. Following 2009 performance, almost 11,000 associates participate in the Equity Plan "Select," representing a participation rate of approximately 11% of full-time associates worldwide.

Pay for performance has spurred on a culture of meritocracy at Novartis, but checks and balances have been developed to ensure integrity and fairness. The "four eyes" principle, for example, requires that associates' annual objectives and performance evaluations are reviewed separately by supervisors of supervisors. The performance management system includes an annual Organization and Talent Review in which career aspirations of promising associates are discussed with supervisors. Strengths and weaknesses are assessed, development plans are implemented and the next level managers review appraisals as a group, increasing the visibility of promising candidates for career advancement. The Organization and Talent Review has become an essential tool for top management in succession planning and the scope of the program has steadily expanded from a few dozen executives a decade ago to more than 15,000 prospective leaders today.

These core principles of compensation policy and people development have engendered both superior performance and sustained leadership. Novartis has reported record net sales and net income and has raised the annual dividend payout to shareholders for 13 consecutive years. The continuity of leadership Chief Executive Officer Daniel Vasella, M.D., and Chief Financial Officer Raymund Breu, Ph.D., have remained in their positions since the creation of Novartis and the support by the Board of Directors were important factors to consistently embed the company's core capabilities of innovation, external focus, people development and performance orientation into the organization.

The crucial importance of innovation and the uniquely long product development and commercialization cycles in our industry underpin our corporate strategy and explain the emphasis on long-term incentives in Novartis compensation policy. Financial targets, innovation and productivity objectives are set to be challenging and to motivate a high degree of business purpose. At the same time, our compensation policy accentuates prudent risk management and deters excessive risk taking to enhance short-term financial gain at the expense of the long-term health of the company.

Table of Contents

**COMPENSATION PRINCIPLES**

Our compensation policies and plans, which apply to all Novartis associates, are based on three key principles:

Pay for performance

Competitive compensation

Balanced rewards to create sustainable value

**Pay for performance**

At all levels, compensation reflects the market value of skills, business results, individual contribution and meeting key behavioral standards.

To create and maintain a high performance culture and ensure transparency, Novartis applies a uniform performance management process worldwide, based on clear quantitative and qualitative criteria.

Novartis associates, including the Chairman and Chief Executive Officer and the other members of the Executive Committee, are subject to a formal objective setting and performance appraisal process that promotes a culture of continuous improvement, supports individuals in meeting their development aspirations and strengthens organizational capabilities. It is a core process for improving individual, team and overall business performance.

For each performance year, line managers and their direct reports jointly determine performance measures and business objectives. These objectives are derived from the business objectives established at the Group, division, function, country or business area levels.

Two performance appraisals are carried out each year – a mid-year and a year-end review. The reviews consist of formal meetings between associates and line managers to evaluate performance. In assessing performance, line managers focus on results-oriented measures of performance, as well as on how those results were achieved – in other words, whether the decisions and actions leading to those results were consistent with Novartis Values and Behaviors.

Based on the year-end performance rating, line managers and next-level line managers determine the incentive awards for each associate under review as well as the target compensation for the coming year.

To encourage and reward superior performance, total compensation may reach levels comparable to top quartile levels of compensation offered by the relevant benchmark companies.

Any incentive compensation is subject to recovery or "clawback" by Novartis. This includes incentive compensation based on statements of earnings, gains or other criteria that are later shown to be materially inaccurate, or incentive compensation achieved through illicit means, such as a violation of the Novartis Code of Conduct, or gross misconduct. The Board mandated changes in the Code of Conduct and individual employment contracts, implementing "clawback" provisions as part of our compensation policies.

**Competitive Compensation**

Competitive compensation is essential to attract talented associates and maintain commitment towards the Group's performance and success in the highly diverse and competitive business environment in which we operate.

Our compensation is designed with reference to total compensation levels for comparable positions at relevant benchmark companies. For example, an associate who achieves his or her performance objectives is generally awarded compensation comparable to the median level of compensation provided



Table of Contents

by relevant benchmark companies. In case of over- or under-performance, the actual total compensation delivered is adjusted accordingly and may significantly differ from the benchmark median.

Novartis participates in several compensation benchmarking surveys that provide details on levels of salary, target and actual annual incentives and long-term incentives, the relative mix of short- and long-term incentives, and the mix of cash- and share-based compensation. Benchmark companies vary with and are dependent on the nature of the positions concerned.

For specific pharmaceutical positions, the benchmark group of industry competitors for our 2009 benchmark survey consisted of the following companies:

Abbot Laboratories	GlaxoSmithKline	Roche
Amgen	Johnson & Johnson	Sanofi-Aventis
Astra-Zeneca	Merck	Schering-Plough
Bristol-Myers Squibb	Pfizer	Wyeth
Eli Lilly		

For other positions we included companies outside our industry, with stature, size and complexity that approximate our own, in recognition of the fact that competition for senior executive talent is not limited to the pharmaceutical industry.

These surveys, which analyze factors such as recent market trends and best practices, are conducted by well-established global compensation consultancy firms. These surveys are checked and supplemented by input from the Compensation Committee's independent advisor, Pearl Meyer and Partners LLC.

**Balanced Rewards to Create Sustainable Value**

Shareholders expect their investment to deliver sustainable returns while at the same time risks are appropriately managed. Indeed, Novartis shareholders emphasized the importance of creating sustainable value by amending our Articles of Incorporation accordingly at the 2009 Annual General Meeting.

Novartis incentives underpin the long-term strategic planning that is essential to address the challenges of innovation and the long development and commercialization cycles that characterize our industry. Appropriate objective setting combined with proper incentive plan design allow our leaders and associates to focus on shaping the Group's future rather than simply reacting to change.

The equity proportion of the incentives rises according to the role, responsibility and accountability of associates. In addition, our equity-based compensation is generally subject to restrictive features such as vesting, forfeiture and blocking to focus behavior of our associates on our long-term interests and align their interests with those of the Group and its shareholders.

We believe that incentivizing our associates to create sustainable value is not only in the interest of the Group and its shareholders, but also encourages performance, loyalty and entrepreneurship of our associates.

**COMPENSATION ELEMENTS**

Primary elements of compensation earned by Novartis associates are:

Base compensation a fixed salary

Variable compensation rewards for individual and business performance

Benefits including pension and healthcare benefits as well as perquisites



Table of Contents

For a summary of our compensation elements and their drivers, see the summary table below.

<b>Compensation element</b>	<b>Compensation plan</b>	<b>Main drivers</b>	<b>Performance measures</b>	<b>Linkage to compensation principles</b>
<b>Base compensation</b>		Position, function, seniority	Market practice	Attract and retain key executives
<b>Short-term variable compensation</b>	Short-term incentive plans	Achievement of business and financial objectives and individual objectives	Financial measures such as net sales, operating income, free cash flow, market share, innovation and ongoing efforts to optimize organizational effectiveness and productivity Achievement of annual individual objectives	Pay for performance Attract and retain key executives
<b>Long-term variable compensation</b>	Equity Plan "Select"	Achievement of business and financial objectives and individual objectives	Individual year-end performance rating, talent rating and Group or business area performance	Align executives with interests of shareholders Sustainable business performance Attract and retain key executives
	Long-Term Performance Plan	Achievement of long-term profit, measured through Economic Value Added (EVA) targets at Group level	Group EVA achievement	
	Special Share Awards	Rewarding particular achievements or exceptional performance	Discretionary	
<b>Benefits</b>		Position, function, seniority	Market practice	Establish a level of security in respect of age, health, disability and death

**Base Compensation**

Base compensation rewards associates for performing day-to-day responsibilities and reflects job characteristics, seniority, experience and skill sets. It is paid in cash, typically monthly, and is set according to local practice designed to provide our associates with fixed compensation to ensure a reasonable standard of living relative to that offered by our peer companies.

In general, base compensation is reviewed annually to ensure that competitive pay is maintained and undesired fluctuations are minimized.

Base compensation also serves as the basis for determining the variable compensation.

Table of Contents

**Variable Compensation**

Variable compensation is a combination of short-term and long-term incentives with a focus on aligning our compensation objectives with our shareholders' interests. It is determined by the nature of the business, role, location, business performance and an associate's individual performance.

Variable compensation may be granted in cash, shares or share options, depending on the plans. For purposes of the conversion of variable compensation into shares or share options, the conversion values of a Novartis share and share option are determined as the closing prices on the grant date, which for 2009 performance is January 19, 2010.

***Short-term incentive plans***

Awards under the short-term incentive plans are made each year, calculated by the following formula:

Under these plans, Novartis defines target incentive percentages of base compensation for each participating associate at the beginning of each performance period traditionally the start of a new year. Target incentive percentages may reach up to 100% of base compensation.

The business performance multiplier is based on the performance of the Group or business area and may range from 0 to 1.5 of the target amount.

The individual performance multiplier is based on achievement of individually set performance objectives and meeting key behavioral standards (Novartis Values and Behaviors). It may range from 0 up to 1.5 of the target amount.

In general, the business performance multiplier combined with the individual performance multiplier may not exceed 2. For exceptional performance, however, higher performance multipliers may apply. Such cases require the approval of the Chairman and Chief Executive Officer and, for key executives, also the approval of the Compensation Committee.

This broad range of target incentive percentages and multipliers allows for meaningful differentiation on a pay for performance basis.

Associates in certain countries and certain key executives world-wide are encouraged to receive their annual incentive awards fully or partially in Novartis shares instead of cash by participating in a leveraged share savings plan.

Under leveraged share savings plans, Novartis matches investments in shares after a holding period. In general, no shares are matched under these plans if an associate leaves Novartis prior to expiration of the holding period for reasons other than retirement, disability or death.

Novartis has three main leveraged share savings plans:

The Swiss Employee Share Ownership Plan (ESOP) is available in Switzerland to approximately 11,600 associates. Participants within this plan may choose to receive the incentive (i) 100% in shares, (ii) 50% in shares and 50% in cash or (iii) 100% in cash. After expiration of a three-year holding period, each participant will receive one free matching share for every two Novartis shares acquired and continuously held under the ESOP. A total of 5,080 associates chose to receive shares under the ESOP for their performance in 2009.

In the United Kingdom, associates can invest up to 5% of their monthly salary in shares (up to a maximum of GBP 125) and may also be invited to invest all or part of their net incentive in shares.



Table of Contents

Two invested shares are matched with one share after a holding period of three years. During 2009, approximately 1,550 associates participated in this plan.

28 key executives worldwide were invited to participate in a Leveraged Share Savings Plan (LSSP) as part of compensation for performance in 2009. Shares in this plan are invested for five years. At the end of the investment period, Novartis matches the invested shares at a ratio of 1:1 (i.e., one share awarded for each invested share).

Associates may only participate in one of these plans in any given year.

**Long-term incentive plans****Equity Plan "Select"**

Participants in this plan can elect to receive their incentive in the form of shares, share options, or a combination of both. In some jurisdictions Restricted Share Units (RSU) are granted rather than shares. Each RSU is equivalent in value to one Novartis share and is converted into one share at the vesting date. Awards under the Equity Plan "Select" may be granted each year based on the associate's performance, potential and Group or business area performance. No awards are granted for performance ratings below a certain threshold.

Each share is valued against the closing market price of the share at the grant date (January 19, 2010, for performance grants in 2009). After the incentive has been awarded, its value goes up or down based on the Novartis share price performance. Shares granted receive dividends and have voting rights during the vesting period. RSUs do not carry any dividend or voting rights.

Each share option granted to associates entitles the holder to purchase one Novartis share at a stated exercise price that equals the closing market price of the underlying share at the grants date (January 19, 2010, for performance grants in 2009). If associates in North America choose to receive part or all of their grant under the Equity Plan "Select" in share options on American Depositary Receipts (ADR), the resulting number of share options is determined by dividing the respective incentive amount by a value that equals 95% of the International Financial Reporting Standards (IFRS) value of the options on ADR. For associates in other countries, the divisor equals 90% of the IFRS value of options on shares.

Share options are tradable, when vested, and expire on their tenth anniversary. Shares and tradable share options have a vesting period of two years in Switzerland and three years in other countries. As a result, if a participant leaves Novartis for reasons other than retirement, disability or death, unvested shares and share options are forfeited, unless determined otherwise by the Compensation Committee (for example, in connection with a reorganization or divestment).

The terms of the share options granted since 2006 are shown in the table below.

<b>Grant year</b>	<b>Exercise price (CHF/USD)</b>	<b>Vesting (years) (CH/other countries)</b>	<b>Term (years)</b>
2010	55.85/53.70	2/3	10
2009	53.65/46.42	2/3	10
2008	64.05/57.96	2/3	10
2007	72.85/58.38	2/3	10
2006	71.30/54.70	2/3	10

170

Table of Contents

A total of 10,825 participants received 25.6 million share options and 5,777,586 restricted shares under the Novartis Equity Plan "Select" for their performance in 2009, representing a participation rate of about 11% of all full-time equivalent associates worldwide. Approximately 9% of the total equity value awarded under the plan was granted to the members of the Executive Committee.

As of December 31, 2009, 92.2 million share options granted to associates were outstanding, covered by an equal number of shares and corresponding to 3.7% of the total number of outstanding Novartis shares (excluding treasury shares).

**Long-Term Performance Plan**

The Long-Term Performance Plan is an equity plan granted to key executives based on a three-year performance period.

At the beginning of the performance period, plan participants are allocated RSUs which may be converted into Novartis shares after the period.

At the end of the performance period, the Compensation Committee adjusts the number of RSUs based on actual performance. The performance is measured by Group Economic Value Added (EVA), a formula to measure corporate profitability while taking into account the cost of capital. No incentive is awarded if actual Group EVA performance fails to meet a pre-determined threshold (or if the participant leaves during the performance period for reasons other than retirement, disability or death). For outstanding Group EVA performance the adjustment can go up to 200% of the target incentive.

At the Award Date, RSUs are converted into unrestricted Novartis shares without vesting period. In the United States, awards may also be delivered in cash under the Deferred Compensation Plan.

On January 19, 2010, 110 key executives were awarded Novartis shares under the Novartis Long-Term Performance Plan, based on Group EVA achievement over the performance period 2007 to 2009.

The Long-Term Performance Plan participant history is shown below.

<b>Grant year = Target setting</b>	<b>Performance period</b>		<b>Award year = Payout in shares</b>	<b>Plan participants (number of key executives)</b>
2010	2010	2012	2013	118
2009	2009	2011	2012	107
2008	2008	2010	2011	109
2007	2007	2009	2010	110

**Special Share Awards**

Selected associates may exceptionally receive special awards of restricted or unrestricted shares. These special share awards are discretionary, providing flexibility to reward particular achievements or exceptional performance. They may also serve to retain key contributors.

Restricted special share awards generally have a five-year vesting period. If an associate leaves Novartis for reasons other than retirement, disability or death, he or she will generally forfeit unvested shares. Worldwide 327 associates at different levels in the organization were awarded a total of 1,158,643 shares in 2009.

**Source of Awarded Shares**

Novartis uses shares repurchased in the market to fulfill obligations to deliver shares as required by the variable compensation plans and special share awards.

Table of Contents

Novartis does not have any approved conditional capital to obtain shares for delivery of our share awards.

**Benefits**

The primary purpose of pension and healthcare plans is to establish a level of security for associates and their dependents in respect of age, health, disability and death. The level of pension and healthcare benefits provided to associates is country-specific and is influenced by local market practice and regulations.

Other benefits that Novartis may grant in a specific country according to market practice are long-service awards and perquisites. Associates who have been transferred on an international assignment can also receive benefits in line with the Novartis Corporate Expatriation Policy.

**COMPENSATION 2009**

**Compensation Governance**

*Decision-Making Authorities*

Authorities for compensation related decisions are governed by the Articles of Incorporation, the Board Regulations and the Compensation Committee Charter, which are published on the Novartis website:

[www.novartis.com/corporate-governance](http://www.novartis.com/corporate-governance)

The authorization levels are shown below.

<b>Decision on</b>	<b>Recommendation</b>	<b>Authority</b>
Compensation of Non-Executive Directors	Compensation Committee	Board of Directors
Compensation of Chairman and Chief Executive Officer		Compensation Committee
Compensation of the members of the Executive Committee (excl. Chairman and Chief Executive Officer) and other selected key executives	Chairman and Chief Executive Officer	Compensation Committee
Annual incentive plans and Equity Plan "Select"	Executive Committee	Compensation Committee
Long-Term Performance Plan	Executive Committee	Compensation Committee

***Compensation Committee Advisor***

The Compensation Committee currently uses Pearl Meyer & Partners LLC as its independent external compensation advisor. The advisor assists the Compensation Committee to ensure that the Novartis compensation policies and plans are competitive, corresponding to market practice and in line with our compensation principles. The advisor's work for the Compensation Committee includes data analyses, market assessments, and preparation of related reports.

Pearl Meyer & Partners LLC is independent from management and does, in particular, not perform any other consulting work for Novartis. The advisor reports directly to the Compensation Committee and takes direction from that Committee.

Table of Contents

The Compensation Committee enters into a consulting agreement with its independent advisor on an annual basis. In determining whether or not to renew the engagement with the advisor, the Compensation Committee evaluates the quality of the consulting service and annually assesses the projected scope of work for the coming year.

Based on the appraisal for 2009, the Compensation Committee determined that the advisor is free of any relationships that would impair professional judgment and advice to the Compensation Committee.

**Non-Executive Directors Compensation**

Recognizing that Novartis is a global healthcare company, the level of Non-Executive Director compensation has been established to ensure the ability of Novartis to attract and retain high-caliber Directors.

Compensation of Non-Executive Directors diverges from the compensation principles of Novartis associates outlined above.

The Board annually determines the compensation of Non-Executive Directors based on a proposal made by the Compensation Committee. Annual fees for Non-Executive Directors consist of a directorship fee. Non-Executive Directors receive additional fees that vary with the number of Board committee memberships and functions to reflect their increased responsibilities and engagements. Non-Executive Directors do not receive additional fees for attending meetings. The fee rates for Non-Executive Directors are the following:

	<b>Annual fee (CHF)</b>
Board directorship	350,000
Lead Director	300,000
Vice Chairman	50,000
Chairman's Committee membership	150,000
Audit and Compliance Committee membership	100,000
Risk Committee membership	25,000
Compensation Committee membership	50,000
Corporate Governance and Nomination Committee membership	50,000
Delegated board directorship <sup>(1)</sup>	250,000

(1) The Board has delegated Rolf M. Zinkernagel to the Scientific Advisory Board of the Novartis Institute for Tropical Diseases (NITD) and to the Board of Directors of the Genomics Institute of the Novartis Research Foundation (GNF).

Non-Executive Directors can choose to receive the annual fee in cash, shares or a combination of both. They do not receive share options.

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### Table of Contents

The Non-Executive Directors compensation in 2009<sup>(1)</sup> is shown below.

	Board directors	Lead Director	Vice Chairman	Chairman	Audit and Compliance Committee	Risk Committee	Compensation Committee	Corporate Governance and Delegation Committee	Annual cash compensation	Shares (number)	Total (CHF) <sup>(3)</sup>
Ulrich Lehner							Chair		1,107,172	0	1,107,172
Hans-Joerg Rudloff							Chair		736,337	0	736,337
William Brody									218,750	2,447	350,032
Srikant Datar					Chair				406,250	1,748	500,030
Ann Fudge									340,000	1,119	400,034
Alexandre F. Jetzer-Chung <sup>(4)</sup>									367,722	0	367,722
Pierre Landolt <sup>(5)</sup>									128,602	5,480	422,604
Andreas von Planta						Chair			426,576	1,864	501,305
Wendelin Wiedeking									112,692	4,795	369,944
Marjorie M.T. Yang									422,601	0	422,601
Rolf M. Zinkernagel <sup>(6)</sup>									683,752	0	683,752
Total									4,950,454	17,453	5,861,533

- (1) Does not include reimbursement for travel and other necessary business expenses incurred in the performance of their services as these are not compensation. All shares were granted as per January 20, 2009 against the prevailing share price of CHF 53.65.
- (2) Established on December 2, 2009. The members of this Committee received no related fees for 2009.
- (3) A Non-Executive Director who is tax resident in Switzerland can voluntarily choose to block the shares. In 2009, Andreas von Planta blocked his shares for five years. The value of the shares reflected in this table has been calculated using the valuation methodology described on page 178.
- (4) In addition, Alexandre F. Jetzer-Chung was paid CHF 380,004 for consulting services.
- (5) According to Pierre Landolt, the Sandoz Family Foundation is the economic beneficiary of the compensation.
- (6) The Board has delegated Rolf M. Zinkernagel to the Scientific Advisory Board of the Novartis Institute for Tropical Diseases (NITD) and to the Board of Directors of the Genomics Institute of the Novartis Research Foundation (GNF).

### **Compensation of the Chairman and Chief Executive Officer**

#### ***Decision-Making Process***

At the beginning of a business year, the Compensation Committee meets with the Chairman and Chief Executive Officer to discuss and set his objectives for the coming year. The Board reviews and approves these objectives, ensuring that they are in line with the Group's goals of fostering sustainable performance balancing short- and long-term goals and reasonable risk taking. The objectives include financial and non-financial objectives, such as growth of net sales and profits, EVA, innovation, process and productivity improvements and objectives related to human resources.

At the end of a business year, the Chairman and Chief Executive Officer prepares a self-appraisal assessing actual results against the previously agreed objectives, taking into account the audited financial results. The self-appraisal is discussed with the Lead Director and the Board. The Lead Director also holds individual discussions with all independent Non-Executive Directors about the performance of the Chairman and Chief Executive Officer.

The Board evaluates the extent to which targeted objectives have been achieved and to the extent possible compares these results with peer industry companies, taking into account general financial criteria and industry developments. The independent Non-Executive Directors then

discuss the overall performance of the Chairman and Chief Executive Officer and share their appraisal with him afterwards. Based on this appraisal, the Compensation Committee decides upon the Chairman and Chief Executive Officer's total compensation and the target compensation for the coming year. The Compensation

Table of Contents

Committee takes into account all relevant factors, including available benchmark information and the advice of the Compensation Committee advisor.

***Objectives for Variable Compensation of the Chairman and Chief Executive Officer***

The Compensation Committee measures the performance of the Chairman and Chief Executive Officer relative to predetermined objectives for short-term and long-term criteria.

The financial criteria for short-term performance appraisal typically include growth objectives for net sales, operating income, net income and earnings per share. For long-term performance appraisal, the financial criterion is EVA.

Non-financial objectives typically include: successful acquisitions, disposals and licensing transactions, Research and Development performance, product launches, successful implementation of growth or cost containment initiatives, process improvements or the successful launch of new sites or operations.

Novartis does not disclose specific objectives because it would signal areas of strategic focus and impair the Group's ability to leverage these areas for competitive advantages. For example, disclosure of our cash flow objectives would provide insight into timing of large capital investments or acquisitions. In addition, knowledge of the objectives could be used by competitors to target the recruitment of key executives from Novartis. Disclosing specific objectives and metrics would also give our competitors insight into key market dynamics and areas that could be used against Novartis competitively by industry consultants or competitors targeting existing customers.

The compensation history of the Chairman and Chief Executive Officer is shown below.

Year	Base compensation (CHF)	Short-term incentives		Total cash compensation (CHF) <sup>(1)</sup>	Total compensation (CHF)
		Cash	Shares		
2009	3,000,000	0%	100%	3,295,395	20,471,929
2008	3,000,000	0%	100%	3,175,485	20,544,032
2007 <sup>(2)</sup>	3,000,000	0%	100%	3,166,630	17,037,002
2006	3,000,000	0%	100%	3,058,773	21,068,072
2005	3,000,000	0%	100%	3,257,474	21,257,120
2004	3,000,000	0%	100%	3,016,649	20,786,304

(1) Cash includes all benefits except pension benefits.

(2) Since 2007, disclosed compensation includes all amounts awarded for performance in the given year, i.e., the reporting of annual compensation is synchronized with the performance in that specific year.

***Performance in 2009***

The Compensation Committee made decisions on the Chairman and Chief Executive Officer's 2009 compensation at its meeting on January 19, 2010, in accordance with the established process and guided by the compensation elements described above.

The achievements were assessed from both a quantitative and a qualitative perspective, with the Compensation Committee using its judgment in concert with a review of metrics. This is in line with Novartis best practice in assessing a senior executive's performance.

Table of Contents

The Compensation Committee recognized the following key accomplishments regarding the performance of the Chairman and Chief Executive Officer for 2009:

Novartis Group achieved record results for 2009, both in sales and in profits;

The Pharmaceuticals Division delivered outstanding performance during 2009, driven by new product growth and rejuvenation of the portfolio, bringing significant contributions to patients and value to shareholders and gaining market share;

Consumer Health and Sandoz, the generics division, showed solid underlying growth, accelerating in the fourth quarter, and market share gains;

The Vaccines and Diagnostics Division exceeded its targets thanks to the rapid response to the demand for influenza A (H1N1) pandemic vaccines;

Project "Forward" exceeded its productivity target by almost 70% and one year ahead of plan;

Despite the largest recession in decades, Novartis achieved record results and has proposed to shareholders a dividend increase of 5%; and

Novartis was able to increase employment by 3% and increase results without any large restructurings or personnel reductions, taking into account the broader stakeholder interests.

Despite the global economic crisis that shaped the year, the Chairman and Chief Executive Officer:

Strategically transformed Novartis, focused clearly on growth areas of the healthcare market with the recently announced acquisition of Alcon, and strengthening the generics division Sandoz with the acquisition of EBEWE (injectable cancer medicines), and acquiring an 85% stake in the Chinese vaccines manufacturer Zhejiang Tianyuan;

Furthered innovation, achieving a record number of positive proof of concept trials, product development milestones and approvals; and

Developed and retained talent with an excellent retention rate of high performers and high-potential associates within Novartis.

The compensation granted by the Compensation Committee to the Chairman and Chief Executive Officer for 2009 is detailed in the Executive Committee Compensation table. While the compensation awarded for 2008 increased by 21% compared to 2007, the compensation awarded for 2009 is similar to 2008.

**Compensation of the Other Executive Committee Members**

***Decision-Making Process***

In January, the Board meets with the Chairman and Chief Executive Officer to review and discuss the performance of the other members of the Executive Committee for the previous year, taking into account the audited financial results as well as the level of achievement of financial



and non-financial objectives.

In a separate session, the Compensation Committee decides, in the presence of the Chairman and Chief Executive Officer and based on his recommendations, on the variable compensation for the other members of the Executive Committee and other selected key executives for the previous year. At the same meeting, the Compensation Committee decides on the target compensation for these executives for the coming year.

In addition to the full year, the mid-year performance of the other member of the Executive Committee is reviewed in June. At the same time, the Board also carries out a mid-year review of the performance of the individual businesses.

Table of Contents

***Challenging Performance Objectives***

Compensation of our other members of the Executive Committee is highly linked to Group performance against performance objectives. Divisional performance objectives include the following key metrics:

Net sales;

Operating income;

Free cash flow as a percentage of sales;

Economic Value Added;

Market share;

Innovation; and

Ongoing efforts to optimize organizational effectiveness and productivity.

These metrics and their weightings are designed to appropriately balance short-term and long-term objectives. On the one hand, objectives are set at aggressive levels each year to motivate a high degree of business performance with emphasis on longer term financial objectives. On the other hand, they are also designed to ensure they do not include an inappropriate amount of risk.

***Performance in 2009***

At its meeting on January 19, 2010, the Compensation Committee decided on the amounts of variable compensation for 2009 for the other member of the Executive Committee by applying the principles described above. The specific compensation decisions made for the other members of the Executive Committee reflect their achievements against the financial and non-financial performance objectives established for each of them at the beginning of the year.

**Compensation for Performance in 2009**

The compensation table on the following page discloses the compensation granted to the members of the Executive Committee, including the Chairman and Chief Executive Officer, for performance in 2009. The following paragraphs describe the principles underlying the data in the table.

***Alignment of Reporting and Performance***

The compensation table synchronizes the reporting of annual compensation with the performance in the given year, i.e., all amounts awarded for performance in 2009, including the future LSSP/ESOP match, are disclosed in full.

***Disclosure Structure***

The compensation table shows the compensation granted to each member of the Executive Committee for performance in 2009 for all compensation elements base compensation, variable compensation and benefits as described above.

The column "Future LSSP/ESOP match" reflects shares to be awarded in the future if the members of the Executive Committee remains with Novartis for at least five or three years, respectively. The members of the Executive Committee were invited to invest their annual incentive

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awards for 2009 in the leveraged share saving plans either the three-year Swiss Employee Share Ownership Plan (ESOP) or the five-year Leveraged Share Savings Plan (LSSP) to further align their interests with those of our shareholders. Under the plan rules, participants will receive additional shares ("matching shares") after the expiration of either the three- or five-year vesting period. Under the five-year LSSP plan, each share

Table of Contents

invested entitles the participant to receive one matching share. Under the three-year ESOP plan, for every two shares invested, the participant receives one matching share. If a participant leaves prior to the expiration of the vesting period, in general, no matching shares are awarded.

***Valuation Principles***

Shares and share options under the variable compensation plans are generally granted with a vesting<sup>(1)</sup> period. In addition, associates in Switzerland, including the members of the Executive Committee members, may block<sup>(2)</sup> shares received under any variable compensation plan for up to 10 years.

The Compensation Committee believes that such restrictions affect the value of the shares and share options.

The Swiss Federal Tax Administration, in its "Kreisschreiben Nr. 5," provides for a methodology pursuant to which unvested or blocked shares or share options shall be valued with a discount for each year they are unvested or blocked. In addition, for the valuation of share options, the Swiss Tax Authorities apply in a standing practice for Novartis (since 1997) an option valuation model based on Black-Scholes.

In the Compensation Committee's view, this is the appropriate methodology to report the economic value of shares and share options for executive compensation under Swiss law because, unlike IFRS, it takes into account the trading restrictions due to vesting and blocking. The application of this methodology to determine the value of the shares and share options granted for the year 2009 is explained in footnote 9 to the Executive Committee Compensation table below and applies to all members of the Executive Committee.

See "Item 18. Financial Statements note 27" for information on executive officer and Director compensation as calculated under IFRS.

- 
- (1) Vesting refers to the waiting period under an equity-based incentive plan that must expire before the associate becomes irrevocably entitled to the shares or share options involved. The associate cannot sell or exercise unvested share or share options. If an associate leaves before the end of the vesting period for reasons other than retirement, disability or death, the associate will generally forfeit his or her rights to such shares or share options.
- (2) Blocking refers to the ability of associates in Switzerland to opt for an extended trading restriction period of up to 10 years from the award date (including vesting). Novartis encourages associates to block their shares because doing so aligns the associates' interests with those of shareholders.

Table of Contents**Executive Committee Compensation for Performance in 2009<sup>(1)</sup>****Variable compensation****Long-term incentive plans**

Name	Currency	Base compensation cash (Amount)	Short-term incentive plans		Equity Plan "Select"			Long-Term Special Performance share Plan awards		Benefits		Total (Amount) <sup>(9)</sup>	Total including Future LSSP/ESOP <sup>(10)</sup> future match LSSP/ESOP <sup>(11)(12)</sup>	
			Cash (Amount)	Shares (Number)	Shares (Number)	Options (Number)	Shares (Number)	Shares (Number)	Pension benefits (Amount) <sup>(7)</sup>	Other benefits (Amount) <sup>(8)</sup>	Shares (Number)		match (Amount)	
Daniel Vasella (Chairman and Chief Executive Officer)	CHF	3,000,000	0	113,018	161,146	1,630,435	74,987	37,279	146,503	295,395	16,947,340	113,018	20,471,929	
Raymund Breu Juergen Brokatzky-Geiger	CHF	1,125,504	0	18,210	0	736,957	13,963	11,639	106,109	0	3,275,938	506	3,289,187	
Mark C. Fishman	CHF	663,924	0	11,997	28,792	0	8,279	0	163,128	30,006	3,251,278	11,997	3,751,966	
Joe Jimenez	USD	963,333	14,036	17,765	90,131	0	14,926	0	165,316	127,408	6,848,281	17,765	7,561,152	
Joerg Reinhardt	CHF	991,674	1,200,000	0	82,364	0	12,356	0	235,764	83,385	7,294,932	0	7,294,932	
Andreas Rummelt	CHF	1,200,000	0	23,206	77,351	0	17,300	0	162,496	3,826	6,285,022	23,206	7,253,512	
Thomas Wellauer	CHF	920,004	0	9,884	32,946	0	11,367	0	165,299	58,408	3,828,691	9,884	4,136,934	
Thomas Werlen	CHF	650,838	0	9,354	22,450	0	8,070	0	156,051	10,800	2,481,809	9,354	2,872,193	
Thomas Werlen	CHF	691,674	0	11,281	16,921	171,196	6,637	0	179,205	29,660	2,427,222	11,281	2,690,120	
Total <sup>(13)</sup>	CHF	10,287,316	1,215,207	214,715	512,101	2,538,588	167,885	48,918	1,493,662	649,517	53,211,821	197,011	59,952,704	

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### Table of Contents

- (1) Does not include reimbursement for travel and other necessary business expenses incurred in the performance of their services as these are not considered compensation.
- (2) Participants elected to invest some or all of the value of their incentive in the five-year Leveraged Share Savings Plan (LSSP) or the Swiss three-year Employee Share Ownership Plan (ESOP; if eligible) rather than to receive cash. Daniel Vasella has voluntarily extended the five-year blocking period of these shares under LSSP to ten years. Raymund Breu has voluntarily extended the three-year blocking period of these shares under ESOP to ten years.
- (3) Daniel Vasella and Thomas Werlen have voluntarily blocked these shares (including the two-year vesting period) for ten years. Joerg Reinhardt and Thomas Wellauer have voluntarily blocked these shares (including the two-year vesting period) for five years.
- (4) Novartis employee share options are tradable. Options granted under the Novartis Equity Plan "Select" outside North America will expire on January 19, 2020, have a two-year vesting period in Switzerland (three years in other countries) and have an exercise price of CHF 55.85 per share (the closing price of Novartis shares on the grant date of January 19, 2010). Options on ADRs granted to participants in North America will expire on January 19, 2020, have a three-year vesting period and an exercise price of USD 53.70 per ADR (the closing price of Novartis ADRs on the grant date of January 19, 2010).
- (5) Awarded under the Long-Term Performance Plan based on the achievement of Economic Value Added (EVA) objectives over the performance period ended December 31, 2009. Daniel Vasella and Raymund Breu have voluntarily blocked these shares for ten years, and Joerg Reinhardt and Thomas Wellauer for five years.
- (6) Consists of an unrestricted share award to Daniel Vasella, granted at January 20, 2009, against the prevailing share price of CHF 53.65, and an unrestricted share award to Raymund Breu, granted at January 19, 2010, against the prevailing share price of CHF 55.85. Daniel Vasella and Raymund Breu have voluntarily blocked these shares for ten years.
- (7) Service costs of pension and post-retirement healthcare benefits accumulated in 2009, and employer contributions to defined contribution pension plans in 2009.
- (8) Includes perquisites and other compensation paid during the year.
- (9) Values of shares granted are discounted by 6% per year depending on the length of the combined vesting and blocking period. For example, the value of a share award subject to a two-year vesting/blocking period calculated in accordance with the methodology described in the Kreisschreiben Nr. 5 equals 89% of its market value at the grant date. The value of a share award with a combined vesting/blocking period of ten years equals 55.839% of its market value at the grant date. The closing share price on the grant date (January 19, 2010) was CHF 55.85 per Novartis share and USD 53.70 per ADR. The values of share options granted are reported based on the valuation principles contained in a tax ruling from the Swiss tax authorities, reflecting the principles as disclosed in the aforementioned Kreisschreiben Nr. 5. According to this methodology, tradable share options under the Equity Plan "Select" with a vesting period of two years have a value of CHF 0.92 per option at grant.
- (10) Reflects shares to be awarded in the future under the share saving plans, either the three-year Swiss Employee Share Ownership Plan (ESOP) or the five-year Leveraged Share Savings Plan (LSSP). Participants will receive additional shares ("matching shares") after the expiration of either the three- or five-year vesting period. If a participant leaves prior to the expiration of the vesting period, in general no matching shares are awarded. Thomas Werlen has voluntarily blocked these LSSP matching share units for 15 years (including the five-year vesting period). Daniel Vasella and Andreas Rummelt have voluntarily blocked these LSSP matching share units for ten years (including the five-year vesting period). Raymund Breu has voluntarily blocked these ESOP matching share units for 13 years (including the three-year vesting period).
- (11) The values of shares and share options reflected in this column have been calculated using the valuation methodology described in footnote 9. Regarding the valuation of matching shares (please see footnote 10) the following applies: if an Executive Committee member has chosen to block the shares to be received in the future under the five-year Leveraged Share Savings Plan for an additional 10 years, leading to a combined vesting/blocking period of 15 years, then the value of the matching shares reflected in the table will be 41.727% of the share price on the grant date. The closing share price on the grant date (January 19, 2010) was CHF 55.85 per Novartis share and USD 53.70 per ADR.
- (12) All amounts are gross amounts (i.e., before deduction of social security and income tax due by the associate). The employer's share of social security contributions is not included.
- (13) Amounts in USD for Mark C. Fishman were converted at a rate of CHF 1.00 = USD 0.923, which is the same average exchange rate used in the Group's consolidated financial statements.



Table of Contents

The 2009 Executive Committee total compensation mix cash and equity-based compensation is shown below.

	Cash <sup>(1)</sup>	Equity-based compensation <sup>(2)</sup>
Daniel Vasella	16.2%	83.8%
Raymund Breu	35.4%	64.6%
Juergen Brokatzky-Geiger	19.3%	80.7%
Mark C. Fishman	14.9%	85.1%
Joe Jimenez	32.2%	67.8%
Joerg Reinhardt	17.0%	83.0%
Andreas Rummelt	24.6%	75.4%
Thomas Wellauer	24.4%	75.6%
Thomas Werlen	28.7%	71.3%
Total	20.8%	79.2%

(1) Cash includes all benefits except pension benefits.

(2) Shares and share options, including future LSSP/ESOP match.

In 2009, the members of the Executive Committee, including the Chairman and Chief Executive Officer, earned 17.2% as base compensation, 79.2% as variable compensation, and 3.6% as benefits.

**SHARE OWNERSHIP**

**Ownership Guidelines**

Investors want the leaders of the companies they invest in to act like owners. In the Board's view, that alignment works best when Directors and key executives have meaningful portions of their personal holdings invested in the equity of their company. This is why Novartis sets share ownership guidelines for Directors and approximately 35 of the key executives of the Group.

Non-Executive Directors are required to own at least 5,000 Novartis shares within three years after joining the Board.

Key executives are required to own at least a certain multiple of their annual base salary in Novartis shares or share options. The Chairman and Chief Executive Officer is required to own Novartis equity worth five times, the members of the Executive Committee three times, and other key executives one to two times (position specific) their respective base compensation within three years of hire or promotion. In the event of a substantial drop in the share price, the Board may, at its discretion, extend that time period.

The Compensation Committee reviews compliance with the share ownership guideline on an annual basis.

Novartis equity counting against the share ownership requirement includes vested and unvested shares or ADRs acquired under the Novartis compensation plans, as well as RSUs thereof, with the exception of unvested matching RSUs from leveraged share savings plans and unvested RSUs from the Long-Term Performance Plan. In addition, it includes other shares as well as vested call options on



Table of Contents

Novartis shares or ADRs that are owned directly or indirectly by "persons closely linked"<sup>(1)</sup> to the Director or key executive.

**Shares and Share Options Owned by Non-Executive Directors**

The total number of vested and unvested shares and share options owned by Non-Executive Directors and "persons closely linked"<sup>(1)</sup> to them as of January 19, 2010, is shown in the following tables.

As of January 19, 2010, none of the Non-Executive Directors together with "persons closely linked"<sup>(1)</sup> to them owned 1% or more of the outstanding shares of Novartis, either directly or through share options.

As of December 31, 2009, all Non-Executive Directors who have served at least three years on the Board complied with the share ownership guidelines.

**Shares owned by Non-Executive Directors**

	<b>Number of shares<sup>(2)</sup></b>
Ulrich Lehner	22,193
Hans-Joerg Rudloff	40,080
William Brody	2,447
Srikant Datar	15,545
Ann Fudge	3,322
Alexandre F. Jetzer-Chung	80,800
Pierre Landolt <sup>(3)</sup>	29,791
Andreas von Planta	107,664
Wendelin Wiedeking	27,930
Marjorie M.T. Yang	18,000
Rolf M. Zinkernagel	22,800
<b>Total</b>	<b>370,572</b>

(1) "Persons closely linked" are (i) their spouse, (ii) their children below age 18, (iii) any legal entities that they own or otherwise control, and (iv) any legal or natural person who is acting as their fiduciary.

(2) Includes holdings of "persons closely linked" to Non-Executive Directors (see definition above footnote<sup>(1)</sup>).

(3) According to Pierre Landolt, of the total number, 29,580 shares are held by the Sandoz Family Foundation.

Table of Contents**Share options owned by Non-Executive Directors**

	<b>Number of share options</b>		
	<b>Granted by Novartis in 2002 or earlier<sup>(1)</sup></b>	<b>Share options acquired in the market<sup>(2)</sup></b>	<b>Total</b>
Ulrich Lehner	0	0	0
Hans-Joerg Rudloff	24,570	0	24,570
William Brody	0	0	0
Srikant Datar	10,000	0	10,000
Ann Fudge	0	0	0
Alexandre F. Jetzer-Chung	17,454	0	17,454
Pierre Landolt <sup>(3)</sup>	13,111	0	13,111
Andreas von Planta	0	0	0
Wendelin Wiedeking	0	0	0
Marjorie M.T. Yang	0	0	0
Rolf M. Zinkernagel	23,597	0	23,597
<b>Total</b>	<b>88,732</b>	<b>0</b>	<b>88,732</b>

(1) The last year in which Novartis granted share options to Non-Executive Directors was in 2002. In 2002, Novartis granted 79,087 share options to Non-Executive Directors at an exercise price of CHF 62 and a term of nine years.

(2) Includes holdings of "persons closely linked" to Non-Executive Directors (see definition on page 182).

(3) According to Pierre Landolt, the Sandoz Family Foundation is the economic beneficiary of all share options.

**Shares and Share Options Owned by Members of the Executive Committee**

The following tables show the total number of vested and unvested Novartis shares (including share units but excluding unvested matching share units from leveraged share savings plans and unvested target units from the Long-Term Performance Plan) and the total number of share options owned by the members of the Executive Committee as of January 19, 2010.

As of January 19, 2010, no member of the Executive Committee together with "persons closely linked" to them (see definition on page 182) owned 1% or more of the outstanding shares of Novartis, either directly or through share options.

As of December 31, 2009, all member of the Executive Committee who have served at least three years on the Executive Committee have met or exceeded their personal Novartis ownership requirements.

Table of Contents**Shares Owned by Members of the Executive Committee**

	<b>Number of shares<sup>(1)</sup></b>
Daniel Vasella	2,924,114
Raymund Breu	509,501
Juergen Brokatzky-Geiger	141,296
Mark C. Fishman	350,752
Joe Jimenez	120,546
Joerg Reinhardt	522,751
Andreas Rummelt	246,962
Thomas Wellauer	112,076
Thomas Werlen	73,227
<b>Total</b>	<b>5,001,225</b>

(1) Includes holdings of "persons closely linked" to members of the Executive Committee (see definition on page 182).

**Share Options Owned by Members of the Executive Committee**

	<b>Number of Share Options<sup>(1)</sup></b>						
	<b>2010</b>	<b>2009</b>	<b>2008</b>	<b>2007</b>	<b>2006</b>	<b>Other</b>	<b>Total</b>
Daniel Vasella	1,630,435	1,132,076	1,290,631	802,855	0	887,790	5,743,787
Raymund Breu	736,957	582,717	421,798	479,929	416,667	820,937	3,459,005
Juergen Brokatzky-Geiger	0	75,705	109,016	55,130	47,620	43,686	331,157
Mark C. Fishman	0	0	184,870	142,724	124,876	519,339	971,809
Joe Jimenez	0	552,076	157,266	0	0	0	709,342
Joerg Reinhardt	0	225,453	0	158,787	0	154,620	538,860
Andreas Rummelt	0	0	0	0	0	0	0
Thomas Wellauer	0	0	106,693	0	0	0	106,693
Thomas Werlen	171,196	175,912	0	0	0	141,215	488,323
<b>Total</b>	<b>2,538,588</b>	<b>2,743,939</b>	<b>2,270,274</b>	<b>1,639,425</b>	<b>589,163</b>	<b>2,567,587</b>	<b>12,348,976</b>

(1) Share options disclosed for a specific year were granted in that year under the Novartis Equity Plan "Select." The column "Other" refers to share options granted in 2005 or earlier, to share options granted to these executives while they were not members of the Executive Committee, and to share options bought by the members of the Executive Committee or "persons closely linked" to them (see definition on page 182) on the market.

**LOANS AND OTHER PAYMENTS****Loans to Non-Executive Directors or Members of the Executive Committee**

No loans were granted to current or former Non-Executive Directors or members of the Executive Committee during 2009. No such loans were outstanding as of December 31, 2009.



Table of Contents**Other Payments to Non-Executive Directors or Member of the Executive Committee**

During 2009, no payments (or waivers of claims) other than those set out in the Non-Executive Directors Compensation table and in the Executive Committee Compensation table were made to current Non-Executive Directors or members of the Executive Committee or to "persons closely linked" to them (see definition on page 182).

**Payments to Former Non-Executive Directors or Members of the Executive Committee**

During 2009, no payments (or waivers of claims) were made to former Non-Executive Directors or members of the Executive Committee or to "persons closely linked" to them (see definition on page 182), except for an amount of CHF 62,298 that was paid to the Honorary Chairman.

**6.C Board Practices****BOARD OF DIRECTORS****Composition of the Board of Directors as of December 31, 2009:**

<b>Name</b>	<b>Year of birth</b>	<b>First election at AGM</b>	<b>Next election at AGM</b>
Daniel Vasella, M.D.	1953	1996	2010
William Brody, M.D., Ph.D. <sup>(1)</sup>	1944	2009	2012
Peter Burckhardt, M.D. <sup>(2)</sup>	1939	1996	
Srikant Datar, Ph.D.	1953	2003	2012
Ann Fudge	1951	2008	2011
William W. George <sup>(2)</sup>	1942	1999	
Alexandre F. Jetzer-Chung	1941	1996	2011
Pierre Landolt	1947	1996	2011
Ulrich Lehner, Ph.D.	1946	2002	2011
Hans-Joerg Rudloff	1940	1996	2010
Andreas von Planta, Ph.D.	1955	2006	2012
Dr.Ing. Wendelin Wiedeking	1952	2003	2012
Marjorie M.T. Yang	1952	2007	2010
Rolf M. Zinkernagel, M.D.	1944	1999	2012

(1) Since February 2009.

(2) Until February 2009.

For biographical information of the Directors, please see Item 6A.

**Independence of Directors**

The independence of Directors is a key corporate governance issue. Accordingly, Novartis established independence criteria that are intended to reflect international best-practice standards. These independence criteria (last revised on October 16, 2008) can be found on the Novartis website:

[www.novartis.com/corporate-governance](http://www.novartis.com/corporate-governance)



Table of Contents

The Corporate Governance and Nomination Committee annually submits to the Board of Directors a proposal concerning the determination of the independence of each Director. For this assessment, the Committee considers all relevant facts and circumstances of which it is aware.

In its meeting on November 29, 2009, the Board of Directors determined that all of its members, except for Dr. Vasella and Alexandre F. Jetzer-Chung, were independent.

Dr. Vasella, the Chief Executive Officer, is the only Director who is also an executive of Novartis. Mr. Jetzer-Chung acts for Novartis under a consultancy agreement to support various government relations activities of Novartis.

The Board of Directors has delegated Rolf M. Zinkernagel, M.D., to the Scientific Advisory Board of the Novartis Institute for Tropical Diseases (NITD) and to the Board of Directors of the Genomics Institute of the Novartis Research Foundation (GNF). The Board of Directors concluded that these activities are supervisory, and not consultatory, in nature and do not affect Dr. Zinkernagel's independence as Director.

**Contracts with Non-Executive Directors**

There are no service contracts with any Non-Executive Director other than with Mr. Jetzer-Chung. The contract with Mr. Jetzer-Chung does not provide for any severance payments or for benefits upon termination.

**Election and Term of Office**

All Directors are elected individually.

Directors are elected to terms of office of three years or less by shareholders at General Meetings. The terms of office among Directors are to be coordinated so that approximately one-third of all Directors are subject each year to re-election or election. Under Swiss law, a General Meeting of shareholders is entitled to remove any Director at any time, regardless of his or her remaining term of office.

The average tenure of Directors is seven years and the average age is 61. A Director must retire after reaching age 70. Under special circumstances, shareholders may grant an exemption from this rule and re-elect a Director for additional terms of office of no more than three years at a time.

**The Functioning of the Board of Directors**

The Novartis Board of Directors takes decisions as a whole, supported by its five Board committees (Chairman's Committee, Compensation Committee, Audit and Compliance Committee, Corporate Governance and Nomination Committee and Risk Committee). Each Board committee has a written charter outlining its duties and responsibilities and is led by a Chair elected by the Board of Directors.

The Board of Directors and its Board committees meet regularly throughout the year. In addition, regular meetings of the independent Directors are held. The Chairs set the agendas of their meetings. Any Director may request a board meeting, a meeting of a Board committee or a meeting of the independent Directors or the inclusion of an item on the agenda of such meetings. Directors are provided, in advance of meetings, with materials intended to prepare them to discuss the items on the agenda.

**Chairman and Chief Executive Officer**

The Board of Directors regularly reviews the position of the Chairman and Chief Executive Officer. In the past, the Board of Directors was of the opinion that it is in the best interest of Novartis and its shareholders that Dr. Vasella serves as Chairman and Chief Executive Officer of the Group.

Table of Contents

The combination of the chairman and chief executive officer roles can be advantageous for a company if combined with an appropriate set of checks and balances. These checks and balances include an independent Lead Director, a majority of independent Directors, regular private meetings of the independent Directors chaired by the Lead Director and separate Board committees (Corporate Governance and Nomination Committee, Audit and Compliance Committee and Compensation Committee) that all are composed exclusively of independent Directors. Novartis has instituted all of these checks and balances.

**Lead Director**

In 2006, the Board of Directors appointed Ulrich Lehner, Ph.D., as Lead Director. His responsibilities include ensuring an orderly evaluation of the performance of the Chairman and Chief Executive Officer, chairing the meetings of the independent Directors and leading the independent Directors in the event of a crisis or in matters requiring their separate consideration or decision. The Lead Director is a member of all Board committees.

The Lead Director discusses with the independent Directors the need for meetings of the independent Directors. In 2009, the independent Directors held four such meetings chaired by the Lead Director. Among other topics the independent Directors in their meetings address the succession planning for the Chairman and Chief Executive Officer and evaluate his performance.

**Role of the Board of Directors**

The Board of Directors is responsible for the overall direction and supervision of the management and holds the ultimate decision-making authority for Novartis AG, except for those decisions reserved to the shareholders.

The primary responsibilities of the Board include:

Setting the strategic direction of the Group;

Determining the organizational structure and governance of the Group;

Appointing, overseeing and dismissing key executives and planning their succession;

Determining and overseeing the financial planning, accounting, reporting and controlling;

Approving the annual financial statements and the corresponding financial results releases;

Overseeing compliance and risk management; and

Approving major transactions and investments.

**Role of the Board Committees**

The Board of Directors has delegated certain responsibilities to five committees: Chairman's Committee, Compensation Committee, Audit and Compliance Committee, Corporate Governance and Nomination Committee and Risk Committee as set-out below (responsibilities described with the terms "overseeing" or "reviewing" are subject to the final approval by the Board of Directors).

Each Board committee has a written charter outlining its duties and responsibilities and is led by a Chair elected by the Board. The Board committees meet regularly to consider the items on the agenda determined by the Chair. Board committee members are provided, in advance of



meetings, with materials intended to prepare them to discuss the items on the agenda.

Table of Contents

These details are regulated in the Regulations of the Board of Directors, its Committees and the Executive Committee of Novartis AG (Board Regulations), which are published on the Novartis website:

[www.novartis.com/corporate-governance](http://www.novartis.com/corporate-governance)

**The Chairman's Committee**

The Chairman's Committee is composed of three Directors.

The primary responsibilities of this committee include:

Commenting on significant matters before the Board of Directors makes a decision;

Recommending key executive appointments to the Board of Directors;

Dealing with Board matters arising in between Board meetings, including the taking of required preliminary actions; and

Approving transactions and investments as delegated by the Board of Directors.

**The Compensation Committee**

The Compensation Committee is composed of four independent Directors.

The primary responsibilities of this committee include:

Designing, reviewing and recommending to the Board compensation policies and programs;

Advising the Board on the compensation of the Board members;

Approving the employment terms of key executives;

Deciding on the variable compensation of the Chairman and Chief Executive Officer, the members of the Executive Committee and other key executives for the past year; and

Deciding on the base salary and the total target compensation of the Chairman and Chief Executive Officer, the members of the Executive Committee and other key executives for the coming year. The Compensation Committee has the authority to retain external consultants and other advisors.

**The Audit and Compliance Committee**

The Audit and Compliance Committee is composed of four independent Directors. This Committee has determined that Srikant Datar, Ulrich Lehner and Hans-Joerg Rudloff each possess specific accounting and financial management expertise and that each is an Audit Committee Financial Expert as defined by the US Securities and Exchange Commission (SEC). The Board has also determined that other

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members of the Audit and Compliance Committee have sufficient experience and ability in finance and compliance matters to enable them to adequately discharge their responsibilities.

The primary responsibilities of this committee include:

Overseeing the internal auditors;

Supervising the external auditors and selecting and nominating the external auditors for election by the meeting of the shareholders;

Overseeing the accounting policies, financial controls and the compliance with accounting and internal control standards;

Approving quarterly financial statements and financial results releases;

Table of Contents

Overseeing internal control and compliance processes and procedures; and

Overseeing compliance with laws and external and internal regulations.

The Audit and Compliance Committee has the authority to retain external consultants and other advisors.

**The Corporate Governance and Nomination Committee**

The Corporate Governance and Nomination Committee is composed of five independent Directors.

The primary responsibilities of this committee include:

Designing, reviewing and recommending to the Board corporate governance principles;

Reviewing on a regular basis the Articles of Incorporation with a view to reinforce shareholder rights;

Reviewing on a regular basis the composition and size of the Board and its committees;

Reviewing annually the independence status of each Director;

Identifying candidates for election as Director;

Assessing existing Directors and recommending to the Board whether they should stand for re-election;

Preparing and reviewing the succession plan for the Chairman and CEO; and

Developing and reviewing an orientation program for new Directors and an ongoing education plan for existing Directors.

**The Risk Committee**

The Risk Committee is composed of four Directors.

The primary responsibilities of this committee include:

Ensuring that Novartis has implemented an appropriate and effective risk management system and process;

Ensuring that all necessary steps are taken to foster a culture of risk-adjusted decision-making without constraining reasonable risk-taking and innovation;

Approving guidelines and reviewing policies and processes; and

Reviewing with management, internal auditors and external auditors the identification, prioritization and management of the risks, the accountabilities and roles of the functions involved with risk management, the risk portfolio and the related actions implemented by management.

Table of Contents**Board and Committees Attendance, Number and Duration of Meetings in 2009**

	Full Board	Chairman's Committee	Compensation Committee	Audit and Compliance Committee	Corporate Governance and Nomination Committee	Risk Committee <sup>(2)</sup>
<b>Number of meetings in 2009</b>	<b>8</b>	<b>8</b>	<b>5</b>	<b>7</b>	<b>3</b>	<b>1</b>
<b>Approximate duration of each meeting (hours)</b>	<b>6</b>	<b>1.5</b>	<b>1.5</b>	<b>3</b>	<b>2</b>	<b>1</b>
Daniel Vasella	8 <sup>(1)</sup>	8 <sup>(1)</sup>				
Ulrich Lehner	8	8	5	7	3 <sup>(1)</sup>	1
Hans-Joerg Rudloff	8	7	5 <sup>(1)</sup>	7		1
William Brody <sup>(3)</sup>	6					
Srikant Datar	8		5	7 <sup>(1)</sup>		1
Ann Fudge	7				3	
Alexandre F. Jetzer	7					
Pierre Landolt	7				2	
Andreas von Planta	7			7	3	1 <sup>(1)</sup>
Wendelin Wiedeking	6					
Marjorie M. Yang	8		5			
Rolf M. Zinkernagel	8				3	

(1) Chair.

(2) The Risk Committee was established in December 2009.

(3) Since February 2009.

**INFORMATION AND CONTROL SYSTEMS OF THE BOARD VIS-À-VIS MANAGEMENT****The Board of Directors**

The Board of Directors ensures that it receives sufficient information from the Executive Committee to perform its supervisory duty and to make decisions that are reserved for the Board of Directors. The authority of the Board of Directors to determine the compensation of the members of the Executive Committee is an important element to ensure the alignment of Executive Committee members with the interests of Novartis and its shareholders.

The Board of Directors obtains the information required to perform its duties through several means:

Since the Chairman is also the Chief Executive Officer of Novartis, who heads the meetings of the Executive Committee, he is fully informed on all current developments;

The Chairman and Chief Executive Officer informs all Directors regularly about current developments, including by monthly submitting written reports;

The minutes of Executive Committee meetings are made available to the Directors;

Informal meetings or teleconferences are held as required between Directors and the Chairman and Chief Executive Officer or the Lead Director;

Table of Contents

A session is held at each Board meeting with all members of the Executive Committee;

The Board of Directors is updated in detail by each Division Head on a quarterly basis;

By invitation, other members of management are invited to attend Board meetings to report on areas of the business within their responsibility; and

Directors are entitled to request information from members of the Executive Committee or any other Novartis associate, and may also visit any Novartis site.

**Board Committees**

Board committees regularly meet with management and, at times, outside consultants to review the business, better understand applicable laws and policies affecting the Group and support the Board of Directors and the management in meeting the requirements and expectations of stakeholders and shareholders.

In particular, the Chief Financial Officer, the Group General Counsel and representatives of the external auditors are invited to meetings of the Audit and Compliance Committee. Furthermore, the Heads of Internal Audit, Financial Reporting and Accounting, Risk Management and Compliance, as well as the Business Practices Officer, report on a regular basis to the Audit and Compliance Committee.

The Audit and Compliance Committee reviews financial reporting processes on behalf of the Board of Directors. For each quarterly and annual release of financial information, the Disclosure Review Committee reviews the release for accuracy and completeness of disclosures. The Disclosure Review Committee is chaired by the Chief Financial Officer and is attended by the Chief Operating Officer, the Group General Counsel, the Heads of the Divisions, the Heads of Finance of the Divisions and the Heads of the following Corporate Functions: Treasury, Financial Reporting and Accounting, Internal Audit and Investor Relations. Decisions made by the Disclosure Review Committee are reviewed by the Audit and Compliance Committee before publication of the quarterly and annual release.

**Internal Audit**

The Internal Audit function carries out operational and system audits in accordance with an audit plan adopted by the Audit and Compliance Committee; assists organizational units in the accomplishment of objectives by providing an independent approach to the evaluation, improvement and effectiveness of their internal control framework; prepares reports regarding the audits it has performed; and reports actual or suspected irregularities to the Audit and Compliance Committee and the Chairman. The Audit and Compliance Committee regularly reviews the scope of Internal Audit, the audit plans and the results of the internal audits.

**Risk Management**

The Corporate Risk Management function reports to the independent Risk Committee of the Board of Directors. Organizational and process measures have been designed to identify and mitigate risks at an early stage. Organizationally, the responsibility for risk and risk mitigation is allocated to the divisions, with specialized corporate functions such as Group Finance, Group Quality Operations, Corporate Health, Safety, Environment and Business Continuity, providing support and controlling the effectiveness of the risk management by the divisions.

**MANAGEMENT OF THE GROUP**

**Composition of the Executive Committee**

The Executive Committee is headed by the Chairman and Chief Executive Officer. The members of the Executive Committee are appointed by the Board of Directors. The Chairman and Chief Executive





Table of Contents

Officer may appoint or remove non-voting Permanent Attendees to attend the meetings of the Executive Committee. As of December 31, 2009, five Permanent Attendees attend meetings of the Executive Committee.

The organizational structure and the details of the responsibility of the Executive Committee are set forth in the Board Regulations. The Board of Directors has not concluded any contracts with third parties to manage the business.

The Board of Directors has delegated to the Executive Committee the coordination of the Group's day-to-day business operations. This includes:

Developing policies, strategies and strategic plans for approval by the Board of Directors and implementing those approved by the Board of Directors;

Submitting to the Board of Directors and its committees proposed changes in management positions of material significance, investments, financial measures, acquisitions or divestitures, contracts of material significance and budgets;

Preparing and submitting quarterly and annual reports to the Board of Directors or its committees;

Informing the Board of Directors of all matters of fundamental significance to the businesses;

Recruiting, appointing and promoting senior management;

Ensuring the efficient operation of the Group and achievement of optimized results;

Promoting an active internal and external communications policy; and

Dealing with any other matters as are delegated by the Board of Directors to the Executive Committee.

For biographical information of the members of the Executive Committee and the Permanent Attendees, please see Item 6A.

**Contracts with Members of the Executive Committee**

In accordance with good corporate governance, it is a principle of Novartis that new employment contracts with members of the Executive Committee should contain:

No unusually long notice periods;

No change-of-control clauses; and

No severance payments.

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Two existing contracts with members of the Executive Committee are not in line with this principle since they provide for a notice period of 36 months (in both cases) or a change-of-control clause (in one case). To align these contracts, Novartis gave notice in 2007 to these two members of the Executive Committee. Both contracts will expire in 2010.

As per the Annual General Meeting held on February 24, 2009, the Board of Directors and Dr. Vasella entered into a new employment contract for Dr. Vasella regarding his current roles as Chairman and Chief Executive Officer of Novartis. The new contract is automatically renewed for one-year periods, if not terminated with a notice period of six months.

Table of Contents

**GROUP STRUCTURE**

**Novartis AG and Group Companies**

Under Swiss company law, Novartis AG is organized as a corporation, which has issued shares of common stock to investors. The registered office of Novartis AG is Lichtstrasse 35, CH-4056 Basel, Switzerland.

Business operations are conducted through Novartis Group companies. Novartis AG, a holding company, owns directly or indirectly all companies worldwide belonging to the Novartis Group. Except as described below, the shares of these companies are not publicly traded. The most important Novartis subsidiaries and associated companies are listed in "Item 18. Financial Statements note 31".

**Divisions**

The Novartis Group conducts its business through four divisions: Pharmaceuticals, Vaccines and Diagnostics, Sandoz and Consumer Health.

**Majority Holdings in Publicly Traded Group Companies**

76.42% of Novartis India Limited. The remaining shares are registered for trading on the Bombay Stock Exchange (ISIN INE234A01025, symbol: HCBA). The market value of the Group's interest in Novartis India Limited, as of December 31, 2009, was \$291.0 million. The total market value of Novartis India Limited was \$380.8 million.

**Significant Minority Holdings in Publicly Traded Companies**

Novartis AG holds

33.3% of the bearer shares of Roche Holding AG, with its registered office in Basel, Switzerland, and listed on the SIX Swiss Exchange (Valor No. 1203211, ISIN CH0012032113, symbol: RO). The market value of the Group's interest in Roche Holding AG, as of December 31, 2009, was \$9.3 billion. The total market value of Roche Holding AG was \$147.1 billion. Novartis does not exercise control over Roche Holding AG, which is independently governed, managed and operated.

24.8% of the registered shares of Alcon Inc., with its registered office in Hünenberg, Switzerland, and listed on the NYSE (symbol: ACL). The market value of the Group's interest in Alcon Inc., as of December 31, 2009, was \$12.2 billion. The total market value of Alcon Inc. was \$49.2 billion. Novartis does not exercise control over Alcon Inc., which is independently governed, managed and operated.

47.2% of Idenix Pharmaceuticals, Inc. The shares of Idenix Pharmaceuticals are listed on NASDAQ (Valor No. 1630029, ISIN US45166R2040, symbol: IDIX). The market value of the Group's interest in Idenix Pharmaceuticals, Inc., as of December 31, 2009, was \$67.3 million. The total market value of Idenix Pharmaceuticals, Inc., was \$142.6 million. Novartis does not exercise control over Idenix Pharmaceuticals, Inc., which is independently governed, managed and operated.

Table of Contents

**SHAREHOLDERS OF NOVARTIS AG**

**Significant Shareholders**

According to the share register, as of December 31, 2009, the following shareholders (including nominees and the ADR depository) held more than 2% of the total share capital of Novartis with the right to vote these shares:<sup>(1)</sup>

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(1) Excluding 6.6% of the share capital held by Novartis AG, together with Novartis affiliates, as treasury shares.

Shareholders: Novartis Foundation for Employee Participation, with its registered office in Basel, Switzerland, holding 4.6% and Emasan AG, with its registered office in Basel, Switzerland, holding 3.3%;

Nominees: JPMorgan Chase Bank, New York (holding 10.2%); Mellon Bank, Everett, Massachusetts (holding 2.9%); Nortrust Nominees, London (holding 2.5%); and

ADR depository: JPMorgan Chase Bank, New York (holding 10.5%).

During 2009, Novartis AG published several disclosure notifications pertaining to indirect holdings of Capital Group Companies, Inc., with its registered office in Los Angeles, US, on behalf of various companies, clients and funds. As per the last notification on June 6, 2009, Capital Group Companies, Inc., held 3.26%.

On December 17, 2009, Novartis AG published a disclosure notification pertaining to indirect holdings of BlackRock, Inc., with its registered office in New York, US, on behalf of various companies. As per this notification, BlackRock, Inc., held 3.34%.

Novartis has not entered into any agreement with any shareholder regarding the voting or holding of Novartis shares.

**Cross Shareholdings**

Novartis has no cross shareholdings in excess of 5% of capital or voting rights with any other company.

Table of Contents**Distribution of Novartis Shares**

As of December 31, 2009, Novartis had more than 159,000 registered shareholders. The following table provides information about the distribution of shareholders by number of shares held:

<b>As of December 31, 2009 Number of Shares Held</b>	<b>Number of Registered Shareholders</b>	<b>% of Registered Share Capital</b>
1 100	20,579	0.05
101 1,000	93,447	1.57
1,001 10,000	40,751	4.29
10,001 100,000	3,834	3.75
100,001 1,000,000	496	5.67
1,000,001 5,000,000	77	6.45
5,000,001 or more <sup>(1)</sup>	35	54.13
Total registered shareholders/shares	159,219	75.91
Unregistered shares		24.09
<b>Total</b>		<b>100.00</b>

(1) Including Significant Shareholders listed above.

The following table provides information about the distribution of shareholders by type and geographic region. This information relates only to registered shareholders and does not include holders of unregistered shares. Also, the information provided in the table below cannot be assumed to be fully representative of the entire Novartis investor base since nominees and JPMorgan Chase Bank, as ADS depository, are registered as shareholders for a large number of beneficial owners.

**Registered Shareholders by Type and Geographic Region**

<b>As of December 31, 2009</b>	<b>Shareholders in %</b>	<b>Shares in %</b>
Individual shareholders	95.94	13.04
Legal entities	3.94	40.71
Nominees, fiduciaries	0.12	46.25
<b>Total</b>	<b>100.00</b>	<b>100.00</b>
Switzerland <sup>(1)</sup>	89.53	45.09
Europe	9.10	10.66
United States	0.42	42.18
Other countries	0.95	2.07
<b>Total</b>	<b>100.00</b>	<b>100.00</b>

(1) Excluding 6.6% of the share capital held by Novartis AG, together with Novartis affiliates, as treasury shares.

Table of Contents**CAPITAL STRUCTURE****Share Capital of Novartis AG**

The share capital of Novartis AG is CHF 1,318,811,500, fully paid-in and divided into 2,637,623,000 registered shares, each with a nominal value of CHF 0.50. Novartis has neither authorized nor conditional capital. There are no preferential voting shares; all shares have equal voting rights. No participation certificates, non-voting equity securities (Genussscheine) or profit-sharing certificates have been issued.

Novartis shares are listed and traded on the SIX Swiss Exchange (Valor No. 001200526, ISIN CH0012005267, symbol: NOVN) as well as on the NYSE in the form of American Depositary Receipts (ADRs) (Valor No. 567514, ISIN US66987V1098, symbol: NVS).

The holder of a Novartis American Depositary Receipt (ADR) has the rights enumerated in the Deposit Agreement (such as the right to vote and to receive a dividend). The ADR depository of Novartis, JPMorgan Chase Bank, New York, holding the Novartis shares underlying the ADRs, is registered as shareholder in the share register of Novartis. An ADR is not a Novartis share and an ADR holder is not a Novartis shareholder. ADR holders exercise their voting rights by instructing the depository to exercise their voting rights. Each ADR represents one Novartis share.

**Share Repurchase Programs**

Novartis began repurchasing its shares in 1999. Since then, five share repurchase programs have been completed with the repurchase of shares worth CHF 19 billion. Shares repurchased under the first program were not cancelled. However, shares repurchased under the other four programs were cancelled. At the Annual General Meeting in February 2008, shareholders authorized the Board of Directors to launch a sixth program to repurchase shares up to a maximum amount of CHF 10 billion via a second trading line. In 2008, a total of six million shares were repurchased at an average price of CHF 49.42 per share and cancelled. The share repurchase program is currently suspended in favor of debt repayment.

**Changes in Share Capital**

Novartis has not increased its share capital during the last three years.

As part of various share repurchase programs, Novartis has reduced its share capital as follows:

**Capital Reductions**

Year of reduction	Number of shares		As of December 31	Amount of capital reduced in CHF
	As of January 1	Shares cancelled		
2006	2,739,171,000	10,200,000	2,728,971,000	5,100,000
2007	2,728,971,000	0	2,728,971,000	0
2008	2,728,971,000	85,348,000	2,643,623,000	42,674,000
2009	2,643,623,000	6,000,000	2,637,623,000	3,000,000

**Convertible or Exchangeable Securities**

Novartis has not issued convertible or exchangeable bonds, warrants, options or other securities granting rights to Novartis shares, other than securities granted to associates as a component of compensation.

Table of Contents

**SHAREHOLDER RIGHTS**

**Right to Vote ("One Share, one Vote")**

Each share registered with the right to vote entitles the holder to one vote at General Meetings.

ADR holders may vote by instructing JPMorgan Chase Bank, the ADR depository, to exercise the voting rights attached to the registered shares underlying the ADRs. JPMorgan Chase Bank exercises the voting rights for registered shares underlying ADRs for which no voting instructions have been given by providing a discretionary proxy to the independent proxy appointed by Novartis pursuant to Swiss law.

**Resolutions and Elections at the General Meeting**

The General Meeting passes resolutions and elections with the absolute majority of the votes represented at the meeting. However, under the Articles of Incorporation, the approval of two-thirds of the votes represented at the meeting is required for:

An alteration of the purpose of Novartis AG;

The creation of shares with increased voting powers;

An implementation of restrictions on the transfer of registered shares and the removal of such restrictions;

An authorized or conditional increase of the share capital;

An increase of the share capital out of equity, by contribution in kind, for the purpose of an acquisition of property, or the grant of special rights;

A restriction or suspension of rights or options to subscribe;

A change of location of the registered office of Novartis AG; or

The dissolution of Novartis AG.

**Other Shareholder Rights**

Shareholders representing at least 10% of the share capital may request that an extraordinary General Meeting of shareholders be convened. Shareholders representing shares with an aggregate nominal value of at least CHF 1 million may request that an item be included in the agenda of a General Meeting of shareholders. Such requests must be made in writing at least 45 days before the date of the General Meeting, specify the item to be included in the agenda and contain the proposal on which the shareholder requests a vote.

Shareholders have the right to receive dividends, appoint a proxy and hold such other rights as are granted under Swiss Law.

**Shareholder Registration**



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No restrictions apply on the transferability of Novartis shares. However, only shareholders registered in the Novartis share register may exercise their voting rights. In order to be registered, a shareholder must declare that he or she acquired the shares in his or her own name and for his or her own account. The Articles of Incorporation provide that the Board of Directors may register nominees with the right to vote. For restrictions on registration of nominees, please see below.

The Articles of Incorporation provide that no shareholder shall be registered with the right to vote for more than 2% of the registered share capital. The Board of Directors may, upon request, grant an exemption from this restriction. Exemptions are in force for the Significant Shareholders listed under Shareholders of Novartis AG Significant Shareholders.

Table of Contents

In 2009, no exemptions were requested. The same restrictions apply to holders of ADRs as those holding Novartis shares.

Given that shareholder representation at General Meetings has traditionally been low in Switzerland, Novartis considers the restriction on registration necessary to prevent a minority shareholder from dominating a General Meeting.

The Articles of Incorporation provide that no nominee shall be registered with the right to vote for more than 0.5% of the registered share capital. The Board of Directors may, upon request, grant an exemption from this restriction if the nominee discloses the names, addresses and the number of shares of the persons for whose account it holds 0.5% or more of the registered share capital. Exemptions are in force for the nominees listed under Shareholders of Novartis AG Significant Shareholders.

The same restrictions apply to holders of ADRs as those holding Novartis shares. The restrictions on registration contained in the Articles of Incorporation may only be removed by a resolution of the General Meeting of shareholders, with approval of at least two-thirds of the votes represented at the meeting.

Shareholders, ADR holders or nominees that are linked to each other or act in concert to circumvent the restrictions on registration are treated as one person or nominee for purposes of the restrictions on registration.

**No Restrictions on Trading of Shares**

The registration of shareholders in the Novartis share register or in the ADR register kept by JPMorgan Chase Bank does not affect the tradability of Novartis shares or ADRs. No restrictions are imposed by Novartis or JPMorgan Chase Bank on the trading of registered Novartis shares or ADRs. Registered Novartis shareholders or ADR holders may, therefore, purchase or sell their Novartis shares or ADRs at any time, including prior to a General Meeting regardless of the record date. The record date serves only to determine the right to vote at a General Meeting of Novartis.

**CHANGE OF CONTROL PROVISION**

**No Opting Up, No Opting Out**

The Swiss Stock Exchange Act provides that anyone who, directly, indirectly or acting in concert with third parties, acquires equity securities exceeding 33<sup>1</sup>/<sub>3</sub>% of the voting rights of a company whether or not such rights are exercisable is required to make an offer to acquire all listed equity securities of that company. A company may raise this threshold to 49% of the voting rights ("opting up") or may, under certain circumstances, waive the threshold ("opting out"). Novartis has not adopted any such measures.

**Clauses on Changes-Of-Control**

There are no change-of-control clauses benefiting Directors. With regards to members of the Executive Committee see Management of the Group Contracts with Members of the Executive Committee.

**STANDARDS APPLICABLE TO NOVARTIS**

**Laws and Regulations**

Novartis is subject to the laws of Switzerland, in particular Swiss company and securities laws, and to the securities laws of the United States as applicable to foreign private issuers of securities.

In addition, Novartis is subject to the rules of the Swiss Stock Exchange (SIX Swiss Exchange), including the Directive on Information relating to Corporate Governance.

Table of Contents

Novartis is also subject to the rules of the New York Stock Exchange (NYSE) as applicable to foreign private issuers of securities. The NYSE requires Novartis to describe any material ways in which its corporate governance differs from that of domestic US companies listed on the NYSE. Different from US law, shareholders under Swiss law do not receive written reports from committees of the Board of Directors. In addition, the external auditors are appointed by our shareholders at the Annual General Meeting, as opposed to being appointed by the Audit and Compliance Committee. Finally, our Board of Directors has set up a separate Risk Committee that is responsible for risk oversight, as opposed to delegating this responsibility to the Audit and Compliance Committee.

**Swiss Code of Best Practice for Corporate Governance**

Novartis applies the Swiss Code of Best Practice for Corporate Governance.

**Novartis Corporate Governance Standards**

Novartis has incorporated the corporate governance standards described above into the Articles of Incorporation and the Regulations of the Board of Directors, its Committees and the Executive Committee.

The Corporate Governance and Nomination Committee regularly reviews these standards and principles in light of prevailing best practices and makes recommendations for improvements of the corporate governance framework of Novartis for consideration by the full Board of Directors.

Additional corporate governance information can be found on the Novartis website:

<http://www.novartis.com/corporate-governance>

Printed copies of the Novartis Articles of Incorporation, Regulations of the Board and Charters of Board Committees can be obtained by writing to: Novartis AG, Attn: Corporate Secretary, CH-4056 Basel, Switzerland.

**INFORMATION OF OUR STAKEHOLDERS**

**Introduction**

Novartis is committed to open and transparent communication with shareholders, financial analysts, customers, suppliers and other stakeholders. Novartis aims to disseminate material developments in its businesses in a broad and timely manner that complies with the rules of the SIX Swiss Exchange and the NYSE.

**Communications**

Novartis publishes an Annual Report each year that provides information on the Group's results and operations. In addition to the Annual Report, Novartis prepares an annual report on Form 20-F that is filed with the SEC. Novartis discloses quarterly financial results in accordance with IFRS and issues press releases from time to time regarding developments in its businesses.

Novartis furnishes press releases relating to financial results and material events to the SEC via Form 6-K. An archive containing Annual Reports, annual reports on Form 20-F, and quarterly results releases, as well as related materials, such as slide presentations and conference call webcasts, is on the Novartis Investor Relations website ([www.novartis.com/investors](http://www.novartis.com/investors)). A press release archive is available on the Novartis website:

<http://www.novartis.com/newsroom/media-releases/index.shtml>

Table of Contents

Information contained in reports and releases issued by Novartis is only correct and accurate at the time of release. Novartis does not update past releases to reflect subsequent events and advises against relying on them for current information.

**INVESTOR RELATIONS PROGRAM**

An Investor Relations team manages the Group's interaction with the international financial community. Several events are held each year to provide institutional investors and analysts various opportunities to learn more about Novartis.

Investor Relations is based at the Group's headquarters in Basel, Switzerland. A team is also located in New York to coordinate interaction with US investors. Information is available on the Novartis website: [www.novartis.com/investors](http://www.novartis.com/investors). Investors are also welcome to subscribe to a free e-mail service on this site.

**WEBSITE INFORMATION**

<b>Topic</b>	<b>Information</b>
<b>Share Capital</b>	Articles of Incorporation of Novartis AG <a href="http://www.novartis.com/corporate-governance">http://www.novartis.com/corporate-governance</a> Novartis key share data <a href="http://www.novartis.com/key-share-data">http://www.novartis.com/key-share-data</a>
<b>Shareholder Rights</b>	Articles of Incorporation of Novartis AG <a href="http://www.novartis.com/corporate-governance">http://www.novartis.com/corporate-governance</a> Investor Relations information <a href="http://www.novartis.com/investors">http://www.novartis.com/investors</a>
<b>Board of Directors and Executive Committee</b>	Board Regulations <a href="http://www.novartis.com/corporate-governance">http://www.novartis.com/corporate-governance</a>
<b>Senior Management</b>	Senior Leadership Team <a href="http://www.novartis.com/executive-committee">http://www.novartis.com/executive-committee</a>
<b>Novartis Code for Senior Financial Officers</b>	Novartis Code of Ethical Conduct for CEO and Senior Financial Officers <a href="http://www.novartis.com/corporate-governance">http://www.novartis.com/corporate-governance</a>
<b>Additional Information</b>	Novartis Investor Relations <a href="http://www.novartis.com/investors">http://www.novartis.com/investors</a>

Table of Contents**6.D Employees**

The table below sets forth the breakdown of the total year-end number of our full-time equivalent employees by main category of activity and geographic area for the past three years.

<b>For the year ended December 31, 2009 (full time equivalents)</b>	<b>Research &amp; Development</b>	<b>Production &amp; Supply</b>	<b>Marketing &amp; Sales</b>	<b>General &amp; Administration</b>	<b>Total</b>
USA	6,367	3,683	8,626	1,849	20,525
Canada and Latin America	556	2,365	4,644	912	8,477
Europe	10,433	17,226	16,946	5,389	49,994
Asia/Africa/Australasia	2,466	3,888	13,083	1,401	20,838
<b>Total</b>	<b>19,822</b>	<b>27,162</b>	<b>43,299</b>	<b>9,551</b>	<b>99,834</b>

<b>For the year ended December 31, 2008 (full time equivalents)</b>	<b>Research &amp; Development</b>	<b>Production &amp; Supply</b>	<b>Marketing &amp; Sales</b>	<b>General &amp; Administration</b>	<b>Total</b>
USA	5,856	3,659	8,740	2,074	20,329
Canada and Latin America	525	2,410	4,665	887	8,487
Europe	9,824	16,749	16,267	5,549	48,389
Asia/Africa/Australasia	2,105	4,293	11,794	1,320	19,512
<b>Total</b>	<b>18,310</b>	<b>27,111</b>	<b>41,466</b>	<b>9,830</b>	<b>96,717</b>

<b>For the year ended December 31, 2007 (full time equivalents)</b>	<b>Research &amp; Development</b>	<b>Production &amp; Supply</b>	<b>Marketing &amp; Sales</b>	<b>General &amp; Administration</b>	<b>Total</b>
USA	5,782	4,161	9,747	2,041	21,731
Canada and Latin America	495	2,510	4,776	983	8,764
Europe	9,619	16,958	16,620	5,743	48,940
Asia/Africa/Australasia	1,861	4,455	11,092	1,357	18,765
<b>Total</b>	<b>17,757</b>	<b>28,084</b>	<b>42,235</b>	<b>10,124</b>	<b>98,200</b>

<b>Movements in full-time equivalents</b>	<b>2009</b>	<b>2008</b>
<b>Associates as of January 1</b>	96,717	98,200
Separations	(3,377)	(4,644)
Retirements	(817)	(919)
Resignations	(6,537)	(9,262)
External hiring's, net	13,848	13,342
<b>Associates as of December 31</b>	<b>99,834</b>	<b>96,717</b>

A relatively small number of our associates are represented by unions. We have not experienced any material work stoppages in recent years, and we consider our employee relations to be good.

Table of Contents**6.E Share Ownership**

The aggregate amount of our shares owned by current non-executive Directors and the current members of our Executive Committee (including persons closely linked to them) as of January 19, 2010 was 5 371 797 shares.

The aggregate amount of Novartis share and ADS options, including other information regarding the options, held by current non-executive Directors and the current members of our Executive Committee as of January 19, 2010 is set forth below:

<b>Title of Options</b>	<b>Amount of shares called for by the options</b>	<b>Exercise Price<sup>(1)</sup> (CHF)</b>	<b>Purchase Price (if any)</b>	<b>Expiration Date</b>	<b>Total number of options held</b>
Novas10 Options	1	70.00	0	March 7, 2010	22,680
Novas11 Options	1	62.00	0	March 7, 2011	56,052
Novas12 Options	1	48.86	0	February 3, 2012	0
Novas14 Options	1	57.45	0	February 3, 2014	383,048
Novas15 Options	1	57.45	0	February 3, 2015	1,418,298
Novas16 Options	1	71.30	0	February 5, 2016	569,974
Novas17 Options	1	72.85	0	February 3, 2017	1,551,902
Novas18 Options	1	64.05	0	January 10, 2018	2,171,418
Novas19 Options	1	53.65	0	January 18, 2019	2,743,939
Novas20 Options	1	55.85	0	January 19, 2020	2,538,588
<b>Total Novartis Share Options</b>					<b>11,455,899</b>
Novartis ADS Options Cycle V	1	\$ 41.97	0	March 7, 2011	0
Novartis ADS Options Cycle VI	1	\$ 37.28	0	March 7, 2012	121,100
Novartis ADS Options Cycle VII	1	\$ 36.31	0	February 4, 2013	133,648
Novartis ADS Options Cycle VIII	1	\$ 46.09	0	February 4, 2014	112,932
Novartis ADS Options Cycle IX	1	\$ 47.84	0	February 4, 2015	151,659
Novartis ADS Options Cycle X	1	\$ 54.70	0	February 5, 2016	124,876
Novartis ADS Options Cycle XI	1	\$ 58.38	0	February 3, 2017	142,724
Novartis ADS Options Cycle XII	1	\$ 57.96	0	January 10, 2018	184,870
Novartis ADS Options Cycle XIII	1	\$ 46.42	0	January 18, 2019	0
Novartis ADS Options Cycle XIV	1	\$ 53.70	0	January 19, 2020	0
Novartis ADS Options Others	1	\$ 37.86	0	October 26, 2011	10,000

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**Total Novartis ADS Options**

981,809

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(1)

Exercise price indicated is per share, and denominated in Swiss francs except where indicated.

For more information on the Novartis shares and share options owned by individual members of our Executive Committee and by our current non-executive Directors, see " Item 6.B Compensation Ownership of Novartis Shares and Share Option by Executive Committee Members." and " Item 6.B Compensation Ownership of Novartis Shares and Share Option by Non-Executive Directors." For information on our equity-based compensation plans see " Item 6.B Compensation Compensation to Novartis Associates."

Table of Contents

**Item 7. Major Shareholders and Related Party Transactions**

**7.A Major Shareholders**

Based on our share register, we believe that we are not directly or indirectly owned or controlled by another corporation or government, or by any other natural or legal persons.

According to the share register, on December 31, 2009, no person or entity was registered as the owner of more than 5% of our shares. As of that date, excluding 6.6% of our share capital held by Novartis AG, together with Novartis affiliates, as treasury shares, the following shareholders (including nominees and the ADS depository) held more than 2% of the total share capital of Novartis with the right to vote these shares:

Shareholders: Novartis Foundation for Employee Participation, with its registered office in Basel, Switzerland, holding 4.6% and Emasan AG, with its registered office in Basel, Switzerland, holding 3.3%;

Nominees: JPMorgan Chase Bank, New York (holding 10.2%); Mellon Bank, Everett, Massachusetts (holding 2.9%); Nortrust Nominees, London (holding 2.5%); and

ADS depository: JPMorgan Chase Bank, New York (holding 10.5%).

During 2009, Novartis AG published several disclosure notifications pertaining to indirect holdings of Capital Group Companies, Inc., with its registered office in Los Angeles, California, on behalf of various companies, clients and funds. As per the last notification on June 6, 2009, the Capital Group Companies, Inc. held 3.26%.

On December 17, 2009, Novartis AG published a disclosure notification pertaining to indirect holdings of BlackRock, Inc., with its registered office in New York, New York, on behalf of various companies. As per this notification, BlackRock, Inc. held 3.34%.

As of December 31, 2008, the holdings of the shareholders listed above with a right to vote were as follows:

Shareholders: Novartis Foundation for Employee Participation, with its registered office in Basel, Switzerland (holding 4.2% of the share capital); Emasan AG, with its registered office in Basel, Switzerland (holding 3.3%);

Nominees: JPMorgan Chase Bank, New York (holding 8.9%); Mellon Bank, Everett, Massachusetts (holding 2.6%); Nortrust Nominees, London (holding 2.3%); and

ADS depository: JPMorgan Chase Bank, New York (holding 11.8%).

As of December 31, 2007, the holdings of the shareholders listed above with a right to vote were as follows:

Shareholders: Novartis Foundation for Employee Participation, with its registered office in Basel, Switzerland (holding 3.6% of the share capital); Emasan AG, with its registered office in Basel, Switzerland (holding 3.2%);

Nominees: JPMorgan Chase Bank, New York (holding 7.6%); Mellon Bank, Everett, Massachusetts (holding 2.3%); Nortrust Nominees, London (holding 2.4%); and



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ADS depositary: JPMorgan Chase Bank, New York (holding 12.4%).

As of December 31, 2009, no other shareholder was registered as owner of more than 2% of the registered share capital. Novartis has not entered into any agreement with any shareholder regarding the voting or holding of Novartis shares.

Table of Contents**7.B Related Party Transactions**

**Roche/Genentech:** Novartis has two agreements with Genentech, Inc., USA, a subsidiary of Roche Holdings AG (Roche) which is indirectly included in the consolidated financial statements using equity accounting since Novartis holds 33.3% of the outstanding voting shares of Roche.

*Lucentis.* Novartis Ophthalmics, part of the Novartis Pharmaceuticals Division, has licensed the exclusive rights to develop and market *Lucentis* outside the US for indications related to diseases of the eye. As part of this agreement, Novartis paid Genentech an initial milestone and shared the cost for the subsequent development by making additional milestone payments upon the achievement of certain clinical development points and product approval. Novartis also pays royalties on the net sales of *Lucentis* products outside the US. *Lucentis* sales of \$1,232 million (2008: \$886 million; 2007: \$393 million) have been recognized by Novartis.

*Xolair.* In February 2004, Novartis Pharma AG, Genentech, Inc., and Tanox, Inc., finalized a three-party collaboration to govern the development and commercialization of certain anti-IgE antibodies including *Xolair* and TNX-901. Under this agreement, all three parties co-developed *Xolair*. On August 2, 2007, Genentech, Inc. completed the acquisition of Tanox, Inc. and has taken over its rights and obligations. The Novartis shares held in Tanox were sold to Genentech and realized a gain of \$117 million. Novartis and Genentech are co-promoting *Xolair* in the US where Genentech records all sales.

Novartis markets *Xolair* and records all sales and related costs in Europe as well as co-promotion costs in the US. Genentech and Novartis share the resulting profits from sales in the US, Europe and some East Asian countries, according to agreed profit-sharing percentages. Novartis recognized total sales of *Xolair* of \$338 million (2008: \$211 million; 2007: \$140 million) including sales to Genentech for the US market.

The net expense for royalties, cost sharing and profit sharing arising out of the *Lucentis* and *Xolair* agreements with Genentech totaled \$200 million in 2009 (2008: \$85 million net expense; 2007: \$4 million net income).

Furthermore, Novartis Vaccines and Diagnostics has a patent license agreement with Roche related to clinical diagnostic for hepatitis C virus and human immunodeficiency virus and several Novartis entities hold Roche bonds totaling \$1.0 billion.

**Idenix:** Novartis Pharma AG entered into a collaboration agreement with Idenix in May 2003 relating to the worldwide development and commercialization of drug candidates, and purchased approximately 54% of the common stock of Idenix. As Novartis had the ability to exercise control, Idenix was fully consolidated. In August 2009, Novartis opted not to purchase shares that were issued pursuant to an underwritten offering and waived and amended certain rights under the development and commercialization agreement. As a result of this, the Novartis shareholding was diluted from the pre-offering level of 53% to 47% and since September 1, 2009 Idenix has been accounted for according to the equity method. Novartis has a license agreement with Idenix for *Tyzeka/Sebivo* and may pay additional license fees and development expenses for drug candidates that Novartis may elect to license from Idenix. The sales of *Tyzeka/Sebivo* totaled \$84 million in 2009.

**Executive Officer:** During 2009, a member of the Executive Committee acquired real estate for CHF 3.7 million from a consolidated entity. The transaction price was based on independent external valuation reports.

**7.C Interests of Experts and Counsel**

Not applicable.

Table of Contents

**Item 8. Financial Information**

**8.A Consolidated Statements and Other Financial Information**

See "Item 18. Financial Statements."

***Dividend policy***

Subject to the dividend policy described below, our Board of Directors expects to recommend the payment of a dividend in respect of each financial year. If approved by our shareholders at the relevant annual Shareholders' Meeting, the dividends will be payable shortly following such approval. Any shareholder who purchased our shares on or before the second trading day after the shareholders' meeting and holds the shares through that date shall be deemed to be entitled to receive the dividends approved at that meeting. Dividends are reflected in our financial statements in the year in which they are approved by our shareholders.

Our Board's stated policy is that, over the long term, the size of the dividend should be geared to growth in our after-tax earnings. In December 2007, our Board established a policy of paying dividends, subject to shareholder approval, of between 35% and 60% of our net income from continuing operations. However, all future dividends paid by us will depend upon our financial condition at the time, the results of our operations and other factors.

The Board will propose a dividend of CHF 2.10 per share to the shareholders for approval at the Annual General Meeting to be held on February 26, 2010. Because we pay dividends in Swiss francs, exchange rate fluctuations will affect the US dollar amounts received by holders of ADSs. For a summary of dividends we paid in the past five years, see "Item 3. Key Information 3.A Selected Financial Data Cash Dividends per Share."

**8.B Significant Changes**

None.

**Item 9. The Offer and Listing**

**9.A Listing Details**

Our shares are listed in Switzerland on the SIX Swiss Exchange (SIX).

American Depositary Shares, each representing one share, have been available in the US through an American Depositary Receipts (ADR) program since December 1996. This program was established pursuant to a Deposit Agreement which we entered into with JPMorgan Chase Bank N.A. as Depositary (Deposit Agreement). Our ADSs have been listed on the NYSE since May 2000, and are traded under the symbol "NVS."

The table below sets forth, for the periods indicated, the high and low closing sales prices for our shares traded in Switzerland and for ADSs traded in US. The data below regarding our shares reflects price and volume information for trades completed by members of the SIX during the day as well as for inter-dealer trades completed off the SIX and certain inter-dealer trades completed during trading on the previous business day.

Table of Contents

The following share data was taken from SIX; the ADS data was taken from Bloomberg:

	Shares		ADSs	
	High (CHF per share)	Low	High (\$ per ADS)	Low
<b>Annual information for the past five years</b>				
2005	71.50	55.35	54.70	45.75
2006	76.80	64.20	61.24	51.90
2007	74.65	57.55	59.70	51.60
2008	66.25	45.62	61.06	43.85
2009	56.90	39.64	56.16	33.96
<b>Quarterly information for the past two years</b>				
<b>2009</b>				
First Quarter	54.05	39.64	49.62	33.96
Second Quarter	45.48	41.50	42.22	35.42
Third Quarter	51.85	42.56	50.38	39.22
Fourth Quarter	56.90	51.20	56.16	49.50
<b>2008</b>				
First Quarter	65.45	46.14	59.05	47.05
Second Quarter	56.05	46.66	55.04	46.26
Third Quarter	63.65	56.10	61.06	52.62
Fourth Quarter	61.15	48.10	53.57	43.85
<b>Monthly information for most recent six months</b>				
August 2009	49.28	47.90	46.63	44.40
September 2009	51.85	48.54	50.38	45.79
October 2009	53.75	51.20	52.42	49.50
November 2009	55.85	53.25	55.85	52.13
December 2009	56.90	55.70	56.16	53.76
January 2010 (through January 19)	55.85	53.50	53.70	51.91

Fluctuations in the exchange rate between the Swiss franc and the US dollar will affect any comparisons of Swiss share prices and US ADS prices.

The average daily volumes traded on the SIX (ON/OFF exchange) for the years 2009, 2008 and 2007 were 7,110,909, 11,827,619 and 13,059,367, respectively. These numbers are based on total annual turnover statistics supplied by the SIX via the Swiss Market Feed, which supplies such data to subscribers and to other information providers. The average daily volumes traded in the US for the years 2009, 2008 and 2007 were 1,640,066, 2,046,796 and 2,071,834 respectively.

The Depositary has informed us that as of January 19, 2010, there were 266,459,457 ADSs outstanding, each representing one Novartis share (approximately 10.1% of total Novartis shares issued). On January 19, 2010, the closing sales price per share on the SIX was CHF 55.85 and \$53.70 per ADS on the NYSE.

**9.B Plan of Distribution**

Not applicable.

Table of Contents

**9.C Market**

See "9.A Listing Details."

**9.D Selling Shareholders**

Not applicable.

**9.E Dilution**

Not applicable.

**9.F Expenses of the Issue**

Not applicable.

**Item 10. Additional Information**

**10.A Share capital**

Not applicable.

**10.B Memorandum and Articles of Association**

The following is a summary of certain provisions of our Articles of Incorporation (Articles), our Regulations of the Board of Directors (Board Regulations) and of Swiss law, particularly, the Swiss Code of Obligations (Swiss Code). This is not a summary of all the significant provisions of the Articles, the Board Regulations or of Swiss law. This summary is qualified in its entirety by reference to the Articles and the Board Regulations, which are an exhibit to this Form 20-F, and to Swiss law.

**10.B.1 Company Purpose**

Novartis AG is registered in the commercial register of the Canton of Basel-Stadt, Switzerland, under number CH-270.3.002.061-2. Our business purpose, as stated in Article 2 of the Articles, is to hold interests in enterprises in the area of healthcare or nutrition. We may also hold interests in enterprises in the areas of biology, chemistry, physics, information technology or related areas. We may acquire, mortgage, liquidate or sell real estate and intellectual property rights in Switzerland or abroad. In pursuing our business purpose, we strive to create sustainable value.

**10.B.2 Directors**

(a) According to our Board Regulations, our Directors may not participate in deliberations or resolutions on matters which affect, or reasonably might affect, the Director's interests, or the interests of a person close to the Director. In addition, while the Swiss Code does not have a specific provision on conflicts of interests, the Swiss Code does require directors and members of senior management to safeguard the interests of the corporation and, in this connection, imposes a duty of care and a duty of loyalty on such persons. This rule is generally interpreted to mean that directors and members of senior management are disqualified from participating in decisions which affect them personally.

(b) As with any Board resolution, Directors may not vote on their own compensation unless at least a majority of the Directors are present.



Table of Contents

(c) The Articles and the Board Regulations contain no specific provision permitting or prohibiting Directors from borrowing from us. The Board of Directors may take decisions on all matters which by law or the Articles are not allocated to the General Meeting of Shareholders.

(d) Directors must retire after the end of their seventieth year of age, but the retirement does not become effective until the date of the next Ordinary General Meeting of Shareholders. The General Meeting of Shareholders may, under special circumstances, grant an exemption from this rule and may elect a Director for further terms of office of no more than three years at a time.

(e) Under the Articles, each of our Directors must also be a shareholder. Ownership of one share is sufficient to satisfy this requirement.

**10.B.3 Shareholder Rights**

Because we have only one class of registered shares, the following information applies to all shareholders.

(a) The Swiss Code requires that at least 5% of our annual profit be retained as general reserves, so long as these reserves amount to less than 20% of our registered share capital. The law and the Articles permit us to accrue additional reserves.

Under the Swiss Code, we may only pay dividends out of the balance sheet profit or out of reserves created for this purpose. In either event, under the Swiss Code, while the Board of Directors may propose that a dividend be paid, we may only pay dividends upon shareholders' approval at a General Meeting of Shareholders. Our auditors must confirm that the dividend proposal of our Board of Directors conforms with the Swiss Code and the Articles. Our Board of Directors intends to propose a dividend once each year. See "Item 3. Key Information 3.A. Selected Financial Data Cash Dividends per Share."

Dividends are usually due and payable shortly after the shareholders have passed a resolution approving the payment. Dividends which have not been claimed within five years after the due date revert to us, and are allocated to our general reserves. For information about deduction of the withholding tax from dividend payments, see "Item 10. Additional Information 10.E Taxation."

(b) Each share is entitled to one vote at a General Meeting of Shareholders. Voting rights may only be exercised for shares registered with the right to vote on the Record Date. In order to do so, the shareholder must file a share registration form with us, setting forth the shareholder's name, address and citizenship (or, in the case of a legal entity, its registered office). If the shareholder has not timely filed the form, then the shareholder may not vote at, or participate in, General Meetings of Shareholders.

To vote its shares, the shareholder must also explicitly declare that it has acquired the shares in its own name and for its own account. If the shareholder refuses to make such a declaration, the shares may not be voted unless the Board of Directors recognizes such shareholder as nominee. The Board of Directors may grant such nominees the right to vote up to 0.5% of the registered share capital as set forth in the commercial register.

Except as described below, no shareholder may be registered with the right to vote shares composing more than 2% of the our registered share capital as set forth in the commercial register. If a shareholder holds more than 2% of Novartis' shares, that shareholder will be entitled to register the excess shares, but not to cast votes based upon them (registration without the right to vote).

For purposes of the 2% rule for shareholders and the 0.5% rule for nominees, groups of companies and groups of shareholders acting in concert are considered to be one shareholder. The Board of Directors may, upon request, grant exemptions from both the 2% rule for shareholders and the 0.5% rule for nominees. The Board of Directors may delegate this power. To date, such a request has never been denied. Finally, the shareholders may cancel the registration restrictions upon a resolution carrying a two-thirds majority of the vote at a General Meeting of Shareholders.

Table of Contents

After hearing the registered shareholder or nominee, the Board of Directors may cancel, with retroactive effect as of the date of registration, the registration of the shareholders if the registration was effected based on false information.

Shareholders' resolutions generally require the approval of a majority of the votes present at a General Meeting of Shareholders. As a result, abstentions have the effect of votes against the resolution. Shareholder resolutions requiring a vote by such "absolute majority" include (1) amendments to the Articles; (2) elections of directors and statutory auditors; (3) approval of the annual report and the annual accounts; (4) setting the annual dividend; (5) decisions to discharge directors and management from liability for matters disclosed to the General Meeting of Shareholders; and (6) the ordering of an independent investigation into specific matters proposed to the General Meeting of Shareholders.

According to the Articles and Swiss law, the following types of shareholders' resolutions require the approval of a "supermajority" of at least two-thirds of the votes present at a General Meeting of Shareholders: (1) an alteration of our corporate purpose; (2) the creation of shares with increased voting powers; (3) an implementation of restrictions on the transfer of registered shares and the removal of such restrictions; (4) an authorized or conditional increase of the share capital; (5) an increase of the share capital by conversion of equity, by contribution in kind, or for the purpose of an acquisition of property or the grant of special rights; (6) a restriction or an elimination of shareholders' preemptive rights; (7) a change of our domicile; (8) our dissolution; or (9) any amendment to the Articles which would create or eliminate a supermajority requirement.

The Directors' terms of office are coordinated so that in each year approximately one-third of all the Directors are subject to re-election or election. Cumulative voting of shares is not permitted under Swiss law.

At General Meetings of Shareholders, shareholders can be represented by proxy. However, a proxy must either be the shareholder's legal representative, another shareholder with the right to vote, a proxy appointed by us, an independent representative nominated by us, or a depositary. Votes are taken either by a show of hands or by electronic voting, unless the General Meeting of Shareholders resolves to have a ballot or where a ballot is ordered by the chairman of the meeting.

A holder of Novartis American Depositary Receipt (ADR) has a paper receipt issued by our depositary JPMorgan Chase Bank, New York, and not by us. The ADR is vested with rights defined and enumerated in the Deposit Agreement (such as the rights to vote, to receive a dividend and to receive a share of Novartis in exchange for a certain number of ADRs). The enumeration of rights, including any limitations on those rights, is final. There are no other rights given to the ADR holders. Only the ADR depositary, holding our shares underlying the ADRs, is registered as shareholder in our share register. An ADR is not a Novartis share and an ADR holder is not a Novartis shareholder.

The Deposit Agreement between our depositary, the ADR holder and us has granted the right to vote to the ADR holders. ADR holders may not attend Novartis General Meetings in person. ADR holders exercise their voting rights by instructing JPMorgan Chase Bank, our depositary, to exercise the voting rights attached to the registered shares underlying the ADRs. Each ADR represents one Novartis share. JPMorgan Chase Bank exercises the voting rights for registered shares underlying ADRs for which no voting instructions have been given by providing a discretionary proxy to the independent proxy appointed by Novartis pursuant to paragraph 13 of the Deposit Agreement governing ADRs. The same voting restrictions apply to ADR holders as to those holding Novartis shares (i.e. the right to vote up to 2% of the Novartis registered share capital unless otherwise granted an exemption by the Board and disclosure requirement for nominees).

(c) Shareholders have the right to allocate the profit shown on our balance sheet by vote taken at the General Meeting of Shareholders, subject to the legal requirements described in "Item 10.B.3(a) Shareholder Rights".



Table of Contents

(d) Under the Swiss Code, any surplus arising out of a liquidation of our company (*i.e.*, after the settlement of all claims of all creditors) would be distributed to the shareholders in proportion to the paid-in nominal value of their shares.

(e) The Swiss Code limits a corporation's ability to hold or repurchase its own shares. We and our subsidiaries may only repurchase shares if we have freely disposable equity, in the amount necessary for this purpose, available. The aggregate nominal value of all Novartis shares held by us and our subsidiaries may not exceed 10% of our registered share capital. However, it is accepted that a corporation may repurchase its own shares beyond the statutory limit of 10%, if the repurchased shares are clearly dedicated for cancellation and if the shareholders passed a respective resolution at a General Meeting of Shareholders. In addition, we are required to create a special reserve on our balance sheet in the amount of the purchase price of the acquired shares. Repurchased shares held by us or our subsidiaries do not carry any rights to vote at a General Meeting of Shareholders, but are entitled to the economic benefits generally connected with the shares. It should be noted that the definition of what constitutes subsidiaries, and therefore, treasury shares, for purposes of the above described reserves requirement and voting restrictions differs from the definition included in the consolidated financial statements. The definition in the consolidated financial statements requires consolidation for financial reporting purposes of special purpose entities, irrespective of their legal structure, in instances where we have the power to govern the financial and operating policies of the entity so as to obtain benefits from its activities.

Under the Swiss Code, we may not cancel treasury shares without the approval of a capital reduction by our shareholders.

(f) Not applicable.

(g) Since all of our issued and outstanding shares have been fully paid in, we can make no further capital calls on our shareholders.

(h) See Items "10.B.3(b) Shareholder Rights" and "10.B.7 Change in Control".

**10.B.4 Changes To Shareholder Rights**

Under the Swiss Code, we may not issue new shares without the prior approval of a capital increase by our shareholders. If a capital increase is approved, then our shareholders would have certain preemptive rights to obtain newly issued shares in an amount proportional to the nominal value of the shares they already hold. These preemptive rights could be modified in certain limited circumstances with the approval of a resolution adopted at a General Meeting of Shareholders by a supermajority of votes. In addition, we may not create shares with increased voting powers or place restrictions on the transfer of registered shares without the approval of a resolution adopted at a General Meeting of Shareholders by a supermajority of votes. In addition, see Item 10.B.3(b) with regard to the Board of Directors' ability to cancel the registration of shares under limited circumstances.

**10.B.5 Shareholder Meetings**

Under the Swiss Code and the Articles, we must hold an annual ordinary General Meeting of Shareholders within six months after the end of our financial year. General Meetings of Shareholders may be convened by the Board of Directors or, if necessary, by the statutory auditors. The Board of Directors is further required to convene an extraordinary General Meeting of Shareholders if so resolved by a General Meeting of Shareholders, or if so requested by shareholders holding an aggregate of at least 10% of the registered shares, specifying the items for the agenda and their proposals. Shareholders holding shares with a nominal value of at least CHF 1,000,000 (*i.e.*, 2,000,000 Novartis shares) have the right to request that a specific proposal be put on the agenda and voted upon at the next General Meeting of Shareholders. A General Meeting of Shareholders is convened by publishing a notice in the official Swiss Commercial Gazette (*Schweizerisches Handelsamtsblatt*) at least 20 days prior to such meeting.

Table of Contents

Shareholders may also be informed by mail. There is no provision in the Swiss Code or our Articles requiring a quorum for the holding of a General Meeting of Shareholders. In addition see "Item 10.B.3(b) Shareholder Rights" regarding conditions for exercising a shareholder's right to vote at a General Meeting of Shareholders.

**10.B.6 Limitations**

There are no limitations under the Swiss Code or our Articles on the right of non-Swiss residents or nationals to own or vote shares other than the restrictions applicable to all shareholders. But see "Item 10.B.3(b) Shareholder Rights" regarding conditions for exercising an ADS holder's right to vote at a shareholder meeting.

**10.B.7 Change in Control**

The Articles and the Board Regulation contain no provision that would have an effect of delaying, deferring or preventing a change in control of Novartis and that would operate only with respect to a merger, acquisition or corporate restructuring involving us or any of our subsidiaries.

According to the Swiss Merger Act, shareholders may pass a resolution to merge with another corporation at any time. Such a resolution would require the consent of at least two-thirds of all votes present at the necessary General Meeting of Shareholders.

Under the Swiss Stock Exchange Act, shareholders and groups of shareholders acting in concert who acquire more than 33<sup>1</sup>/<sub>3</sub>% of our shares would be under an obligation to make an offer to acquire all remaining Novartis shares.

**10.B.8 Disclosure of Shareholdings**

Under the Swiss Stock Exchange Act, holders of our voting shares are required to notify us and the SIX Swiss Exchange of the level of their holdings whenever such holdings reach or exceed, or in some cases, fall short of, certain thresholds 3%, 5%, 10%, 15%, 20%, 25%, 33<sup>1</sup>/<sub>3</sub>%, 50% and 66<sup>2</sup>/<sub>3</sub>% of our registered share capital. Following receipt of such notification we are required to inform the public by publishing the information in the official Swiss Commercial Gazette and in at least one of the principal electronic media that disseminate stock exchange information.

An additional disclosure obligation exists under the Swiss Code which requires us to disclose, once a year in the notes to the financial statements published in our annual report, the identity of all of our shareholders (or related groups of shareholders) who have been granted exemption entitling them to vote more than 2% of our registered share capital, as described in "Item 10.B.3(b) Shareholder Rights".

**10.B.9 Differences in the Law**

See the references to Swiss law throughout this "Item 10.B Memorandum and Articles of Association".

**10.B.10 Changes in Capital**

The requirements of the Articles regarding changes in capital are not more stringent than the requirements of Swiss law.

Table of Contents

**10.C Material contracts**

In April 2007, we entered into an agreement with Nestlé S.A. of Switzerland to divest our Gerber Business Unit for \$5.5 billion. This transaction was completed in September 2007.

In April 2008, we entered into an agreement with Nestlé S.A. of Switzerland under which we obtained the right to acquire majority ownership in Alcon Inc. (NYSE: ACL) in two steps. The potential value of these two steps is approximately \$39 billion. The first step was completed on July 7, 2008, when we acquired an initial 25% stake (74 million shares) from Nestlé for \$10.4 billion in cash. This investment reflects a price of \$143.18 per share. In the optional second step, we had the right to acquire Nestlé's remaining 52% majority stake in Alcon between January 1, 2010 and July 31, 2011 for a fixed price of \$181.00 per share, or approximately \$28 billion. On January 4, 2010, we announced our intention to gain full ownership of Alcon Inc. by first completing the April 2008 agreement with Nestlé S.A. and acquiring Nestlé's remaining 52% majority stake in Alcon, and subsequently entering into an all-share direct merger with Alcon for the remaining 23% minority stake. The acquisition of the 52% majority stake is subject to required regulatory approvals. The merger, which will be implemented under the Swiss Merger Act, will be conditional on the closing of the 52% stake acquisition from Nestlé and would require approval by the Boards of Directors of Novartis and Alcon. The merger would also require two-thirds approval by the shareholders of Novartis and Alcon voting at their respective meetings. Under Swiss law, Novartis has the right to vote its Alcon stake in favor of the proposed merger.

**10.D Exchange controls**

There are no Swiss governmental laws, decrees or regulations that restrict the export or import of capital, including any foreign exchange controls, or that affect the remittance of dividends or other payments to non-residents or non-citizens of Switzerland who hold Novartis' shares.

**10.E Taxation**

The taxation discussion set forth below is intended only as a descriptive summary and does not purport to be a complete analysis or listing of all potential tax effects relevant to the ownership or disposition of our shares or ADSs. The statements of US and Swiss tax laws set forth below are based on the laws and regulations in force as of the date of this 20-F, including the current Convention Between the United States and the Swiss Confederation for the Avoidance of Double Taxation with Respect to Taxes on Income, entered into force on December 19, 1997 (the "Treaty"), and the US Internal Revenue Code of 1986, as amended (the "Code"), Treasury regulations, rulings, judicial decisions and administrative pronouncements, and may be subject to any changes in US and Swiss law, and in any double taxation convention or treaty between the United States and Switzerland occurring after that date, which changes may have retroactive effect.

**Swiss Taxation**

*Swiss Residents*

*Withholding Tax on Dividends and Distributions.* Dividends which we pay and similar cash or in-kind distributions which we may make to a holder of shares or ADSs (including distributions of liquidation proceeds in excess of the nominal value, stock dividends and, under certain circumstances, proceeds from repurchases of shares by us in excess of the nominal value) are subject to a Swiss federal withholding tax (the "Withholding Tax") at a current rate of 35%. We are required to withhold this Withholding Tax from the gross distribution and to pay the Withholding Tax to the Swiss Federal Tax Administration. The Withholding Tax is refundable in full to Swiss residents who are the beneficial owners of the taxable distribution at the time it is resolved and duly report the gross distribution received on their personal tax return or in their financial statements for tax purposes, as the case may be.

Table of Contents

*Income Tax on Dividends.* A Swiss resident who receives dividends and similar distributions (including stock dividends and liquidation surplus) on shares or ADSs is required to include such amounts in the shareholder's personal income tax return. A corporate shareholder may claim substantial relief from taxation of dividends and similar distributions received if the shares held represent a fair market value of at least CHF 2 million.

*Capital Gains Tax upon Disposal of shares.* Under current Swiss tax law, the gain realized on shares held by a Swiss resident who holds shares or ADSs as part of his private property is generally not subject to any federal, cantonal or municipal income taxation on gains realized on the sale or other disposal of shares or ADSs. However, gains realized upon a repurchase of shares by us may be characterized as taxable dividend income if certain conditions are met. Book gains realized on shares or ADSs held by a Swiss corporate entity or by a Swiss resident individual as part of the shareholder's business property are, in general, included in the taxable income of such person. However, the Federal Law on the Direct Federal Tax of December 14, 1990 and several cantonal laws on direct cantonal taxes provide for exceptions for Swiss corporate entities holding more than 20% of our voting stock for more than one year.

***Residents of Other Countries***

Recipients of dividends and similar distributions on the shares who are neither residents of Switzerland for tax purposes nor holding shares as part of a business conducted through a permanent establishment situated in Switzerland ("Non-resident Holders") are not subject to Swiss income taxes in respect of such distributions. Moreover, gains realized by such recipients upon the disposal of shares are not subject to Swiss income taxes.

Non-resident Holders of shares are, however, subject to the Withholding Tax on dividends and similar distributions mentioned above and under certain circumstances to the Stamp Duty described below. Such Non-resident Holders may be entitled to a partial refund of the Withholding Tax if the country in which they reside has entered into a bilateral treaty for the avoidance of double taxation with Switzerland. Non-resident Holders should be aware that the procedures for claiming treaty refunds (and the time frame required for obtaining a refund) may differ from country to country. Non-resident Holders should consult their own tax advisors regarding receipt, ownership, purchase, sale or other dispositions of shares or ADSs and the procedures for claiming a refund of the Withholding Tax.

## Edgar Filing: NOVARTIS AG - Form 20-F

### Table of Contents

As of January 1, 2010, Switzerland has entered into bilateral treaties for the avoidance of double taxation with respect to income taxes with the following countries, whereby a part of the above-mentioned Withholding Tax may be refunded (subject to the limitations set forth in such treaties):

Armenia	Finland	Kuwait	Russia
Albania	France	Kyrgyzstan	Serbia and
Algeria	Germany	Latvia	Montenegro
Australia	Ghana	Lithuania	Singapore
Austria	Greece	Luxembourg	Slovak Republic
Azerbaijan	Hungary	Macedonia	Slovenia
Bahrain	Iceland	Malaysia	South Africa
Bangladesh	India	Mexico	Spain
Belarus	Indonesia	Moldavia	Sri Lanka
Belgium	Iran	Mongolia	Sweden
Bulgaria	Israel	Morocco	Thailand
Canada	Italy	Netherlands	Trinidad and Tobago
China	Ivory Coast	New Zealand	Tunisia
Croatia	Republic of Ireland	Norway	Ukraine
Czech Republic	Jamaica	Pakistan	United Kingdom
Denmark	Japan	Philippines	United States of America
Ecuador	Kazakhstan	Poland	Uzbekistan
Egypt	Republic of Korea	Portugal	Venezuela
Estonia	(South Korea)	Romania	Vietnam

Tax treaty negotiations are under way, or have been concluded, with Argentina (treaty not yet in force but provisionally applicable as from January 1, 2001), Brazil, Chile, Colombia, Costa Rica, Georgia, Libya, Malta, North Korea, Peru, Qatar, Senegal, Syria, Tajikistan, Turkey, United Arab Emirates, and Zimbabwe.

A Non-resident Holder of shares or ADSs will not be liable for any Swiss taxes other than the Withholding Tax described above and, if the transfer occurs through or with a Swiss bank or other Swiss securities dealer, the Stamp Duty described below. If, however, the shares or ADSs of Non-resident Holders can be attributed to a permanent establishment or a fixed place of business maintained by such person within Switzerland during the relevant tax year, the shares or ADSs may be subject to Swiss income taxes in respect of income and gains realized on the shares or ADSs and such person may qualify for a full refund of the Withholding Tax based on Swiss tax law.

*Residents of the United States.* A Non-resident Holder who is a resident of the United States for purposes of the Treaty is eligible for a reduced rate of tax on dividends equal to 15% of the dividend, provided that such holder (i) qualifies for benefits under the Treaty, (ii) holds, directly and indirectly, less than 10% of our voting stock, and (iii) does not conduct business through a permanent establishment or fixed base in Switzerland to which the shares or ADSs are attributable. Such an eligible holder must apply for a refund of the amount of the Withholding Tax in excess of the 15% Treaty rate. A Non-resident Holder who is a resident of the United States for purposes of the Treaty is eligible for a reduced rate of tax on dividends equal to 5% of the dividend, provided that such holder (i) is a company, (ii) qualifies for benefits under the Treaty, (iii) holds directly at least 10% of our voting stock, and (iv) does not conduct business through a permanent establishment or fixed place of business in Switzerland to which the shares or ADSs are attributable. Such an eligible holder must apply for a refund of the amount of the Withholding Tax in excess of the 5% Treaty rate. Claims for refunds must be filed on Swiss Tax Form 82 (82C for corporations; 82I for individuals; 82E for other entities), which may be obtained from any Swiss

Table of Contents

Consulate General in the United States or from the Federal Tax Administration of Switzerland at the address below, together with an instruction form. Four copies of the form must be duly completed, signed before a notary public of the United States, and sent to the Federal Tax Administration of Switzerland, Eigerstrasse 65, CH-3003 Berne, Switzerland. The form must be accompanied by suitable evidence of deduction of Swiss tax withheld at source, such as certificates of deduction, signed bank vouchers or credit slips. The form may be filed on or after July 1 or January 1 following the date the dividend was payable, but no later than December 31 of the third year following the calendar year in which the dividend became payable. For US resident holders of ADSs, JPMorgan Chase Bank, N.A., as Depository, will comply with these Swiss procedures on behalf of the holders, and will remit the net amount to the holders.

*Stamp Duty upon Transfer of Securities.* The sale of shares, whether by Swiss residents or Non-resident Holders, may be subject to federal securities transfer Stamp Duty of 0.15%, calculated on the sale proceeds, if the sale occurs through or with a Swiss bank or other Swiss securities dealer, as defined in the Swiss Federal Stamp Duty Act. The Stamp Duty has to be paid by the securities dealer and may be charged to the parties in a taxable transaction who are not securities dealers. Stamp Duty may also be due if a sale of shares occurs with or through a non-Swiss bank or securities dealer, provided (i) such bank or dealer is a member of the SWX, and (ii) the sale takes place on the SWX. In addition to this Stamp Duty, the sale of shares by or through a member of the SWX may be subject to a minor stock exchange levy.

### **United States Federal Income Taxation**

The following is a general discussion of the material US federal income tax consequences of the ownership and disposition of our shares or ADSs that may be relevant to you if you are a US Holder (as defined below). Because this discussion does not consider any specific circumstances of any particular holder of our shares or ADSs, persons who are subject to US taxation are strongly urged to consult their own tax advisers as to the overall US federal, state and local tax consequences, as well as to the overall Swiss and other foreign tax consequences, of the ownership and disposition of our shares or ADSs. In particular, additional or different rules may apply to US expatriates, banks and other financial institutions, regulated investment companies, traders in securities who elect to apply a mark-to-market method of accounting, dealers in securities or currencies, tax-exempt entities, insurance companies, broker-dealers, investors liable for alternative minimum tax, investors that hold shares or ADSs as part of a straddle, hedging or conversion transaction, holders whose functional currency is not the US dollar, partnerships or other pass through entities, persons who acquired our shares pursuant to the exercise of employee stock options or otherwise as compensation and persons who hold directly, indirectly or by attribution, 10% or more of the voting power of our outstanding shares. This discussion generally applies only to US Holders who hold the shares or ADSs as a capital asset (generally, for investment purposes), and whose functional currency is the US dollar. Investors are urged to consult their own tax advisors concerning whether they are eligible for benefits under the Treaty.

For purposes of this discussion, a "US Holder" is a beneficial owner of our shares or ADSs who is (i) an individual who is a citizen or resident of the United States for US federal income tax purposes, (ii) a corporation (or other entity taxable as a corporation for US federal income tax purposes) created or organized in or under the laws of the US or a state thereof or the District of Columbia, (iii) an estate the income of which is subject to US federal income taxation regardless of its source, or (iv) a trust (i) subject to the primary supervision of a US court and the control of one or more US persons or (ii) that has a valid election in place to be treated as a US person. If a partnership (or other entity treated as a partnership for US federal income tax purposes) holds shares or ADSs, the tax treatment of a partner generally will depend upon the status of the partner and the activities of the partnership. Partners in a partnership that holds shares or ADSs are urged to consult their own tax advisor regarding the specific tax consequences of the owning and disposing of such shares or ADSs by the partnership.

Table of Contents

For US federal income tax purposes, a US Holder of ADSs generally will be treated as the beneficial owner of our shares represented by the ADSs. However, see the discussion below under " Dividends" regarding certain statements made by the US Treasury concerning depository arrangements.

This discussion assumes that each obligation in the Deposit Agreement and any related agreement will be performed in accordance with its terms.

*Dividends.* US Holders will be required to include in gross income, as an item of ordinary income, the full amount (including the amount of any Withholding Tax) of a dividend paid with respect to our shares or ADSs at the time that such dividend is received by the US Holder, in the case of shares, or by the Depository, in the case of ADSs. For this purpose, a "dividend" will include any distribution paid by us with respect to our shares or ADSs (other than certain pro rata distributions of our capital stock) paid out of our current or accumulated earnings and profits, as determined under US federal income tax principles. To the extent the amount of a distribution by us exceeds our current and accumulated earnings and profits, such excess will first be treated as a tax-free return of capital to the extent of a US Holder's tax basis in the shares or ADSs (with a corresponding reduction in such tax basis), and thereafter will be treated as capital gain, which will be long-term capital gain if the US Holder held our shares or ADSs for more than one year. Under the Code, dividend payments by us on the shares or ADSs are not eligible for the dividends received deduction generally allowed to corporate shareholders.

Dividend income in respect of our shares or ADSs will constitute income from sources outside the United States for US foreign tax credit purposes. Subject to the limitations and conditions provided in the Code, US Holders generally may claim as a credit against their US federal income tax liability, any Withholding Tax withheld from a dividend. The rules governing the foreign tax credit are complex. Each US Holder is urged to consult its own tax advisor concerning whether, and to what extent, a foreign tax credit will be available with respect to dividends received from us. Alternatively, a US Holder may claim the Withholding Tax as a deduction for the taxable year within which the Withholding Tax is paid or accrued, provided a deduction is claimed for all of the foreign income taxes the US Holder pays or accrues in the particular year. A deduction does not reduce US tax on a dollar-for-dollar basis like a tax credit. The deduction, however, is not subject to the limitations applicable to foreign tax credits.

The US Treasury has expressed concern that parties to whom ADSs are released may be taking actions inconsistent with the claiming of foreign tax credits for US Holders of ADSs. Accordingly, the summary above of the creditability of the Withholding Tax could be affected by future actions that may be taken by the US Treasury.

In general, a US Holder will be required to determine the amount of any dividend paid in Swiss francs, including the amount of any Withholding Tax imposed thereon, by translating the Swiss francs into US dollars at the spot rate on the date the dividend is actually or constructively received by a US Holder, in the case of shares, or by the Depository, in the case of ADSs, regardless of whether the Swiss francs are in fact converted into US dollars. If a US Holder converts the Swiss francs so received into US dollars on the date of receipt, the US Holder generally should not recognize foreign currency gain or loss on such conversion. If a US Holder does not convert the Swiss francs so received into US dollars on the date of receipt, the US Holder will have a tax basis in the Swiss francs equal to the US dollar value on such date. Any foreign currency gain or loss that a US Holder recognizes on a subsequent conversion or other disposition of the Swiss francs generally will be treated as US source ordinary income or loss.

For a non-corporate US Holder, the US dollar amount of any dividends paid to it prior to January 1, 2011 that constitute qualified dividend income generally will be taxable at a maximum rate of 15%, provided that the US Holder meets certain holding period and other requirements. We currently believe that dividends paid with respect to our shares and ADSs will constitute qualified dividend income for US federal income tax purposes. However, the US Treasury and the US Internal Revenue Service ("IRS") have announced their intention to promulgate rules pursuant to which US Holders of shares and ADSs, among others, will be permitted to rely on certifications from issuers to establish that dividends are

Table of Contents

treated as qualified dividends. US Holders of shares or ADSs are urged to consult their own tax advisors regarding the availability to them of the reduced dividend rate in light of their own particular situation and the computations of their foreign tax credit limitation with respect to any qualified dividends paid to them, as applicable.

*Sale or Other Taxable Disposition.* Upon a sale or other taxable disposition of shares or ADSs, US Holders generally will recognize capital gain or loss in an amount equal to the difference between the US dollar value of the amount realized on the disposition and the US Holder's tax basis (determined in US dollars) in the shares or ADSs. This capital gain or loss generally will be US source gain or loss and will be treated as long-term capital gain or loss if the holding period in the shares or ADSs exceeds one year. In the case of certain US Holders (including individuals), any long term capital gain generally will be subject to US federal income tax at preferential rates, which rates are currently scheduled to increase on January 1, 2011. The deductibility of capital losses is subject to significant limitations under the Code. Deposits or withdrawals of our shares by US Holders in exchanges for ADSs will not result in the realization of gain or loss for US federal income tax purposes.

*United States Information Reporting and Backup Withholding.* Dividend payments with respect to shares or ADSs and proceeds from the sale, exchange or other disposition of shares or ADSs received in the United States or through US-related financial intermediaries, may be subject to information reporting to the IRS and possible US backup withholding at a current rate of 28%. Certain exempt recipients (such as corporations) are not subject to these information reporting and backup withholding requirements. Backup withholding will not apply to a US Holder who furnishes a correct taxpayer identification number and makes any other required certification or who is otherwise exempt from backup withholding. Any US Holders required to establish their exempt status generally must provide a properly-executed IRS Form W-9 (Request for Taxpayer Identification Number and Certification). Backup withholding is not an additional tax. Amounts withheld as backup withholding may be credited against a US Holder's US federal income tax liability, and a US Holder may obtain a refund of any excess amounts withheld under the backup withholding rules by timely filing the appropriate claim for refund with the IRS and furnishing any required information.

**10.F Dividends and paying agents**

Not applicable.

**10.G Statement by experts**

Not applicable.

**10.H Documents on display**

Any statement in this Form 20-F about any of our contracts or other documents is not necessarily complete. If the contract or document is filed as an exhibit to the Form 20-F the contract or document is deemed to modify the description contained in this Form 20-F. You must review the exhibits themselves for a complete description of the contract or document.

You may review a copy of our filings with the SEC, as well as other information furnished to the SEC, including exhibits and schedules filed with it, at the SEC's public reference room at 100 F Street, N.E., Room 1580, Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information. In addition, the SEC maintains an Internet site at <http://www.sec.gov> that contains reports and other information regarding issuers that file electronically with the SEC. These SEC filings are also available to the public from commercial document retrieval services.



Table of Contents

We are required to file or furnish reports and other information with the SEC under the Securities Exchange Act of 1934 and regulations under that act. As a foreign private issuer, we are exempt from the rules under the Exchange Act prescribing the form and content of proxy statements and our officers, directors and principal shareholders are exempt from the reporting and short swing profit recovery provisions contained in Section 16 of the Exchange Act.

**10.I Subsidiary Information**

Not applicable.

Table of Contents**Item 11. Quantitative and Qualitative Disclosures about Non-Product-Related Market Risk**

	Local Currencies	\$
<b>2009</b>		
<b>Currency impact:<sup>(1)</sup></b>		
Net sales	11%	7%
Operating income	13%	11%
Net income	5%	4%
Core operating income	13%	11%
Core net income	11%	8%

	Net sales	Operating expenses
<b>2009</b>		
<b>Net sales and operating costs by currency:</b>		
\$	35%	33%
Euro	31%	31%
CHF	3%	12%
Yen	8%	4%
Other	23%	20%
	100%	100%

	Liquid funds	Financial debt
<b>2009</b>		
<b>Liquid funds and financial debt by currency (as of December 31):</b>		
\$	92%	46%
Euro	1%	21%
CHF	7%	19%
Yen	0%	12%
Other	0%	2%
	100%	100%

	Local Currencies	\$
<b>2008</b>		
<b>Currency impact on continuing operations:<sup>(1)</sup></b>		
Net sales	5%	9%
Operating income	20%	32%
Net income	13%	25%
Core operating income	2%	11%
Core net income	1%	12%

(1) The impact of currency movements on operating income and net income and core operating income and core net income related to transactions of an entity conducted in a foreign currency other than the reporting currency of the entity, are excluded.



Table of Contents

	Net sales	Operating expenses
<b>2008</b>		
<b>Net sales and operating costs by currency from continuing operations:</b>		
\$	34%	31%
Euro	32%	28%
CHF	2%	16%
Yen	7%	5%
Other	25%	20%
	100%	100%

	Liquid funds	Financial debt
<b>2008</b>		
<b>Liquid funds and financial debt by currency (as of December 31):</b>		
\$	71%	22%
Euro	7%	18%
CHF	19%	36%
Yen	0%	21%
Other	3%	3%
	100%	100%

**Market Risk**

We are exposed to market risk, primarily related to foreign currency exchange rates, interest rates and the market value of our investments of liquid funds. We actively monitor these exposures. To manage the volatility relating to these exposures, we enter into a variety of derivative financial instruments. Our objective is to reduce, where it deems appropriate to do so, fluctuations in earnings and cash flows associated with changes in interest rates, foreign currency exchange rates and market rates of investments of liquid funds and of the currency exposure of certain net investments in foreign subsidiaries. It is our policy and practice to use derivative financial instruments to manage exposures and to enhance the yield on the investment of liquid funds. We do not enter any financial transactions containing a risk that cannot be quantified at the time the transaction is concluded. In addition, we do not sell short assets we do not have, or do not know we will have, in the future. We only sell existing assets or enter into transactions and future transactions (in the case of anticipatory hedges) which we confidently expect we will have in the future based on past experience. In the case of liquid funds, we write call options on assets we have or we write put options on positions we want to acquire and have the liquidity to acquire. We expect that any loss in value for these instruments generally would be offset by increases in the value of the underlying transactions.

**Foreign currency exchange rate risk:** We use the US dollar as our reporting currency. As a result, we are exposed to foreign currency exchange movements, primarily in European, Japanese and other Asian and Latin American currencies. Consequently, we enter into various contracts that reflect the changes in the value of foreign currency exchange rates, to preserve the value of assets, commitments and anticipated transactions. We also use forward contracts and foreign currency option contracts to hedge certain anticipated net revenues in foreign currencies.

Table of Contents

At December 31, 2009, we had long and short forward exchange and currency option contracts with corresponding values of \$4.7 billion and \$ 0.1 billion, respectively. At December 31, 2008, we had long and short forward exchange and currency option contracts with corresponding values of \$7.2 billion and \$0.3 billion, respectively.

Net investments in subsidiaries in foreign countries are long-term investments. Their fair value changes through movements of foreign currency exchange rates. In the very long term, however, the difference in the inflation rate should match the foreign currency exchange rate movement, so that the market value of the foreign non-monetary assets will compensate for the change due to foreign currency movements. For this reason, we only hedge the net investments in foreign subsidiaries in exceptional cases.

**Commodity price risk:** We have only a very limited exposure to price risk related to anticipated purchases of certain commodities used as raw materials by our businesses. A change in those prices may alter the gross margin of a specific business, but generally by not more than 10% of the margin and thus below our risk management tolerance levels. Accordingly, we do not enter into significant commodity futures, forward and option contracts to manage fluctuations in prices of anticipated purchases.

**Interest rate risk:** We address our net exposure to interest rate risk mainly through the proportion of the fixed rate financial debt and variable rate financial debt ratio in our total financial debt portfolio. To manage this mix, we may enter into interest rate swap agreements, in which we exchange the periodic payments, based on a notional amount and agreed-upon fixed and variable interest rates. Our percentage of fixed rate debt to total financial debt was 62% at December 31, 2009, was 29% at December 31, 2008 and 11% at December 31, 2007. At December 31, 2009, we had interest rate swaps with corresponding values of \$ 1.0 billion. At December 31, 2008, we had no interest rate swaps.

**Equity risk:** We purchase equities as investments of our liquid funds. As a policy, we limit our holdings in an unrelated company to less than 5% of our liquid funds. Potential investments are thoroughly analyzed in respect to their past financial track record (mainly cash flow and return on investment), their market potential, their management and their competitors. Call options are written on equities which we own and put options are written on equities which we want to buy and for which cash has been reserved.

**Credit risk:** Credit risks arise from the possibility that customers may not be able to settle their obligations as agreed. To manage this risk we periodically assess the financial reliability of customers, taking into account the financial position, past experience and other factors. Individual risk limits are set accordingly. Three customers account for approximately 8%, 7% and 6%, respectively (2008: 8%, 7% and 6%; 2007: 9%, 8% and 6%), of our net sales in 2009. No other customer accounts for 2% or more of our net sales. The highest amounts of trade receivables are the ones for the largest customers and are approximately 9% and twice 6%, respectively (2008: 9%, 5% and 6%) of our trade receivables at December 31, 2009, and there is no other significant concentration of credit risk.

**Counterparty risk:** Counterparty risk encompasses issuer risk on marketable securities, settlement risk on derivative and money market contracts and credit risk on cash and time deposits. Issuer risk is minimized by only buying securities which are at least AA rated. Settlement and credit risk is reduced by the policy of entering into transactions with counterparties that are usually at least AA rated banks or financial institutions. Exposure to these risks is closely monitored and kept within predetermined parameters. We have policies that limit the amount of credit exposure to any financial institution. The limits are regularly assessed and determined based upon credit analysis including financial statements and capital adequacy ratio reviews. In addition, net settlement agreements are contracted with significant counterparties.

We do not expect any losses from non-performance by these counterparties and do not have any significant grouping of exposures to financial sector or country risk.

Table of Contents

**Liquidity risk:** Liquidity risk is defined as the risk that we would not be able to settle or meet our obligations on time or at a reasonable price. Group Treasury is responsible for liquidity, funding as well as settlement management. In addition, liquidity and funding risks, related processes and policies are overseen by management. We manage our liquidity risk on a consolidated basis based on business needs, tax, capital or regulatory considerations, if applicable, through numerous sources of finance in order to maintain flexibility. Management monitors our net liquidity position through rolling forecasts on the basis of expected cash flows. Our cash and cash equivalents are held with major regulated financial institutions, the largest one holding approximately 23% and the next two other largest ones holding approximately 16% and 10%, respectively (2008: largest one holding approximately 34% and the next two other largest ones holding approximately 28% and 11%, respectively; 2007: largest one holding 17% and the next three other largest ones holding approximately 16%, 15%, 14%, respectively).

**Capital risk management:** We strive to maintain strong debt ratings. In managing our capital, we focus on a sound debt/equity ratio. Credit agencies in 2009 maintained their ratings for Novartis. Moody's rated the Group as Aa2 for long-term maturities and P 1 for short-term maturities and Standard & Poor's had a rating of AA for long-term and A 1+ for short-term maturities. Fitch had a long-term rating of AA and a short-term rating of F1+.

Our 2009 year-end debt/equity ratio increased to 0.24:1 from 0.15:1 in 2008 principally due to additional financing programs. Our 2008 year-end debt/equity ratio increased to 0.15:1 from 0.12:1 in 2007 principally due to financing programs.

**Value at risk:** We use a value at risk (VAR) computation to estimate the potential ten-day loss in the fair value of our financial instruments.

We use a ten-day period because of an assumption that not all positions could be undone in one day, given the size of the positions. The VAR computation includes our financial debt, short-term and long-term investments, foreign currency forwards, swaps and options as well as anticipated transactions. Foreign currency trade payables and receivables as well as net investments in foreign subsidiaries are included in the computation.

The VAR estimates are made assuming normal market conditions, using a 95% confidence interval. We use a "Delta Normal" model to determine the observed inter-relationships between movements in interest rates, stock markets and various currencies. These inter-relationships are determined by observing interest rate, stock market movements and forward foreign currency rate movements over a sixty-day period for the calculation of VAR amounts.

The estimated potential ten day loss in pre-tax earnings from our foreign currency instruments, the estimated potential ten day loss on our equity holdings and the estimated potential ten day loss in fair value of our interest rate sensitive instruments (primarily financial debt and investments of liquid funds under normal market conditions) as calculated in the VAR model, are the following:

	<b>At December 31,</b>	
	<b>2009</b>	<b>2008</b>
	<b>(\$ millions)</b>	
All financial instruments	183	318
<i>Analyzed by components:</i>		
Instruments sensitive to foreign currency exchange rates	106	278
Instruments sensitive to equity market movements	43	181
Instruments sensitive to interest rates	108	21
	222	

Table of Contents

The average, high, and low VAR amounts are as follows:

	Average	High	Low
	(\$ millions)		
<b>2009</b>			
All financial instruments	202	309	152
<i>Analyzed by components:</i>			
Instruments sensitive to foreign currency exchange rates	152	212	104
Instruments sensitive to equity market movements	98	159	43
Instruments sensitive to interest rates	107	155	12

	Average	High	Low
	(\$ millions)		
<b>2008</b>			
All financial instruments	196	318	135
<i>Analyzed by components:</i>			
Instruments sensitive to foreign currency rates	158	278	74
Instruments sensitive to equity market movements	162	291	95
Instruments sensitive to interest rates	73	233	10

The VAR computation is a risk analysis tool designed to statistically estimate the maximum potential ten day loss from adverse movements in foreign currency rates, equity prices and interest rates under normal market conditions. The computation does not purport to represent actual losses in fair value on earnings to be incurred by us, nor does it consider the effect of favorable changes in market rates. We cannot predict actual future movements in such market rates and do not present these VAR results to be indicative of future movements in such market rates or to be representative of any actual impact that future changes in market rates may have on our future results of operations or financial position.

In addition to these VAR analyses, we use stress testing techniques which are aimed to reflect a worst case scenario. For these calculations, we use the worst movements during a period of six months over the past 20 years in each category. For 2009 and 2008, the worst case loss scenario was configured as follows:

	At December 31,	
	2009	2008
	(\$ millions)	
All financial instruments	265	300
<i>Analyzed by components:</i>		
Instruments sensitive to foreign currency exchange rates	139	144
Instruments sensitive to equity market movements	96	128
Instruments sensitive to interest rates	30	28

In our risk analysis, we consider this worst case scenario acceptable as it could reduce income, but would not endanger our solvency or our investment grade credit standing. While it is highly unlikely that all worst case fluctuations would happen simultaneously, as shown in the model, the actual market can of

Table of Contents

course produce bigger movements in the future than it has historically. Additionally, in such a worst case environment, management actions could further mitigate our exposure.

The major financial risks facing the Group are managed centrally by Group Treasury. Only residual risks and some currency risks are managed in the subsidiaries. However the collective amount of the residual risks is below 10% of the global risks.

We have a written Treasury Policy and have implemented a strict segregation of front office and back office controls. The Group does regular reconciliations of its positions with its counterparties. In addition the Treasury function is included in Management's internal control assessment.

**Item 12. Description of Securities other than Equity Securities**

**12.A Debt Securities**

Not applicable.

**12.B Warrants and Rights**

Not applicable.

**12.C Other Securities**

Not applicable.



Table of Contents**12.D American Depositary Shares*****Fees Payable By ADS Holders***

According to our Deposit Agreement with the ADS depository, JPMorgan Chase Bank (JPMorgan), holders of our ADSs may have to pay to JPMorgan, either directly or indirectly, fees or charges up to the amounts set forth below:

<b>Category</b>	<b>Depositary actions</b>	<b>Associated Fee</b>
Depositing or substituting underlying shares	Acceptance of shares surrendered, and issuance of ADSs in exchange, including surrenders and issuances in respect of: Share distributions Stock split Rights Merger Exchange of shares or any other transaction or event or other distribution affecting the ADSs or the deposited shares	\$5.00 for each 100 ADSs (or portion thereof) evidenced by the new ADSs delivered
Withdrawing underlying shares	Acceptance of ADSs surrendered for withdrawal of deposited shares	\$5.00 for each 100 ADSs (or portion thereof) evidenced by the ADSs surrendered
Selling or exercising rights	Distribution or sale of shares, the fee being in an amount equal to the fee for the execution and delivery of ADSs which would have been charged as a result of the deposit of such shares	\$5.00 for each 100 ADSs (or portion thereof)
Transferring, splitting or grouping receipts	Transfers, combining or grouping of depositary receipts	\$2.50 per ADS
Expenses of the depository	Expenses incurred on behalf of holders in connection with compliance with foreign exchange control regulations or any law or regulation relating to foreign investment the depository's or its custodian's compliance with applicable law, rule or regulation. stock transfer or other taxes and other governmental charges cable, telex and facsimile transmission and delivery expenses of the depository in connection with the conversion of foreign currency into US dollars (which are paid out of such foreign currency) any other charge payable by any of the depository or its agents	Expenses payable at the sole discretion of the Depository by billing Holders or by deducting charges from one or more cash dividends or other cash distributions.
Advance tax relief	Tax relief/reclamation process for qualified holders.	A depository service charge of \$0.0035 per ADS

Table of Contents

***Fees Payable By The Depositary To The Issuer***

JPMorgan, as depositary, has agreed to reimburse Novartis \$3.5 million per year for expenses directly related to our ADS program (the "Program") which were incurred during the year, including Program-related legal fees, expenses related to investor relations in the US, US investor presentations, ADS-related financial advertising and public relations, fees and expenses of JPMorgan as administrator of the ADS Direct Plan, reasonable accountants' fees in relation to our Form 20-F, maintenance and broker reimbursement expenses. Because our expenses related to these categories exceed \$3.5 million (see, for example, the amount of our accountants' fees set forth at "Item 16C. Principal Accountant Fees and Services Auditing and Additional Fees"), the \$3.5 million cannot be deemed to have reimbursed us for any particular one or more of these expenses.

JPMorgan has further agreed to waive an annual maintenance fee of \$50,000 associated with the administration of the Program, and not to seek reimbursement of up to \$50,000 of out-of-pocket expenses incurred annually in providing such administrative services. In addition, JPMorgan has agreed to reimburse us for our annual NYSE listing fees incurred during the initial term of our agreement with JPMorgan.

Table of Contents

**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.

Table of Contents

**Item 15. Controls and Procedures**

(a) Novartis AG's chief executive officer and chief financial officer, after evaluating the effectiveness of our disclosure controls and procedures (as defined in Exchange Act Rule 13a-15(e)) as of the end of the period covered by this Form 20-F, have concluded that, as of such date, our disclosure controls and procedures were effective.

(b) *Report of Novartis Management on Internal Control Over Financial Reporting:* Novartis' Board of Directors and management of the Group are responsible for establishing and maintaining adequate internal control over financial reporting. The Novartis Group's internal control system was designed to provide reasonable assurance to the Novartis Group's management and Board of Directors regarding the reliability of financial reporting and the preparation and fair presentation of its published consolidated financial statements.

All internal control systems, no matter how well designed, have inherent limitations. Therefore, even those systems determined to be effective may not prevent or detect misstatements and can provide only reasonable assurance with respect to financial statement preparation and presentation. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Novartis Group management assessed the effectiveness of the Group's internal control over financial reporting as of December 31, 2009. In making this assessment, it used the criteria established in *Internal Control - Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on our assessment management concluded that, as of December 31, 2009, Novartis Group's internal control over financial reporting is effective based on those criteria.

PricewaterhouseCoopers AG, Switzerland (PwC), an independent registered public accounting firm, has issued an opinion on the effectiveness of the Group's internal control over financial reporting which is included under "Item 18. Financial Statements" on page F-2.

(c) See the report of PwC, an independent registered public accounting firm, included under "Item 18. Financial Statements" on page F-2.

(d) There were no changes to our internal control over financial reporting that occurred during the period covered by this Form 20-F that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

**Item 16A. Audit Committee Financial Expert**

Our Audit and Compliance Committee has determined that Srikant Datar, Ulrich Lehner and Hans-Joerg Rudloff each possess specific accounting and financial management expertise and that each is an Audit Committee Financial Expert as defined by the US Securities and Exchange Commission (SEC). The Board of Directors has also determined that other members of the Audit and Compliance Committee have sufficient experience and ability in finance and compliance matters to enable them to adequately discharge their responsibilities.

**Item 16B. Code of Ethics**

In addition to our Code of Conduct, which is applicable to all of our associates, we have adopted a Code of Ethical Conduct that imposes additional obligations on our principal executive officer, principal financial officer, principal accounting officer, and persons performing similar functions. This document is accessible on our Internet website at

<http://www.novartis.com/investors/corporate-governance.shtml>

Table of Contents**Item 16C. Principal Accountant Fees and Services*****Duration of the Mandate and Terms of Office of the Independent Auditors***

Based on a recommendation by the Audit and Compliance Committee, the Board nominates an independent auditor for election at the Annual General Meeting. PricewaterhouseCoopers (PwC) assumed its existing auditing mandate for Novartis in 1996. The lead auditor responsible for the mandate, Michael P. Nelligan, began serving in his role in 2009. The Audit and Compliance Committee ensures that the lead auditor partner is rotated at least every five years.

***Auditing and Additional Fees***

PwC charged the following fees for professional services rendered for the 12-month periods ended December 31, 2009 and December 31, 2008:

	2009	2008
	(\$ thousands)	
Audit Services	24,360	24,963
Audit-Related Services	4,300	3,200
Tax Services	110	400
Other Services	100	558
<b>Total</b>	<b>28,870</b>	<b>29,121</b>

***Audit Services*** are defined as the standard audit work performed each year in order to issue opinions on the consolidated financial statements of the Group, to issue opinions relating to the effectiveness of the Group's internal controls over financial reporting, and to issue reports on local statutory financial statements. Also included are audit services that can only be provided by the Group auditor, such as auditing of nonrecurring transactions and implementation of new accounting policies, audits of accounting infrastructure system controls, pre-issuance reviews of quarterly financial results, consents and comfort letters and any other audit services required for SEC or other regulatory filings.

***Audit-Related Services*** include those other assurance services provided by the independent auditor but not restricted to those that can only be provided by the auditor signing the audit report. They comprise amounts for services such as acquisition due diligence and related audits, audits of pension and benefit plans, IT infrastructure control assessments, contractual audits of third-party arrangements, assurance services on corporate citizenship reporting, and consultation regarding new accounting pronouncements.

***Tax Services*** represent tax compliance, tax returns, assistance with historical tax matters and other tax-related services.

***Other Services*** include training in the finance area, benchmarking studies, assessment of certain non-financial processes and license fees for use of accounting and other reporting guidance databases.

As the independent auditor, PwC is responsible for opining on whether the audited financial statements comply with International Financial Reporting Standards (IFRS) and Swiss law. Additionally, PwC is responsible for opining on the effectiveness of internal control over financial reporting.

The Audit and Compliance Committee is responsible for overseeing the conduct of these activities by management and PwC. During 2009, the Audit and Compliance Committee held 7 meetings. At each of these meetings, PwC was invited to attend during the discussion of agenda items that dealt with accounting, financial reporting or auditing matters. PwC provided to the Audit and Compliance

Table of Contents

Committee the written disclosures required by Rule 3526, Communication with Audit Committees Concerning Independence, of the Public Company Accounting Oversight Board (PCAOB), and the Audit and Compliance Committee and PwC have discussed PwC's independence from Novartis and Novartis management.

Based on the reviews and discussions with management and PwC referred to above, the Audit and Compliance Committee recommended to the Board, and the Board approved, inclusion of the audited financial statements in the Annual Report for the year ended December 31, 2009.

***Policy on Pre-Approval of Audit and Non-Audit Services of Independent Auditors***

The Audit and Compliance Committee's pre-approval is required for all audit and non-audit services provided by PwC. These services may include audit services, audit-related services, tax services and other services, as described above. Pre-approval is detailed as to the particular service or categories of services, and is subject to a specific budget.

PwC and management report, on a quarterly basis, to the Audit and Compliance Committee regarding the extent of services provided in accordance with this pre-approval and the fees for the services performed to date. The Audit and Compliance Committee may also pre-approve additional services on a case-by-case basis.

**Item 16D. Exemptions from the Listing Standards for Audit Committees**

Not Applicable.

Table of Contents**Item 16E. Purchases of Equity Securities by the Issuer and Affiliated Purchaser**

2009	Total Number of Shares Purchased <sup>(1)</sup> (a)	Average Price Paid per Share in \$ (b)	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs <sup>(2)</sup> (c)	Maximum Approximate Value of Shares that may yet be purchased under the Plans or Programs in CHF (d) (CHF millions)	Maximum Approximate Value of Shares that may yet be purchased under the Plans or Programs in \$ <sup>(3)</sup> (e) (\$ millions)
<b>Jan. 1-31</b>	58,927	47.50		9,704	8,405
<b>Feb. 1-28</b>	622,313	42.03		9,704	8,290
<b>Mar. 1-31</b>	9,876,923	35.24		9,704	8,463
<b>Apr. 1-30</b>	125,437	38.12		9,704	8,583
<b>May 1-31</b>	39,675	38.99		9,704	8,972
<b>Jun. 1-30</b>	71,486	41.09		9,704	8,982
<b>Jul. 1-31</b>	75,817	42.26		9,704	8,932
<b>Aug. 1-31</b>	61,732	45.29		9,704	9,130
<b>Sep. 1-30</b>	122,140	47.50		9,704	9,387
<b>Oct. 1-31</b>	138,997	51.57		9,704	9,526
<b>Nov. 1-30</b>	122,605	53.71		9,704	9,698
<b>Dec. 1-31</b>	861,327	55.19		9,704	9,365
<b>Total</b>	<b>12,177,379</b>	<b>37.73</b>	<b>0</b>		

(1) Column (a) shows shares we purchased as outside of our publicly announced repurchase program: (1) shares which we purchased on the open market; and (2) shares which we purchased from Swiss employees who had obtained the shares through a Novartis Employee Ownership Plan. See "Item 6. Directors, Senior Management and Employees 6.B Compensation Compensation for Novartis Associates."

(2) Column (c) shows shares purchased as part of our sixth share repurchase program which was approved by the shareholders February 26, 2008 for an amount of up to CHF 10.0 billion. See "Item 5. Operating and Financial Review and Prospects 5.B Liquidity and Capital Resources Share Repurchase Program."

(3) Column (e) shows the Swiss franc amount from column (d) converted into US dollars as of the month-end, using the Swiss franc/US dollar exchange rate at the applicable month-end.

**Item 16F. Change in Registrant's Certifying Accountant**

Not applicable.

**Item 16G. Corporate Governance**

Novartis ADSs are listed on the NYSE. Our corporate governance practices differ from those followed by domestic companies as required under the listing standards of the NYSE in that our shareholders do not receive written reports from committees of the Board of Directors. In addition, our external auditors are appointed by shareholders at the Annual General Meeting, as opposed to being appointed by the Audit and Compliance Committee. In addition, our Board of Directors has set up a separate Risk Committee that is responsible for the oversight of the risk management system, process and risk portfolio, as opposed to delegating this responsibility to the Audit and Compliance Committee, as required under the listing standards of the NYSE.





**Part III**

**Item 17. Financial Statements**

See "Item 18. Financial Statements."

**Item 18. Financial Statements**

The following financial statements are filed as part of this annual report on Form 20-F.

	<b>Page</b>
Index to consolidated financial statements	F-1
Report of PricewaterhouseCoopers AG	F-2
Consolidated income statements	F-4
Consolidated statements of comprehensive income	F-5
Consolidated statements of changes in equity	F-6
Consolidated balance sheets	F-7
Consolidated cash flow statements	F-8
Notes to the consolidated financial statements	F-9

**Item 19. Exhibits**

- 1.1 Articles of Incorporation, as amended February 24, 2009 (English translation).
- 1.2 Regulations of the Board and Committee Charters of Novartis AG, as amended December 2, 2009.
- 2.1 Restricted Issuance Agreement dated as of January 11, 2002 among Novartis AG, J.P. Morgan Chase & Co., as depositary, and all holders from time to time of ADRs issued thereunder (incorporated by reference to Exhibit 4 to the Registration Statement on Form F-3, File No. 333-81862, as filed with the SEC on January 31, 2002).
- 2.2 Letter Agreement dated October 27, 2004 between Novartis AG and JPMorgan Chase Bank, as depositary (incorporated by reference to Exhibit 2.2 to the Form 20-F as filed with the SEC on January 28, 2005).
- 2.3 Letter Agreement dated September 12, 2005 between Novartis AG and JPMorgan Chase Bank, as depositary (incorporated by reference to Exhibit 2.3 to the Form 20-F as filed with the SEC on January 30, 2006).
- 2.4 Letter Agreement dated December 14, 2007 between Novartis AG and JPMorgan Chase Bank, as depositary (incorporated by reference to Exhibit 2.4 to the Form 20-F as filed with the SEC on January 28, 2008).
- 4.1 Agreement as of 11 April 2007 between Novartis AG and Nestlé S.A. concerning the sale and purchase of the seller's Gerber business (incorporated by reference to Exhibit 4.7 to the Form 20-F as filed with the SEC on January 28, 2008).
- 4.2 Purchase and Option Agreement as of 6 April 2008 between Nestlé S.A. and Novartis AG concerning the sale and purchase of common shares of Alcon, Inc. owned by the seller (incorporated by reference to Exhibit 4.5 to the Form 20-F as filed with the SEC on January 28, 2009).
- 4.3 Shareholders Agreement as of 6 April 2008 among Nestlé S.A. and Novartis AG concerning certain matters with respect to Alcon, Inc. and any common shares of the company with a par value of CHF 0.20 per share, whether or not issued (incorporated by reference to Exhibit 4.6 to the Form 20-F as filed with the SEC on January 28, 2009).
- 6.1 For earnings per share calculation, see "Item 18. Financial Statements note 7."
- 8.1 For a list of all of our principal Group subsidiaries and associated companies, see "Item 18. Financial Statements note 31."
- 12.1 Certification of Daniel Vasella, Chairman and Chief Executive Officer of Novartis AG, pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
- 12.2 Certification of Raymund Breu, Chief Financial Officer of Novartis AG, pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
- 13.1 Certification of Daniel Vasella, Chairman and Chief Executive Officer of Novartis AG and Raymund Breu, Chief Financial Officer of Novartis AG, pursuant to Section 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
- 14.1 Consent of PricewaterhouseCoopers AG to the incorporation by reference of the audit report contained in this Form 20-F into Novartis AG's Registration Statement on Form F-3ASR as filed with the SEC on September 26, 2008 (File No. 333-153696), on Form F-3ASR filed on March 5, 2009 (File No. 333-157707), on Form F-3 filed on May 11, 2001 (File No. 333-60712), on Form F-3 filed on January 31, 2002 (File No. 333-81862), on Form S-8 filed on October 1, 2004 (File No. 333-119475), on Form S-8 filed on September 5, 2006 (File No. 333-137112) and on Form S-8 filed on October 29, 2009 (File No. 333-162727).

**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.

NOVARTIS AG

By: /s/ RAYMUND BREU

\_\_\_\_\_  
Name: Raymund Breu

Title: *Chief Financial Officer, Novartis Group*

By: /s/ THOMAS WERLEN

\_\_\_\_\_  
Name: Thomas Werlen

Title: *General Counsel, Novartis Group*

Date: January 26, 2010

Table of Contents

**NOVARTIS GROUP**

**INDEX TO CONSOLIDATED FINANCIAL STATEMENTS**

	<b>Page</b>
<u>Report of PricewaterhouseCoopers AG</u>	<u>F-2</u>
<u>Consolidated income statements</u>	<u>F-4</u>
<u>Consolidated statements of comprehensive income</u>	<u>F-5</u>
<u>Consolidated statements of changes in equity</u>	<u>F-6</u>
<u>Consolidated balance sheets</u>	<u>F-7</u>
<u>Consolidated cash flow statements</u>	<u>F-8</u>
<u>Notes to the consolidated financial statements</u>	<u>F-9</u>
	F-1

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Table of Contents

**Report of Independent Registered Public Accounting Firm**

**To the Shareholders and Board of Directors of Novartis AG, Basel**

We have completed integrated audits of Novartis AG and its consolidated subsidiaries (Novartis Group) consolidated financial statements and of Novartis Groups' internal control over financial reporting as of December 31, 2009. Our opinions, based on our integrated audits, are presented below.

**Consolidated financial statements**

We have audited the consolidated financial statements of the Novartis Group as of December 31, 2009 and 2008, and for each of the three years in the period ended December 31, 2009 (comprising consolidated income statements, statements of comprehensive income, statements of changes in equity, balance sheets, cash flow statements and notes) as set out on pages F-4 through F-109 in this Form 20-F.

These consolidated financial statements are the responsibility of the Board of Directors and management. Our responsibility is to express an opinion on these consolidated financial statements based on our integrated audits.

We conducted our audits in accordance with Swiss Auditing Standards, International Standards on Auditing and the standards of the Public Company Accounting Oversight Board of the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement. An audit of consolidated financial statements includes examining, on a test basis, evidence supporting the amounts and disclosures in the consolidated financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall consolidated financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the financial position of the Novartis Group at December 31, 2009 and 2008, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2009 in conformity with International Financial Reporting Standards as issued by the International Accounting Standards Board.

**Internal control over financial reporting**

We have also audited the effectiveness of the Novartis Group's internal control over financial reporting as of December 31, 2009, based on criteria established in *Internal Control Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Novartis' Board of Directors and management of the Group are responsible for maintaining effective internal control over financial reporting and management is responsible for the assessment of the effectiveness of internal control over financial reporting included in the accompanying "*Report of Novartis Management on Internal Control Over Financial Reporting*" appearing under Item 15(b). Our responsibility is to express an opinion on the Novartis Group's internal control over financial reporting based on our integrated audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board of the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. An audit of internal control over financial reporting includes obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also includes performing such other procedures as we consider necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for

Table of Contents

external purposes in accordance with the applicable accounting standards. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with the applicable accounting standards, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate. In our opinion, the Novartis Group maintained, in all material respects, effective internal control over financial reporting as of December 31, 2009, based on criteria established in *Internal Control Integrated Framework* issued by the COSO.

PricewaterhouseCoopers AG

/s/ MICHAEL P. NELLIGAN

/s/ PETER M. KARTSCHER

Michael P. Nelligan  
Global Engagement Partner

Peter M. Kartscher  
Audit expert  
Auditor in charge

Basel, January 25, 2010

Table of Contents

## NOVARTIS GROUP CONSOLIDATED FINANCIAL STATEMENTS

## CONSOLIDATED INCOME STATEMENTS

(for the years ended December 31, 2009, 2008 and 2007)

	Note	2009 \$ millions	2008 \$ millions	2007 \$ millions
<b>Net sales from continuing operations</b>	3	<b>44,267</b>	<b>41,459</b>	<b>38,072</b>
Other revenues		836	1,125	875
Cost of goods sold		(12,179)	(11,439)	(11,032)
<b>Gross profit from continuing operations</b>		<b>32,924</b>	<b>31,145</b>	<b>27,915</b>
Marketing & Sales		(12,050)	(11,852)	(11,126)
Research & Development		(7,469)	(7,217)	(6,430)
General & Administration		(2,281)	(2,245)	(2,133)
Other income		782	826	1,039
Other expense		(1,924)	(1,693)	(2,484)
<b>Operating income from continuing operations</b>	3	<b>9,982</b>	<b>8,964</b>	<b>6,781</b>
Income from associated companies	4	293	441	412
Financial income	5	198	384	531
Interest expense	5	(551)	(290)	(237)
<b>Income before taxes from continuing operations</b>		<b>9,922</b>	<b>9,499</b>	<b>7,487</b>
Taxes	6	(1,468)	(1,336)	(947)
<b>Net income from continuing operations</b>		<b>8,454</b>	<b>8,163</b>	<b>6,540</b>
Net income from discontinued operations			70	5,428
<b>Group net income</b>		<b>8,454</b>	<b>8,233</b>	<b>11,968</b>
<i>Attributable to:</i>				
Shareholders of Novartis AG		8,400	8,195	11,946
Non-controlling interests		54	38	22
<b>Basic earnings per share (\$)</b>	7			
Continuing operations		3.70	3.59	2.81
Discontinued operations			0.03	2.34
<b>Total</b>		<b>3.70</b>	<b>3.62</b>	<b>5.15</b>
<b>Diluted earnings per share (\$)</b>	7			
Continuing operations		3.69	3.56	2.80
Discontinued operations			0.03	2.33
<b>Total</b>		<b>3.69</b>	<b>3.59</b>	<b>5.13</b>

The accompanying notes form an integral part of the consolidated financial statements.





Table of Contents**NOVARTIS GROUP CONSOLIDATED FINANCIAL STATEMENTS****CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME****(for the years ended December 31, 2009, 2008 and 2007)**

	Note	2009 \$ millions	2008 \$ millions	2007 \$ millions
<b>Net income from continuing operations</b>		<b>8,454</b>	<b>8,163</b>	<b>6,540</b>
Fair value adjustments on financial instruments, net of taxes	8.1	93	(510)	1
Gains/(losses) from defined benefit plans, net of taxes	8.2	949	(2,140)	450
Novartis share of equity recognized by associated companies, net of taxes	8.3	(43)	(201)	150
Revaluation of previously owned non-controlling interest	8.4		38	55
Currency translation effects	8.5	789	(1,122)	2,188
Amounts related to discontinued operations				
Net income			70	5,428
Other				18
<b>Total comprehensive income</b>		<b>10,242</b>	<b>4,298</b>	<b>14,830</b>
<i>Attributable to shareholders of Novartis AG</i>		<i>10,180</i>	<i>4,275</i>	<i>14,800</i>
<i>Attributable to non-controlling interests</i>		<i>62</i>	<i>23</i>	<i>30</i>

The accompanying notes form an integral part of the consolidated financial statements.

Table of Contents

## NOVARTIS GROUP CONSOLIDATED FINANCIAL STATEMENTS

## CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

(for the years ended December 31, 2009, 2008 and 2007)

Note	Share capital \$ millions	Treasury shares \$ millions	Share premium \$ millions	Retained earnings \$ millions	Total fair value adjustments attributable to Novartis \$ millions	Total discontinued operations reserves \$ millions	Fair value adjustments of non-controlling interests \$ millions	Non-controlling interests \$ millions	Total equity \$ millions
<b>Total equity at January 1, 2007</b>	<b>990</b>	<b>(140)</b>	<b>198</b>	<b>39,732</b>	<b>327</b>	<b>40,257</b>	<b>4</b>	<b>183</b>	<b>41,294</b>
<b>Transfer of fair value of discontinued operations</b>					<b>123</b>	<b>123</b>	<b>(123)</b>		
<b>Total comprehensive income</b>				<b>12,062</b>	<b>2,720</b>	<b>14,782</b>	<b>18</b>	<b>30</b>	<b>14,830</b>
Dividends 9.1				(2,598)		(2,598)			(2,598)
Acquisition of treasury shares, net 9.2		(35)		(4,652)		(4,652)			(4,687)
Equity-based compensation 9.4				597		597			597
Changes in non-controlling interests								(40)	(40)
Transfers 9.5				(110)	9	(101)	101		
<b>Total of other equity movements</b>		<b>(35)</b>		<b>(6,763)</b>	<b>9</b>	<b>(6,754)</b>	<b>101</b>	<b>(40)</b>	<b>(6,728)</b>
<b>Total equity at December 31, 2007</b>	<b>990</b>	<b>(175)</b>	<b>198</b>	<b>45,031</b>	<b>3,179</b>	<b>48,408</b>		<b>173</b>	<b>49,396</b>
<b>Total comprehensive income</b>				<b>8,009</b>	<b>(3,734)</b>	<b>4,275</b>		<b>23</b>	<b>4,298</b>
Dividends 9.1				(3,345)		(3,345)			(3,345)
Acquisition of treasury shares, net 9.2				(435)		(435)			(435)
Reduction of share capital 9.3	(31)	36							5
Equity-based compensation 9.4				565		565			565
Changes in non-controlling interests								(47)	(47)
<b>Total of other equity movements</b>	<b>(31)</b>	<b>36</b>		<b>(3,215)</b>		<b>(3,215)</b>		<b>(47)</b>	<b>(3,257)</b>
<b>Total equity at December 31, 2008</b>	<b>959</b>	<b>(139)</b>	<b>198</b>	<b>49,825</b>	<b>(555)</b>	<b>49,468</b>		<b>149</b>	<b>50,437</b>
<b>Total comprehensive income</b>				<b>8,357</b>	<b>1,823</b>	<b>10,180</b>		<b>62</b>	<b>10,242</b>
Dividends 9.1				(3,941)		(3,941)			(3,941)
Sale of treasury shares, net 9.2		1		224		224			225
Reduction of share capital 9.3	(2)	2							
Equity-based compensation 9.4		4		631		631			635
Changes in non-controlling interests								(136)	(136)
<b>Total of other equity movements</b>	<b>(2)</b>	<b>7</b>		<b>(3,086)</b>		<b>(3,086)</b>		<b>(136)</b>	<b>(3,217)</b>
<b>Total equity at December 31, 2009</b>	<b>957</b>	<b>(132)</b>	<b>198</b>	<b>55,096</b>	<b>1,268</b>	<b>56,562</b>		<b>75</b>	<b>57,462</b>

The accompanying notes form an integral part of the consolidated financial statements.

Table of Contents

## NOVARTIS GROUP CONSOLIDATED FINANCIAL STATEMENTS

## CONSOLIDATED BALANCE SHEETS

(at December 31, 2009 and 2008)

	Note	2009 \$ millions	2008 \$ millions
<b>Assets</b>			
<b>Non-current assets</b>			
Property, plant & equipment	10	14,075	13,100
Goodwill	11	12,039	11,285
Intangible assets other than goodwill	11	10,331	9,534
Investment in associated companies	4	17,791	17,712
Deferred tax assets	12	4,615	4,423
Financial assets	13	2,635	1,072
Other non-current non-financial assets		328	292
<b>Total non-current assets</b>		<b>61,814</b>	<b>57,418</b>
<b>Current assets</b>			
Inventories	14	5,830	5,792
Trade receivables	15	8,310	7,026
Marketable securities and derivative financial instruments	16	14,555	4,079
Cash and cash equivalents		2,894	2,038
Other current assets	17	2,102	1,946
<b>Total current assets</b>		<b>33,691</b>	<b>20,881</b>
<b>Total assets</b>		<b>95,505</b>	<b>78,299</b>
<b>Equity and liabilities</b>			
<b>Equity</b>			
Share capital	18	957	959
Treasury shares	18	(132)	(139)
Reserves		56,562	49,468
<b>Issued share capital and reserves attributable to Novartis AG shareholders</b>		<b>57,387</b>	<b>50,288</b>
Non-controlling interests		75	149
<b>Total equity</b>		<b>57,462</b>	<b>50,437</b>
<b>Liabilities</b>			
<b>Non-current liabilities</b>			
Financial debts	19	8,675	2,178
Deferred tax liabilities	12	4,407	4,144
Provisions and other non-current liabilities	20	5,491	5,036
<b>Total non-current liabilities</b>		<b>18,573</b>	<b>11,358</b>
<b>Current liabilities</b>			
Trade payables		4,012	3,395
Financial debts and derivative financial instruments	21	5,313	5,186
Current income tax liabilities		1,816	1,376
Provisions and other current liabilities	22	8,329	6,547

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<b>Total current liabilities</b>	<b>19,470</b>	<b>16,504</b>
<b>Total liabilities</b>	<b>38,043</b>	<b>27,862</b>
<b>Total equity and liabilities</b>	<b>95,505</b>	<b>78,299</b>

The accompanying notes form an integral part of the consolidated financial statements.

F-7

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Table of Contents

## NOVARTIS GROUP CONSOLIDATED FINANCIAL STATEMENTS

## CONSOLIDATED CASH FLOW STATEMENTS

(for the years ended December 31, 2009, 2008 and 2007)

	Note	2009 \$ millions	2008 \$ millions	2007 \$ millions
<b>Net income from continuing operations</b>		<b>8,454</b>	<b>8,163</b>	<b>6,540</b>
Reversal of non-cash items	23.1	5,448	4,514	4,857
Dividends from associated companies		504	248	155
Dividends received from marketable securities		3	9	10
Interest and other financial receipts		106	402	374
Interest and other financial payments		(654)	(268)	(255)
Taxes paid		(1,623)	(1,939)	(1,581)
<b>Cash flow before working capital and provision changes of continuing operations</b>		<b>12,238</b>	<b>11,129</b>	<b>10,100</b>
Restructuring payments and other cash payments from provisions		(735)	(730)	(355)
Change in net current assets and other operating cash flow items	23.2	688	(630)	(535)
<b>Cash flow from operating activities of continuing operations</b>		<b>12,191</b>	<b>9,769</b>	<b>9,210</b>
Purchase of property, plant & equipment		(1,887)	(2,106)	(2,549)
Proceeds from disposals of property, plant & equipment		48	58	134
Purchase of intangible assets		(846)	(210)	(584)
Proceeds from disposals of intangible assets		51	169	107
Purchase of financial assets		(215)	(131)	(285)
Proceeds from disposals of financial assets		124	99	352
Purchase of non-current non-financial assets		(23)	(5)	(26)
Proceeds from disposals of non-current non-financial assets		3	3	
Acquisition of interest in associated company			(10,447)	
Acquisitions and divestments of businesses (excluding discontinued operations)	23.3	(925)	(1,079)	(52)
Acquisition of non-controlling interests		(81)		(10)
Purchase of marketable securities		(14,103)	(4,020)	(7,232)
Proceeds from disposals of marketable securities		3,635	7,302	3,901
<b>Cash flow used for investing activities of continuing operations</b>		<b>(14,219)</b>	<b>(10,367)</b>	<b>(6,244)</b>
Acquisition of treasury shares		(461)	(3,348)	(6,448)
Disposal of treasury shares		685	2,875	1,849
Proceeds from issuance of share capital to third parties by subsidiaries		39		
Increase in non-current financial debts		7,052	1,481	11
Repayment of non-current financial debts		(22)	(68)	(59)
Change in current financial debts		(491)	(118)	(2,111)
Withholding tax recoverable and related cash flows, net				78
Dividend payments and cash contributions to non-controlling interests		(52)	(50)	(40)
Dividends paid to shareholders of Novartis AG		(3,941)	(3,345)	(2,598)
<b>Cash flow from/used for financing activities of continuing operations</b>		<b>2,809</b>	<b>(2,573)</b>	<b>(9,318)</b>
Cash flow from discontinued operations	23.4		(105)	7,595
Net effect of currency translation on cash and cash equivalents		75	(46)	298
Net change in cash and cash equivalents at year-end of discontinued operations				4
<b>Net change in cash and cash equivalents of continuing operations</b>		<b>856</b>	<b>(3,322)</b>	<b>1,545</b>
Cash and cash equivalents at January 1		2,038	5,360	3,815
<b>Cash and cash equivalents at December 31</b>		<b>2,894</b>	<b>2,038</b>	<b>5,360</b>

The accompanying notes form an integral part of the consolidated financial statements.



Table of Contents

**NOTES TO THE NOVARTIS GROUP**  
**CONSOLIDATED FINANCIAL STATEMENTS**

**1. Accounting policies**

The Novartis Group (Group or Novartis) consolidated financial statements comply with the International Financial Reporting Standards (IFRS) as published by the International Accounting Standards Board (IASB). They are prepared in accordance with the historical cost convention except for items that are required to be accounted for at fair value.

The preparation of financial statements requires management to make estimates and other judgments that affect the reported amounts of assets and liabilities as well as the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual outcomes could differ from those estimates.

**Scope of consolidation**

The consolidated financial statements include all companies that Novartis AG, Basel, Switzerland directly or indirectly controls (generally more than 50% of voting interest). Special purpose entities, irrespective of their legal structure, are consolidated in instances where the Group has the power to govern the financial and operating policies of an entity so as to obtain benefits from their activities.

Investments in associated companies (defined as investments in companies in which Novartis holds between 20% and 50% of voting shares or over which it otherwise has significant influence) and joint ventures are accounted for using the equity method. In these situations, the Group records its share of the associated company's net income and equity. The share of results attributed to Novartis from these associated companies is included in the income statement line "Income from associated companies" and is calculated after the deduction of related taxes and non-controlling interests included in the financial results of the associated company.

**Principles of consolidation**

The annual closing date of the individual financial statements is December 31.

The purchase method of accounting is used to account for business combinations by the Group in transactions where Novartis takes control of another entity. The cost of an acquisition is measured as the fair value of the transferred assets as well as incurred or assumed liabilities at the date of exchange, plus costs directly attributable to the acquisition. Identifiable acquired assets as well as assumed liabilities and contingent liabilities obtained in a business combination are measured initially at their full fair values as of the acquisition date, irrespective of the extent of any minority interest. The excess of the cost of acquisition over the fair value of the Group's share of the identifiable acquired net assets is recorded as goodwill. Companies acquired or disposed of during the year are included in the consolidated financial statements from the date of acquisition or until the date of disposal.

Intercompany income and expenses, including unrealized profits from internal Novartis transactions and intercompany receivables and payables, are eliminated.

**Foreign currencies**

The consolidated financial statements of Novartis are expressed in US dollars (\$). The functional currency of certain Swiss and foreign finance companies used for preparing the financial statements is \$ instead of the respective local currencies. This reflects the fact that the cash flows and transactions of these entities are primarily denominated in \$. Generally, the respective local currency is used as the



**NOTES TO THE NOVARTIS GROUP**

**CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**1. Accounting policies (Continued)**

functional currency for other entities. In the respective entity financial statements, monetary assets and liabilities denominated in foreign currencies are translated at the prevailing exchange rate at the balance sheet date. Transactions are recorded using the approximate exchange rate at the time of the transaction. All resulting foreign exchange transaction gains and losses are recognized in the entity's income statement.

Income, expense and cash flows of the consolidated entities have been translated into \$ using the average of monthly exchange rates during the year. Balance sheets are translated using year-end exchange rates. Translation differences arising from movements in exchange rates used to translate equity and long-term intercompany financing transactions relating to net investments in a foreign entity, retained earnings and other equity components and net income for the year are allocated directly to the cumulative translation effects included in the fair value adjustments in the consolidated statement of comprehensive income. Translation gains and losses accumulated in the consolidated statement of comprehensive income are included in the income statement when the foreign operation is completely or partially liquidated or is sold.

**Derivative financial instruments and hedging**

Derivative financial instruments are initially recognized in the balance sheet at fair value, and they are remeasured to their current fair value at the end of each subsequent period.

The method of recognizing the resulting gain or loss is dependent on whether a derivative contract is designed to hedge a specific risk and qualifies for hedge accounting. The purpose of hedge accounting is to match the impact of the hedged item and the hedging instrument in the income statement. To qualify for hedge accounting, the hedging relationship must meet several strict conditions with respect to documentation, probability of occurrence, hedge effectiveness and reliability of measurement. At the inception of a transaction, the Group documents the relationship between hedging instruments and hedged items as well as its risk management objective and strategy for undertaking various hedge transactions. This process includes linking all derivatives designated as hedges to specific assets and liabilities, to specific firm commitments or to forecasted transactions. The Group also documents its assessment, both at the inception of a hedge and on an ongoing basis, as to whether the derivatives used in hedging transactions are highly effective in offsetting changes in fair values or cash flows of hedged items. On the date a derivative contract is effective, the Group designates derivatives that qualify as hedges for accounting purposes as either a) a hedge of the fair value of a recognized asset or liability (fair value hedge), or b) a hedge of a forecasted transaction or firm commitment (cash flow hedge) or c) a hedge of a net investment in a foreign entity.

Changes in the fair value of derivatives that are fair value hedges and that are highly effective are recognized in the income statement along with any changes in the fair value of the hedged asset or liability attributable to the hedged risk. Any gain or loss on the hedging instrument relating to the effective portion of changes in the fair value of derivatives in cash flow hedges are recognized in the consolidated statement of comprehensive income. Gains or losses relating to the ineffective portion are recognized immediately in the income statement. In determining whether the impact of a cash flow hedge can be deferred in the consolidated statement of comprehensive income, management assesses the probability of the forecasted transaction occurring. Amounts are only deferred when management judges the forecasted transaction to be highly probable. Where a forecasted transaction or firm commitment relating to a non-financial asset or non-financial liability is hedged, the gains or losses previously recorded in the consolidated statement of

Table of Contents**NOTES TO THE NOVARTIS GROUP****CONSOLIDATED FINANCIAL STATEMENTS (Continued)****1. Accounting policies (Continued)**

comprehensive income are included in the initial measurement of the asset or liability. Otherwise, amounts recorded in the consolidated statement of comprehensive income are transferred to the income statement and classified as income or expense in the same period in which the forecasted transaction affects the income statement.

Hedges of net investments in foreign entities are accounted for similarly to cash flow hedges. All foreign exchange gains or losses arising on translation are included in cumulative translation effects and recognized in the consolidated statement of comprehensive income. Gains and losses accumulated in this statement are included in the income statement when the foreign operation is completely or partially liquidated or is sold.

Certain derivative instruments, while providing effective economic hedges under the Group's policies, do not qualify for hedge accounting. Changes in the fair value of any derivative instruments that do not qualify for cash flow hedge accounting are recognized immediately in the financial result in the income statement.

When a hedging instrument expires or is sold, or when a hedge no longer meets the criteria for hedge accounting, any cumulative gain or loss existing in the consolidated statement of comprehensive income at that time is recognized in the income statement when the committed or forecasted transaction is ultimately recognized in the income statement. However, if a forecasted or committed transaction is no longer expected to occur, the cumulative gain or loss recognized in the consolidated statement of comprehensive income is immediately transferred to the income statement.

**Property, plant & equipment**

Land is recorded at acquisition cost less accumulated impairment, if any. Prepayments for long-term leasehold land agreements are amortized over the life of the lease.

Other items of property, plant & equipment are recorded at acquisition cost or production cost and are depreciated on a straight-line basis to the income statement over the following estimated useful lives:

Buildings	20 to 40 years
Other property, plant & equipment:	
Machinery and equipment	7 to 20 years
Furniture and vehicles	5 to 10 years
Computer hardware	3 to 7 years

Additional costs that enhance the future economic benefit of property, plant & equipment are capitalized. Government grants for construction activities and equipment are deducted from the carrying value of the assets. With effect from January 1, 2009 as required by IAS 23, borrowing costs associated with the construction of new property, plant and equipment projects are capitalized. Such costs related to projects commencing prior to January 1, 2009 have been expensed. Property, plant & equipment is reviewed for impairment whenever events or changes in circumstances indicate that the balance sheet carrying amount may not be recoverable.

Table of Contents**NOTES TO THE NOVARTIS GROUP****CONSOLIDATED FINANCIAL STATEMENTS (Continued)****1. Accounting policies (Continued)**

Property, plant & equipment that are financed by leases giving Novartis substantially all risks and rewards of ownership are capitalized at the lower of the fair value of the leased asset or the present value of minimum lease payments at the inception of the lease. These are depreciated in the same manner as other assets over the shorter of the lease term or their useful life. Leases in which a significant portion of the ownership risks and rewards are retained by the lessor are classified as operating leases. These are charged to the income statement over the life of the lease, generally, on a straight-line basis.

**Intangible assets****Goodwill**

The excess of the purchase price over the fair value of net identifiable assets acquired in a business combination is recorded as goodwill in the balance sheet and is denominated in the local currency of the related acquisition. Goodwill is allocated to an appropriate cash-generating unit which is defined as the smallest group of assets that generates cash inflows that support the goodwill. These units are largely independent of the cash inflows from other assets or group of assets. All goodwill is considered to have an indefinite life and is tested for impairment at least annually. In addition, goodwill is evaluated for impairment at each reporting date for each cash-generating unit with any resulting goodwill impairment charge recorded under Other Expense in the consolidated income statement.

When evaluating goodwill for a potential impairment, the Group estimates the recoverable amount based on the "fair value less costs to sell" of the cash-generating unit containing the goodwill. The Group uses the estimated future cash flows a market participant could generate from the cash-generating unit. In certain circumstances, its "value in use" to the Group is estimated if this value is higher than the "fair value less costs to sell". If the carrying amount exceeds the recoverable amount, an impairment loss for the difference is recognized. Considerable management judgment is required to estimate the discounted future cash flows and appropriate discount rates used to make these calculations. Accordingly, actual cash flows and values could vary significantly from forecasted cash flows and related values derived using discounting techniques.

**Other intangible assets**

All identifiable intangible assets acquired in a business combination are recognized at their fair value. Furthermore, all acquired Research & Development assets, including upfront and milestone payments on licensed or acquired compounds, are capitalized as intangible assets, even if uncertainties exist as to whether the R&D projects will ultimately be successful in producing a commercial product.

All Novartis intangible assets are allocated to cash-generating units and amortized over their estimated useful life once they are available for use. In-Process Research & Development (IPR&D) is the only class of separately identified intangible assets that is not amortized, but IPR&D is tested for impairment on an annual basis or when facts and circumstances warrant an impairment test. Any impairment charge is recorded in the income statement under "Research & Development expenses." Once a project included in IPR&D has been successfully developed and is available for use, it is amortized over its useful life in the income statement under "Cost of Goods Sold," where any related impairment charges are also recorded.

The useful lives assigned to acquired intangible assets are based on the period over which they are expected to generate economic benefits, commencing in the year in which they first generate sales or are

Table of Contents**NOTES TO THE NOVARTIS GROUP****CONSOLIDATED FINANCIAL STATEMENTS (Continued)****1. Accounting policies (Continued)**

used in development. Acquired intangible assets are amortized on a straight-line basis over the following periods:

Trademarks	Over their estimated economic or legal life with a maximum of 20 years
Product and marketing rights	5 to 20 years
Core technologies	Over their estimated useful life, typically 15 to 30 years
Software	3 years
Others	3 to 5 years

Amortization of trademarks, product and marketing rights is charged in the income statement to "Cost of Goods Sold" over their useful lives. Core technologies, which represent identified and separable acquired know-how used in the research development and production process, is amortized in the income statement under "Cost of Goods Sold" or "Research & Development." Any impairment charges are recorded in the income statement in the same functional cost lines as the related amortization charges.

Intangible assets other than IPR&D are reviewed for impairment whenever facts and circumstances indicate their carrying value may not be recoverable. When evaluating an intangible asset for a potential impairment, the Group estimates the recoverable amount based on the intangible asset's "fair value less costs to sell" using the estimated future cash flows a market participant could generate with that asset or, in certain circumstances, the "value in use" of the intangible asset to the Group, whichever is higher. If the carrying amount of the asset exceeds the recoverable amount, an impairment loss for the difference is recognized. For purposes of assessing impairment, assets are grouped at the lowest level for which there are separately identifiable cash-generating units. Considerable management judgment is necessary to estimate the discounted future cash flows and appropriate discount rates used to make these calculations. Accordingly, actual cash flows and values could vary significantly from forecasted cash flows and related values derived using discounting techniques.

**Financial assets**

Investments in debt and equity securities are initially recorded at fair value on the trade date, and subsequently carried at fair value. The fair values of quoted investments are based on current market prices. If the market for a financial asset is not active or no market is available, fair values are established using valuation techniques. These include the use of data from the most recent arm's length transactions, such as new financing rounds or partial disposals; reference to other instruments that are substantially the same; a discounted cash flow analysis; and other pricing models that make maximum use of market data and rely as little as possible on entity-specific information. Loans are carried at amortized cost, less any allowances for uncollectable amounts. Exchange rate gains and losses on loans are recorded in the income statement. All other changes in the fair value of financial assets are deferred as a fair value adjustment in the consolidated statement of comprehensive income and recycled to the income statement when the asset is sold. Any impairments in value below initial cost are immediately expensed in the income statement.

Novartis uses the equity method to account for investments in associated companies (defined as investments in companies that correspond to holdings of between 20% and 50% of voting shares or over which Novartis otherwise has significant influence).

Table of Contents

**NOTES TO THE NOVARTIS GROUP**

**CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**1. Accounting policies (Continued)**

Novartis considers investments in associated companies for impairment testing whenever there is a quoted share price and when this has a fair value less than the carrying value per share for the investment. For unquoted investments in associated companies recent financial information is taken into account to assess whether impairment testing is necessary. Where there is an indicator that separately identified assets of the associated company other than its implicit goodwill might be impaired, an impairment test is performed. Any impairment charge is recorded in the income statement under "Income from associated companies".

If the balance sheet carrying amount of the asset exceeds the higher of its value in use or fair value less costs to sell, an impairment loss is recognized for the difference. Value in use is defined as the present value of the future cash flows expected to be derived from an asset or cash-generating unit. For investments in associated companies, Novartis typically uses the Discounted Cash Flow method (DCF). The discounted cash flow method is based on a forecast of all expected future net cash flows generated by the business utilising external and Novartis internal projections. As an alternative methodology the discounted dividend method may be used. The Discounted Dividend Method (DDM) is the value of all future dividends plus the residual value of the investment less costs of disposal. These cash flows, which reflect the risks and uncertainties associated with the investment, are discounted at an appropriate rate to net present value.

**Inventories**

Purchased products are valued at acquisition cost while own-manufactured products are valued at manufacturing cost including related production expenses. In the balance sheet, inventory is valued at historical cost determined on a first-in first-out basis, and this value is used for the Cost of Goods Sold in the income statement. Provisions are made for inventories with a lower market value or which are slow-moving. If it becomes apparent that such inventory can be reused, provisions are reversed with inventory being revalued up to the lower of its estimated market value or original cost. Inventory produced ahead of regulatory approval is provided for with the provision being released on obtaining approval. Unsaleable inventory is fully written off.

**Trade receivables**

Trade receivables are initially recognized at fair value which represent the invoiced amounts, less adjustments for estimated revenue deductions such as rebates, chargebacks and cash discounts. Doubtful trade receivables provisions are established based upon the difference between the recognized value and the estimated net collectible amount with the estimated loss recognized in the income statement within Marketing & Sales expenses. When a trade receivable becomes uncollectible, it is written off against the doubtful trade receivables provisions.

**Cash and cash equivalents**

Cash and cash equivalents include highly liquid investments with original maturities of three months or less which are readily convertible to known amounts of cash. Bank overdrafts are presented within other bank and financial debt within current financial debts on the balance sheet.

Table of Contents

**NOTES TO THE NOVARTIS GROUP**

**CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**1. Accounting policies (Continued)**

**Marketable securities**

Marketable securities consist of equity and debt securities which are principally traded in liquid markets. The Group has classified all its marketable securities as available-for-sale, as they are not acquired to generate profit from short-term fluctuations in price. All purchases and sales of marketable securities are recognized on the trade date, which is the date that the Group commits to purchase or sell the asset. Marketable securities are initially recorded at their acquired fair value and subsequently carried at fair value. Exchange rate gains and losses on debt securities are recorded in the income statement. All other changes in the fair value of unhedged securities are deferred as a fair value adjustment in the consolidated statement of comprehensive income and recycled to the income statement when the asset is sold or impaired. Where hedge accounting is applied, the change in fair value of effectively hedged securities is recorded in the income statement where it offsets the gains or losses of the hedging derivative.

Unrealized losses on impaired marketable securities are included as a reduction of financial income in the income statement. A security is assessed for impairment when its market value at the balance sheet date is less than initial cost reduced by any previously recognized impairment.

**Repurchase agreements**

Underlying securities related to repurchase agreements are included within marketable securities. Repurchase financing agreements for securities sold but agreed to be repurchased are recognized gross and included in short-term financial debts. Income and expenses are recorded net in interest income.

**Taxes**

Taxes on income are provided in the same periods as the revenues and expenses to which they relate. Deferred taxes are determined using the comprehensive liability method and are calculated on the temporary differences that arise between the tax base of an asset or liability and its carrying value in the subsidiary's balance sheet prepared for consolidation purposes, except for those temporary differences related to investments in subsidiaries and associated companies, where the timing of their reversal can be controlled and it is probable that the difference will not reverse in the foreseeable future. Furthermore, withholding or other taxes on eventual distribution of subsidiaries' retained earnings are only taken into account where a dividend has been planned since generally the retained earnings are reinvested. Deferred tax assets or liabilities, measured at the tax rates that are expected to apply in the period of tax settlement or realization by the applicable entity, are included in the consolidated balance sheet as either a non-current asset or liability, with changes in the year recorded in the income statement in tax expense or in the consolidated statement of comprehensive income, if they relate to an item directly recorded in this statement. Deferred tax assets related to taxable losses of relevant Group entities are recognized to the extent it is considered probable that future taxable profits will be available against which such losses can be utilized in the foreseeable future.

**Defined benefit pension plans, other post-employment benefits and other non-current benefits of associates**

*Defined benefit pension plans*

The liability in respect of defined benefit pension plans is the defined benefit obligation calculated annually by independent actuaries using the projected unit credit method. The defined benefit obligation

Table of Contents

**NOTES TO THE NOVARTIS GROUP**

**CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**1. Accounting policies (Continued)**

is measured as the present value of the estimated future payments required to settle the obligation that is attributable to the service of associates in the current and prior periods. The charge for such pension plans, represented by the net periodic pension cost, is included in the personnel expenses of the various functions where the associates are employed. Plan assets are recorded at their fair value. Unvested past service costs arising from amendments to pension plans are charged or credited to income over the associates' remaining vesting period. Vested past service costs, including such costs for retired associates are immediately recognized in the income statement. Gains or losses arising from plan curtailments or settlements are accounted for at the time they occur. Any net pension asset is limited to the present value of future economic benefits available to the Group in the form of refunds from the plan or expected reductions in future contributions to the plan.

The effects of changes in actuarial assumptions and experience adjustments on the value of assets and liabilities of defined benefit plans are immediately recognized in the balance sheet with a corresponding movement in the consolidated statement of comprehensive income.

*Other post-employment benefits*

Certain subsidiaries provide healthcare and insurance benefits for a portion of their retired associates and their eligible dependents. The cost of these benefits is actuarially determined and accrued over the service lives of the related associates and included in the personnel expenses of the various functions where the associates are located. The related obligation is recognized in non-current liabilities.

*Other non-current benefits of associates*

Other non-current benefits of associates represent amounts due to associates under deferred compensation arrangements available in certain jurisdictions in which the Group conducts its operations. Benefit costs are recognized on an accrual basis in the personnel expenses of the various functions where the associates are located. The related obligation is recognized in other non-current liabilities.

**Equity-based compensation**

The fair value of Novartis shares, Novartis American Depositary Shares (ADS) and related options granted to associates as compensation is recognized as an expense over the related vesting or service period. The market maker calculates the fair value of the options at the grant date using the trinomial valuation method, which is a variant of the lattice binomial approach. Shares and ADSs are valued using the market value on the grant date. The amounts for shares and options are charged to income over the relevant vesting or service periods, adjusted to reflect actual and expected levels of vesting. The charge for equity-based compensation is included in the personnel expenses of the various functions where the associates are located.

**Revenue recognition**

Revenue is recognized when there is persuasive evidence that a sales arrangement exists, title and risks and rewards for the products are transferred to the customer, the price is fixed and determinable and collectability is reasonably assured. In particular, the Vaccines and Diagnostics Division enters into substantial vaccines related contracts with governmental agencies. Sales related to these contracts are accounted for following the acceptance criteria stipulated in these contracts. Provisions for rebates and

Table of Contents**NOTES TO THE NOVARTIS GROUP****CONSOLIDATED FINANCIAL STATEMENTS (Continued)****1. Accounting policies (Continued)**

discounts granted to government agencies, wholesalers, retail pharmacies, managed care and other customers are recorded as a reduction of revenue at the time the related revenues are recorded or when the incentives are offered. They are calculated on the basis of historical experience and the specific terms in the individual agreements. Provisions for refunds granted to healthcare providers under innovative pay for performance agreements are recorded as a reduction of revenue at the time the related revenues are recorded. They are calculated on the basis of historical experience and clinical data for the product as well as the specific terms in the individual agreements. In cases where historical experience and clinical data are not sufficient for a reliable estimation of the outcome, revenue recognition is deferred. Cash discounts are offered to customers to encourage prompt payment and are recorded as revenue deductions. Wholesaler shelf-inventory adjustments are granted to customers based on the existing inventory of a product at the time of decreases in the invoice or contract price of a product or at the point of sale if a price decline is reasonably estimable. Where there is an historical experience of Novartis agreeing to customer returns or Novartis can otherwise reasonably estimate expected future returns, Novartis records a provision for estimated sales returns. In doing so it applies the estimated rate of return, determined based on historical experience of customer returns or considering any other relevant factors, to the amounts invoiced also considering the amount of returned products to be destroyed versus products that can be placed back in inventory for resale. Where shipments are made on a sale or return basis, without sufficient historical experience for estimating sales returns, revenue is only recorded when there is evidence of consumption or when the right of return has expired. Provisions for revenue deductions are adjusted to actual amounts as rebates, discounts and returns are processed.

**Research & development**

Internal Research & Development (R&D) costs are fully charged to the income statement in the period in which they are incurred. The Group considers that regulatory and other uncertainties inherent in the development of new products preclude the capitalization of internal development expenses as an intangible asset until marketing approval from a regulatory authority is obtained in a relevant major market such as for the US, the EU, Switzerland or Japan.

Payments made to third parties such as contract research and development organizations are expensed as internal R&D expenses in the period in which they are incurred, unless the criteria for recognition of an internally generated intangible asset are met, usually when marketing approval has been achieved from a regulatory authority in a major market.

Payments made to third parties in order to in-license or acquire intellectual property rights, compounds and products (In-Process Research & Development assets, "IPR&D"), including initial upfront and subsequent milestone payments, are capitalized as are payments for other assets, such as core technologies to be used in R&D activities. Subsequent internal R&D costs in relation to IPR&D and other assets are expensed until marketing approval has been achieved from a regulatory authority in a major market. Costs for post-approval studies performed to support the continued registration of a marketed product are recognized as marketing expenses. Costs of activities that are required by regulatory authorities as a condition for approval are charged as development expenses as they are incurred, unless the activities are conducted beyond the product sale period. In this case the total estimated post-approval costs are expensed over the period in which related product sales are made.



Table of Contents

**NOTES TO THE NOVARTIS GROUP**

**CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**1. Accounting policies (Continued)**

IPR&D assets are amortized once the related project has been successfully developed and regulatory approval for a product launch obtained and acquired core technologies included in intangible assets are amortized in the income statement over their estimated useful lives.

Laboratory buildings and equipment included in property, plant & equipment are depreciated in the income statement over their estimated useful lives.

**Government grants**

Grants from the government are recognized at their fair value where there is a reasonable assurance that the grant will be received and the Group will comply with all attached conditions.

Government grants are deferred and recognized in the income statement over the period necessary to match them with the related costs which they are intended to compensate.

Government grants relating to property, plant and equipment are deducted from the carrying value of assets credited to the income statement on a straight-line basis over the expected lives of the related assets.

Government grants related to income are deducted in reporting the related expense.

**Provisions**

Novartis records provisions when it is judged probable that a liability has been incurred and the amount can be reliably estimated. These provisions are adjusted periodically as assessments change or additional information becomes available.

Cost of future expenditures do not usually reflect any insurance or other claims or recoveries, as Novartis only recognizes insurance or other recoveries at such time the amount is reliably estimable and collection is virtually certain.

***Product liabilities***

Provisions are made for present product liability obligations resulting from past sales including related legal and other fees and expenses. The provision is actuarially determined taking into consideration such factors as past experience, amount and number of claims reported and estimates of claims incurred but not yet reported. Individually significant cases are provided for when probable and reliably estimable.

***Legal liabilities***

Provisions are made for anticipated settlement costs where a reliable estimate can be made of the probable outcome of legal or other disputes against the Group. In addition, provisions are made for legal and other fees and expenses arising from claims affecting Novartis.

***Environmental liabilities***

Novartis is exposed to environmental liabilities relating to its past operations, principally in respect to remediation costs. Provisions for remediation costs are made when expenditure on remedial work is probable and the cost can be reliably estimated. These remediation costs are calculated at the net present

Table of Contents

**NOTES TO THE NOVARTIS GROUP**

**CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**1. Accounting policies (Continued)**

value of expected cash outflows including anticipated inflation, discounted at a rate based on the market yields for high quality corporate bonds. The increase in provisions due to the passage of time and the effect of changes in the discount rates are included in interest expense.

**Restructuring charges**

Restructuring charges are accrued against operating income in the period in which management has committed to a plan and has raised the valid expectation of the plan's implementation in those affected and the amount can be reliably estimated. The Group recognizes the costs for terminating the employment contracts of associates when it is demonstrably committed to either terminating employment according to a detailed formal plan without possibility of withdrawal or when it is committed to providing termination benefits as a result of an offer made to encourage voluntary redundancy.

Restructuring charges or releases of provisions are included in Other Expense or Other Income in the income statement.

**Dividends**

Dividends are recorded in the Group's financial statements in the period in which they are approved by the Group's shareholders.

**Treasury shares**

Treasury shares are deducted from equity at their nominal value of CHF 0.50 per share. Differences between this amount and the amount paid for acquiring, or received for disposing of, treasury shares are recorded in retained earnings.

**Operating Segments**

Operating segments are reported consistently with the internal reporting to the chief operating decision maker. The chief operating decision maker, who is responsible for allocating resources and assessing the performance of the operating segments, has been identified as being the Executive Committee.

**Status of adoption of significant new or amended IFRS standards or interpretations**

The following new or amended IFRS standards or interpretations which, based on a Novartis analysis, are the only ones of significance to the Group, have not yet been adopted but require to be adopted by January 1, 2010: IFRS 3 (revised) "*Business Combinations*". The revised standard requires Novartis to include in the purchase consideration the estimated amount of any contingent considerations and the measurement to fair value, through the income statement of any interest in an acquired company that had been previously held. Furthermore, transaction costs are expensed as incurred and no longer form part of the acquisition price. Amendments to IAS 27: "*Consolidated and Separate Financial Statements*": The result of changes in the Novartis ownership percentage in a subsidiary that do not result in a loss of control will be accounted for in equity. Amendments to IAS 39 "*Financial instruments: Recognition and Measurement*". This revised standard requires adoption from January 1, 2010. It requires that any options, including those concerning Alcon, related to potential acquisitions which up to December 31, 2009 do not require recognition, are recorded at their fair values, initially into opening



Table of Contents

**NOTES TO THE NOVARTIS GROUP**

**CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**1. Accounting policies (Continued)**

equity at January 1, 2010, and subsequent fair value adjustments into the income statement. We do not anticipate any significant impact from the adoption of this revised standard.

IFRS 9 "*Financial Instruments: Classification and Measurement*" only requires to be adopted by January 1, 2013 although earlier adoption is permitted. This standard will substantially change the classification and measurement of financial instruments and hedging requirements. Novartis is currently evaluating the potential impact that this standard will have on the Group's consolidated financial statements.

**2. Significant transactions, business combinations and divestments**

The following acquisitions, divestments, business combinations and other significant transactions occurred during 2009, 2008 and 2007. See notes 3 and 24 for further details of the impact of these transactions on the consolidated financial statements.

**Acquisitions in 2009**

*Sandoz EBEWE Pharma*

On May 20, Novartis announced a definitive agreement for Sandoz to acquire the specialty generic injectables business of EBEWE Pharma for EUR 925 million (\$1.3 billion) in cash, to be adjusted for any cash or debt assumed at closing. This transaction was completed on September 22, 2009. The first payment of EUR 600 million (\$0.9 billion) was made in 2009, with the balance to be paid in 2010. Based on a final purchase price allocation, EBEWE's identified net assets were \$0.7 billion, which resulted in goodwill of \$0.5 billion in 2009. Results of operations from this acquisition, which were not material in 2009, were included from the completion date of this transaction.

*Vaccines and Diagnostics Zhejiang Tianyuan*

On November 4, Novartis announced a definitive agreement to acquire an 85% stake in the Chinese vaccines company Zhejiang Tianyuan Bio-Pharmaceutical Co., Ltd. Terms call for Novartis to purchase an 85% majority interest for approximately \$125 million in cash. The transaction, which is expected to be completed in 2010, is subject to certain closing conditions, including receipt of government and regulatory approvals in China.

*Pharmaceuticals Corthera*

On December 23, Novartis announced a definitive agreement to acquire Corthera Inc, gaining worldwide rights to relaxin for the treatment of acute heart failure. Novartis will assume full responsibility for development and commercialization. The purchase price consists of an initial payment of \$120 million. Corthera's current shareholders are eligible to receive additional payments of up to \$500 million contingent upon clinical milestones, regulatory approvals and the achievement of commercialization targets. The transaction is expected to be completed in the first quarter of 2010.

Table of Contents**NOTES TO THE NOVARTIS GROUP****CONSOLIDATED FINANCIAL STATEMENTS (Continued)****2. Significant transactions, business combinations and divestments (Continued)****Acquisitions in 2008***Corporate Alcon*

On April 7, Novartis announced an agreement with Nestlé S.A. under which Novartis obtained rights to acquire majority ownership of Alcon Inc. (NYSE: ACL), a Swiss-registered company listed only on the New York Stock Exchange. The potential total value of this transaction is up to approximately \$38.5 billion. On July 7, 2008, Novartis acquired a 25% stake in Alcon, representing 74 million shares, from Nestlé for \$10.4 billion in cash. At December 31, 2009, Alcon's share price on the New York Stock Exchange (NYSE) was \$164.35, which was above the Group's carrying value of \$136.88 per share for this strategic investment. See also the subsequent event in note 30.

*Pharmaceuticals Speedel*

On July 10, Novartis announced the all-cash purchase of an additional 51.7% stake in Speedel Holding AG (SIX: SPPN) through off-exchange transactions together with plans to buy all remaining shares in the Swiss biopharmaceuticals company in a mandatory public tender offer. In September 2009, Speedel shares were delisted from the SIX Swiss Exchange and Novartis holds now all shares. The price for the 90.5% interest not previously held was approximately CHF 939 million (\$888 million) excluding \$26 million of cash held by Speedel as of the July 2008 acquisition date of majority control. Speedel has been fully consolidated as a subsidiary since the July acquisition of a majority stake. Based on a final purchase price allocation, Speedel's identified net assets were \$472 million, which resulted in goodwill of \$493 million in 2008. As a result of this purchase price allocation, the value of the initial 9.5% stake rose by \$38 million, which was recorded in the consolidated statement of comprehensive income. The consolidation of Speedel resulted in immaterial amounts being included in the Group's consolidated income and operating cash flow statements for 2008 and 2009.

*Pharmaceuticals Protez*

On June 4, Novartis agreed to acquire Protez Pharmaceuticals, a privately held US biopharmaceuticals company, gaining access to PTZ601, a broad-spectrum antibiotic in Phase II development against potentially fatal drug-resistant bacterial infections. Novartis paid in total \$102 million in cash to acquire 100% of Protez, whose owners are eligible for additional payments of up to \$300 million contingent upon the future success of PTZ601. Protez has been consolidated since the transaction completion on July 17. Based on the purchase price allocation, identified net assets from Protez amounted to \$72 million, which resulted in goodwill of \$30 million. The consolidation of Protez resulted in immaterial amounts being included in the Group's consolidated income and operating cash flow statements for 2008 and 2009.

*Pharmaceuticals Nektar pulmonary business*

On October 21, Novartis agreed to acquire Nektar Therapeutics Inc.'s pulmonary business unit for \$115 million in cash. In this transaction, which was completed on December 31, 2008, Novartis acquired research, development and manufacturing assets of Nektar's pulmonary business unit, including tangible assets as well as intellectual property, intangible assets and related expertise. The full purchase price was allocated to the net assets acquired with no residual goodwill.

Table of Contents

**NOTES TO THE NOVARTIS GROUP**

**CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**2. Significant transactions, business combinations and divestments (Continued)**

**Other significant transactions in 2009**

*Corporate Issuance of bond in US dollars*

On February 5, Novartis issued a two-tranche bond totaling \$5 billion registered with the US Securities and Exchange Commission as part of a shelf registration statement filed by Novartis in 2008. A 4.125% five-year tranche totaling \$2 billion was issued by the Group's US entity, Novartis Capital Corp., while a 5.125% 10-year tranche totaling \$3 billion was issued by the Group's Bermuda unit, Novartis Securities Investment Ltd. Both tranches are unconditionally guaranteed by Novartis AG.

*Corporate Issuance of bond in euros*

On June 2, Novartis issued a EUR 1.5 billion bond (approximately \$2.1 billion) with a coupon of 4.25% under its EUR 15 billion Euro Medium Term Note Programme. The seven-year bond, issued by Novartis Finance S.A., Luxembourg, has a maturity date of June 15, 2016, and is guaranteed by Novartis AG.

*Corporate Novartis India Ltd.*

On June 8, Novartis completed a tender offer to acquire additional shares from public shareholders and increased its stake in the majority-owned Indian subsidiary, Novartis India Ltd., to 76.4% from 50.9% for approximately INR 3.8 billion (\$80 million). Almost all large institutional investors and quasi-institutional shareholders participated in the offer. This transaction resulted in \$57 million of goodwill.

*Pharmaceuticals Idenix*

On August 5, Novartis did not participate in an underwritten public offering by Idenix Pharmaceuticals, which reduced the Group's stake to 47% from the pre-offering level of 53%. As a result of this offering, Novartis no longer controls this company, so Idenix was deconsolidated with effect from September 1, 2009. Idenix has been accounted for on an equity basis since this date, which had no material impact on the Group's consolidated income statement.

**Other significant transactions in 2008**

*Corporate Issuance of bonds in Swiss francs*

On June 26, Novartis issued two Swiss franc bonds totaling CHF 1.5 billion (approximately \$1.4 billion) in the Swiss capital market, with each listed on the SIX Swiss Exchange. One was a 3.5% four-year bond for a total of CHF 700 million issued by Novartis Securities Investment Ltd. and guaranteed by Novartis AG. The other was a 3.625% seven-year bond of CHF 800 million issued by Novartis AG.

**Divestments/discontinued operations in 2007**

*Consumer Health Gerber Business Unit*

On September 1, Novartis completed the divestment of the Gerber infant products Business Unit for approximately \$5.5 billion to Nestlé S.A. resulting in a pre-tax divestment gain of approximately \$4.0 billion and an after-tax gain of \$3.6 billion.

Table of Contents

**NOTES TO THE NOVARTIS GROUP**

**CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**2. Significant transactions, business combinations and divestments (Continued)**

*Consumer Health Medical Nutrition Business Unit*

On July 1, Novartis completed the divestment of the remainder of the Medical Nutrition Business Unit for approximately \$2.5 billion to Nestlé S.A. resulting in a pre-tax divestment gain of \$1.8 billion and an after-tax gain of \$1.6 billion.

Gerber and Medical Nutrition are reported as discontinued operations in all periods in the Group's consolidated financial statements. These businesses in total had 2007 net sales of \$1.7 billion and operating income of \$311 million before their respective divestment.

**Other significant transactions in 2007**

*Vaccines and Diagnostics Intercell*

On September 28, Novartis entered into a strategic alliance with Intercell AG, an Austrian biotechnology company focused on vaccines development. In accordance with the agreement, Novartis paid \$383 million (EUR 270 million) and recorded \$207 million (EUR 146 million) of intangible assets, and also acquired an additional 4.8 million shares for \$176 million (EUR 124 million) that increased the Novartis holding in Intercell to 15.9%. The equity investment is accounted for as an available-for-sale marketable security within the financial assets of the division.

*Pharmaceuticals Betaseron®*

On September 14, Novartis and Bayer Schering Pharma AG received regulatory approval to complete an agreement related to various rights for the multiple sclerosis treatment Betaseron® under an earlier agreement between Schering and Chiron Corporation transferred to Novartis in April 2006. Under the new agreement, Novartis received a one-time payment of \$200 million, principally for manufacturing facilities transferred to Bayer Schering, as well as receiving rights to market a Novartis-branded version of Betaseron® called *Extavia* starting in 2009 in the EU and later in the US following anticipated approval. As a result of the clarification of the intangible product rights, a reassessment was made of the related assets from the Chiron acquisition as of April 20, 2006. This resulted in an increase of \$235 million in identified net assets in 2007 relating to the Chiron 2006 acquisition.

**3. Segmentation of key figures 2009, 2008 and 2007**

*Operating Divisions*

Novartis is divided operationally on a worldwide basis into four Divisions: Pharmaceuticals, Vaccines and Diagnostics, Sandoz and Consumer Health. These Divisions, which are based on internal management structures and are managed separately because they manufacture, distribute, and sell distinct products which require differing marketing strategies, are as follows:

The Pharmaceuticals Division researches, develops, manufactures, distributes and sells branded prescription medicines in the following therapeutic areas: Cardiovascular and Metabolism; Oncology; Neuroscience and Ophthalmics; Respiratory; Immunology and Infectious Diseases; and Other. The Pharmaceuticals Division is organized into global business franchises responsible for the development and marketing of various products, as well as a business unit, called Novartis Oncology, responsible for the global development and marketing of oncology products. Novartis Oncology is not required to be disclosed separately as a segment since it shares common long-term economic perspectives, customers, research, development, production, distribution and regulatory factors with the rest of the Pharmaceuticals Division.

Table of Contents

**NOTES TO THE NOVARTIS GROUP**

**CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**3. Segmentation of key figures 2009, 2008 and 2007 (Continued)**

The Vaccines and Diagnostics Division consists of two activities: Vaccines and Diagnostics. Novartis Vaccines researches, develops, manufactures, distributes and sells human vaccines worldwide. Novartis Diagnostics researches, develops, distributes and sells blood testing and molecular diagnostics products.

The Sandoz Division develops, manufactures, distributes and sells prescription medicines, as well as pharmaceutical and biotechnological active substances, which are not protected by valid and enforceable third-party patents. Sandoz has activities in Retail Generics, Anti-Infectives, Biopharmaceuticals and Oncology Injectables (following the acquisition of EBEWE Pharma, which was completed in September 2009). In Retail Generics, Sandoz develops, manufactures, distributes and sells active ingredients and finished dosage forms of medicines, as well as supplying active ingredients to third parties. In Anti-Infectives, Sandoz develops, manufactures, distributes and sells active pharmaceutical ingredients and intermediates, mainly antibiotics, for internal use by Retail Generics and for sale to third-party customers. In Biopharmaceuticals, Sandoz develops, manufactures, distributes and sells protein- or biotechnology-based products (known as "biosimilars" or follow-on biologics) and sells biotech manufacturing services to other companies. In Oncology Injectables, Sandoz develops, manufactures, distributes and sells cytotoxic products for the hospital market.

The Consumer Health Division consists of three business units: OTC (over-the-counter medicines), Animal Health and CIBA Vision. Each has its own research, development, manufacturing, distribution and selling capabilities. However, none are material enough to the Group to be separately disclosed as a segment. OTC offers readily available consumer medicine. Animal Health provides veterinary products for farm and companion animals. CIBA Vision markets contact lenses and lens care products.

The Gerber and Medical Nutrition Business Units previously included in the Consumer Health Division, have been classified as discontinued operations in these consolidated financial statements as a consequence of their divestment during 2007. The activities of the Gerber Business Unit covered foods and other products and services designed to serve the particular needs of infants and babies and the activities of the Medical Nutrition Business Unit covered health and medical nutrition products.

Inter-Divisional sales are made at amounts which are considered to approximate arm's length transactions. The accounting policies of the Divisions are the same as those of the Group. Currently, the Group principally evaluates Divisional performance and allocates resources among the Divisions based on their operating income.

Division net operating assets consist primarily of property, plant & equipment, intangible assets, inventories and trade and other operating receivables less operating liabilities.

*Corporate*

Income and expenses relating to Corporate include the costs of the Group headquarters and those of corporate coordination functions in major countries. In addition, Corporate includes other items of income and expense which are not attributable to specific Divisions such as certain expenses related to environmental liabilities, charitable activities, donations, sponsorships and research into areas with limited commercial possibilities. Usually, no allocation of Corporate items is made to the Divisions. Corporate assets and liabilities principally consist of net liquidity (cash and cash equivalents, marketable securities less financial debts), investments in associated companies and deferred and current taxes and non-divisional specific environmental liabilities.



Table of Contents

## NOTES TO THE NOVARTIS GROUP

## CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 3. Segmentation of key figures 2009, 2008 and 2007 (Continued)

in \$ millions	Pharmaceuticals			Vaccines and Diagnostics			Sandoz			Consumer Health continuing operations			Total of operating divisions		
	2009	2008	2007	2009	2008	2007	2009	2008	2007	2009	2008	2007	2009	2008	2007
<b>Net sales to third parties</b>	<b>28,538</b>	<b>26,331</b>	<b>24,025</b>	<b>2,424</b>	<b>1,759</b>	<b>1,452</b>	<b>7,493</b>	<b>7,557</b>	<b>7,169</b>	<b>5,812</b>	<b>5,812</b>	<b>5,426</b>	<b>44,267</b>	<b>41,459</b>	<b>38,072</b>
Sales to other Divisions	175	198	181	46	20	24	264	270	242	44	53	37	529	541	484
<b>Net sales of Divisions</b>	<b>28,713</b>	<b>26,529</b>	<b>24,206</b>	<b>2,470</b>	<b>1,779</b>	<b>1,476</b>	<b>7,757</b>	<b>7,827</b>	<b>7,411</b>	<b>5,856</b>	<b>5,865</b>	<b>5,463</b>	<b>44,796</b>	<b>42,000</b>	<b>38,556</b>
Other revenues	377	620	426	390	414	392	10	25	21	59	66	36	836	1,125	875
Cost of Goods Sold	(4,955)	(4,481)	(4,480)	(1,415)	(1,270)	(1,077)	(4,201)	(4,119)	(4,068)	(2,111)	(2,071)	(1,894)	(12,682)	(11,941)	(11,519)
<i>Of which amortization and impairments of product and marketing rights and trademarks</i>	<i>(230)</i>	<i>(353)</i>	<i>(683)</i>	<i>(287)</i>	<i>(286)</i>	<i>(280)</i>	<i>(256)</i>	<i>(283)</i>	<i>(288)</i>	<i>(96)</i>	<i>(76)</i>	<i>(78)</i>	<i>(869)</i>	<i>(998)</i>	<i>(1,329)</i>
<b>Gross profit</b>	<b>24,135</b>	<b>22,668</b>	<b>20,152</b>	<b>1,445</b>	<b>923</b>	<b>791</b>	<b>3,566</b>	<b>3,733</b>	<b>3,364</b>	<b>3,804</b>	<b>3,860</b>	<b>3,605</b>	<b>32,950</b>	<b>31,184</b>	<b>27,912</b>
Marketing & Sales	(8,369)	(8,109)	(7,687)	(297)	(247)	(227)	(1,330)	(1,413)	(1,236)	(2,054)	(2,083)	(1,976)	(12,050)	(11,852)	(11,126)
Research & Development	(5,840)	(5,716)	(5,088)	(508)	(360)	(295)	(613)	(667)	(563)	(346)	(313)	(301)	(7,307)	(7,056)	(6,247)
General & Administration	(870)	(843)	(798)	(176)	(177)	(160)	(385)	(408)	(351)	(376)	(383)	(375)	(1,807)	(1,811)	(1,684)
Other income	414	447	611	27	38	99	105	62	86	72	111	28	618	658	824
Other expense	(1,078)	(868)	(1,104)	(119)	(99)	(136)	(272)	(223)	(261)	(84)	(144)	(169)	(1,553)	(1,334)	(1,670)
<i>Of which amortization and impairments of capitalized intangible assets included in function costs</i>	<i>(125)</i>	<i>(381)</i>	<i>(174)</i>	<i>(43)</i>	<i>(33)</i>	<i>(15)</i>	<i>(10)</i>	<i>(24)</i>	<i>(37)</i>	<i>(1)</i>	<i>(1)</i>	<i>(15)</i>	<i>(179)</i>	<i>(439)</i>	<i>(241)</i>
<b>Operating income</b>	<b>8,392</b>	<b>7,579</b>	<b>6,086</b>	<b>372</b>	<b>78</b>	<b>72</b>	<b>1,071</b>	<b>1,084</b>	<b>1,039</b>	<b>1,016</b>	<b>1,048</b>	<b>812</b>	<b>10,851</b>	<b>9,789</b>	<b>(8,009)</b>
Income from associated companies	(14)						7	4	3				(7)	4	3
Financial income															
Interest expense															
<b>Income before taxes</b>															
Taxes															
<b>Group net income</b>															
<i>Attributable to:</i>															
<i>Shareholders of Novartis AG</i>															
<i>Non-controlling interests</i>															
Included in net income are:															
Interest income															
Depreciation of property, plant & equipment	(659)	(623)	(629)	(98)	(87)	(81)	(276)	(278)	(269)	(99)	(103)	(117)	(1,132)	(1,091)	(1,096)
	(366)	(414)	(411)	(312)	(318)	(295)	(260)	(284)	(293)	(84)	(77)	(89)	(1,022)	(1,093)	(1,088)

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Amortization of intangible assets															
Impairment charges on property, plant & equipment	(4)	(23)	(116)				(2)	(31)	(5)		(8)	(9)	(25)	(155)	
Impairment charges on intangible assets	11	(320)	(446)	(18)	(1)	(6)	(23)	(32)	(13)		(4)	(26)	(344)	(482)	
Impairment charges on financial assets	(37)	(53)	(41)					(27)				(37)	(53)	(68)	
Additions to restructuring provisions	(19)	(102)	(216)		(34)	(40)	(29)	(11)			(89)	(59)	(131)	(350)	
Divestment gains from disposal of subsidiaries															
Equity-based compensation of Novartis equity plans	(535)	(546)	(492)	(30)	(22)	(8)	(28)	(29)	(30)	(55)	(50)	(41)	(648)	(647)	(571)
<b>Total assets</b>	<b>24,013</b>	<b>22,741</b>	<b>21,511</b>	<b>6,704</b>	<b>5,795</b>	<b>5,826</b>	<b>17,685</b>	<b>15,914</b>	<b>16,665</b>	<b>4,508</b>	<b>4,491</b>	<b>4,529</b>	<b>52,910</b>	<b>48,941</b>	<b>48,531</b>
<b>Total liabilities</b>	<b>(9,494)</b>	<b>(7,929)</b>	<b>(7,527)</b>	<b>(1,121)</b>	<b>(811)</b>	<b>(1,025)</b>	<b>(2,534)</b>	<b>(1,966)</b>	<b>(2,001)</b>	<b>(1,340)</b>	<b>(1,312)</b>	<b>(1,375)</b>	<b>(14,489)</b>	<b>(12,018)</b>	<b>(11,928)</b>
<b>Total equity</b>	<b>14,519</b>	<b>14,812</b>	<b>13,984</b>	<b>5,583</b>	<b>4,984</b>	<b>4,801</b>	<b>15,151</b>	<b>13,948</b>	<b>14,664</b>	<b>3,168</b>	<b>3,179</b>	<b>3,154</b>	<b>38,421</b>	<b>36,923</b>	<b>36,603</b>
Net liquidity/(net debt)															
<b>Net operating assets</b>	<b>14,519</b>	<b>14,812</b>	<b>13,984</b>	<b>5,583</b>	<b>4,984</b>	<b>4,801</b>	<b>15,151</b>	<b>13,948</b>	<b>14,664</b>	<b>3,168</b>	<b>3,179</b>	<b>3,154</b>	<b>38,421</b>	<b>36,923</b>	<b>36,603</b>
Included in total assets and total liabilities are:															
Total property, plant & equipment	7,947	7,546	7,356	1,471	1,105	838	3,080	2,927	3,059	926	850	834	13,424	12,428	12,087
Additions to property, plant & equipment <sup>(1)</sup>	922	1,115	1,436	437	435	287	282	422	627	164	160	209	1,805	2,132	2,559
Total goodwill and intangible assets	6,930	6,417	5,884	3,163	3,460	3,680	10,683	9,372	10,048	1,577	1,561	1,632	22,353	20,810	21,244
Additions to goodwill and intangible assets <sup>(1)</sup>	809	98	352	12	42	211	35	21	41	101	22	12	957	183	616
Total investment in associated companies	19	1	2	2	2	2	18	16	18				39	19	22
Additions to investment in associated companies	22												22		
Cash, marketable securities and derivative financial instruments															
Financial debts and derivative financial instruments															
Current income tax and deferred tax liabilities															

(1) Excluding impact of business combinations.



Table of Contents

## NOTES TO THE NOVARTIS GROUP

## CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 3. Segmentation of key figures 2009, 2008 and 2007 (Continued)

in \$ millions	Corporate (including eliminations)			Total continuing operations			Discontinued operations		Total Group		
	2009	2008	2007	2009	2008	2007	2008	2007	2009	2008	2007
<b>Net sales to third parties</b>				<b>44,267</b>	<b>41,459</b>	<b>38,072</b>		<b>1,728</b>	<b>44,267</b>	<b>41,459</b>	<b>39,800</b>
Sales to other Divisions	(529)	(541)	(484)								
<b>Net sales of Divisions</b>	<b>(529)</b>	<b>(541)</b>	<b>(484)</b>	<b>44,267</b>	<b>41,459</b>	<b>38,072</b>		<b>1,728</b>	<b>44,267</b>	<b>41,459</b>	<b>39,800</b>
Other revenues				836	1,125	875		7	836	1,125	882
Cost of Goods Sold	503	502	487	(12,179)	(11,439)	(11,032)		(903)	(12,179)	(11,439)	(11,935)
<i>Of which amortization and impairments of product and marketing rights and trademarks</i>				(869)	(998)	(1,329)			(869)	(998)	(1,329)
<b>Gross profit</b>	<b>(26)</b>	<b>(39)</b>	<b>3</b>	<b>32,924</b>	<b>31,145</b>	<b>27,915</b>		<b>832</b>	<b>32,924</b>	<b>31,145</b>	<b>28,747</b>
Marketing & Sales				(12,050)	(11,852)	(11,126)		(399)	(12,050)	(11,852)	(11,525)
Research & Development	(162)	(161)	(183)	(7,469)	(7,217)	(6,430)		(26)	(7,469)	(7,217)	(6,456)
General & Administration	(474)	(434)	(449)	(2,281)	(2,245)	(2,133)		(77)	(2,281)	(2,245)	(2,210)
Other income	164	168	215	782	826	1,039	70	5,822	782	896	6,861
Other expense	(371)	(359)	(814)	(1,924)	(1,693)	(2,484)			(1,924)	(1,693)	(2,484)
<i>Of which amortization and impairments of capitalized intangible assets included in function costs</i>	(3)	(2)	(3)	(182)	(441)	(244)		(6)	(182)	(441)	(250)
<b>Operating income</b>	<b>(869)</b>	<b>(825)</b>	<b>(1,228)</b>	<b>9,982</b>	<b>8,964</b>	<b>6,781</b>	<b>70</b>	<b>6,152</b>	<b>9,982</b>	<b>9,034</b>	<b>12,933</b>
Income from associated companies	300	437	409	293	441	412			293	441	412
Financial income				198	384	531			198	384	531
Interest expense				(551)	(290)	(237)			(551)	(290)	(237)
<b>Income before taxes</b>				<b>9,922</b>	<b>9,499</b>	<b>7,487</b>	<b>70</b>	<b>6,152</b>	<b>9,922</b>	<b>9,569</b>	<b>13,639</b>
Taxes				(1,468)	(1,336)	(947)		(724)	(1,468)	(1,336)	(1,671)
<b>Group net income</b>				<b>8,454</b>	<b>8,163</b>	<b>6,540</b>	<b>70</b>	<b>5,428</b>	<b>8,454</b>	<b>8,233</b>	<b>11,968</b>
<i>Attributable to:</i>											
<i>Shareholders of Novartis AG</i>				8,400	8,125	6,518	70	5,428	8,400	8,195	11,946
<i>Non-controlling interests</i>				54	38	22			54	38	22
Included in net income are:											
Interest income				156	306	423			156	306	423
Depreciation of property, plant & equipment	(109)	(114)	(34)	(1,241)	(1,205)	(1,130)		(10)	(1,241)	(1,205)	(1,140)
Amortization of intangible assets	(3)	(2)	(3)	(1,025)	(1,095)	(1,091)		(6)	(1,025)	(1,095)	(1,097)
Impairment charges on property, plant & equipment		(1)		(9)	(26)	(155)		(1)	(9)	(26)	(156)
Impairment charges on intangible assets				(26)	(344)	(482)			(26)	(344)	(482)
Impairment charges on financial assets	(3)	(37)	(10)	(40)	(90)	(78)			(40)	(90)	(78)
Additions to restructuring provisions			(40)	(59)	(131)	(390)		(64)	(59)	(131)	(454)
Divestment gains from disposal of subsidiaries								5,841			5,841
Equity-based compensation of Novartis equity plans	(129)	(99)	(118)	(777)	(746)	(689)		(22)	(777)	(746)	(711)

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<b>Total assets</b>	<b>42,595</b>	<b>29,358</b>	<b>26,921</b>	<b>95,505</b>	<b>78,299</b>	<b>75,452</b>	<b>95,505</b>	<b>78,299</b>	<b>75,452</b>
Total liabilities	(23,554)	(15,844)	(14,128)	(38,043)	(27,862)	(26,056)	(38,043)	(27,862)	(26,056)
<b>Total equity</b>	<b>19,041</b>	<b>13,514</b>	<b>12,793</b>	<b>57,462</b>	<b>50,437</b>	<b>49,396</b>	<b>57,462</b>	<b>50,437</b>	<b>49,396</b>
Net liquidity/(net debt)	(3,461)	1,247	(7,407)	(3,461)	1,247	(7,407)	(3,461)	1,247	(7,407)
<b>Net operating assets</b>	<b>15,580</b>	<b>14,761</b>	<b>5,386</b>	<b>54,001</b>	<b>51,684</b>	<b>41,989</b>	<b>54,001</b>	<b>51,684</b>	<b>41,989</b>
Included in total assets and total liabilities are:									
Total property, plant & equipment	651	672	546	14,075	13,100	12,633	14,075	13,100	12,633
Additions to property, plant & equipment <sup>(1)</sup>	78	77	98	1,883	2,209	2,657	32	1,883	2,209
Total goodwill and intangible assets	17	9	5	22,370	20,819	21,249	22,370	20,819	21,249
Additions to goodwill and intangible assets <sup>(1)</sup>	10	5	5	967	188	621	83	967	188
Total investment in associated companies	17,752	17,693	6,923	17,791	17,712	6,945	17,791	17,712	6,945
Additions to investment in associated companies	29	9,498	8	51	9,468	8	51	9,498	8
Cash, marketable securities and derivative financial instruments	17,449	6,117	13,201	17,449	6,117	13,201	17,449	6,117	13,201
Financial debts and derivative financial instruments	13,988	7,364	5,794	13,988	7,364	5,794	13,988	7,364	5,794
Current income tax and deferred tax liabilities	6,223	5,520	6,185	6,223	5,520	6,185	6,223	5,520	6,185

(1) Excluding impact of business combinations.

Table of Contents

## NOTES TO THE NOVARTIS GROUP

## CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 3. Segmentation of key figures 2009, 2008 and 2007 (Continued)

The following countries accounted for more than 5% of at least one of the respective Group totals as at, or for the years ended, December 31, 2009, 2008 and 2007:

Country	2009		Net sales <sup>(1)(2)</sup>				Total of selected non-current assets <sup>(1)(3)</sup>					
	\$ millions	%	2008 \$ millions	%	2007 \$ millions	%	2009 \$ millions	%	2008 \$ millions	%	2007 \$ millions	%
Switzerland	604	2	531	1	448	1	23,341	43	22,896	44	11,364	28
United States	14,254	32	12,861	31	14,238	36	11,717	22	12,014	23	11,987	29
Germany	4,035	9	4,114	10	3,840	10	4,649	8	4,471	9	4,698	12
Japan	3,545	8	2,987	7	2,559	6	142		164		195	
France	2,355	5	2,284	6	2,080	5	349	1	348	1	356	1
United Kingdom	1,214	3	1,207	3	1,144	3	1,683	3	1,557	3	2,366	6
Other	18,260	41	17,475	42	15,491	39	12,355	23	10,181	20	9,861	24
<b>Group</b>	<b>44,267</b>	<b>100</b>	<b>41,459</b>	<b>100</b>	<b>39,800</b>	<b>100</b>	<b>54,236</b>	<b>100</b>	<b>51,631</b>	<b>100</b>	<b>40,827</b>	<b>100</b>
Discontinued operations					(1,728)							
<b>Total continuing operations</b>	<b>44,267</b>		<b>41,459</b>		<b>38,072</b>		<b>54,236</b>		<b>51,631</b>		<b>40,827</b>	
Europe	18,362	42	18,034	44	16,108	41	37,772	70	35,640	69	25,454	62
Americas	17,820	40	16,286	39	17,558	44	15,193	28	14,857	29	14,383	35
Asia / Africa / Australasia	8,085	18	7,139	17	6,134	15	1,271	2	1,134	2	990	3
<b>Group</b>	<b>44,267</b>	<b>100</b>	<b>41,459</b>	<b>100</b>	<b>39,800</b>	<b>100</b>	<b>54,236</b>	<b>100</b>	<b>51,631</b>	<b>100</b>	<b>40,827</b>	<b>100</b>
Discontinued operations					(1,728)							
<b>Total continuing operations</b>	<b>44,267</b>		<b>41,459</b>		<b>38,072</b>		<b>54,236</b>		<b>51,631</b>		<b>40,827</b>	

(1) Total Group including discontinued operations.

(2) Net sales from operations by location of third party customer.

(3) Total of property, plant and equipment, goodwill, intangible assets and investment in associated companies.

The Group's three largest customers account for approximately 8%, 7% and 6% respectively (2008: 8%, 7% and 6%; 2007: 9%, 8% and 6%), of net sales from continuing operations. No other customer accounts for 2% (2008: 2%; 2007: 4%) or more of net sales from continuing operations. The highest amounts of trade receivables outstanding were for these three customers. They amounted to 9% and twice 6% (2008: 9%, 5% and 6%), respectively, of the Group's trade receivables at December 31, 2009.



Table of Contents

## NOTES TO THE NOVARTIS GROUP

## CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 3. Segmentation of key figures 2009, 2008 and 2007 (Continued)

## Pharmaceuticals Division therapeutic area net sales

Therapeutic areas	2009	2008	Change (2008 to 2009)	2007	Change (2007 to 2008)
	\$ millions	\$ millions	\$ (%)	\$ millions	\$ (%)
<b>Cardiovascular and Metabolism</b>					
<i>Diovan</i>	6,013	5,740	5	5,012	15
<i>Exforge</i>	671	406	65	103	294
<i>Lotrel</i>	322	386	(17)	748	(48)
<i>Tekturna/Rasilez</i>	290	144	101	40	260
<i>Galvus</i>	181	43	321	8	438
<b>Total strategic franchise products</b>	<b>7,477</b>	<b>6,719</b>	<b>11</b>	<b>5,911</b>	<b>14</b>
<b>Mature products</b> (including <i>Lescol</i> )	<b>1,319</b>	<b>1,464</b>	<b>(10)</b>	<b>1,494</b>	<b>(2)</b>
<b>Total Cardiovascular and Metabolism products</b>	<b>8,796</b>	<b>8,183</b>	<b>7</b>	<b>7,405</b>	<b>11</b>
<b>Oncology</b>					
<i>Gleevec/Glivec</i>	3,944	3,670	7	3,050	20
<i>Zometa</i>	1,469	1,382	6	1,297	7
<i>Femara</i>	1,266	1,129	12	937	20
<i>Sandostatin</i>	1,155	1,123	3	1,027	9
<i>Exjade</i>	652	531	23	357	49
<i>Tasigna</i>	212	89	138	4	NM
<i>Afinitor</i>	70	1	NM		NM
Other	231	286	(19)	279	3
<b>Total Oncology products</b>	<b>8,999</b>	<b>8,211</b>	<b>10</b>	<b>6,951</b>	<b>18</b>
<b>Neuroscience and Ophthalmics</b>					
<i>Lucentis</i>	1,232	886	39	393	125
<i>Exelon/Exelon Patch</i>	954	815	17	632	29
<i>Comtan/Stalevo</i>	554	502	10	420	20
<i>Ritalin/Focalin</i>	449	440	2	375	17
<i>Tegretol</i>	375	451	(17)	413	9
<i>Trileptal</i>	295	332	(11)	692	(52)
<i>Extavia</i>	49		NM		NM
Other	649	775	(16)	987	(21)
<b>Total strategic franchise products</b>	<b>4,557</b>	<b>4,201</b>	<b>8</b>	<b>3,912</b>	<b>7</b>
<b>Mature products</b>	<b>384</b>	<b>404</b>	<b>(5)</b>	<b>435</b>	<b>(7)</b>
<b>Total Neuroscience and Ophthalmics products</b>	<b>4,941</b>	<b>4,605</b>	<b>7</b>	<b>4,347</b>	<b>6</b>



Table of Contents

## NOTES TO THE NOVARTIS GROUP

## CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 3. Segmentation of key figures 2009, 2008 and 2007 (Continued)

Therapeutic areas	2009 \$ millions	2008 \$ millions	Change (2008 to 2009) \$ (%)	2007 \$ millions	Change (2007 to 2008) \$ (%)
<b>Respiratory</b>					
<i>Foradil</i>	357	387	(8)	362	7
<i>Xolair</i>	338	211	60	140	51
<i>Tobi</i>	300	295	2	273	8
Other	104	104		87	20
<b>Total strategic franchise products</b>	<b>1,099</b>	<b>997</b>	<b>10</b>	<b>862</b>	<b>16</b>
<b>Mature products</b>	<b>88</b>	<b>87</b>	<b>1</b>	<b>97</b>	<b>(10)</b>
<b>Total Respiratory products</b>	<b>1,187</b>	<b>1,084</b>	<b>10</b>	<b>959</b>	<b>13</b>
<b>Immunology and Infectious Diseases</b>					
<i>Neoral/Sandimmun</i>	919	956	(4)	944	1
<i>Aclasta/Reclast</i>	472	254	86	41	520
<i>Myfortic</i>	353	290	22	193	50
<i>Certican</i>	118	95	24	61	56
Other	232	177	31	111	59
<b>Total strategic franchise products</b>	<b>2,094</b>	<b>1,772</b>	<b>18</b>	<b>1,350</b>	<b>31</b>
<b>Mature products</b>	<b>941</b>	<b>1,098</b>	<b>(14)</b>	<b>1,556</b>	<b>(29)</b>
<b>Total Immunology and Infectious Diseases products</b>	<b>3,035</b>	<b>2,870</b>	<b>6</b>	<b>2,906</b>	<b>(1)</b>
<b>Additional products</b>					
<i>Voltaren (excluding OTC)</i>	797	814	(2)	747	9
<i>Enblex/Emselex</i>	223	201	11	179	12
<i>Everolimus sales to stent manufacturers</i>	215		NM		NM
Other	345	363	(5)	531	(32)
<b>Total additional products</b>	<b>1,580</b>	<b>1,378</b>	<b>15</b>	<b>1,457</b>	<b>(5)</b>
<b>Total strategic franchise products</b>	<b>24,226</b>	<b>21,900</b>	<b>11</b>	<b>18,986</b>	<b>15</b>
<b>Total mature and additional products</b>	<b>4,312</b>	<b>4,431</b>	<b>(3)</b>	<b>5,039</b>	<b>(12)</b>
<b>Total Division net sales<sup>(1)</sup></b>	<b>28,538</b>	<b>26,331</b>	<b>8</b>	<b>24,025</b>	<b>10</b>

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 NM Not meaningful

(1) Net sales in 2008 include a one-time contribution of \$104 million from a brand-specific provision reversal following a Novartis review of accounting for rebate programs to US government health agencies. Individual brand sales may include contributions from the reversal of these provisions.

The product portfolio of other Divisions is widely spread and none of the products or product ranges exceed 5% of the net sales of the Group.



Table of Contents**NOTES TO THE NOVARTIS GROUP****CONSOLIDATED FINANCIAL STATEMENTS (Continued)****4. Associated companies**

Novartis has the following significant investments in associated companies which are accounted for using the equity method:

	<b>Balance sheet value</b>		<b>Net income statement effect</b>		
	<b>2009</b>	<b>2008</b>	<b>2009</b>	<b>2008</b>	<b>2007</b>
	<b>\$ millions</b>	<b>\$ millions</b>	<b>\$ millions</b>	<b>\$ millions</b>	<b>\$ millions</b>
Roche Holding AG, Switzerland	7,471	7,167	321	439	391
Alcon Inc., Switzerland	10,137	10,418	(28)	(11)	
Others	183	127		13	21
<b>Total</b>	<b>17,791</b>	<b>17,712</b>	<b>293</b>	<b>441</b>	<b>412</b>

The results of the Group's associated companies are adjusted to be in accordance with IFRS in cases where IFRS is not already used.

Since up-to-date financial data are not available when Novartis produces its consolidated financial results, a survey of analyst estimates is used to predict the Group's share of net income in Roche Holding and Alcon. Any differences between these estimates and actual results will be adjusted in the Group's 2010 consolidated financial statements.

The following table shows summarized financial information of the major associated companies for the year ended December 31, 2008 since 2009 data is not yet available:

	<b>Assets</b>	<b>Liabilities</b>	<b>Revenue</b>	<b>Net income</b>
	<b>billions</b>	<b>billions</b>	<b>billions</b>	<b>billions</b>
Roche (CHF)	76.1	22.3	47.9	10.8
Alcon (\$)	7.6	2.9	6.3	2.0

**Roche Holding AG**

The Group's holding in Roche voting shares was 33.3% at December 31, 2009 and 2008. This investment represents approximately 6.3% of Roche's total outstanding voting and non-voting equity instruments. The purchase price allocation used publicly available information at the time of acquisition.

Table of Contents**NOTES TO THE NOVARTIS GROUP****CONSOLIDATED FINANCIAL STATEMENTS (Continued)****4. Associated companies (Continued)**

The December 31, 2009 balance sheet value allocation is as follows:

	\$ millions
Novartis share of Roche's reported net assets	2,615
Novartis share of net book value of additionally appraised intangible assets	2,064
Net book value of Novartis implicit goodwill	2,749
<b>Total residual value of purchase price</b>	<b>7,428</b>
Accumulated equity accounting adjustments and translation effects	43
<b>December 31, 2009 balance sheet value</b>	<b>7,471</b>

The identified intangible assets principally relate to the value of currently marketed products and are amortized on a straight-line basis over their estimated average useful life of 20 years.

The income statement effects from applying Novartis accounting principles for this investment in 2009, 2008 and 2007 are as follows:

	2009 \$ millions	2008 \$ millions	2007 \$ millions
Amortization of fair value adjustments relating to intangible assets net of taxes of \$41 million (2008: \$40 million; 2007: \$36 million)	(135)	(132)	(118)
Prior-year adjustment	(40)	11	13
Novartis share of Roche's estimated current-year consolidated net income	496	560	496
<b>Net income effect</b>	<b>321</b>	<b>439</b>	<b>391</b>

The market value of the Novartis interest in Roche (Reuters symbol: RO.S) at December 31, 2009, was \$9.3 billion (2008: \$8.5 billion) which was significantly more than the balance sheet carrying value so no trigger for impairment testing was deemed to exist.

**Alcon Inc.**

The Group's holding in Alcon voting shares was acquired on July 7, 2008, and amounted to 24.8% at December 31, 2009. In order to apply the equity method of accounting, Novartis estimated the fair values of Alcon's identified assets and liabilities at the time of the acquisition and, as a result, the implicit goodwill. The purchase price allocation used findings arising from due diligence performed by Novartis prior to the acquisition and from publicly available information.

Table of Contents

## NOTES TO THE NOVARTIS GROUP

## CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 4. Associated companies (Continued)

The December 31, 2009 balance sheet value allocation is as follows:

	\$ millions
Novartis share of Alcon's reported net assets	1,104
Novartis share of net book value of additionally appraised tangible and intangible assets	4,460
Net book value of implicit Novartis goodwill	4,237
<b>Total residual value of purchase price</b>	<b>9,801</b>
Accumulated equity accounting adjustments	336
<b>December 31, 2009 balance sheet value</b>	<b>10,137</b>

The identified intangible assets principally relate to the value of currently marketed products and are amortized on a straight-line basis over their estimated average useful life of 10 years.

Alcon provides its consolidated financial statements under US Generally Accepted Accounting Principles (US GAAP) and reports its results in US dollars.

The impact on the Group's income statement from applying this approach (and taking into account any necessary adjustments for material accounting differences between US GAAP and IFRS), is the following:

	2009 \$ millions	2008 \$ millions
Depreciation and amortization of fair value adjustments relating to property, plant & equipment, inventory and intangible assets net of taxes of \$115 million (2008: \$57 million)	(526)	(266)
Prior-year adjustments	5	
Novartis share of Alcon's estimated current-year consolidated net income	493	255
<b>Net income effect</b>	<b>(28)</b>	<b>(11)</b>

The market value of the Group's interest in Alcon (NYSE symbol: ACL) at December 31, 2009, was \$12.2 billion, (2008: \$6.6 billion) which was significantly more than the balance sheet carrying value so no trigger for impairment testing was deemed to exist.

At December 31, 2008 there was a decline in Alcon's share price, which even if it turned out not to be prolonged, was regarded as significant and, as a result, provided objective evidence that a potential impairment may have occurred as per IAS 39 *Financial Instruments: Recognition and Measurement*.

In such a situation, Novartis was required to perform an impairment test applying the guidance in IAS 36 *Impairment of Assets*. Accordingly, Novartis determined the recoverable amount, which is the higher of "fair value less costs to sell" and "value in use."

Table of Contents**NOTES TO THE NOVARTIS GROUP****CONSOLIDATED FINANCIAL STATEMENTS (Continued)****4. Associated companies (Continued)**

"Value in use" is defined as the present value of future cash flows expected to be derived from an asset or cash-generating unit. A valuation of discounted future cash flows and future dividend streams was performed to determine the "value in use" for the Alcon investment. The main assumptions for both the Discounted Cash Flow (DCF) and Discounted Dividend Method (DDM) models are shown below:

	<b>Discounted Cash Flow Method</b>	<b>Discounted Dividend Method</b>
Sales growth rate after terminal period	2.0 to 4.0%	2.0 to 4.0%
Discount rate	7.5 to 8.0%	7.5 to 8.0%
Dividend and other cash payouts to shareholders (as % of EPS)	NA	40 to 70%

NA not applicable

The calculation of "value in use" applying the above-mentioned methods and assumptions resulted in a per-share value for the Alcon investment in the range of \$120 \$170. Novartis management judged the mid-point of this range, \$145 per share, as the most appropriate quantification of "value in use." This figure was above the carrying value of the Group's investment in Alcon, so management concluded that the "value in use" substantiated the carrying amount on the consolidated balance sheet as of December 31, 2008.

The following table provides sensitivity analysis to the mid-point valuation:

<b>Assumption</b>	<b>Sensitivity</b>	<b>Effect on value in use (\$ per share)</b>
Discount rate	+1.0%	-20 to -30
	-1.0%	+30 to +50
Terminal growth rate	+1.0%	+25 to +30
	-1.0%	-15 to -20
Dividend payout	+20.0%	+10 to +25
	-20.0%	-10 to -25

F-33

Table of Contents

## NOTES TO THE NOVARTIS GROUP

## CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 5. Financial income and interest expense

	2009	2008	2007
	\$ millions	\$ millions	\$ millions
Interest income	156	306	423
Dividend income	3	9	10
Net capital gains on available-for-sale securities	110	102	374
Impairment of available-for-sale securities	(20)	(169)	(86)
Income on options and forward contracts	97	28	
Expenses on options and forward contracts	(85)		(292)
Other financial income		11	2
Other financial expense	(23)	(59)	(58)
Currency result, net	(40)	156	158
<b>Total financial income</b>	<b>198</b>	<b>384</b>	<b>531</b>
Interest expense	(442)	(249)	(237)
Expense due to discounting long-term liabilities	(109)	(41)	
<b>Total interest expense</b>	<b>(551)</b>	<b>(290)</b>	<b>(237)</b>

## 6. Taxes

## Income before taxes

	2009	2008	2007
	\$ millions	\$ millions	\$ millions
Switzerland	4,281	6,189	3,806
Foreign	5,641	3,310	3,681
<b>Total income before taxes for continuing operations</b>	<b>9,922</b>	<b>9,499</b>	<b>7,487</b>

Table of Contents

## NOTES TO THE NOVARTIS GROUP

## CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 6. Taxes (Continued)

## Current and deferred income tax expense

	2009	2008	2007
	\$ millions	\$ millions	\$ millions
Switzerland	(413)	(435)	(357)
Foreign	(1,593)	(1,313)	(1,360)
<b>Total current income tax expense</b>	<b>(2,006)</b>	<b>(1,748)</b>	<b>(1,717)</b>
Switzerland	188	92	194
Foreign	350	320	576
<b>Total deferred tax income</b>	<b>538</b>	<b>412</b>	<b>770</b>
<b>Total income tax expense for continuing operations</b>	<b>(1,468)</b>	<b>(1,336)</b>	<b>(947)</b>

## Analysis of tax rate

The main elements contributing to the difference between the Group's overall expected tax rate (which can change each year since it is calculated as the weighted average tax rate based on pre-tax income of each subsidiary) and the effective tax rate are:

	2009	2008	2007
	%	%	%
Expected tax rate for continuing operations	15.8	14.7	13.9
Effect of disallowed expenditures	3.0	2.4	2.9
Effect of utilization of tax losses brought forward from prior periods	(0.4)	(0.2)	(0.3)
Effect of income taxed at reduced rates	(0.1)	(0.1)	(0.4)
Effect of tax credits and allowances	(1.4)	(1.7)	(0.4)
Effect of tax rate change on opening balance		(1.9)	(2.0)
Effect of write-down of investments in subsidiaries	(1.7)	(0.1)	
Prior year and other items	(0.4)	1.0	(1.1)
<b>Effective tax rate for continuing operations</b>	<b>14.8</b>	<b>14.1</b>	<b>12.6</b>

The change in the expected tax rate is due to the different mix in profitability of the Group's subsidiaries in the respective countries.

The utilization of tax-loss carryforwards lowered the tax charge by \$45 million, \$23 million and \$25 million in 2009, 2008 and 2007, respectively.



Table of Contents

## NOTES TO THE NOVARTIS GROUP

## CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 7. Earnings per share

Basic earnings per share (EPS) is calculated by dividing net income attributable to shareholders of Novartis AG by the weighted average number of shares outstanding in a reporting period. This calculation excludes the average number of issued shares purchased by the Group and held as treasury shares.

	2009	2008	2007
<b>Basic earnings per share</b>			
Weighted average number of shares outstanding	2,267,855,586	2,265,536,699	2,317,466,535
<b>Net income attributable to shareholders of Novartis AG (\$ millions)</b>			
Continuing operations	8,400	8,125	6,518
Discontinued operations		70	5,428
Total	8,400	8,195	11,946
<b>Basic earnings per share (\$)</b>			
Continuing operations	3.70	3.59	2.81
Discontinued operations		0.03	2.34
Total	3.70	3.62	5.15

For diluted EPS, the weighted average number of shares outstanding is adjusted to assume the vesting of all restricted shares and the conversion of all potentially dilutive shares arising from options on Novartis shares that have been issued.

	2009	2008	2007
<b>Diluted earnings per share</b>			
Weighted average number of shares outstanding	2,267,855,586	2,265,536,699	2,317,466,535
Adjustment for dilutive shares and options	8,695,458	18,706,935	11,421,638
Weighted average number of shares for diluted earnings per share	2,276,551,044	2,284,243,634	2,328,888,173
<b>Net income attributable to shareholders of Novartis AG (\$ millions)</b>			
Continuing operations	8,400	8,125	6,518
Discontinued operations		70	5,428
Total	8,400	8,195	11,946
<b>Diluted earnings per share (\$)</b>			
Continuing operations	3.69	3.56	2.80
Discontinued operations		0.03	2.33
Total	3.69	3.59	5.13

Options equivalent to 109.3 million shares (2008: 66.5 million; 2007: 27.0 million) were excluded from the calculation of diluted earnings EPS since they were not dilutive.

Table of Contents

**NOTES TO THE NOVARTIS GROUP**

**CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**8. Changes in consolidated statements of comprehensive income**

The statement of comprehensive income includes the Group's net income for the year as well as all other valuation adjustments recorded in the Group's consolidated balance sheet but which under IFRS are not recorded in the income statement. These include fair value adjustments to marketable securities, actuarial gains or losses on defined benefit pension and other post-employment plans as well as losses due to limitations on the recognition of surpluses of defined benefit pension plans and currency translation effects, net of tax. These amounts are subject to significant volatility outside of the control of management due to such factors as share price, foreign currency and interest rate movements.

F-37

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Table of Contents

## NOTES TO THE NOVARTIS GROUP

## CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 8. Changes in consolidated statements of comprehensive income (Continued)

The following table summarizes these fair value adjustments attributable to Novartis shareholders:

	Fair value adjustments to marketable securities	Fair value of deferred cash flow hedges	Gains/losses from defined benefit plans	Revaluation of initial non-controlling interests	Cumulative translation effects	Discontinued operations	Total fair value adjustments
	\$ millions	\$ millions	\$ millions	\$ millions	\$ millions	\$ millions	\$ millions
<b>Fair value adjustments at January 1, 2007</b>	<b>390</b>	<b>8</b>	<b>(1,942)</b>	<b>592</b>	<b>1,279</b>	<b>4</b>	<b>331</b>
Fair value adjustments on financial instruments	17	10				(22)	5
Net gains from defined benefit plans			450			31	481
Revaluation of initial non-controlling interest in Chiron				55			55
Currency translation effects					2,188	9	2,197
<b>Total fair value adjustments in 2007</b>	<b>17</b>	<b>10</b>	<b>450</b>	<b>55</b>	<b>2,188</b>	<b>18</b>	<b>2,738</b>
Reclassifications related to divestments			123		9	(22)	110
<b>Fair value adjustments at December 31, 2007</b>	<b>407</b>	<b>18</b>	<b>(1,369)</b>	<b>647</b>	<b>3,476</b>		<b>3,179</b>
Fair value adjustments on financial instruments	(265)	(245)					(510)
Net losses from defined benefit plans			(2,140)				(2,140)
Revaluation of initial non-controlling interest in Speedel				38			38
Currency translation effects					(1,122)		(1,122)
<b>Total fair value adjustments in 2008</b>	<b>(265)</b>	<b>(245)</b>	<b>(2,140)</b>	<b>38</b>	<b>(1,122)</b>		<b>(3,734)</b>
<b>Fair value adjustments at December 31, 2008</b>	<b>142</b>	<b>(227)</b>	<b>(3,509)</b>	<b>685</b>	<b>2,354</b>		<b>(555)</b>
Fair value adjustments on financial instruments	89	4					93
Net gains from defined benefit plans			949				949
Currency translation effects					781		781
<b>Total fair value adjustments in 2009</b>	<b>89</b>	<b>4</b>	<b>949</b>		<b>781</b>		<b>1,823</b>
<b>Fair value adjustments at December 31, 2009</b>	<b>231</b>	<b>(223)</b>	<b>(2,560)</b>	<b>685</b>	<b>3,135</b>		<b>1,268</b>

Table of Contents

## NOTES TO THE NOVARTIS GROUP

## CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 8. Changes in consolidated statements of comprehensive income (Continued)

8.1) The 2009, 2008 and 2007 changes in the fair value of financial instruments consist of the following:

	Fair value adjustments to marketable securities \$ millions	Fair value adjustments of deferred cash flow hedges \$ millions	Total \$ millions
<b>Fair value adjustments at January 1, 2009</b>	<b>142</b>	<b>(227)</b>	<b>(85)</b>
Changes in fair value:			
Available-for-sale marketable securities	57		57
Other financial assets	(8)		(8)
Associated companies' equity movements	19		19
Realized net gains transferred to the income statement:			
Marketable securities sold	(37)		(37)
Derivative financial instruments		(36)	(36)
Other financial assets sold	(8)		(8)
Amortized net losses on cash flow hedges transferred to the income statement		36	36
Impaired marketable securities and other financial assets	71		71
Deferred tax on above items	(5)	4	(1)
<b>Fair value adjustments from continuing operations during the year</b>	<b>89</b>	<b>4</b>	<b>93</b>
<b>Fair value adjustments at December 31, 2009</b>	<b>231</b>	<b>(223)</b>	<b>8</b>

Table of Contents

## NOTES TO THE NOVARTIS GROUP

## CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 8. Changes in consolidated statements of comprehensive income (Continued)

	Fair value adjustments to marketable securities \$ millions	Fair value adjustments of deferred cash flow hedges \$ millions	Total \$ millions
<b>Fair value adjustments at January 1, 2008</b>	<b>407</b>	<b>18</b>	<b>425</b>
Changes in fair value:			
Available-for-sale marketable securities	(219)		(219)
Cash flow hedges		33	33
Other financial assets	(255)		(255)
Associated companies' equity movements	(33)		(33)
Realized net gains transferred to the income statement:			
Marketable securities sold	(50)		(50)
Derivative financial instruments		5	5
Other financial assets sold	(4)		(4)
Realized net losses on cash flow hedges		(299)	(299)
Impaired marketable securities and other financial assets	253		253
Deferred tax on above items	43	16	59
<b>Fair value adjustments from continuing operations during the year</b>	<b>(265)</b>	<b>(245)</b>	<b>(510)</b>
<b>Fair value adjustments at December 31, 2008</b>	<b>142</b>	<b>(227)</b>	<b>(85)</b>

In 2008, Novartis hedged the interest rate risk arising from the anticipated issuance of long-term debt. When the hedges were entered into the issuance of long-term debt was considered highly probable by the end of 2008, however, since the transactions were delayed the derivative transactions were closed during 2008. As the transactions still remained probable at December 31, 2008 the \$299 million of realized losses were deferred. The financings were completed in 2009 and the previously realized losses of \$299 million are now being amortized into the income statement over the period of the long-term financings.

Table of Contents

## NOTES TO THE NOVARTIS GROUP

## CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 8. Changes in consolidated statements of comprehensive income (Continued)

	Fair value adjustments to marketable securities \$ millions	Fair value adjustments of deferred cash flow hedges \$ millions	Total \$ millions
<b>Fair value adjustments at January 1, 2007</b>	<b>390</b>	<b>8</b>	<b>398</b>
Changes in fair value:			
Available-for-sale marketable securities	17		17
Cash flow hedges		(8)	(8)
Other financial assets	(32)		(32)
Realized net gains transferred to the income statement:			
Marketable securities sold	(6)		(6)
Derivative financial instruments		20	20
Other financial assets sold	(123)		(123)
Impaired marketable securities and other financial assets	151		151
Deferred tax on above items	10	(2)	8
<b>Fair value adjustments from continuing operations during the year</b>	<b>(9)</b>	<b>10</b>	<b>1</b>
<b>Fair value adjustments from discontinued operations during the year</b>	<b>26</b>		<b>26</b>
<b>Fair value adjustments at December 31, 2007</b>	<b>407</b>	<b>18</b>	<b>425</b>

## 8.2) Net gains/losses on defined benefit plans arise from:

	2009 \$ millions	2008 \$ millions	2007 \$ millions
Defined benefit pension plans before tax	1,256	(2,879)	538
Other post-employment benefit plans before tax	(19)	27	96
Taxation on above items	(288)	712	(184)
<b>Total after tax</b>	<b>949</b>	<b>(2,140)</b>	<b>450</b>

8.3) The Group has investments in associated companies, principally Roche Holding AG and Alcon Inc. The Group's share in movements in these companies' equity is recognized directly in the consolidated statement of comprehensive income, net of tax. The currency translation effects and fair value adjustments of associated companies are included in the corresponding Group amounts.

Table of Contents

**NOTES TO THE NOVARTIS GROUP**

**CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**8. Changes in consolidated statements of comprehensive income (Continued)**

In 2007 Novartis consolidated the balance sheets for the first time of certain foundations, which are principally of a charitable nature, as Novartis increasingly benefits from their activities. Previously these foundations had been disclosed as parties related to Novartis. The consolidation of these foundations at December 31, 2007 resulted in an increase of comprehensive income in the consolidated statement of comprehensive income of \$35 million and in the number of treasury shares by 5.4 million shares with corresponding balance sheet effects in the consolidated financial statements.

**8.4)** In 2008, the acquisition of Speedel Holding AG and related purchase price allocation resulted in a revaluation of the previously held 9.5% interest by \$38 million.

In 2007, the final completion of all the transactions related to the acquisition of Chiron Inc. in 2006, resulted in an additional revaluation by \$55 million of the initial 44% interest in Chiron Inc. held at the date of the acquisition.

**8.5)** As a result of the liquidation of a subsidiary, \$0.4 million of cumulative currency translation gains have been transferred into financial income in 2008 (2007: \$79 million of cumulative translation gains on continuing operations and \$251 million cumulated translation losses related to divestments).

**9. Changes in consolidated equity**

**9.1)** At the 2009 Annual General Meeting, a dividend of CHF 2.00 per share was approved that amounted to \$3.9 billion, and was paid in 2009 (2008: CHF 1.60 per share dividend payment that amounted to \$ 3.3 billion; 2007: CHF 1.35 per share dividend payment that amounted to \$2.6 billion). The amount available for distribution as a dividend to shareholders is based on the available distributable retained earnings of Novartis AG determined in accordance with the legal provisions of the Swiss Code of Obligation.

**9.2)** In 2009 a total of 1 million shares net were sold for \$225 million (2008: purchase of 6.4 million for \$435 million; 2007: purchase of 89 million for \$4.7 billion) and 8.5 million shares (2008: 6.8 million shares; 2007: \$5.2 million shares) were transferred to associates as part of the equity-based compensation, resulting in a net reduction of 9.5 million shares (2008: 0.4 million shares; 2007: 83.8 million shares). Since the suspension of the repurchase program in 2008, no further shares were repurchased in 2009 on the second trading line (2008: 6 million shares at a value of \$296 million; 2007: 85.3 million shares).

The net movements in treasury shares include shares bought and sold on the first and second trading lines of the SIX Swiss Exchange, transactions with associates and the exercising of options related to equity-based compensation.

**9.3)** In 2009, a total of 6 million shares were cancelled (2008: 85.3 million shares). No shares were cancelled in 2007.

**9.4)** Equity-settled share-based compensation is expensed in the income statement in accordance with the vesting or service period of the share-based compensation plans. The value for the shares and options granted including associated tax represents an increase in equity.

**9.5)** Transfers in 2007 between components of equity are due to a net transfer between continuing operations and discontinued operations.

Table of Contents

## NOTES TO THE NOVARTIS GROUP

## CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 10. Property, plant &amp; equipment movements

2009	Land \$ millions	Buildings \$ millions	Plant and other equipment under construction \$ millions	Other property, plant & equipment \$ millions	Total \$ millions
<b>Cost</b>					
<b>January 1</b>	<b>658</b>	<b>8,560</b>	<b>2,440</b>	<b>12,315</b>	<b>23,973</b>
Impact of business combinations	2	21	2	39	64
Reclassifications <sup>(1)</sup>	50	782	(1,809)	977	
Additions	5	93	1,453	332	1,883
Disposals	(19)	(259)	(7)	(375)	(660)
Currency translation effects	13	183	97	347	640
<b>December 31</b>	<b>709</b>	<b>9,380</b>	<b>2,176</b>	<b>13,635</b>	<b>25,900</b>
<b>Accumulated depreciation</b>					
<b>January 1</b>	<b>(18)</b>	<b>(3,727)</b>	<b>(1)</b>	<b>(7,127)</b>	<b>(10,873)</b>
Reclassifications <sup>(1)</sup>		5		(5)	
Depreciation charge	(2)	(318)		(921)	(1,241)
Depreciation on disposals	7	251		327	585
Impairment charge		(1)	(7)	(1)	(9)
Currency translation effects		(79)		(208)	(287)
<b>December 31</b>	<b>(13)</b>	<b>(3,869)</b>	<b>(8)</b>	<b>(7,935)</b>	<b>(11,825)</b>
<b>Net book value at December 31</b>	<b>696</b>	<b>5,511</b>	<b>2,168</b>	<b>5,700</b>	<b>14,075</b>
<b>Insured value at December 31</b>					<b>27,147</b>
<b>Net book value of property, plant &amp; equipment under finance lease contracts</b>					<b>4</b>
<b>Commitments for purchases of property, plant &amp; equipment</b>					<b>548</b>

(1) Reclassifications between various asset categories due to completion of plant & equipment under construction.

The Group was awarded government grants in the United States for the construction of a manufacturing facility to produce flu vaccines. The contracts included a maximum of \$350 million cost reimbursement for construction activities and equipment, of which \$106 million was received by December 31, 2009. These grants were deducted in arriving at the carrying value of the assets since the receipt of the respective government grant is reasonably assured. There are no onerous contracts or unfulfilled conditions in connection with this grant.

Borrowing costs on new additions to property, plant and equipment have been capitalized since January 1, 2009 and amounted to \$1 million in 2009.





Table of Contents

## NOTES TO THE NOVARTIS GROUP

## CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 10. Property, plant &amp; equipment movements (Continued)

2008	Land \$ millions	Buildings \$ millions	Plant and other equipment under construction \$ millions	Other property, plant & equipment \$ millions	Total \$ millions
<b>Cost</b>					
<b>January 1</b>	<b>630</b>	<b>7,987</b>	<b>2,517</b>	<b>11,666</b>	<b>22,800</b>
Impact of business combinations				44	44
Reclassifications <sup>(1)</sup>	23	531	(1,527)	973	
Additions	22	142	1,618	427	2,209
Disposals	(6)	(37)	(38)	(400)	(481)
Currency translation effects	(11)	(63)	(130)	(395)	(599)
<b>December 31</b>	<b>658</b>	<b>8,560</b>	<b>2,440</b>	<b>12,315</b>	<b>23,973</b>
<b>Accumulated depreciation</b>					
<b>January 1</b>	<b>(12)</b>	<b>(3,365)</b>	<b>(22)</b>	<b>(6,768)</b>	<b>(10,167)</b>
Reclassifications <sup>(1)</sup>	(1)	(31)		32	
Depreciation charge	(2)	(289)		(914)	(1,205)
Depreciation on disposals		25	22	373	420
Impairment charge	(2)	(10)	(1)	(13)	(26)
Currency translation effects	(1)	(57)		163	105
<b>December 31</b>	<b>(18)</b>	<b>(3,727)</b>	<b>(1)</b>	<b>(7,127)</b>	<b>(10,873)</b>
<b>Net book value at December 31</b>	<b>640</b>	<b>4,833</b>	<b>2,439</b>	<b>5,188</b>	<b>13,100</b>
<b>Insured value at December 31</b>					<b>28,595</b>
<b>Net book value of property, plant &amp; equipment under finance lease contracts</b>					<b>3</b>
<b>Commitments for purchases of property, plant &amp; equipment</b>					<b>674</b>

(1) Reclassifications between various asset categories due to completion of plant & equipment under construction.

## NOTES TO THE NOVARTIS GROUP

## CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 11. Goodwill and intangible asset movements

2009	Goodwill	Acquired research & development	Core technologies	Trademarks, product & marketing rights	Other intangible assets \$	Total of intangible assets other than goodwill
						\$ millions
<b>2009</b>						
<i>Cost</i>						
<b>January 1</b>	<b>11,976</b>	<b>3,028</b>	<b>754</b>	<b>10,599</b>	<b>942</b>	<b>15,323</b>
Impact of business combinations	548	161	427	241		829
Reclassifications <sup>(1)</sup>		(790)	60	724	6	
Additions	57	758		104	48	910
Disposals	(128)	(21)	(1)	(52)	(59)	(133)
Currency translation effects	171	80	31	121	17	249
<b>December 31</b>	<b>12,624</b>	<b>3,216</b>	<b>1,271</b>	<b>11,737</b>	<b>954</b>	<b>17,178</b>
<i>Accumulated amortization</i>						
<b>January 1</b>	<b>(691)</b>	<b>(477)</b>	<b>(201)</b>	<b>(4,561)</b>	<b>(550)</b>	<b>(5,789)</b>
Reclassifications <sup>(1)</sup>			(6)	6		
Amortization charge			(51)	(875)	(99)	(1,025)
Amortization on disposals	122	21		34	59	114
Impairment charge		(71)		(33)	(28)	(132)
Reversal of impairment charge		6		100		106
Currency translation effects	(16)	(26)	(15)	(66)	(14)	(121)
<b>December 31</b>	<b>(585)</b>	<b>(547)</b>	<b>(273)</b>	<b>(5,395)</b>	<b>(632)</b>	<b>(6,847)</b>
<b>Net book value December 31</b>	<b>12,039</b>	<b>2,669</b>	<b>998</b>	<b>6,342</b>	<b>322</b>	<b>10,331</b>
<b>2008</b>						
<i>Cost</i>						
<b>January 1</b>	<b>11,854</b>	<b>2,836</b>	<b>797</b>	<b>10,065</b>	<b>855</b>	<b>14,553</b>
Impact of business combinations	523	250		486	47	783
Reclassifications <sup>(1)</sup>		(50)		49	1	
Additions		108	3	44	33	188
Disposals	(5)	(2)		(11)	(10)	(23)
Currency translation effects	(396)	(114)	(46)	(34)	16	(178)
<b>December 31</b>	<b>11,976</b>	<b>3,028</b>	<b>754</b>	<b>10,599</b>	<b>942</b>	<b>15,323</b>
<i>Accumulated amortization</i>						
<b>January 1</b>	<b>(744)</b>	<b>(212)</b>	<b>(154)</b>	<b>(3,613)</b>	<b>(435)</b>	<b>(4,414)</b>
Amortization charge			(62)	(909)	(124)	(1,095)
Amortization on disposals	5			11	9	20
Impairment charge		(310)		(30)	(4)	(344)
Currency translation effects	48	45	15	(20)	4	44
<b>December 31</b>	<b>(691)</b>	<b>(477)</b>	<b>(201)</b>	<b>(4,561)</b>	<b>(550)</b>	<b>(5,789)</b>
<b>Net book value December 31</b>	<b>11,285</b>	<b>2,551</b>	<b>553</b>	<b>6,038</b>	<b>392</b>	<b>9,534</b>

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(1) Reclassifications between various assets categories as a result of product launches of acquired In-Process Research & Development in both periods.

F-45

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Table of Contents

## NOTES TO THE NOVARTIS GROUP

## CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 11. Goodwill and intangible asset movements (Continued)

## Divisional segmentation of goodwill and intangible assets

The net book values at December 31, 2009 of goodwill and intangible assets are allocated to the Group's Divisions as summarized below:

	Goodwill	Acquired research & development	Core technologies	Trademarks, product & marketing rights	Other intangible assets \$	Total of intangible assets other than goodwill \$
	\$ millions	\$ millions	\$ millions	\$ millions	millions	\$ millions
Pharmaceuticals	2,788	1,861	2	2,147	132	4,142
Vaccines and Diagnostics	1,111	494	239	1,166	153	2,052
Sandoz	7,528	311	757	2,060	27	3,155
Consumer Health	604	3		969	1	973
Corporate	8				9	9
<b>Total</b>	<b>12,039</b>	<b>2,669</b>	<b>998</b>	<b>6,342</b>	<b>322</b>	<b>10,331</b>
Potential impairment charge, if any, if discounted cash flows fell by 5%				26		26
Potential impairment charge, if any, if discounted cash flows fell by 10%				55		55

Goodwill and acquired In-Process R&D are tested for possible impairment annually and whenever events or changes in circumstances indicate the value may not be fully recoverable. If the initial accounting for an intangible asset acquired in the reporting period is only provisional, it is not tested for impairment unless an impairment indicator exists, and not included in the calculation of the net book values at risk from changes in the amount of discounted cash flows. Impairment is recognized when the balance sheet carrying amount is higher than the greater of "fair value less costs to sell" and "value in use."

Novartis has adopted a uniform method for assessing goodwill for impairment and any other intangible asset indicated as possibly impaired. Under this method, the "fair value less costs to sell" of the related cash-generating unit is calculated and only if it is lower than the balance sheet carrying amount is the value in use determined. Novartis uses the Discounted Cash Flow (DCF) method to determine the "fair value less costs to sell" of a related cash-generating unit, which starts with a forecast of all expected future net cash flows. Generally, for intangible assets Novartis uses cash flow projections for the whole useful life of these assets, and for goodwill cash flow projections for the next five years are utilized based on a range of management forecasts, with a terminal value using sales projections in line or lower than inflation thereafter. Three probability-weighted scenarios are typically used. These cash flows, which reflect the risks and uncertainties associated with the asset, are discounted at an appropriate rate to net present value. The net present values involve highly sensitive estimates and assumptions specific to the nature of the Group's activities with regard to:

The amount and timing of projected future cash flows;

The tax and discount rate selected;

Table of Contents**NOTES TO THE NOVARTIS GROUP****CONSOLIDATED FINANCIAL STATEMENTS (Continued)****11. Goodwill and intangible asset movements (Continued)**

The outcome of R&D activities (compound efficacy, results of clinical trials, etc.);

The amount and timing of projected costs to develop the IPR&D into commercially viable products;

The probability of obtaining regulatory approval;

Long-term sales forecasts for periods of up to 20 years;

Sales price erosion rates after the end of patent protection and timing of the entry of generic competition; and

The behavior of competitors (launch of competing products, marketing initiatives, etc.).

Factors that could result in shortened useful lives or impairment include lower than expected sales for acquired products or for sales associated with patents and trademarks; or lower than anticipated future sales resulting from acquired IPR&D. Changes in the discount rates used for these calculations also could lead to impairments. Additionally, impairments of IPR&D and product and marketing rights may also result from events such as the outcome of R&D activity, obtaining regulatory approval and the launch of competing products.

The discount rates used are based on the Group's weighted average cost of capital which is considered to be a good proxy for the capital cost of a market participant, which is adjusted for specific country and currency risks associated with the cash flow projections.

Due to the above factors, actual cash flows and values could vary significantly from the forecasted future cash flows and related values derived using discounting techniques.

The recoverable amount of a cash-generating unit and related goodwill is based on the higher of fair value less costs to sell or value in use. The following assumptions are used in the calculations:

	<b>Pharmaceuticals</b>	<b>Vaccines and Diagnostics</b>	<b>Sandoz</b>	<b>Consumer Health</b>
	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>
Sales growth rate assumptions after forecast period	2.0	2.0	0.1 to 6.0	(10.0) to 2.0
Discount rate	7.0	7.0	7.0 to 15.1	7.0 to 8.0

In 2009, impairment charges of \$132 million were recorded. This is relating to various impairment charges of \$88 million, mainly for upfront and milestone payments in the Pharmaceuticals Division and \$44 in the Vaccines and Diagnostics, Sandoz and Consumer Health Divisions. Impairment charges that were recorded in previous years led to reversals in 2009 that amounted to \$106 million mainly relating to *Famvir* product rights.

In 2008, Novartis recorded impairment charges totaling \$344 million. These relate to an impairment charge of \$223 million for *Aurograb* and \$97 million for various other impairments of upfront and milestone payments and product rights in the Pharmaceuticals Division. Additionally, Novartis recorded



Table of Contents

## NOTES TO THE NOVARTIS GROUP

## CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 11. Goodwill and intangible asset movements (Continued)

various impairment charges of \$24 million for product rights in the Sandoz and Vaccines and Diagnostics Divisions.

In 2007, impairment charges of \$482 million were recorded. This is principally relating to an impairment of \$320 million for *Famvir* product rights due to an earlier than anticipated challenge to its patent and subsequent loss of sales in the Pharmaceuticals Division. Additionally, Novartis recorded various impairment charges of \$126 million, mainly for upfront and milestone payments in the Pharmaceuticals Division and \$36 million for currently marketed products and other intangible assets in the Sandoz and Consumer Health Divisions.

## 12. Deferred tax assets and liabilities

	Property, plant & equipment \$ millions	Intangible assets \$ millions	Pensions and other benefit obligations of associates \$ millions	Inventories \$ millions	Tax loss carry forwards \$ millions	Other provisions an accruals \$ millions	Valuation allowance \$ millions	Total \$ millions
<b>Deferred tax assets at January 1, 2008</b>	75	208	512	1,243	204	1,342	(17)	3,567
<b>Deferred tax liabilities at January 1, 2008</b>	(838)	(2,087)	(588)	(214)		(739)		(4,466)
<b>Net deferred tax balance at January 1, 2008</b>	(763)	(1,879)	(76)	1,029	204	603	(17)	(899)
<b>At January 1, 2008</b>	(763)	(1,879)	(76)	1,029	204	603	(17)	(899)
(Charged)/credited to income	1	312	24	24	(46)	103	(6)	412
Credited to equity			712			126		838
Impact of business combinations		(180)			58			(122)
Other movements	33	59	102	(1)	(5)	(141)	3	50
<b>Net deferred tax balance at December 31, 2008</b>	(729)	(1,688)	762	1,052	211	691	(20)	279
<b>Deferred tax assets at December 31, 2008</b>	121	410	866	1,358	211	1,477	(20)	4,423
<b>Deferred tax liabilities at December 31, 2008</b>	(850)	(2,098)	(104)	(306)		(786)		(4,144)
<b>Net deferred tax balance at December 31, 2008</b>	(729)	(1,688)	762	1,052	211	691	(20)	279
<b>At January 1, 2009</b>	(729)	(1,688)	762	1,052	211	691	(20)	279
(Charged)/credited to income	4	153	(17)	100	9	285	4	538
Charged to equity			(288)			(71)		(359)
Impact of business combinations	(1)	(179)		(7)		1		(186)
Other movements	(31)	(29)	(52)	9	12	28	(1)	(64)
<b>Net deferred tax balance at December 31, 2009</b>	(757)	(1,743)	405	1,154	232	934	(17)	208



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<b>Deferred tax assets at December 31, 2009</b>	<b>72</b>	<b>281</b>	<b>931</b>	<b>1,429</b>	<b>232</b>	<b>1,687</b>	<b>(17)</b>	<b>4,615</b>
<b>Deferred tax liabilities at December 31, 2009</b>	<b>(829)</b>	<b>(2,024)</b>	<b>(526)</b>	<b>(275)</b>		<b>(753)</b>		<b>(4,407)</b>
<b>Net deferred tax balance at December 31, 2009</b>	<b>(757)</b>	<b>(1,743)</b>	<b>405</b>	<b>1,154</b>	<b>232</b>	<b>934</b>	<b>(17)</b>	<b>208</b>

F-48

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Table of Contents**NOTES TO THE NOVARTIS GROUP****CONSOLIDATED FINANCIAL STATEMENTS (Continued)****12. Deferred tax assets and liabilities (Continued)**

A reversal of valuation allowance could occur when circumstances make the realization of deferred taxes probable. This would result in a decrease in the Group's effective tax rate.

Deferred tax assets of \$1.8 billion (2008: \$1.9 billion) and deferred tax liabilities of \$3.5 billion (2008: \$3.2 billion) are expected to have an impact on current taxes payable after more than 12 months.

At December 31, 2009, unremitted earnings of \$38 billion (2008: \$46 billion) have been retained by subsidiary companies for reinvestment. No provision is made for income taxes that would be payable upon the distribution of these earnings. If these earnings were remitted, an income tax charge could result based on the tax statutes currently in effect.

	<b>2009</b>	<b>2008</b>
	<b>\$ millions</b>	<b>\$ millions</b>
Temporary differences on which no deferred tax has been provided as they are permanent in nature related to:		
Investments in subsidiaries	1,377	2,940
Goodwill from acquisitions	(6,652)	(6,498)

The gross value of unused tax-loss carryforwards that have, or have not, been capitalized as deferred tax assets, with their expiry dates is as follows:

	<b>not capitalized</b>	<b>capitalized</b>	<b>2009</b>
	<b>\$ millions</b>	<b>\$ millions</b>	<b>\$ millions</b>
One year	14		14
Two years	139		139
Three years	65	102	167
Four years	142	9	151
Five years	145	18	163
More than five years	369	634	1,003
<b>Total</b>	<b>874</b>	<b>763</b>	<b>1,637</b>

Table of Contents

## NOTES TO THE NOVARTIS GROUP

## CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 12. Deferred tax assets and liabilities (Continued)

	not capitalized \$ millions	capitalized \$ millions	2008 \$ millions
One year	14	12	26
Two years	27	17	44
Three years	297	3	300
Four years	69	87	156
Five years	191	21	212
More than five years	627	591	1,218
<b>Total</b>	<b>1,225</b>	<b>731</b>	<b>1,956</b>

Deferred tax assets related to taxable losses of relevant Group entities are recognized to the extent it is considered probable that future taxable profits will be available against which such losses can be utilized in the foreseeable future.

In 2009 \$19 million (2008: \$6 million; 2007: \$58 million) of unused tax-loss carryforwards expired.

## 13. Financial assets

	2009 \$ millions	2008 \$ millions
Financial investments and long-term loans	1,047	890
Loans to associated companies	3	
Prepaid post-employment benefit plans	1,585	182
<b>Total financial assets</b>	<b>2,635</b>	<b>1,072</b>

Financial investments at December 31, 2009, totaling \$891 million (2008: \$766 million) are valued at market value, while long-term loans and other investments of \$156 million (2008: \$124 million) are valued at amortized cost or at cost, whose fair values approximate the carrying amount.

During 2009, a total of \$51 million (2008: \$84 million; 2007: \$65 million) of unrealized losses on available-for-sale investments and no amounts (2008: \$6 million; 2007: \$13 million) on other investments were recognized as impairments. Also in 2009 a reversal of an \$11 million impairment loss has occurred. These amounts were recorded in the income statement under Other Expense or Other Income, respectively.

Table of Contents

## NOTES TO THE NOVARTIS GROUP

## CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 14. Inventories

	2009	2008
	\$ millions	\$ millions
Raw material, consumables	953	979
Finished products	4,877	4,813
<b>Total inventories</b>	<b>5,830</b>	<b>5,792</b>

The following summarizes movements in inventory write-downs deducted from inventory categories. Reversals of inventory provisions mainly result from the reassessment of inventory values manufactured prior to regulatory approval but for which approval was subsequently received:

	2009	2008	2007
	\$ millions	\$ millions	\$ millions
<b>January 1</b>	<b>(637)</b>	<b>(680)</b>	<b>(491)</b>
Provisions on inventory related to discontinued operations			17
Inventory write-downs charged to income statement	(506)	(738)	(940)
Utilization of inventory provisions	298	301	381
Reversal of inventory provisions	230	444	404
Additions due to acquisitions	(3)		
Currency translation effects	(35)	36	(51)
<b>December 31</b>	<b>(653)</b>	<b>(637)</b>	<b>(680)</b>

## 15. Trade receivables

	2009	2008
	\$ millions	\$ millions
Total gross trade receivables	8,453	7,208
Provision for doubtful trade receivables	(143)	(182)
<b>Total trade receivables, net</b>	<b>8,310</b>	<b>7,026</b>

Provisions for chargebacks and discounts are adjusted based upon actual experience. These adjustments to historic estimates have not been material.

Table of Contents

## NOTES TO THE NOVARTIS GROUP

## CONSOLIDATED FINANCIAL STATEMENTS (Continued)

**15. Trade receivables (Continued)**

The following table summarizes the movement in the provision for doubtful trade receivables:

	2009	2008	2007
	\$ millions	\$ millions	\$ millions
<b>January 1</b>	<b>(182)</b>	<b>(169)</b>	<b>(198)</b>
Provisions on trade receivables related to discontinued operations			9
Additions due to acquisitions	(3)		
Provision for doubtful trade receivables charged to income statement	(63)	(158)	(102)
Utilization or reversal of provision for doubtful trade receivables	111	140	136
Currency translation effects	(6)	5	(14)
<b>December 31</b>	<b>(143)</b>	<b>(182)</b>	<b>(169)</b>

The following sets forth details of the age of trade receivables that are not overdue as specified in the payment terms and conditions established with Novartis customers as well as an analysis of overdue amounts and related provisions for doubtful trade receivables:

	2009	2008
	\$ millions	\$ millions
<b>Total</b>	<b>8,453</b>	<b>7,208</b>
Provision for doubtful trade receivables	(143)	(182)
<b>Total trade receivables, net</b>	<b>8,310</b>	<b>7,026</b>
Of which:		
Not overdue	6,703	5,878
Past due for not more than one month	976	568
Past due for more than one month but less than three months	230	281
Past due for more than three months but less than six months	182	178
Past due for more than six months but less than one year	148	116
Past due for more than one year	214	187
Provision for doubtful trade receivables	(143)	(182)
<b>Total trade receivables, net</b>	<b>8,310</b>	<b>7,026</b>

Provisions for doubtful trade receivables are established based upon the difference between the receivable value and the estimated net collectible amount. Novartis establishes provisions for doubtful trade receivables based on historical loss experiences. Significant financial difficulties of a customer, such

Table of Contents**NOTES TO THE NOVARTIS GROUP****CONSOLIDATED FINANCIAL STATEMENTS (Continued)****15. Trade receivables (Continued)**

as probability of bankruptcy or financial reorganization or default/delinquency in payments are considered indicators that recovery of trade receivables are doubtful.

The maximum exposure to credit risk at the reporting date is the fair value of net trade receivables mentioned above. Novartis does not expect to write off amounts that are not past due nor unprovided for, in trade receivables. The Group holds security amounting to \$30 million as collateral for certain trade receivables.

Trade receivables include amounts denominated in the following major currencies:

Currency	2009	2008
	\$ millions	\$ millions
CHF	163	172
EUR	2,259	1,878
GBP	153	129
JPY	1,289	1,246
\$	2,577	2,027
Other	1,869	1,574
<b>Total trade receivables, net</b>	<b>8,310</b>	<b>7,026</b>

**16. Marketable securities and derivative financial instruments**

The following tables show the contract or underlying principal amounts and fair values of derivative financial instruments analyzed by type of contract at December 31, 2009 and 2008. Contract or underlying principal amounts indicate the volume of business outstanding at the balance sheet date and do not represent amounts at risk. The fair values are determined by reference to market prices or standard pricing models that used observable market inputs at December 31, 2009 and 2008.

Table of Contents

## NOTES TO THE NOVARTIS GROUP

## CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 16. Marketable securities and derivative financial instruments (Continued)

## Derivative financial instruments

	Contract or underlying principal amount		Positive fair values		Negative fair values	
	2009	2008	2009	2008	2009	2008
	\$ millions	\$ millions	\$ millions	\$ millions	\$ millions	\$ millions
<b>Currency related instruments</b>						
Forward foreign exchange rate contracts	4,735	7,182	52	236	(64)	(292)
Over-the-Counter currency options	139	282		12	(1)	(12)
<b>Total of currency related instruments</b>	<b>4,874</b>	<b>7,464</b>	<b>52</b>	<b>248</b>	<b>(65)</b>	<b>(304)</b>
<b>Interest rate related instruments</b>						
Interest rate swaps	1,000		13			
<b>Total of interest rate related instruments</b>	<b>1,000</b>		<b>13</b>			
<b>Options on equity securities</b>	<b>15</b>	<b>25</b>	<b>23</b>	<b>24</b>	<b>(15)</b>	<b>(25)</b>
<b>Total derivative financial instruments included in marketable securities and in current financial debts</b>	<b>5,889</b>	<b>7,489</b>	<b>88</b>	<b>272</b>	<b>(80)</b>	<b>(329)</b>

The following table shows by currency contract or underlying principal amount the derivative financial instruments at December 31, 2009 and 2008:

December 31, 2009	EUR	\$	JPY	Other	Total
	\$ millions	\$ millions	\$ millions	\$ millions	\$ millions
<b>Currency related instruments</b>					
Forward foreign exchange rate contracts	1,179	2,719	107	730	4,735
Over-the-Counter currency options	139				139
<b>Total of currency related instruments</b>	<b>1,318</b>	<b>2,719</b>	<b>107</b>	<b>730</b>	<b>4,874</b>
<b>Interest rate related instruments</b>					
Interest rate swaps		1,000			1,000
<b>Total of interest rate related instruments</b>		<b>1,000</b>			<b>1,000</b>
<b>Options on equity securities</b>	<b>15</b>				<b>15</b>
<b>Total derivative financial instruments</b>	<b>1,333</b>	<b>3,719</b>	<b>107</b>	<b>730</b>	<b>5,889</b>

Table of Contents

## NOTES TO THE NOVARTIS GROUP

## CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 16. Marketable securities and derivative financial instruments (Continued)

December 31, 2008	EUR \$ millions	\$ \$ millions	JPY \$ millions	Other \$ millions	Total \$ millions
<b>Currency related instruments</b>					
Forward foreign exchange rate contracts	3,775	2,460	322	615	7,182
Over-the-Counter currency options	282				282
<b>Total of currency related instruments</b>	<b>4,057</b>	<b>2,460</b>	<b>332</b>	<b>615</b>	<b>7,464</b>
<b>Options on equity securities</b>	<b>25</b>				<b>25</b>
<b>Total derivative financial instruments</b>	<b>4,082</b>	<b>2,460</b>	<b>332</b>	<b>615</b>	<b>7,489</b>

## Derivative financial instruments effective for hedge accounting purposes

	Contract amount 2008 \$ millions	Fair values 2008 \$ millions
<i>Anticipated transaction hedges</i>		
Forward foreign exchange rate contracts	423	29
<b>Total of derivative financial instruments effective for hedge accounting purposes included in marketable securities and current financial debts</b>	<b>423</b>	<b>29</b>

At the end of 2009 there were no open hedging instruments for anticipated transactions.

In 2008 the hedging instruments were used for anticipated transactions maturing within 12 months and were contracted with the intention of hedging anticipated transactions expected to occur in 2009. These instruments were intended to hedge foreign currency risk arising from highly probable forecast intra-group transactions on which there is a foreign currency exchange risk within the consolidated financial statements. The gain or loss relating to the effective portion of the derivative instruments, previously deferred in the consolidated statement of comprehensive income, was recognized in the income statement within Other Income or Other Expense, respectively when the hedged item is recognized in the income statement. There was no ineffectiveness to be recorded from these anticipated transaction hedges.



Table of Contents

## NOTES TO THE NOVARTIS GROUP

## CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 16. Marketable securities and derivative financial instruments (Continued)

## Marketable securities, time deposits and derivative financial instruments

	2009	2008
	\$ millions	\$ millions
<b>Available-for-sale marketable securities</b>		
Debt securities	7,240	1,048
Equity securities	169	270
Fund investments	107	382
<b>Total available-for-sale marketable securities</b>	<b>7,516</b>	<b>1,700</b>
Time deposits with original maturity more than 90 days	6,870	2,074
Derivative financial instruments	88	272
Accrued interest on debt securities	81	33
<b>Total marketable securities, time deposits and derivative financial instruments</b>	<b>14,555</b>	<b>4,079</b>

**Fair Value by Hierarchy**

From January 1, 2009, financial assets and liabilities recorded at fair value in the consolidated financial statements were categorized based upon the level of judgment associated with the inputs used to measure their fair value. The IFRS 7 hierarchical levels, from lowest to highest based on the amount of subjectivity associated with the inputs to fair valuation of these assets and liabilities are as follows:

Level 1 Inputs are unadjusted, quoted prices in active markets for identical assets or liabilities at the measurement date.

The types of assets carried at level 1 fair value are equity and debt securities listed in active markets.

Level 2 Inputs other than quoted prices included within level 1 that are observable for the asset or liability, either directly or indirectly. These inputs are derived principally from or corroborated by observable market data by correlation or other means at the measurement date and for the duration of the instruments' anticipated life.

The assets generally included in this fair value hierarchy are time deposits, foreign exchange and interest rate derivatives and certain investment funds. Foreign exchange derivatives and interest rate derivatives are valued using corroborated market data. The liabilities generally included in this fair value hierarchy consist of foreign exchange derivatives and options on equity securities.

Level 3 Inputs that are unobservable for the asset or liability. These inputs reflect the Group's best estimate of what market participants would use in pricing the asset or liability at the measurement date. Consideration is given to the risk inherent in the valuation techniques and the risk inherent in the inputs to the models.

Table of Contents

## NOTES TO THE NOVARTIS GROUP

## CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 16. Marketable securities and derivative financial instruments (Continued)

The assets generally included in this fair value hierarchy are various investments in hedge funds and unquoted equity security investments of the Novartis Venture Funds investment activities. There were no liabilities carried at fair value in this hierarchy.

2009	Level 1 \$ millions	Level 2 \$ millions	Level 3 \$ millions	Total \$ millions
<b>Available-for-sale marketable securities</b>				
Debt securities	7,209	31		7,240
Equity securities	114		55	169
Fund investments			107	107
<b>Total available-for-sale marketable securities</b>	<b>7,323</b>	<b>31</b>	<b>162</b>	<b>7,516</b>
Time deposits with original maturity more than 90 days		6,870		6,870
Derivative financial instruments		88		88
Accrued interest on debt securities		81		81
<b>Total marketable securities, time deposits and derivative financial instruments</b>	<b>7,323</b>	<b>7,070</b>	<b>162</b>	<b>14,555</b>
<b>Financial investments and long-term loans</b>				
Available-for-sales financial investments	544		347	891
Loans to associated companies		3		3
Long-term loans, advances, security deposits		156		156
<b>Total financial investments and long-term loans</b>	<b>544</b>	<b>159</b>	<b>347</b>	<b>1,050</b>
<b>Financial liabilities</b>				
Derivative financial instruments		(80)		(80)
<b>Total financial liabilities at fair value</b>		<b>(80)</b>		<b>(80)</b>

The analysis above includes all financial instruments including those measured at amortized cost or at cost.

Table of Contents

## NOTES TO THE NOVARTIS GROUP

## CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 16. Marketable securities and derivative financial instruments (Continued)

The change in carrying values associated with level 3 financial instruments using significant unobservable inputs during the year ended December 31 are set forth below:

2009	Equity securities \$ millions	Fund investments \$ millions	Available- for-sale financial investments \$ millions	Total \$ millions
<b>January 1</b>	<b>47</b>	<b>383</b>	<b>273</b>	<b>703</b>
Gains recognized in the consolidated income statement		5	46	51
Impairments and amortizations	(2)	(8)	(50)	(60)
Gains/losses recognized in the statement of comprehensive income	3	4	11	18
Purchases	6		183	189
Redemptions		(274)		(274)
Proceeds on sales			(120)	(120)
Currency translation effects	1	(3)	4	2
<b>December 31</b>	<b>55</b>	<b>107</b>	<b>347</b>	<b>509</b>

Total of gains or losses and impairment, net recognized in the consolidated income statement for assets still held at December 31, 2009

(2)                      (1)                      (35)                      (38)

If the pricing parameters for the level 3 input were to change for equity securities and fund investments by 5% and for available-for-sale financial investments by 10% positively or negatively, respectively, this would change the amounts recorded in the statement of comprehensive income by \$8 million or \$35 million, respectively.

**Market risk**

Novartis is exposed to market risk, primarily related to foreign currency exchange rates, interest rates and the market value of the investments of liquid funds. The Group actively monitors these exposures. To manage the volatility relating to these exposures, the Group enters into a variety of derivative financial instruments. The Group's objective is to reduce, where it deems appropriate to do so, fluctuations in earnings and cash flows associated with changes in interest rates, foreign currency exchange rates and market rates of investments of liquid funds and of the currency exposure of certain net investments in foreign subsidiaries. It is the Group's policy and practice to use derivative financial instruments to manage exposures and to enhance the yield on the investment of liquid funds. It does not enter any financial transactions containing a risk that cannot be quantified at the time the transaction is concluded. In addition, it does not sell short assets it does not have, or does not know it will have, in the future. The Group only sells existing assets or enters into transactions and future transactions (in the case of

Table of Contents

**NOTES TO THE NOVARTIS GROUP**

**CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**16. Marketable securities and derivative financial instruments (Continued)**

anticipatory hedges) that it confidently expects it will have in the future, based on past experience. In the case of liquid funds, the Group writes call options on assets it has or it writes put options on positions it wants to acquire and has the liquidity to acquire. The Group expects that any loss in value for these instruments generally would be offset by increases in the value of the underlying transactions.

**Foreign exchange rate risk**

The Group uses the \$ as its reporting currency. As a result, the Group is exposed to foreign currency exchange movements, primarily in European, Japanese and other Asian and Latin American currencies. Consequently, it enters into various contracts that reflect the changes in the value of foreign currency exchange rates to preserve the value of assets, commitments and anticipated transactions. Novartis also uses forward contracts and foreign currency option contracts to hedge certain anticipated net revenues in foreign currencies.

Net investments in subsidiaries in foreign countries are long-term investments. Their fair value changes through movements of foreign currency exchange rates. In the very long term, however, the difference in the inflation rate should match the foreign currency exchange rate movement, so that the market value of the foreign non-monetary assets will compensate for the change due to foreign currency movements. For this reason, the Group only hedges the net investments in foreign subsidiaries in exceptional cases.

**Commodity price risk**

The Group has only a very limited exposure to price risk related to anticipated purchases of certain commodities used as raw materials by the Group's businesses. A change in those prices may alter the gross margin of a specific business, but generally by not more than 10% of the margin and thus below the Group's risk management tolerance levels. Accordingly, the Group does not enter into significant commodity futures, forward and option contracts to manage fluctuations in prices of anticipated purchases.

**Interest rate risk**

The Group addresses its net exposure to interest rate risk mainly through the proportion of the fixed rate financial debt and variable rate financial debt ratio in its total financial debt portfolio. To manage this mix, Novartis may enter into interest rate swap agreements, in which it exchanges periodic payments based on a notional amount and agreed upon fixed and variable interest rates.

**Equity risk**

The Group purchases equities as investments of its liquid funds. As a policy, it limits its holdings in an unrelated company to less than 5% of its liquid funds. Potential investments are thoroughly analyzed in respect to their past financial track record (mainly cash flow and return on investment), their market potential, their management and their competitors. Call options are written on equities that the Group owns, and put options are written on equities which the Group wants to buy and for which cash has been reserved.

Table of Contents

**NOTES TO THE NOVARTIS GROUP**

**CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**16. Marketable securities and derivative financial instruments (Continued)**

**Credit Risk**

Credit risks arise from the possibility that customers may not be able to settle their obligations as agreed. To manage this risk the Group periodically assesses the financial reliability of customers, taking into account the financial position, past experience and other factors. Individual risk limits are set accordingly.

Three customers account for approximately 8%, 7% and 6% (2008: 8%, 7% and 6%; 2007: 9%, 8% and 6%), respectively, of net sales from continuing operations in 2009. No other customer accounts for 2% (2008: 2%; 2007: 4%) or more of the net sales from continuing operations. The highest amounts of trade receivables are the ones for the largest customers and are approximately 9% and twice 6% (2008: 9%, 5% and 6%) respectively of Group trade receivables at December 31, 2009, and there is no other significant concentration of credit risk.

**Counterparty risk**

Counterparty risk encompasses issuer risk on marketable securities, settlement risk on derivative and money market contracts and credit risk on cash and time deposits. Issuer risk is minimized by only buying securities which are at least AA rated. Settlement and credit risk is reduced by the policy of entering into transactions with counterparties that are usually at least AA rated banks or financial institutions. Exposure to these risks is closely monitored and kept within predetermined parameters. Novartis has policies that limit the amount of credit exposure to any financial institution. The limits are regularly assessed and determined based upon credit analysis including financial statement and capital adequacy ratio reviews. In addition, net settlement agreements are contracted with significant counterparties.

The Group does not expect any losses from non-performance by these counterparties and does not have any significant grouping of exposures to financial sector or country risk.

**Liquidity risk**

Liquidity risk is defined as the risk that the Group could not be able to settle or meet its obligations on time or at a reasonable price. Group Treasury is responsible for liquidity, funding as well as settlement management. In addition, liquidity and funding risks, related processes and policies are overseen by management. Novartis manages its liquidity risk on a consolidated basis based on business needs, tax, capital or regulatory considerations, if applicable, through numerous sources of finance in order to maintain flexibility. Management monitors the Group's net liquidity position through rolling forecasts on the basis of expected cash flows. The Group's cash and cash equivalents are held with major regulated financial institutions, the largest one holding approximately 23% and the next two other largest ones holding approximately 16% and 10%, respectively (2008: largest one 34% and the next two other largest ones holding 28% and 11% each, respectively).

Table of Contents

## NOTES TO THE NOVARTIS GROUP

## CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 16. Marketable securities and derivative financial instruments (Continued)

The following table sets forth how management monitors net liquidity based on details of the remaining contractual maturities of financial assets and liabilities excluding trade receivables and payables at December 31, 2009 and 2008:

December 31, 2009	Due or due within one month \$ millions	Due later than one month but less than three months \$ millions	Due later than three months but less than one year \$ millions	Due later than one year but less than five years \$ millions	Due after five years \$ millions	Total \$ millions
<b>Current assets</b>						
Marketable securities	2	8,598	4,383	791	693	14,467
Derivative financial instruments and accrued interest on derivative financial instruments	44	14	7	23		88
Cash and cash equivalents	2,774	120				2,894
<b>Total current assets</b>	<b>2,820</b>	<b>8,732</b>	<b>4,390</b>	<b>814</b>	<b>693</b>	<b>17,449</b>
<b>Non-current liabilities</b>						
Financial debts				2,775	5,900	8,675
<b>Total non-current liabilities</b>				<b>2,775</b>	<b>5,900</b>	<b>8,675</b>
<b>Current liabilities</b>						
Financial debts	3,573	705	955			5,233
Derivative financial instruments	25	36	4	15		80
<b>Total current liabilities</b>	<b>3,598</b>	<b>741</b>	<b>959</b>	<b>15</b>		<b>5,313</b>
<b>Net liquidity</b>	<b>(778)</b>	<b>7,991</b>	<b>3,431</b>	<b>(1,976)</b>	<b>(5,207)</b>	<b>3,461</b>

## NOTES TO THE NOVARTIS GROUP

## CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 16. Marketable securities and derivative financial instruments (Continued)

December 31, 2008	Due or due within one month month \$ millions	Due later than one month but less than three months \$ millions	Due later than three months but less than one year \$ millions	Due later than one year but less than five years \$ millions	Due after five years \$ millions	Total \$ millions
<b>Current assets</b>						
Marketable securities	6	2,106	9	672	1,014	3,807
Derivative financial instruments and accrued interest on derivative financial instruments	164	78	6	16	8	272
Cash and cash equivalents	2,038					2,038
<b>Total current assets</b>	<b>2,208</b>	<b>2,184</b>	<b>15</b>	<b>688</b>	<b>1,022</b>	<b>6,117</b>
<b>Non-current liabilities</b>						
Financial debts				1,325	853	2,178
<b>Total non-current liabilities</b>				<b>1,325</b>	<b>853</b>	<b>2,178</b>
<b>Current liabilities</b>						
Financial debts	2,876	1,433	548			4,857
Derivative financial instruments	231	73		17	8	329
<b>Total current liabilities</b>	<b>3,107</b>	<b>1,506</b>	<b>548</b>	<b>17</b>	<b>8</b>	<b>5,186</b>
<b>Net debt</b>	<b>(899)</b>	<b>678</b>	<b>(533)</b>	<b>(654)</b>	<b>161</b>	<b>(1,247)</b>

The balance sheet amounts of financial liabilities included in the above analysis are not materially different to the contractual amounts due on maturity. The positive and negative fair values on derivative financial instruments represent the net contractual amounts to be exchanged at maturity.

Table of Contents

## NOTES TO THE NOVARTIS GROUP

## CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 16. Marketable securities and derivative financial instruments (Continued)

The Group's contractual undiscounted potential cash flows from derivative financial instruments to be settled on a gross basis are as follows:

December 31, 2009	Due or due within one month <sup>(1)</sup> \$ millions	Due later than one month but less than three months \$ millions	Due later than three months but less than one year \$ millions	Due later than one year but less than five years \$ millions	Total \$ millions
<b>Derivative financial instruments and accrued interest on derivative financial instruments</b>					
Potential outflows in various currencies	(30,612)	(781)	(498)		(31,891)
Potential inflows in various currencies	2,535	743	494		3,772

(1) The option to acquire the optional second step of Alcon is included in this amount. Novartis exercised its option on January 4, 2010, however, the timing of the related cash flows depend on when regulatory approvals will be received.

December 31, 2008	Due or due within one month \$ millions	Due later than one month but less than three months \$ millions	Due later than three months but less than one year \$ millions	Due later than one year but less than five years <sup>(1)</sup> \$ millions	Total \$ millions
<b>Derivative financial instruments and accrued interest on derivative financial instruments</b>					
Potential outflows in various currencies	(3,518)	(1,060)	(90)	(16,321)	(20,989)
Potential inflows in various currencies	3,471	1,037	90		4,598

(1) The written put option to acquire the optional second step of Alcon is included in this amount.



Table of Contents**NOTES TO THE NOVARTIS GROUP****CONSOLIDATED FINANCIAL STATEMENTS (Continued)****16. Marketable securities and derivative financial instruments (Continued)**

Other contractual liabilities, which are not part of management's monitoring of the net liquidity consist of the following items:

<b>December 31, 2009</b>	<b>Due later than one month but less than three months</b>	<b>Due later than three months but less than one year</b>	<b>Due later than one year but less than five years</b>	<b>Due after five years</b>	<b>Total</b>
	<b>\$ millions</b>	<b>\$ millions</b>	<b>\$ millions</b>	<b>\$ millions</b>	<b>\$ millions</b>
Contractual interest on non-current liabilities	(236)	(96)	(1,286)	(843)	(2,461)
Trade payables	(4,012)				(4,012)

<b>December 31, 2008</b>	<b>Due later than one month but less than three months</b>	<b>Due later than three months but less than one year</b>	<b>Due later than one year but less than five years</b>	<b>Due after five years</b>	<b>Total</b>
	<b>\$ millions</b>	<b>\$ millions</b>	<b>\$ millions</b>	<b>\$ millions</b>	<b>\$ millions</b>
Contractual interest on non-current liabilities		(51)	(184)	(57)	(292)
Trade payables	(3,395)				(3,395)

**Capital risk management**

Novartis strives to maintain strong debt ratings. In managing its capital, Novartis focuses on a sound debt/equity ratio. Credit agencies in 2009 maintained their ratings for Novartis. Moody's rated the Group as Aa2 for long-term maturities and P-1 for short-term maturities and Standard & Poor's had a rating of AA- for long-term and A-1+ for short-term maturities. Fitch had a long-term rating of AA and a short-term rating of F1+.

The 2009 year-end debt/equity ratio increased to 0.24:1 from 0.15:1 in 2008 principally due to additional financing programs.

**Value at risk**

The Group uses a value at risk (VAR) computation to estimate the potential ten-day loss in the fair value of its financial instruments.

Table of Contents**NOTES TO THE NOVARTIS GROUP****CONSOLIDATED FINANCIAL STATEMENTS (Continued)****16. Marketable securities and derivative financial instruments (Continued)**

A 10-day period is used because of an assumption that not all positions could be undone in one day given the size of the positions. The VAR computation includes the Group's financial debt, short-term and long-term investments, foreign currency forwards, swaps and options as well as anticipated transactions. Foreign currency trade payables and receivables as well as net investments in foreign subsidiaries are included in the computation.

The VAR estimates are made assuming normal market conditions, using a 95% confidence interval. The Group uses a "Delta Normal" model to determine the observed inter-relationships between movements in interest rates, stock markets and various currencies. These inter-relationships are determined by observing interest rate, stock market movements and forward foreign currency rate movements over a 60 day period for the calculation of VAR amounts.

The estimated potential 10-day loss in pre-tax income from the Group's foreign currency instruments, the estimated potential 10-day loss of its equity holdings, and the estimated potential 10-day loss in fair value of its interest rate sensitive instruments (primarily financial debt and investments of liquid funds under normal market conditions) as calculated in the VAR model are the following:

	<b>Dec 31, 2009</b>	<b>Dec 31, 2008</b>
	<b>\$ millions</b>	<b>\$ millions</b>
All financial instruments	183	318
<i>Analyzed by components:</i>		
Instruments sensitive to foreign currency exchange rates	106	278
Instruments sensitive to equity market movements	43	181
Instruments sensitive to interest rates	108	21

The average, high, and low VAR amounts are as follows:

<b>2009</b>	<b>Average</b>	<b>High</b>	<b>Low</b>
	<b>\$ millions</b>	<b>\$ millions</b>	<b>\$ millions</b>
All financial instruments	202	309	152
<i>Analyzed by components:</i>			
Instruments sensitive to foreign currency exchange rates	152	212	104
Instruments sensitive to equity market movements	98	159	43
Instruments sensitive to interest rates	107	155	12

F-65

Table of Contents

## NOTES TO THE NOVARTIS GROUP

## CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 16. Marketable securities and derivative financial instruments (Continued)

2008	Average	High	Low
	\$ millions	\$ millions	\$ millions
All financial instruments	196	318	135
<i>Analyzed by components:</i>			
Instruments sensitive to foreign currency exchange rates	158	278	74
Instruments sensitive to equity market movements	162	291	95
Instruments sensitive to interest rates	73	233	10

The VAR computation is a risk analysis tool designed to statistically estimate the maximum potential ten day loss from adverse movements in foreign currency exchange rates, equity prices and interest rates under normal market conditions. The computation does not purport to represent actual losses in fair value on earnings to be incurred by the Group, nor does it consider the effect of favorable changes in market rates. The Group cannot predict actual future movements in such market rates and it does not claim that these VAR results are indicative of future movements in such market rates or to be representative of any actual impact that future changes in market rates may have on the Group's future results of operations or financial position.

In addition to these VAR analyses, the Group uses stress testing techniques that aim to reflect a worst case scenario on the financial assets monitored by Group Treasury. For these calculations, the Group uses the worst movements during a period of six months over the past 20 years in each category. For 2009 and 2008, the worst case loss scenario was configured as follows:

	Dec 31, 2009	Dec 31, 2008
	\$ millions	\$ millions
All financial instruments	265	300
<i>Analyzed by components:</i>		
Instruments sensitive to foreign currency exchange rates	139	144
Instruments sensitive to equity market movements	96	128
Instruments sensitive to interest rates	30	28

In the Group's risk analysis, Novartis considered this worst case scenario acceptable as it could reduce income, but would not endanger the solvency or the investment grade credit standing of the Group. While it is highly unlikely that all worst case fluctuations would happen simultaneously, as shown in the model, the actual market can of course produce bigger movements in the future than it has historically. Additionally, in such a worst case environment, management actions could further mitigate the Group's exposure.

Table of Contents

## NOTES TO THE NOVARTIS GROUP

## CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 17. Other current assets

	2009	2008
	\$ millions	\$ millions
Withholding tax recoverable	102	63
Prepaid expenses		
Third parties	398	393
Associated companies	4	6
Other receivables		
Third parties	1,590	1,470
Associated companies	8	14
<b>Total other current assets</b>	<b>2,102</b>	<b>1,946</b>

## 18. Details of shares and share capital movements

	Number of shares <sup>(1)</sup>				
	Dec 31, 2007	Movement in year	Dec 31, 2008	Movement in year	Dec 31, 2009
<b>Total Novartis shares</b>	<b>2,728,971,000</b>	<b>(85,348,000)</b>	<b>2,643,623,000</b>	<b>(6,000,000)</b>	<b>2,637,623,000</b>
<b>Treasury shares</b>					
Shares reserved for share-based compensation of associates	28,367,293	43,828,108	72,195,401	(4,992,483)	67,202,918
Unreserved treasury shares	436,150,375	(129,575,618)	306,574,757	(10,508,026)	296,066,731
<b>Total treasury shares</b>	<b>464,517,668</b>	<b>(85,747,510)</b>	<b>378,770,158</b>	<b>(15,500,509)</b>	<b>(363,269,649)</b>
<b>Total outstanding shares</b>	<b>2,264,453,332</b>	<b>399,510</b>	<b>2,264,852,842</b>	<b>9,500,509</b>	<b>2,274,353,351</b>

(1)

All shares are registered, authorized, issued and fully paid. All are voting shares and, except for 167,690,918 treasury shares at December 31, 2009 (2008: 190,517,985) are dividend bearing.

	Dec 31, 2007	Movement in year	Dec 31, 2008	Movement in year	Dec 31, 2009
	\$ millions	\$ millions	\$ millions	\$ millions	\$ millions
Share capital	990	(31)	959	(2)	957
Treasury shares	(175)	36	(139)	7	(132)
<b>Outstanding share capital</b>	<b>815</b>	<b>5</b>	<b>820</b>	<b>5</b>	<b>825</b>

Table of Contents

## NOTES TO THE NOVARTIS GROUP

## CONSOLIDATED FINANCIAL STATEMENTS (Continued)

**18. Details of shares and share capital movements (Continued)**

There are outstanding written call options on Novartis shares of 30 million originally issued as part of the share-based compensation of associates. The market maker has acquired these options but they have not yet been exercised. The weighted average exercise price of these options is \$42.51 and they have contractual lives of up to 10 years.

**19. Non-current financial debts**

	<b>2009</b>	<b>2008</b>
	<b>\$ millions</b>	<b>\$ millions</b>
Straight bonds	8,556	1,409
Liabilities to banks and other financial institutions <sup>(1)</sup>	144	781
Finance lease obligations	4	5
<b>Total (including current portion of non-current financial debt)</b>	<b>8,704</b>	<b>2,195</b>
Less current portion of non-current financial debt	(29)	(17)
<b>Total non-current financial debts</b>	<b>8,675</b>	<b>2,178</b>
<b>Straight bonds</b>		
3.625% CHF 800 million bond 2008/2015 of Novartis AG, issued at 100.35%	763	748
3.5% CHF 700 million bond 2008/2012 of Novartis Securities Investment Ltd., Hamilton, Bermuda, issued at 100.32%	673	661
5.125% \$3,000 million bond 2009/2019 of Novartis Securities Investment Ltd., Hamilton, Bermuda, issued at 99.822%	2,983	
4.125% \$2,000 million bond 2009/2014 of Novartis Capital Corporation, New York, United States, issued at 99.897%	1,993	
4.25% EUR 1,500 million bond 2009/2016 of Novartis Finance S.A., Luxembourg, Luxembourg, issued at 99.757%	2,144	
<b>Total straight bonds</b>	<b>8,556</b>	<b>1,409</b>

<sup>(1)</sup> Average interest rate 2.1% (2008: 2.1%).

Table of Contents

## NOTES TO THE NOVARTIS GROUP

## CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 19. Non-current financial debts (Continued)

	2009	2008
	\$ millions	\$ millions
Breakdown by maturity		
2009		17
2010	29	686
2011	44	25
2012	704	688
2013	17	16
2014	2,010	
After 2014	5,900	763
<b>Total</b>	<b>8,704</b>	<b>2,195</b>

Breakdown by currency		
\$	4,979	2
EUR	2,262	96
JPY		664
CHF	1,436	1,409
Others	27	24
<b>Total</b>	<b>8,704</b>	<b>2,195</b>

Fair value comparison	2009 Balance sheet \$ millions	2009 Fair values \$ millions	2008 Balance sheet \$ millions	2008 Fair values \$ millions
Straight bonds	8,556	9,051	1,409	1,512
Others	148	148	786	786
<b>Total</b>	<b>8,704</b>	<b>9,199</b>	<b>2,195</b>	<b>2,298</b>

## Collateralized non-current financial debt and pledged assets

	2009 \$ millions	2008 \$ millions
Total amount of collateralized non-current financial debts	42	51
Total net book value of property, plant & equipment pledged as collateral for non-current financial debts	94	94

The Group's collateralized non-current financial debt consists of loan facilities at usual market conditions.

The percentage of fixed rate financial debt to total financial debt was 62% at December 31, 2009, and 29% at the end of 2008.

Table of Contents**NOTES TO THE NOVARTIS GROUP****CONSOLIDATED FINANCIAL STATEMENTS (Continued)****19. Non-current financial debts (Continued)**

Financial debts, including current financial debts, contain only general default covenants. The Group is in compliance with these covenants.

The average interest rate on total financial debt in 2009 was 3.6% (2008: 3.0%; 2007: 3.4%).

**20. Provisions and other non-current liabilities****General**

For some of the Group's pharmaceutical products, product liability insurance is not available. In connection with potential product liability exposures for these products the Group establishes provisions for estimated obligations for claims and related legal defense costs. The provisions are based on management's judgment, advice from legal counsel and actuarially determined estimates. Actual liabilities, however, could substantially exceed the provisions that Novartis has put in place. Novartis believes that its insurance coverage and provisions are reasonable and its provisions are the best estimate in light of its business and the risk to which it is subject.

The largest portion of product liability risk provisions has been actuarially determined taking into consideration factors such as past experience, number and amount of claims reported, estimates of claims incurred but not reported, the cost of defending claims and other assumptions. As actual experience becomes known the Group refines and adjusts its product liability estimates. If any of the assumptions used in these actuarial calculations turn out to be incorrect or require material adjustment, there could be a material discrepancy between the amount of provisions that have been recorded and the actual liability. At December 31, 2009, the discount rates used to calculate the actuarially determined provision are based on government bond rates and vary by payment duration and geography (US and non-US) between 2.3% and 2.5% (2008: between 1.4% and 3.1%). The income statement effect of a 1% increase or decrease in the discount rate is \$21 million (2008: \$19 million) income and \$23 million expense (2008: \$21 million), respectively.

	<b>2009</b>	<b>2008</b>
	<b>\$ millions</b>	<b>\$ millions</b>
Accrued liability for employee benefits:		
Defined benefit pension plans	2,013	1,754
Other long-term employee benefits and deferred compensation	380	348
Other post-employment benefits	852	802
Environmental provisions	952	924
Provision for product liability and other legal matters	671	682
Other non-current liabilities	623	526
<b>Total</b>	<b>5,491</b>	<b>5,036</b>

**Environmental provisions**

The material components of the environmental provisions consist of costs to sufficiently clean and refurbish contaminated sites to the extent necessary and to treat and where necessary continue

Table of Contents

**NOTES TO THE NOVARTIS GROUP**

**CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**20. Provisions and other non-current liabilities (Continued)**

surveillance at sites where the environmental exposure is less significant. The provision recorded at December 31, 2009 totals \$1,010 million (2008: \$966 million) of which \$58 million (2008: \$42 million) is included in current liabilities and consists of \$812 million (2008: \$798 million) provided for remediation at third party sites and \$198 million (2008: \$168 million) for remediation at owned facilities.

A substantial portion of the environmental provision relates to the remediation of Basel regional landfills in the adjacent border areas in Switzerland, Germany and France following the internal and external investigations completed during 2007 and the subsequent creation of an environmental remediation provision of \$614 in 2007.

In the US, Novartis has been named under federal legislation (the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended) as a potentially responsible party (PRP) in respect of certain sites. Novartis actively participates in, or monitors, the clean-up activities at the sites in which it is a PRP. The provision takes into consideration the number of other PRPs at each site and the identity and financial position of such parties in light of the joint and several nature of the liability. In addition, the provision had taken into account the fact that, in connection with the 1997 spin-off of Ciba AG (formerly CIBA Specialty Chemicals AG) from Novartis AG, a Novartis subsidiary had agreed to reimburse Ciba AG certain costs associated with environmental liabilities arising in the US from the operations of the specialty chemicals business of the US subsidiary of the former Ciba-Geigy AG. These reimbursement obligations terminated for certain liabilities in the US upon the acquisition of Ciba AG by BASF, and resulted in a release of a portion of the provisions.

The requirement in the future for Novartis ultimately to take action to correct the effects on the environment of prior disposal or release of chemical substances by Novartis or other parties, and its costs, pursuant to environmental laws and regulations, is inherently difficult to estimate. The Novartis future remediation expenses are affected by a number of uncertainties which include, but are not limited to, the method and extent of remediation, the percentage of material attributable to Novartis at the remediation sites relative to that attributable to other parties, the financial capabilities of the other potentially responsible parties and the timing of expected expenditures. Novartis believes that its total provisions for environmental matters are adequate based upon currently available information. However, given the inherent difficulties in estimating liabilities in this area, Novartis may incur additional costs beyond the amounts provided. Management believes that such additional amounts, if any, would not be material to the Group's financial condition but could be material to the results of operations or cash flows in a given period.



Table of Contents**NOTES TO THE NOVARTIS GROUP****CONSOLIDATED FINANCIAL STATEMENTS (Continued)****20. Provisions and other non-current liabilities (Continued)**

The following table shows the movements in the environmental liability provisions during 2009, 2008 and 2007:

	2009	2008	2007
	\$ millions	\$ millions	\$ millions
<b>January 1</b>	<b>966</b>	<b>874</b>	<b>253</b>
Cash payments	(11)	(19)	(20)
Releases	(53)	(2)	(9)
Interest expense arising from discounting provisions	66	38	7
Additions	23	18	607
Currency translation effects	19	57	36
<b>December 31</b>	<b>1,010</b>	<b>966</b>	<b>874</b>
Less current liability	(58)	(42)	(26)
<b>Non-current environmental liability provisions at December 31</b>	<b>952</b>	<b>924</b>	<b>848</b>

The expected timing of the related cash outflows as of December 31, 2009 is currently projected as follows:

	Expected cash outflows
	\$ millions
<b>2009</b>	
Due within two years	128
Due later than two years, but less than five years	218
Due later than five years, but less than ten years	506
Due after ten years	158
<b>Total environmental liability provisions</b>	<b>1,010</b>

**Legal matters**

A number of Novartis subsidiaries are, and will likely continue to be, subject to various legal proceedings that arise from time to time, including product liability, commercial, employment and wrongful discharge, antitrust, securities, sales and marketing practices, health and safety, environmental and tax litigation claims, government investigations and intellectual property disputes. As a result, the Group may become subject to substantial liabilities that may not be covered by insurance. While Novartis does not believe that any of these legal proceedings will have a material adverse effect on its financial position, litigation is inherently unpredictable and large verdicts sometimes occur. As a consequence, Novartis may in the future incur judgments or enter into settlements of claims that could have a material adverse effect on its results of operations or cash flows.

Table of Contents

## NOTES TO THE NOVARTIS GROUP

## CONSOLIDATED FINANCIAL STATEMENTS (Continued)

**20. Provisions and other non-current liabilities (Continued)**

Governments and regulatory authorities have been stepping up their compliance and law enforcement activities in recent years in key areas, including corruption, marketing practices, antitrust and trade restrictions. The Group's businesses have been subject, from time to time, to such governmental investigations and information requests by regulatory authorities. In some instances, the inherent uncertainty of litigation, the resources required to defend against governmental actions and the risk to reputation as well as of potential exclusion from US federal government reimbursement programs have contributed to decisions by companies in the Group's industry to enter into settlement agreements with governmental, and particularly US federal, authorities. Those settlements have involved and may continue to involve large cash payments, including the potential repayment of amounts allegedly obtained improperly and penalties up to treble damages. In addition, settlements of healthcare fraud cases typically involve corporate integrity agreements which are intended to regulate company behavior for a period of years. Also, matters underlying governmental investigations and settlements may be the subject of separate private litigation.

Below is a summary of selected legal proceedings to which Novartis or its subsidiaries are party:

**Governmental investigations**

In 2005 the US Attorney's Office for the Eastern District of Pennsylvania (the EDPA) served an administrative subpoena pursuant to the Health Insurance Portability and Accountability Act on Novartis Pharmaceuticals Corporation (NPC), a Novartis subsidiary. NPC has been cooperating with parallel civil and criminal investigations by the EDPA into allegations of potential off-label marketing and promotion of the epilepsy therapy *Trileptal* as well as certain payments made to healthcare providers in connection with this medicine. NPC recently entered into a plea agreement with the EDPA, which is contingent on court approval, to resolve criminal allegations. Pursuant to the plea agreement, NPC will plead guilty to a misdemeanor violation of the US Food, Drug and Cosmetic Act and pay a fine of \$185 million. NPC is currently negotiating with the EDPA to resolve civil claims relating to *Trileptal*. In the fourth quarter of 2009, Novartis increased provisions relating to the EDPA's *Trileptal* investigations by \$318 million. Total provisions at the end of 2009 relating to the EDPA's civil and criminal *Trileptal* investigations were \$397 million.

NPC is also cooperating with an investigation by the EDPA regarding potential off-label marketing and promotion as well as payments made to healthcare providers in connection with five other products: *Diovan*, *Exforge*, *Sandostatin*, *Tekturna* and *Zelnorm*. Novartis is unable to assess with reasonable certainty the outcome of the investigation related to these five products or the amounts, which could be material, that it might be required to pay to resolve this investigation.

The US Attorney's Office for the Northern District of California in 2007 served an administrative subpoena pursuant to the Health Insurance Portability and Accountability Act covering several Novartis subsidiaries. The subpoena covered information regarding potential off-label marketing and promotion of *Tobi* (tobramycin), a treatment for patients with cystic fibrosis acquired through the purchase of Chiron Corporation in mid-2006. In September 2009, Novartis subsidiaries reached an agreement in principle with the US Department of Justice to pay \$72.5 million to resolve all federal civil claims and state Medicaid claims relating to this investigation. Details of the agreement in principle are under discussion with relevant federal and state government offices.

In October 2009, the European Commission, together with the French competition authority, searched the French offices of Sandoz, alleging that Sandoz may have entered into anti-competitive price

Table of Contents

**NOTES TO THE NOVARTIS GROUP**

**CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**20. Provisions and other non-current liabilities (Continued)**

coordination practices with other generic pharmaceuticals companies and via the French trade association for generic pharmaceuticals companies. Sandoz is cooperating with the Commission and French authorities.

On January 12, 2010, the European Commission addressed a request for information to certain pharmaceutical companies, including Novartis International AG, asking them to submit copies of all of their patent settlement agreements as well as copies of all annexes, related agreements and amendments. The request covers patent settlement agreements concluded between originator and generic pharmaceutical companies in the period from July 1, 2008, to December 31, 2009, and relating to the EU/EEA.

**Product liability matters**

***Zometa/Aredia* litigation**

Novartis Pharmaceuticals Corp. is a defendant in approximately 682 cases brought in US courts in which plaintiffs claim to have experienced osteonecrosis of the jaw after treatment with *Zometa* or *Aredia*, which are used to treat patients whose cancer has spread to the bones. All purported class actions have been dismissed. A trial that began in Montana in October 2009 resulted in a plaintiff's verdict, and this verdict is currently under appeal. The next trial in a US state court is currently scheduled to begin in New Jersey in June 2010.

***Zelnorm* litigation**

Novartis subsidiaries are defendants in approximately 134 cases brought in US and Canadian courts in which plaintiffs claim to have experienced cardiovascular injuries after being treated with *Zelnorm*, a medicine for irritable bowel syndrome and chronic constipation. A purported national class action was filed against a Novartis subsidiary in Canada. A statement to defend was filed in this action. The first trial in the US is now expected to begin in Virginia in June 2010 after a case was dismissed that had been scheduled for trial in Louisiana in January 2010.

**Hormone Replacement Therapy litigation**

Novartis subsidiaries are defendants, along with various other pharmaceutical companies, in approximately 104 cases brought in US courts in which plaintiffs claim to have been injured by hormone replacement therapy products. Discovery is ongoing.

**SMON (Subacute Myelo Optico Neuropathy)**

In 1996 a subsidiary of Ciba-Geigy, one of the predecessor companies of Novartis, together with two other pharmaceutical companies, settled certain product liability issues related to sales of its product *Clioquinol* in Japan. Under the settlement, a Novartis subsidiary is required to pay certain future healthcare costs of the claimants.

Table of Contents

**NOTES TO THE NOVARTIS GROUP**

**CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**20. Provisions and other non-current liabilities (Continued)**

**Intellectual property matters**

**Contact Lenses patent litigation**

In the US, Johnson & Johnson (J&J) filed suits seeking a declaration that their Oasys® and Advance® products do not infringe CIBA Vision's silicone hydrogel patents (Jump patents). CIBA Vision filed counter-claims for infringement of its Jump patents. Novartis has also filed infringement suits based on these patent rights in several European countries, including France, Germany, the Netherlands, Ireland, Italy, Spain and the United Kingdom. J&J filed an invalidation suit in Austria in January 2009. Courts in the Netherlands (February 2009), France (March 2009) and the US (August 2009) issued rulings holding that CIBA Vision's patents were valid and infringed by J&J's sales of Oasys® products. J&J appealed the rulings in the Netherlands, France and in the US. However, the trial court in the UK held in July 2009 that the Jump patents were invalid. CIBA Vision has filed an appeal. In December 2009, a trial court in Germany also decided that the German part of the Jump patents was invalid. CIBA Vision will appeal this decision.

**Famvir patent litigation**

*Famvir*, a therapy for viral infections, is the subject of patent litigation against Teva and Roxane in the US. A trial against Teva in November 2009 resulted in a jury verdict in favor of Novartis that the compound patent was valid and enforceable, i.e., that there was no inequitable conduct (the jury's verdict on inequitable conduct is advisory only). A hearing on a permanent injunction and inequitable conduct is scheduled for January 2010. The compound patent, which covers the active ingredient, expires in March 2011 and a method of use patent expires in 2015, including pediatric extensions. Teva had launched its generic version "at risk" in 2007 after the judge denied a request by Novartis for a preliminary injunction. Roxane could launch at risk in March 2011.

**Other matters**

**Average Wholesale Price litigation**

Claims have been brought against various pharmaceutical companies, including Novartis subsidiaries, alleging that they fraudulently overstated the Average Wholesale Price and "best price," which are, or have been, used by the US federal and state governments in the calculation of, respectively, Medicare reimbursements and Medicaid rebates. Discovery is ongoing in certain of these cases. Motions have been made to dismiss the complaint or for summary judgment in other cases. A Novartis subsidiary was defendant in a trial in Alabama in 2008. The jury rendered a verdict against the Novartis subsidiary and imposed \$33 million of compensatory damages. No punitive damages were awarded. On October 16, 2009, the Supreme Court of the State of Alabama overturned this verdict, reversing the jury's finding. In a second trial that took place in Alabama in February 2009, the jury rendered a verdict against a separate Novartis subsidiary and awarded compensatory damages of \$28 million and punitive damages of \$50 million. The Novartis subsidiary is appealing the verdict. A third trial involving Novartis subsidiaries took place in Kentucky in June 2009. The jury rendered a verdict against a Novartis subsidiary and imposed \$16 million of compensatory damages and \$13.6 million in penalties. No punitive damages were awarded. The Novartis subsidiary has filed post-trial motions in December 2009. A fourth trial against a Novartis subsidiary scheduled to start in Texas in January 2010 has been postponed by the court. A new trial date is not expected before March 2010. A fifth trial against a Novartis subsidiary was scheduled to

Table of Contents**NOTES TO THE NOVARTIS GROUP****CONSOLIDATED FINANCIAL STATEMENTS (Continued)****20. Provisions and other non-current liabilities (Continued)**

begin in Wisconsin in May 2010. The Wisconsin court has recently stayed the pre-trial proceedings (except for fact discovery) and postponed the trial to a date to be determined.

**Wage and Hour litigation**

A group of pharmaceutical sales representatives filed suit in a US state court in California and in a US federal court in New York against US Novartis subsidiaries alleging that the companies violated wage and hour laws by misclassifying the sales representatives as "exempt" employees, and by failing to pay overtime compensation. The lawsuits were consolidated and certified as a class action. In January 2009, the US federal district court for the Southern District of New York held the sales representatives were not entitled to overtime pay under the federal Fair Labor Standards Act and corresponding state wage and hour laws. Plaintiffs have appealed the judgment. Amicus briefs supporting the plaintiffs' position were filed by the National Employment Lawyers Association and by the US Department of Labor. The US Chamber of Commerce filed a brief in support of Novartis on November 5, 2009.

**Gender discrimination litigation**

Certain female pharmaceutical sales representatives brought a lawsuit in a US federal court in New York against, among others, several US Novartis subsidiaries, alleging they were discriminated against because of their gender. The district court granted, in part, plaintiffs' motion for class certification against one of the US Novartis subsidiaries, but it dismissed all other US Novartis subsidiaries from the case. Discovery was required to be completed by December 31, 2009, and the trial is scheduled to begin on April 7, 2010.

The following table shows the movements in the legal and product liability provisions during 2009, 2008 and 2007:

	2009	2008	2007
	\$ millions	\$ millions	\$ millions
<b>January 1</b>	<b>1,142</b>	<b>1,026</b>	<b>903</b>
Impact of business combinations			25
Cash payments	(285)	(265)	(225)
Releases of provisions	(152)	(66)	(98)
Additions to provisions	833	428	403
Currency translation effects	4	19	18
<b>December 31</b>	<b>1,542</b>	<b>1,142</b>	<b>1,026</b>
Less current liability	(871)	(460)	(349)
<b>Non-current legal and product liability provisions at December 31</b>	<b>671</b>	<b>682</b>	<b>677</b>

Novartis believes that its total provisions for legal and product liability matters are adequate based upon currently available information, however, given the inherent difficulties in estimating liabilities, it cannot be guaranteed that additional costs will not be incurred beyond the amounts provided.

Table of Contents

## NOTES TO THE NOVARTIS GROUP

## CONSOLIDATED FINANCIAL STATEMENTS (Continued)

**21. Current financial debt**

	2009	2008
	\$ millions	\$ millions
Interest bearing accounts of associates	1,175	1,080
Other bank and financial debt	2,142	2,430
Commercial paper	1,887	1,330
Current portion of non-current financial debt	29	17
Fair value of derivative financial instruments	80	329
<b>Total current financial debt</b>	<b>5,313</b>	<b>5,186</b>

The balance sheet values of current financial debt, other than the current portion of non-current financial debt, approximate the estimated fair value due to the short-term nature of these instruments.

The weighted average interest rate on the bank and other current financial debt (including employee deposits from the compensation of associates employed by Swiss entities) was 2.3% in 2009 and 3.7% in 2008.

**22. Provisions and other current liabilities**

	2009	2008
	\$ millions	\$ millions
Taxes other than income taxes	484	467
Restructuring provisions	97	204
Accrued expenses for goods and services received but not invoiced	651	647
Provisions for royalties	334	247
Provisions for revenue deductions	2,094	1,665
Provisions for compensation and benefits including social security and pension funds	1,695	1,432
Environmental liabilities	58	42
Deferred income relating to government grants	90	88
Deferred purchase consideration	312	2
Provision for legal matters	871	460
Accrued share-based payments	128	177
Other payables	1,515	1,116
<b>Total provisions and other current liabilities</b>	<b>8,329</b>	<b>6,547</b>

Provisions are based upon management's best estimate and adjusted for actual experience. Such adjustments to the historic estimates have not been material.

Table of Contents**NOTES TO THE NOVARTIS GROUP****CONSOLIDATED FINANCIAL STATEMENTS (Continued)****22. Provisions and other current liabilities (Continued)****Provision for deductions from revenue**

Deductions from revenue are reported as a reduction of revenue. They include rebates, discounts, incentives to retail customers, government agencies, wholesalers, health insurance companies and managed care organizations. These deductions represent estimates of the related obligations, requiring the use of judgment when estimating the effect of these sales deductions. The following table shows the movement of the provision for deductions from revenue:

	2009	2008	2007
	\$ millions	\$ millions	\$ millions
<b>January 1</b>	<b>1,665</b>	<b>1,512</b>	<b>1,428</b>
Additions	6,245	5,291	5,609
Payments/utilizations	(5,582)	(5,186)	(5,467)
Changes in offset against gross trade receivables	(321)	103	(30)
Currency translation effects	87	(55)	(28)
<b>December 31</b>	<b>2,094</b>	<b>1,665</b>	<b>1,512</b>

**Restructuring provisions**

In 2009, additions to provisions of \$40 million were incurred in conjunction with the restructuring of the commercial operations of the Sandoz Division in Germany. The charges comprised termination costs of associates of \$37 million and other third party costs of \$3 million. In total, approximately 155 associates were affected by the various restructuring plans, but none of them have left the Group as of December 31, 2009.

Also in 2009, additions to provisions of \$19 million were incurred in conjunction with the restructuring of the technical operations of the Pharmaceuticals Division in Switzerland. The charges comprised termination costs of associates of \$19 million. In total, approximately 105 associates were affected by the various restructuring plans, all of whom have left the Group as of December 31, 2009.

It is anticipated that the majority of the restructuring provisions will be paid within the next twelve months.

In 2008, additions to provisions of \$19 million were incurred in conjunction with a change in the marketing sales organization within the Pharmaceuticals Division in the United States. The charges comprised termination costs of associates of \$18 million and other third party costs of \$1 million. In total, approximately 300 associates were affected by the various restructuring plans, all of whom have left the Group as of December 31, 2008.

Also in 2008, charges of \$24 million were incurred in conjunction with the restructuring of several development facilities of the Pharmaceuticals Division in France. The charges comprised termination costs of associates of \$20 million and other third party costs of \$4 million. In total, 70 associates were affected by the various restructuring plans, all but 4 of them have left the Group as of December 31, 2009.

**NOTES TO THE NOVARTIS GROUP**

**CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**22. Provisions and other current liabilities (Continued)**

In 2007 \$320 million of restructuring provisions were made in conjunction with a strategic initiative called Forward to enhance productivity by streamlining the organization and redesigning the way it operates to improve competitiveness. The reduction of the planned 2,500 full-time equivalent positions announced in December 2007 was completed by the end of 2008.

Also in 2007, additions to provisions of \$25 million for termination costs of associates were incurred in conjunction with other initiatives in the US. In total, approximately 800 associates were affected by the various restructuring plans, all of whom have left the Group as of December 31, 2008.

In 2007, charges of \$64 million were also incurred in conjunction with the divestments of the Medical Nutrition and Gerber businesses. The charges included in net income from discontinued operations, comprised termination costs of associates of \$18 million and other third party costs of \$46 million. In total, 114 associates were affected by the various restructuring plans, all of whom have left the Group as of December 31, 2008.

Also in 2007, charges of \$11 million were incurred in conjunction with the restructuring of several facilities of the Sandoz Division, among others, primarily in Turkey, Slovenia and Indonesia. The charges comprised termination costs of associates of \$11 million. In total, 421 associates were affected by the various restructuring plans, all of whom have left the Group as of December 31, 2008.

In 2007 further charges of \$34 million were incurred in conjunction with the acquisition of Chiron. The charges comprised termination costs of associates of \$32 million and other third party costs of \$2 million. In total, 1,640 associates were affected by the various restructuring plans since Chiron's April 2006 acquisition, all of whom have left the Group as of December 31, 2009.

The releases to income in 2009, 2008 and 2007 of \$42 million, \$108 million and \$11 million, respectively, were mainly due to settlement of liabilities at lower amounts than originally anticipated, which in 2009 were principally due to provisions made in relation with prior years restructuring initiatives, and in 2008 were principally due to provisions made in relation with the 2007 Forward restructuring and the divestments of the Medical Nutrition and Gerber Business Units.



Table of Contents

## NOTES TO THE NOVARTIS GROUP

## CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 22. Provisions and other current liabilities (Continued)

Other third party costs are mainly associated with lease and other obligations due to the abandonment of certain facilities.

	Termination costs of associates \$ millions	Other third party costs \$ millions	Total \$ millions
<b>January 1, 2007</b>	<b>63</b>	<b>23</b>	<b>86</b>
Additions	364	90	454
Cash payments	(57)	(16)	(73)
Releases	(4)	(7)	(11)
Currency translation effects		2	2
<b>December 31, 2007</b>	<b>366</b>	<b>92</b>	<b>458</b>
Additions	126	5	131
Cash payments	(232)	(39)	(271)
Releases	(99)	(9)	(108)
Currency translation effects	(4)	(2)	(6)
<b>December 31, 2008</b>	<b>157</b>	<b>47</b>	<b>204</b>
Additions	56	3	59
Cash payments	(114)	(12)	(126)
Releases	(10)	(32)	(42)
Currency translation effects	2		2
<b>December 31, 2009</b>	<b>91</b>	<b>6</b>	<b>97</b>

F-80

Table of Contents

## NOTES TO THE NOVARTIS GROUP

## CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 23. Details to the consolidated cash flow statements

## 23.1) Reversal of non-cash items

	2009	2008	2007
	\$ millions	\$ millions	\$ millions
Taxes	1,468	1,336	947
Depreciation, amortization and impairments on Property, plant & equipment	1,250	1,231	1,285
Intangible assets	1,051	1,439	1,573
Financial assets	40	90	78
Income from associated companies	(293)	(441)	(412)
Gains on disposal of property, plant & equipment, intangible and financial assets, net	(94)	(176)	(255)
Equity-based and settled compensation expense	642	567	570
Change in provisions and other non-current liabilities	1,031	562	1,365
Net financial income	353	(94)	(294)
<b>Total reversal of non-cash items</b>	<b>5,448</b>	<b>4,514</b>	<b>4,857</b>

## 23.2) Cash flows from continuing operations arising from changes in working capital and other operating items included in operating cash flow

	2009	2008	2007
	\$ millions	\$ millions	\$ millions
Change in inventories	237	(571)	(747)
Change in trade receivables	(934)	(431)	(204)
Change in trade payables	512	246	323
Change in other net current assets and other operating cash flow items	873	126	93
<b>Total</b>	<b>688</b>	<b>(630)</b>	<b>(535)</b>

Table of Contents

## NOTES TO THE NOVARTIS GROUP

## CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 23. Details to the consolidated cash flow statements (Continued)

## 23.3) Cash flow arising from acquisitions and divestments of businesses (excluding discontinued operations)

The following is a summary of the cash flow impact of acquisitions and divestments of businesses:

	2009	2009	2008	2008	2007	2007
	Acquisitions	Divestments	Acquisitions	Divestments	Acquisitions	Divestments
	\$ millions	\$ millions	\$ millions	\$ millions	\$ millions	\$ millions
Property, plant & equipment	(64)		(44)			389
Trademarks, product & marketing rights	(241)		(486)		(38)	105
Acquired research & development	(161)		(250)			
Core technologies	(427)		(46)			421
Financial assets including deferred tax assets	(58)		(70)			1,370
Inventories	(80)				(16)	388
Trade receivables and other current assets	(122)		(19)		(12)	496
Marketable securities and cash	(55)		(81)		(5)	84
Long-term and short-term financial debts	47		54			(77)
Trade payables and other liabilities including deferred tax liabilities	467		283		17	(1,697)
Accrued liabilities to seller						260
<b>Identifiable net assets acquired or divested</b>	<b>(694)</b>		<b>(659)</b>		<b>(54)</b>	<b>1,739</b>
Currency translation effects			29			251
Fair value of acquired identifiable net assets of existing non-controlling interest			46			
Acquired/divested liquidity	55		26		5	(37)
<b>Sub-total</b>	<b>(639)</b>		<b>(558)</b>		<b>(49)</b>	<b>1,953</b>
Impairment of property, plant & equipment						(18)
Refinancing of intercompany financial debt, net						2
Goodwill	(548)		(523)		(3)	233
Divestment gain						5,841
Reduction in cash due to change to equity method for Idenix		(63)				
Write-down of loan						1
Deferred portion of sales price.	325		2	132		(120)
<b>Net cash flow</b>	<b>(862)</b>	<b>(63)</b>	<b>(1,079)</b>	<b>132</b>	<b>(52)</b>	<b>7,892</b>
Of which:						
Net cash flow from discontinued operations				132		7,892
Net cash flow from continuing operation	(862)	(63)	(1,079)		(52)	

F-82

Table of Contents**NOTES TO THE NOVARTIS GROUP****CONSOLIDATED FINANCIAL STATEMENTS (Continued)****23. Details to the consolidated cash flow statements (Continued)**

Note 2 provides further information regarding acquisitions and divestments of businesses. All acquisitions were for cash.

**23.4) Cash flow from discontinued operations**

The following is a summary of the cash flow components of the discontinued operations:

	<b>2008</b>	<b>2007</b>
	<b>\$ millions</b>	<b>\$ millions</b>
<b>Cash flow for/from operating activities</b>	<b>(237)</b>	<b>(95)</b>
Purchase of property, plant & equipment		(32)
Divestments of businesses	132	7,892
Purchase of financial assets		(376)
Proceeds from disposals of financial assets		270
Other net investments		(128)
<b>Cash flow from/for investing activities</b>	<b>132</b>	<b>7,626</b>
<b>Cash flow from/for financing activities</b>		<b>64</b>
<b>Total cash flow for/from discontinued operations</b>	<b>(105)</b>	<b>7,595</b>

Table of Contents

## NOTES TO THE NOVARTIS GROUP

## CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 24. Acquisitions of businesses

## Assets and liabilities arising from acquisitions

2009	Fair value \$ millions	Revaluation due to purchase accounting \$ millions	Acquiree's carrying amount \$ millions
Property, plant & equipment	64		64
Trademarks, product & marketing rights	241	237	4
Acquired research & development	161	161	
Core technologies	427	427	
Financial assets including deferred tax assets	58	16	42
Inventories, trade receivables and other current assets	202	16	186
Marketable securities and cash	55		55
Long-term and short-term financial debts	(47)		(47)
Trade payables and other liabilities including deferred tax liabilities	(467)	(209)	(258)
<b>Net identifiable assets acquired</b>	<b>694</b>	<b>648</b>	<b>46</b>
Acquired liquidity	(55)		
Goodwill	548		
<b>Net assets recognized as a result of business combinations</b>	<b>1,187</b>		

Table of Contents

## NOTES TO THE NOVARTIS GROUP

## CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 24. Acquisitions of businesses (Continued)

2008	Fair value \$ millions	Revaluation due to purchase accounting \$ millions	Acquiree's carrying amount \$ millions
Property, plant & equipment	44		44
Trademarks, product & marketing rights	486	486	
Acquired research & development	250	250	
Other intangible assets	46	46	
Financial assets including deferred tax assets	70	8	62
Inventories, trade receivables and other current assets	19	10	9
Marketable securities and cash	81		81
Long-term and short-term financial debts	(54)		(54)
Trade payables and other liabilities including deferred tax liabilities	(283)	(274)	(9)
<b>Net identifiable assets acquired</b>	<b>659</b>	<b>526</b>	<b>133</b>
Acquired liquidity	(26)		
Goodwill	523		
Currency translation difference	(29)		
Fair value of acquired identifiable net assets of existing non-controlling interest	(46)		
<b>Net assets recognized as a result of business combinations</b>	<b>1,081</b>		

The 2009 and 2008 goodwill arising out of the acquisitions reflects mainly the value of expected buyer-specific synergies, future products and the acquired assembled workforce. Professional fees and related costs capitalized for acquisitions were insignificant in both 2009 and 2008.

## 25. Post-employment benefits of associates

## Defined benefit plans

Apart from the legally required social security schemes, the Group has numerous independent pension and other post-employment benefit plans. In most cases these plans are externally funded in vehicles which are legally separate from the Group. For certain Group companies, however, no independent assets exist for the pension and other long-term benefit obligations of associates. In these cases the related liability is included in the balance sheet.

Defined benefit pension plans cover a significant number of the Group's associates. The defined benefit obligations and related assets of all major plans are reappraised annually by independent actuaries. Plan assets are recorded at fair value and their actual return in 2009 was a gain of \$1,679 million (2008: loss of \$2,163 million). The defined benefit obligation of unfunded pension plans was \$279 million at December 31, 2009 (2008: \$246 million).

Table of Contents

## NOTES TO THE NOVARTIS GROUP

## CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 25. Post-employment benefits of associates (Continued)

The following table is a summary of the status of the main funded and unfunded pension and other post-employment benefit plans of associates at December 31, 2009 and 2008:

	Pension plans		Other post-employment benefit plans	
	2009	2008	2009	2008
	\$ millions	\$ millions	\$ millions	\$ millions
<b>Benefit obligation at January 1</b>	<b>17,643</b>	<b>17,105</b>	<b>789</b>	<b>784</b>
Service cost	411	415	48	48
Interest cost	705	694	41	41
Actuarial losses/(gains)	(310)	(127)	19	(33)
Plan amendments	(4)	6	(47)	
Currency translation effects	329	564	7	(9)
Benefit payments	(1,013)	(1,131)	(41)	(42)
Contributions of associates	124	112		
Effect of acquisitions, divestments or transfers	124	5	1	
<b>Benefit obligation at December 31</b>	<b>18,009</b>	<b>17,643</b>	<b>817</b>	<b>789</b>
<b>Fair value of plan assets at January 1</b>	<b>16,065</b>	<b>18,335</b>	<b>5</b>	<b>17</b>
Transfer of plan assets related to discontinued operations		(9)		
Expected return on plan assets	698	843		
Actuarial gains/(losses)	981	(3,006)		(6)
Currency translation effects	373	698		
Novartis Group contributions	268	200	44	36
Contributions of associates	124	112		
Plan amendments	(2)			
Benefit payments	(1,013)	(1,131)	(41)	(42)
Effect of acquisitions, divestments or transfers	117	3		
<b>Fair value of plan assets at December 31</b>	<b>17,611</b>	<b>16,065</b>	<b>8</b>	<b>5</b>
<b>Funded Status</b>	<b>(398)</b>	<b>(1,578)</b>	<b>(809)</b>	<b>(784)</b>
Unrecognized past service cost	5	6	(43)	(18)
Limitation on recognition of fund surplus	(35)			
<b>Net liability in the balance sheet at December 31</b>	<b>(428)</b>	<b>(1,572)</b>	<b>(852)</b>	<b>(802)</b>

Table of Contents

## NOTES TO THE NOVARTIS GROUP

## CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 25. Post-employment benefits of associates (Continued)

The movement in the net asset/liability and the amounts recognized in the balance sheet were as follows:

	Pension plans		Other post-employment benefit plans	
	2009	2008	2009	2008
	\$ millions	\$ millions	\$ millions	\$ millions
<b>Movement in net asset/(liability)</b>				
<b>Net asset/(liability) in the balance sheet at January 1</b>	<b>(1,572)</b>	<b>1,201</b>	<b>(802)</b>	<b>(788)</b>
Transfer of net (assets) related to discontinued operations		(9)		
Net periodic benefit cost	(417)	(270)	(67)	(86)
Novartis Group contributions	268	200	44	36
Plan amendments, net		1		
Effect of acquisitions, divestments or transfers	(7)	(2)	(1)	
Change in actuarial (losses)/gains	1,291	(2,879)	(19)	27
Currency translation effects	44	134	(7)	9
Impact of limitation on recognition of fund surplus	(35)	52		
<b>Net liability in the balance sheet at December 31</b>	<b>(428)</b>	<b>(1,572)</b>	<b>(852)</b>	<b>(802)</b>
<b>Amounts recognized in the balance sheet</b>				
Prepaid benefit cost	1,585	182		
Accrued benefit liability	(2,013)	(1,754)	(852)	(802)
<b>Net liability in the balance sheet at December 31</b>	<b>(428)</b>	<b>(1,572)</b>	<b>(852)</b>	<b>(802)</b>



Table of Contents

## NOTES TO THE NOVARTIS GROUP

## CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 25. Post-employment benefits of associates (Continued)

The net periodic benefit cost recorded in the income statement consists of the following components:

	Pension plans			Other post-employment benefit plans		
	2009	2008	2007	2009	2008	2007
	\$ millions	\$ millions	\$ millions	\$ millions	\$ millions	\$ millions
<b>Components of net periodic benefit cost</b>						
Service cost	411	415	424	48	48	51
Interest cost	705	694	615	41	41	42
Expected return on plan assets	(698)	(843)	(804)			(2)
Recognized past service cost		(2)	(20)	(3)	(3)	(3)
Curtailment and settlement (gains)/losses	(1)	6	(29)	(19)		
<b>Net periodic benefit cost<sup>(1)</sup></b>	<b>417</b>	<b>270</b>	<b>186</b>	<b>67</b>	<b>86</b>	<b>88</b>

(1) The 2007 net periodic benefit cost excludes all amounts for the discontinued operations.

The following table shows the principal actuarial weighted average assumptions used for calculating defined benefit plans and other post-employment benefits of associates:

	Pension plans			Other post-employment benefit plans		
	2009	2008	2007	2009	2008	2007
<b>Weighted average assumptions used to determine benefit obligations at December 31</b>						
Discount rate	3.9%	4.1%	4.1%	5.7%	6.3%	5.8%
Expected rate of salary increase	3.6%	3.7%	3.7%			
Current average life expectancy for a 65-year-old male/female	19/22 years	19/22 years	19/22 years	18/20 years	19/21 years	18/21 years
<b>Weighted average assumptions used to determine net periodic pension cost for the year</b>						
Discount rate	4.1%	4.1%	3.6%	6.3%	5.8%	5.8%
Expected return on plan assets	4.6%	4.7%	4.6%			
Expected rate of salary increase	3.7%	3.7%	3.7%			
Current average life expectancy for a 65-year-old male/female	19/22 years	19/22 years	19/22 years	19/21 years	18/21 years	18/21 years

F-88

Table of Contents

## NOTES TO THE NOVARTIS GROUP

## CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 25. Post-employment benefits of associates (Continued)

The following table shows a five-year summary reflecting the funding of defined benefit pensions and the impact of historical deviations between expected and actual return on plan assets and experience adjustments on plan liabilities.

	2009	2008	2007	2006	2005
	\$ millions	\$ millions	\$ millions	\$ millions	\$ millions
Plan assets	17,611	16,065	18,355	17,515	16,059
Defined benefit obligation	18,009	(17,643)	(17,105)	(16,767)	(15,632)
<b>(Deficit)/Surplus</b>	<b>(398)</b>	<b>(1,578)</b>	<b>1,250</b>	<b>748</b>	<b>427</b>
Differences between expected and actual return on plan assets	981	(3,006)	4	13	367
Experience adjustments on plan liabilities	12	(72)	(279)	(398)	153

The following table shows the weighted average asset allocation of funded defined benefit plans at December 31, 2009 and 2008:

	Pension plans		
	Long-term target	2009	2008
	%	%	%
Equity securities	15-40	29	27
Debt securities	45-70	49	47
Real estate	0-15	12	12
Cash and other investments	0-15	10	14
<b>Total</b>		<b>100</b>	<b>100</b>

Strategic pension plan asset allocations are determined with the objective of achieving an investment return which, together with the contributions paid, is sufficient to maintain reasonable control over the various funding risks of the plans. Based upon the market and economic environments, actual asset allocations may periodically be permitted to deviate from policy targets. Expected return assumptions are reviewed periodically and are based on each plan's strategic asset mix. Factors considered in the estimate of the expected return are the risk free interest rate together with risk premiums on the assets of each pension plan.

Table of Contents**NOTES TO THE NOVARTIS GROUP****CONSOLIDATED FINANCIAL STATEMENTS (Continued)****25. Post-employment benefits of associates (Continued)**

The expected future cash flows to be paid by the Group in respect of pension and other post-employment benefit plans at December 31, 2009 were as follows:

	<b>Pension plans</b>	<b>Other post-employment benefit plans</b>
	<b>\$ millions</b>	<b>\$ millions</b>
<b>Novartis Group contributions</b>		
2010 (estimated)	114	46
<b>Expected future benefit payments</b>		
2010	1,139	46
2011	1,150	49
2012	1,154	52
2013	1,155	56
2014	1,151	59
2015 - 2019	5,755	348

The healthcare cost trend rate assumptions for other post-employment benefits are as follows:

<b>Healthcare cost trend rate assumptions used</b>	<b>2009</b>	<b>2008</b>	<b>2007</b>
Healthcare cost trend rate assumed for next year	8.5%	8.5%	8.0%
Rate to which the cost trend rate is assumed to decline	5.0%	5.0%	4.8%
Year that the rate reaches the ultimate trend rate	2020	2020	2012

A one percentage point change in the assumed healthcare cost trend rates compared to those used for 2009 would had the following effects:

	<b>1% point increase</b>	<b>1% point decrease</b>
	<b>\$ millions</b>	<b>\$ millions</b>
Effects on total of service and interest cost components	10	(9)
Effect on post-employment benefit obligations	80	(71)

The number of Novartis AG shares held by pension and similar benefit funds at December 31, 2009 was 24.8 million shares with a market value of \$1.3 billion (2008: 21.6 million shares with a market value of \$1.1 billion). These funds sold no Novartis shares during the years ended December 31, 2009 and 2008.

Table of Contents**NOTES TO THE NOVARTIS GROUP****CONSOLIDATED FINANCIAL STATEMENTS (Continued)****25. Post-employment benefits of associates (Continued)**

The amount of dividends received on Novartis shares held as plan assets by these funds was \$43 million for the year ended December 31, 2009 (2008: \$32 million; 2007: \$26 million).

**Defined contribution plans**

In many Group companies associates are covered by defined contribution plans and other long-term benefits. The liability of the Group for these benefits is reported in other long-term benefits of associates and deferred compensation and amounts to \$380 million (2008: \$348 million) at December 31, 2009. Contributions charged to the consolidated income statement for the defined contribution plans were \$162 million (2008: \$160 million; 2007: \$141 million).

**26. Equity-based participation plans of associates**

The expense recorded in the income statement spreads the cost of each grant equally over the vesting period. Assumptions are made concerning the forfeiture rate which is adjusted during the vesting period so that at the end of the vesting period there is only a charge for vested amounts. As permitted by the transitional rules of the relevant accounting standard, grants prior to November 7, 2002 have not been included in the income statement. The expense for continuing operations related to all Novartis equity plans in the 2009 income statement was \$777 million (2008: \$746 million; 2007: \$689 million) resulting in a total carrying amount for liabilities arising from share-based payment transactions of \$129 million (2008: \$185 million; 2007: \$153 million). The amount of related income tax benefit recognized in the income statement was \$185 million (2008: \$190 million; 2007: \$186 million). The total amount of cash used to settle awards in 2009 was \$148 million (2008: \$117 million; 2007: \$124 million). As of December 31, 2009, there was \$533 million (2008: \$514 million) of total unrecognized compensation cost related to non-vested equity-based compensation arrangements granted under the Plans. That cost is expected to be recognized over a weighted-average period of 2.09 years (2008: 1.89 years). In addition, due to its majority owned US quoted subsidiary Idenix Pharmaceuticals Inc. until August 30, 2009, Novartis recognized an additional equity-based compensation expense of \$3 million (2008: \$5 million; 2007: \$9 million). Participants in the Novartis equity plans from discontinued operations were not granted any shares or options in 2009 and 2008 and there was no expense recorded in the 2009 and 2008 income statements for discontinued operations (2007: \$22 million).

Equity-based participation plans can be separated into the following plans:

**Novartis Equity Plan "Select"**

Participants in this plan can elect to receive their incentive in the form of shares, share options, or a combination of both. In some jurisdictions Restricted Share Units (RSU) rather than shares are granted. Each RSU is equivalent in value to one Novartis share and is converted into one share at the vesting date. Awards under the Equity Plan "Select" may be granted each year based on the associate's performance, potential and Group or business area performance. No awards are granted for performance ratings below a certain threshold. After the incentive has been awarded, its value goes up or down based on the Novartis share price performance.

Each share is valued against the closing market price of the share at the grant date (January 20, 2009 for the 2008 performance grant). Shares granted receive dividends and have voting rights during the vesting period. RSUs do not carry any dividend or voting rights.

Table of Contents**NOTES TO THE NOVARTIS GROUP****CONSOLIDATED FINANCIAL STATEMENTS (Continued)****26. Equity-based participation plans of associates (Continued)**

Each share option granted to associates entitles the holder to purchase one Novartis share at a stated exercise price which equals the closing market price of the underlying share at the grant date (January 20, 2009 for the 2008 performance grant).

If associates in North America choose to receive part or all of their grant under the Equity Plan "Select" in share options on American Depositary Shares (ADSs), then the resulting number of options is determined by dividing the respective incentive amount by a value that equals 95% of the International Financial Reporting Standards (IFRS) value of the options on ADSs. For associates in other countries, the divisor equals 90% of the IFRS value of options on shares.

Share options are tradable when vested, and expire on their tenth anniversary. Shares and tradable share options have a vesting period of two years in Switzerland and three years in other countries. As a result, if a participant leaves Novartis, for reasons other than retirement, disability or death, unvested shares or options are forfeited, unless determined otherwise by the Compensation Committee (for example, in connection with a reorganization or divestment).

**Novartis Equity Plan "Select" outside North America**

Directors, executives and other selected associates of Group companies (collectively, the "Participants") may receive equity awards. In 2004, the vesting period for the plan was changed from a two-year vesting period to a three-year vesting period for most countries. Due to pending new tax legislation in Switzerland, it was decided not to implement the three-year vesting period in Switzerland. The current view is that the new law will not come into force before 2011, at the earliest, at which point the vesting period might be reviewed.

The expense recorded in continuing operations in the 2009 income statement relating to both shares and options under this plan amounted to \$151 million (2008: \$135 million; 2007: \$137 million). Participants in this plan were granted a total of 1,677,231 shares at CHF 53.65 (2008: 1,077,240 shares at CHF 64.05).

The following table shows the assumptions on which the valuation of options granted during the period was based:

	<b>Novartis Equity Plan "Select" outside North America</b>	
	<b>2009</b>	<b>2008</b>
Valuation date	January 20, 2009	January 11, 2008
Expiration date	January 18, 2019	January 10, 2018
Closing share price on grant date	CHF 53.65	CHF 64.05
Exercise price	CHF 53.65	CHF 64.05
Implied bid volatility	21.00%	17.00%
Expected dividend yield	4.52%	3.30%
Interest rate	2.47%	3.34%
Market value of option at grant date	CHF 8.83	CHF 11.62

F-92

Table of Contents

## NOTES TO THE NOVARTIS GROUP

## CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 26. Equity-based participation plans of associates (Continued)

The following table shows the activity associated with the options during the period. The weighted average prices in the table below are translated from Swiss Francs into \$ at historical rates for the granted, sold, and forfeited figures. The year-end prices are translated using the corresponding year-end rates.

	2009		2008	
	Options	Weighted average exercise price	Options	Weighted average exercise price
	millions	\$	millions	\$
<b>Options outstanding at January 1</b>	<b>25.5</b>	<b>53.2</b>	<b>20.4</b>	<b>51.0</b>
Granted	9.4	46.7	7.8	58.2
Sold	(0.8)	48.6	(1.9)	47.4
Forfeited	(1.2)	51.1	(0.8)	58.3
<b>Outstanding at December 31</b>	<b>32.9</b>	<b>51.6</b>	<b>25.5</b>	<b>53.2</b>
<b>Exercisable at December 31</b>	<b>17.5</b>	<b>51.3</b>	<b>11.5</b>	<b>46.9</b>

All options were granted at an exercise price which, since 2004, was equal to the market price of the Group's shares at the grant date and between 2000 and 2003 was greater than the market price of the Group's shares at the grant date. The weighted average fair value of options granted in 2009 was \$8.5. The weighted average exercise price during the period the options were sold in 2009 was \$48.6. The total value of payments made to associates was \$1.6 million based on market value (intrinsic value nil). The weighted average remaining contractual term for options outstanding at the year end was 6.9 years and 5.4 years for options exercisable. Options outstanding had an aggregate intrinsic value of \$32.8 million and \$9.0 million for options exercisable.

Table of Contents**NOTES TO THE NOVARTIS GROUP****CONSOLIDATED FINANCIAL STATEMENTS (Continued)****26. Equity-based participation plans of associates (Continued)**

The following table summarizes information about options outstanding at December 31, 2009:

Range of exercise prices \$	Number outstanding millions	Options outstanding		Weighted average exercise price \$	Options exercisable	
		Average remaining contractual life years			Number exercisable millions	Weighted average exercise price \$
30 34	1.2	2.1		34.8	1.2	34.8
35 39	0.8	1.2		36.9	0.8	36.9
40 44	0.4	0.2		42.7	0.4	42.7
45 49	13.8	7.4		46.9	5.1	47.2
50 54	3.4	6.1		54.0	3.4	54.0
55 59	13.3	7.5		58.3	6.6	58.4
<b>Total</b>	<b>32.9</b>	<b>6.9</b>		<b>51.6</b>	<b>17.5</b>	<b>51.3</b>

**Novartis Equity Plan "Select" for North America**

The plan provides for equity awards to North American based Directors, executives and other selected associates. The terms and conditions of the Novartis Equity Plan "Select" for North America are substantially equivalent to the Novartis Equity Plan "Select" outside North America. Options in this plan have only been tradable since 2004.

The expense recorded in continuing operations in the 2009 income statement relating to both shares and options under this plan amounted to \$237 million (2008: \$222 million; 2007: \$231 million). Participants in this plan were granted a total of 2,950,145 ADS units at \$46.42 (2008: 2,029,205 ADS at \$57.96).

Table of Contents

## NOTES TO THE NOVARTIS GROUP

## CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 26. Equity-based participation plans of associates (Continued)

The following table shows the assumptions on which the valuation of options granted during the period was based:

<b>Novartis Equity Plan "Select" for North America</b>		
	<b>2009</b>	<b>2008</b>
Valuation date	January 20, 2009	January 11, 2008
Expiration date	January 18, 2019	January 10, 2018
Closing ADS price on grant date	\$46.42	\$57.96
Exercise price	\$46.42	\$57.96
Implied bid volatility	20.00%	15.50%
Expected dividend yield	4.61%	3.50%
Interest rate	2.45%	4.44%
Market value of option at grant date	\$7.08	\$11.25

The following table shows the activity associated with the options during the period:

	<b>2009</b>		<b>2008</b>	
	<b>ADS options</b>	<b>Weighted average exercise price</b>	<b>ADS options</b>	<b>Weighted average exercise price</b>
	<b>millions</b>	<b>\$</b>	<b>millions</b>	<b>\$</b>
<b>Options outstanding at January 1</b>	<b>45.1</b>	<b>51.7</b>	<b>42.9</b>	<b>48.7</b>
Granted	20.0	46.4	12.6	58.0
Sold or exercised	(3.2)	45.1	(7.1)	43.3
Forfeited	(2.6)	53.2	(3.3)	57.1
<b>Outstanding at December 31</b>	<b>59.3</b>	<b>50.2</b>	<b>45.1</b>	<b>51.7</b>
<b>Exercisable at December 31</b>	<b>20.9</b>	<b>46.2</b>	<b>18.4</b>	<b>43.3</b>

All options were granted at an exercise price which was equal to the market price of the ADS at the grant date. The weighted average fair value of options granted in 2009 was \$8.0. The weighted average exercise price during the period the options were sold or exercised in 2009 was \$45.1. The total value of payments made to associates was \$146.6 million based on market value (intrinsic value of \$14.3 million). The weighted average remaining contractual term for options outstanding at the year end was 6.9 years and 4.5 years for options exercisable. Options outstanding had an aggregate intrinsic value of \$338.0 million and \$181.1 million for options exercisable.

The actual tax benefit from options exercised and restricted stock vested under the Select Plan for North America was \$111.3 million.



Table of Contents

## NOTES TO THE NOVARTIS GROUP

## CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 26. Equity-based participation plans of associates (Continued)

The following table summarizes information about ADS options outstanding at December 31, 2009:

Range of exercise prices	ADS options outstanding			ADS options exercisable	
	Number outstanding	Average remaining contractual life	Weighted average exercise price	Number exercisable	Weighted average exercise price
\$	millions	years	\$	millions	\$
35 - 39	6.3	2.7	36.7	6.3	36.7
40 - 44	1.0	1.2	41.9	1.0	41.9
45 - 49	26.3	7.8	46.6	7.3	47.2
50 - 54	5.2	6.1	54.7	5.2	54.7
55 - 59	20.5	7.6	58.2	1.1	58.3
<b>Total</b>	<b>59.3</b>	<b>6.9</b>	<b>50.2</b>	<b>20.9</b>	<b>46.2</b>

Under the previous US Management ADS Appreciation Rights plan, Novartis associates on US employment contracts were entitled to cash compensation equivalent to the increase in the value of Novartis ADSs compared to the market price of the ADSs at the grant date. The income of US Management ADS Appreciation Rights Plan recorded in the 2009 income statement amounted to \$1.0 million (2008: \$5 million; 2007: \$6 million).

**Long-Term Performance Plan**

The Long-Term Performance Plan is an equity plan granted to key executives based on a three-year performance period.

At the beginning of the performance period, plan participants are allocated RSUs which may be converted into Novartis shares after the period.

At the end of the performance period, the Compensation Committee adjusts the number of RSUs based on actual performance. The performance is measured by Group Economic Value Added (EVA), a formula to measure corporate profitability while taking into account the cost of capital. No incentive is awarded if actual Group EVA performance fails to meet a pre-determined threshold (or if the participant leaves during the performance period for reasons other than retirement, disability or death). For outstanding Group EVA performance the adjustment can go up to 200% of the target incentive.

At the Award Date, RSUs are converted into unrestricted Novartis shares without vesting period. In the United States, awards may also be delivered in cash under the Deferred Compensation Plan.

The expense recorded in continuing operations in the 2009 income statement related to this plan amounted to \$35 million (2008: \$12 million; 2007: \$37 million). During 2009 a total of 333,029 performance share units (2008: 304,250 performance share units) were granted to 107 key executives participating in this plan.

Table of Contents

**NOTES TO THE NOVARTIS GROUP**

**CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**26. Equity-based participation plans of associates (Continued)**

**Special Share Awards**

In addition to the components of compensation described above, selected associates may exceptionally receive special awards of restricted or unrestricted shares. These special share awards are discretionary providing flexibility to reward particular achievements or exceptional performance. They may also serve to retain key contributors. Restricted special share awards generally have a five-year vesting period. If an associate leaves Novartis for reasons other than retirement, disability or death, he or she will generally forfeit unvested shares. Worldwide 327 associates at different levels in the organization were awarded restricted shares in 2009. The expense recorded in continuing operations for such special share awards in the 2009 income statement amounted to \$18 million (2008: \$17 million; 2007: \$20 million). During 2009 a total of 1,158,643 shares (2008: 1,139,536 shares) were granted to executives and selected associates.

**Leveraged Share Savings Plans**

Associates in certain countries and certain key executives worldwide are encouraged to receive their annual incentive awards fully or partially in Novartis shares instead of cash by participating in a leveraged share savings plan.

Under leveraged share savings plans, Novartis matches investments in shares after a holding period. In general, no shares are matched under these plans if an associate leaves Novartis prior to expiration of the holding period for reasons other than retirement, disability or death.

Novartis has three main leveraged share savings plans:

The Swiss Employee Share Ownership Plan (ESOP) is available in Switzerland to approximately 11,000 associates. Participants within this plan may choose to receive the incentive (i) 100% in shares, (ii) 50% in shares and 50% in cash or (iii) 100% in cash. After expiration of a three-year holding period, each participant will receive one free matching share for every two Novartis shares acquired and continuously held under ESOP. A total of 4,900 associates chose to receive shares under the ESOP for their performance in 2008.

In the United Kingdom, associates can invest up to 5% of their monthly salary in shares (up to a maximum of GBP 125) and may also be invited to invest all or part of their net incentive in shares. Two invested shares are matched with one share after a holding period of three years. During 2009, approximately 1,550 associates participated in this plan.

28 key executives worldwide were invited to participate in a Leveraged Share Savings Plan (LSSP) as part of compensation for performance in 2008. Shares in this plan are invested for five years. At the end of the investment period, Novartis matches the invested shares at a ratio of 1:1 (i.e. one share awarded for each invested share).

Associates may only participate in one of these plans in any given year.

The expense recorded in continuing operations in the 2009 income statement related to these plans amounted to \$335 million (2008: \$365 million; 2007: \$270 million). During 2009, a total of 6,147,077 shares (2008: 4,151,698 shares) were granted to participants of these plans.

Table of Contents

## NOTES TO THE NOVARTIS GROUP

## CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 26. Equity-based participation plans of associates (Continued)

## Summary of non-vested share movements

The table below provides a summary of non-vested share movements for all plans:

	Number of shares in millions 2009	Fair value in \$ millions 2009	Number of shares in millions 2008	Fair value in \$ millions 2008
<b>Non-vested shares at January 1</b>	<b>13.6</b>	<b>886.9</b>	<b>14.6</b>	<b>848.9</b>
Granted	12.3	581.5	8.7	495.7
Vested	(9.2)	(480.7)	(8.5)	(400.3)
Forfeited	(1.0)	(49.0)	(1.2)	(57.4)
<b>Non-vested shares at December 31</b>	<b>15.7</b>	<b>(938.7)</b>	<b>13.6</b>	<b>886.9</b>

## 27. Related parties

**Roche/Genentech**

Novartis has two agreements with Genentech, Inc., USA, a subsidiary of Roche Holdings AG (Roche) which is indirectly included in the consolidated financial statements using equity accounting since Novartis holds 33.3% of the outstanding voting shares of Roche.

**Lucentis**

Novartis Ophthalmics, part of the Novartis Pharmaceuticals Division, has licensed the exclusive rights to develop and market *Lucentis* outside the US for indications related to diseases of the eye. As part of this agreement, Novartis paid Genentech an initial milestone and shared the cost for the subsequent development by making additional milestone payments upon the achievement of certain clinical development points and product approval. Novartis also pays royalties on the net sales of *Lucentis* products outside the US. *Lucentis* sales of \$1,232 million (2008: \$886 million; 2007: \$393 million) have been recognized by Novartis.

**Xolair**

In February 2004, Novartis Pharma AG, Genentech, Inc., and Tanox, Inc., finalized a three-party collaboration to govern the development and commercialization of certain anti-IgE antibodies including *Xolair* and TNX-901. Under this agreement, all three parties co-developed *Xolair*. On August 2, 2007, Genentech, Inc. completed the acquisition of Tanox, Inc. and has taken over its rights and obligations. The Novartis shares held in Tanox were sold to Genentech and realized a gain of \$117 million. Novartis and Genentech are co-promoting *Xolair* in the US where Genentech records all sales.

Novartis markets *Xolair* and records all sales and related costs in Europe as well as co-promotion costs in the US. Genentech and Novartis share the resulting profits from sales in the US, Europe and some East Asia countries, according to agreed profit-sharing percentages. Novartis recognized total sales

Table of Contents

## NOTES TO THE NOVARTIS GROUP

## CONSOLIDATED FINANCIAL STATEMENTS (Continued)

**27. Related parties (Continued)**

of *Xolair* of \$338 million (2008: \$211 million; 2007: \$140 million) including sales to Genentech for the US market.

The net expense for royalties, cost sharing and profit sharing arising out of the *Lucentis* and *Xolair* agreements with Genentech totaled \$200 million (2008: \$85 million net expense; 2007: \$4 million net income).

Furthermore, Novartis Vaccines and Diagnostics has a patent license agreement with Roche related to clinical diagnostic for hepatitis C virus and human immunodeficiency virus and several Novartis entities hold Roche bonds totaling \$1.0 billion.

**Idenix**

Novartis Pharma AG entered into a collaboration agreement with Idenix in May 2003 relating to the worldwide development and commercialization of drug candidates and purchased approximately 54% of the common stock of Idenix. As Novartis had the ability to exercise control, Idenix was fully consolidated. In August 2009, Novartis opted not to purchase shares that were issued pursuant to an underwritten offering and waived and amended certain rights under the development and commercialization agreement. As a result of this, the Novartis shareholding was diluted from the pre-offering level of 53% to 47% and since September 1, 2009 Idenix has been accounted for according to the equity method. Novartis has a license agreement with Idenix for *Tyzeka/Sebivo* and may pay additional license fees and development expenses for drug candidates that Novartis may elect to license from Idenix. The sales of *Tyzeka/Sebivo* totaled \$84 million in 2009.

**Executive Officer and Director Compensation**

During 2009, there were 9 Executive Committee members ("Executive Officers"), including those who retired or terminated their employment (10 members in 2008; 11 members in 2007).

The total compensation for members of the Executive Committee and the 11 Non-Executive Directors (12 in 2008; 10 in 2007) using IFRS 2 rules for accounting for equity-based compensation was as follows:

	Executive Officers			Non-Executive Directors			Total		
	2009	2008	2007	2009	2008	2007	2009	2008	2007
	\$	\$	\$	\$	\$	\$	\$	\$	\$
	millions	millions	millions	millions	millions	millions	millions	millions	millions
Short-term benefits	12.6	12.0	12.6	6.0	6.4	4.8	18.6	18.4	17.4
Post-employment benefits	1.4	7.8	6.3				1.4	7.8	6.3
Termination benefits		1.3	1.3					1.3	1.3
Equity-based compensation	86.4	75.4	75.7				86.4	75.4	75.7
<b>Total</b>	<b>100.4</b>	<b>96.5</b>	<b>95.9</b>	<b>6.0</b>	<b>6.4</b>	<b>4.8</b>	<b>106.4</b>	<b>102.9</b>	<b>100.7</b>

The annual incentive award, which is fully included in equity-based compensation even when paid out in cash, is granted in January in the year following the reporting period.

During 2009, an Executive Officer acquired real estate for CHF 3.7 million from a consolidated entity. The transaction price was based on independent external valuation reports.



Table of Contents**NOTES TO THE NOVARTIS GROUP****CONSOLIDATED FINANCIAL STATEMENTS (Continued)****28. Commitments and contingencies****Leasing commitments**

The Group has entered into various fixed term operational leases, mainly for cars and real estate. As of December 31, 2009 the Group's commitments with respect to these leases were as follows:

	<b>2009</b>
	<b>\$ millions</b>
2010	306
2011	226
2012	152
2013	113
2014	105
Thereafter	1,128
<b>Total</b>	<b>2,030</b>
<b>Expense of current year</b>	<b>338</b>

**Research & Development commitments**

The Group has entered into long-term research agreements with various institutions which provide for potential milestone payments and other payments by Novartis that may be capitalized. As of December 31, 2009 the Group's commitments to make payments under those agreements were as follows:

	<b>Unconditional commitments 2009</b>	<b>Potential milestone payments 2009</b>	<b>Total 2009</b>
	<b>\$ millions</b>	<b>\$ millions</b>	<b>\$ millions</b>
2010	125	335	460
2011	48	294	342
2012	37	575	612
2013	35	577	612
2014	34	289	323
Thereafter	65	692	757
<b>Total</b>	<b>344</b>	<b>2,762</b>	<b>3,106</b>

Table of Contents**NOTES TO THE NOVARTIS GROUP****CONSOLIDATED FINANCIAL STATEMENTS (Continued)****28. Commitments and contingencies (Continued)****Other commitments**

The Novartis Group entered into various purchase commitments for services and materials as well as for equipment in the ordinary course of business. These commitments are generally entered into at current market prices and reflect normal business operations.

**Contingencies**

Group companies have to observe the laws, government orders and regulations of the country in which they operate.

The Group's potential environmental liability is assessed based on a risk assessment and investigation of the various sites identified by the Group as at risk for environmental exposure. The Group's future remediation expenses are affected by a number of uncertainties. These uncertainties include, but are not limited to, the method and extent of remediation, the percentage of material attributable to the Group at the remediation sites relative to that attributable to other parties, and the financial capabilities of the other potentially responsible parties.

A number of Group companies are currently involved in administrative proceedings, litigations and investigations arising out of the normal conduct of their business. These litigations include certain legal and product liability claims. Whilst provisions have been made for probable losses that management deems to be reasonable or appropriate there are uncertainties connected with these estimates. Note 20 contains a more extensive discussion of these matters.

In the opinion of management, however, the outcome of these actions will not materially affect the Group's financial position but could be material to the results of operations or cash flow in a given period.

**29. Principal currency translation rates**

	<b>2009</b>	<b>2008</b>	<b>2007</b>
	\$	\$	\$
Year-end exchange rates used for consolidated balance sheets:			
1 CHF	0.965	0.948	0.881
1 EUR	1.436	1.411	1.465
1 GBP	1.591	1.450	1.996
100 JPY	1.086	1.107	0.884
Average of monthly exchange rates during the year used for consolidated income and cash flow statements:			
1 CHF	0.923	0.925	0.834
1 EUR	1.393	1.470	1.371
1 GBP	1.564	1.853	2.002
100 JPY	1.070	0.970	0.850

F-101

Table of Contents

**NOTES TO THE NOVARTIS GROUP**

**CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**30. Events subsequent to the December 31, 2009 balance sheet date**

*Dividend proposal for 2009 and approval of the Group's 2009 consolidated financial statements*

The 2009 consolidated financial statements of the Novartis Group were approved by the Novartis AG Board of Directors on January 25, 2010. On January 19, 2010, the Board proposed a dividend of CHF 2.10 per share to be approved at the Annual General Meeting on February 26, 2010. If approved, total dividend payments would amount to approximately \$4.6 billion.

*Alcon exercise of call option to acquire an additional 52% and proposal to obtain 100% ownership*

In 2008, Novartis entered into an agreement to purchase Nestlé's 77% stake in Alcon Inc. for up to \$38.5 billion, or an average price of \$168 per share. Under the terms of the agreement, Novartis acquired a 25% Alcon stake from Nestlé in 2008 for \$10.4 billion, or \$143 per share. The purchase of the 25% stake was financed from internal cash reserves and external short-term financing.

On January 4, 2010, Novartis exercised its call option to acquire Nestlé's remaining 52% Alcon stake for \$28.1 billion which (contains the 17% control premium for the 77% stake over Alcon's share price of \$143 at the time of the April 2008 announcement), or \$180 per share. Upon completion of this transaction, Novartis will own a 77% majority stake in Alcon. The purchase of the 52% stake, which is subject to required regulatory approvals, is expected to be completed in the second half of 2010. Novartis will not control Alcon prior to the closing of the purchase of the 52% stake. This purchase will be funded from available liquidity and external debt financing.

On January 4, 2010, Novartis also announced its proposal to, upon completion of the Nestlé transaction, to enter into an all-share direct merger with Alcon for the remaining 23% minority stake. Novartis believes this merger, which is governed under the Swiss Merger Act, is in the interest of all stakeholders and will provide the needed clarity on Alcon's future. Novartis proposed a fixed exchange ratio of 2.80 Novartis shares for each remaining Alcon share. Based on the Novartis closing share price of CHF 56.50 on December 30, 2009 (the last trading day on the SIX Swiss Stock Exchange before the announcement) and an exchange rate of CHF 1.04 = \$1.00, this proposal represents an implied price of \$153 per Alcon share and a 12% premium to Alcon's unaffected publicly traded share price as determined by Novartis of \$137 per share. Alcon's closing share price was \$164.35 on December 31, 2009 (the last trading day on the New York Stock Exchange before the announcement). The merger would be conditional on the closing of the 52% stake purchase from Nestlé and would require approval by the Boards of Directors of Novartis and Alcon. The merger would also require two-thirds approval by the shareholders of Novartis and Alcon voting at their respective meetings. Under Swiss law, Novartis has the right to vote its Alcon stake in favor of the proposed merger.



Table of Contents

## NOTES TO THE NOVARTIS GROUP

## CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 31. Principal Group subsidiaries and associated companies as at December 31, 2009

The following describe the various types of entities within the Group:

/\*/ **Holding/Finance:** This entity is a holding company and/or performs finance functions for the Group.

\* **Sales:** This entity performs sales and marketing activities for the Group.

\\*/ **Production:** This entity performs manufacturing and/or production activities for the Group.

/\*\ **Research:** This entity performs research and development activities for the Group.

	Share/paid-in capital <sup>(1)</sup>	Equity interest %	Activities
<b>Argentina</b>			
Novartis Argentina S.A., Buenos Aires	ARS	61.3 m	100 * /*\
Sandoz S.A., Buenos Aires	ARS	11.8 m	100 * \*/
<b>Australia</b>			
Novartis Australia Pty Ltd., North Ryde, NSW	AUD	11.0 m	100 /*/
Novartis Pharmaceuticals Australia Pty Ltd., North Ryde, NSW	AUD	3.8 m	100 * /*\
Sandoz Pty Ltd., North Ryde, NSW	AUD	11.6 m	100 *
Novartis Consumer Health Australasia Pty Ltd., Melbourne, Victoria	AUD	7.6 m	100 * \*/
Novartis Animal Health Australasia Pty Ltd., North Ryde, NSW	AUD	3.0 m	100 * /*\
<b>Austria</b>			
Novartis Austria GmbH, Vienna	EUR	1.0 m	100 /*/
Novartis Pharma GmbH, Vienna	EUR	1.1 m	100 *
Sandoz GmbH, Kundl	EUR	32.7 m	100 /*/ * \*/ /*\
Novartis Animal Health GmbH, Kundl	EUR	37,000	100 *
<b>Bangladesh</b>			
Novartis (Bangladesh) Limited, Dhaka	BDT	162.5 m	60 * \*/
<b>Belgium</b>			
N.V. Novartis Pharma S.A., Vilvoorde	EUR	7.1 m	100 *
N.V. Sandoz S.A., Vilvoorde	EUR	19.2 m	100 *
N.V. Novartis Consumer Health S.A., Vilvoorde	EUR	4.3 m	100 *
N.V. CIBA Vision Benelux S.A., Mechelen	EUR	62,000	100 *
<b>Bermuda</b>			
Triangle International Reinsurance Ltd., Hamilton	CHF	1.0 m	100 /*/
Novartis Securities Investment Ltd., Hamilton	CHF	30,000	100 /*/
Novartis International Pharmaceutical Ltd., Hamilton	CHF	20.0 m	100 /*/ * \*/ /*\
<b>Brazil</b>			
Novartis Biociências S.A., São Paulo	BRL	255.8 m	100 * \*/
Sandoz do Brasil Indústria Farmacêutica Ltda., Cambé	BRL	189.9 m	100 * \*/ /*\
Novartis Saúde Animal Ltda., São Paulo	BRL	50.7 m	100 * \*/

Equity interest % above 50% and up to 100% of the voting rights fully consolidated

above 20% and up to 50% of the voting rights investment in associated company equity method accounting

(1) Share/paid-in capital may not reflect the taxable share/paid-in capital amount and does not include any paid-in surplus.

(2) Shares without par value.

(3) Percentage of total net income and equity attributable to Novartis.

m = million; bn = billion



Table of Contents

## NOTES TO THE NOVARTIS GROUP

## CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 31. Principal Group subsidiaries and associated companies as at December 31, 2009 (Continued)

	Share/paid-in capital <sup>(1)</sup>	Equity interest %	Activities
<b>Canada</b>			
Novartis Pharmaceuticals Canada Inc., Dorval/Montreal	CAD 0 <sup>(2)</sup>	100	* /*
Sandoz Canada Inc., Boucherville, Quebec	CAD 76.8 m	100	* \*/ /*
Novartis Consumer Health Canada Inc., Mississauga, Ontario	CAD 2	100	*
CIBA Vision Canada Inc., Mississauga, Ontario	CAD 1	100	* \*/
Novartis Animal Health Canada Inc., Charlottetown	CAD 2	100	* /*
<b>Chile</b>			
Novartis Chile S.A., Santiago de Chile	CLP 2.0 bn	100	*
<b>China</b>			
Beijing Novartis Pharma Co., Ltd., Beijing	CNY 132.1 m	100	* \*/
Novartis Pharmaceuticals (HK) Limited, Hong Kong	HKD 200	100	*
China Novartis Institutes for BioMedical Research Co. Ltd., Shanghai	USD 32.0 m	100	/*
Suzhou Novartis Pharma Technology Co. Ltd., Changshu	USD 62.0 m	100	\*/
Shanghai Novartis Trading Ltd., Shanghai	CNY 20.3 m	100	*
<b>Colombia</b>			
Novartis de Colombia S.A., Santafé de Bogot	COP 7.9 bn	100	* \*/
<b>Croatia</b>			
Lek Zagreb d.o.o., Zagreb	HRK 25.6 m	100	*
<b>Czech Republic</b>			
Novartis s.r.o., Prague	CZK 51.5 m	100	*
Sandoz s.r.o., Prague	CZK 44.7 m	100	*
<b>Denmark</b>			
Novartis Healthcare A/S, Copenhagen	DKK 14.0 m	100	*
Sandoz A/S, Copenhagen	DKK 8.0 m	100	*
<b>Ecuador</b>			
Novartis Ecuador S.A., Quito	USD 4.0 m	100	*
<b>Egypt</b>			
Novartis Pharma S.A.E., Cairo	EGP 33.8 m	99	\*/
Novartis Egypt (Healthcare) S.A.E., Cairo	EGP 250,000	96	*
<b>Finland</b>			
Novartis Finland Oy, Espoo	EUR 459,000	100	*
<b>France</b>			
Novartis Groupe France S.A., Rueil-Malmaison	EUR 103.0 m	100	/*/
Novartis Pharma S.A.S., Rueil-Malmaison	EUR 43.4 m	100	* \*/ /*
Sandoz S.A.S., Levallois-Perret	EUR 5.0 m	100	*
Novartis Santé Familiale S.A.S., Rueil-Malmaison	EUR 21.9 m	100	* \*/
Novartis Santé Animale S.A.S., Rueil-Malmaison	EUR 900,000	100	* \*/
CIBA Vision S.A.S., Blagnac	EUR 1.8 m	100	*

Equity interest % above 50% and up to 100% of the voting rights fully consolidated

above 20% and up to 50% of the voting rights investment in associated company equity method accounting

(1) Share/paid-in capital may not reflect the taxable share/paid-in capital amount and does not include any paid-in surplus.

(2) Shares without par value.

(3) Percentage of total net income and equity attributable to Novartis.

m = million; bn = billion

F-104

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Shares without par value.

(3)

Percentage of total net income and equity attributable to Novartis.

m = million; bn = billion

F-105

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Table of Contents

## NOTES TO THE NOVARTIS GROUP

## CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 31. Principal Group subsidiaries and associated companies as at December 31, 2009 (Continued)

	Share/paid-in capital <sup>(1)</sup>	Equity interest %	Activities
<b>Italy</b>			
Novartis Farma S.p.A., Origgio	EUR 18.2 m	100	/*/ * \*/ /*\
Novartis Vaccines and Diagnostics S.r.l., Siena	EUR 41.5 m	100	* \*/ /*\
Sandoz S.p.A., Origgio	EUR 390,000	100	*
Sandoz Industrial Products S.p.A., Rovereto	EUR 2.6 m	100	\*/
Novartis Consumer Health S.p.A., Origgio	EUR 2.9 m	100	*
CIBA Vision S.r.l., Marcon	EUR 2.4 m	100	*
<b>Japan</b>			
Novartis Holding Japan K.K., Tokyo	JPY 10.0 m	100	/*/
Novartis Pharma K.K., Tokyo	JPY 6.0 bn	100	* \*/ /*\
Sandoz K.K., Tokyo	JPY 100.1 m	100	* \*/ /*\
Novartis Animal Health K.K., Tokyo	JPY 50.0 m	100	* \*/ /*\
CIBA Vision K.K., Tokyo	JPY 100.0 m	100	*
<b>Luxembourg</b>			
Novartis Investments S.à r.l., Luxembourg	USD 2.6 bn	100	/*/
Novartis Finance S.A., Luxembourg	USD 100,000	100	/*/
<b>Malaysia</b>			
Novartis Corporation (Malaysia) Sdn. Bhd., Kuala Lumpur	MYR 3.3 m	100	*
CIBA Vision Johor Sdn. Bhd., Gelang Patah	MYR 5.0 m	100	\*/
<b>Mexico</b>			
Novartis Farmacéutica, S.A. de C.V., Mexico City	MXN 205.0 m	100	* \*/
Sandoz, S.A. de C.V., Mexico City	MXN 468.2 m	100	* \*/
<b>Netherlands</b>			
Novartis Netherlands B.V., Arnhem	EUR 1.4 m	100	/*/
Novartis Pharma B.V., Arnhem	EUR 4.5 m	100	*
Sandoz B.V., Almere	EUR 907,570	100	* \*/
Novartis Consumer Health B.V., Breda	EUR 23,830	100	* \*/
<b>New Zealand</b>			
Novartis New Zealand Ltd., Auckland	NZD 820,000	100	*
<b>Norway</b>			
Novartis Norge AS, Oslo	NOK 1.5 m	100	*
<b>Pakistan</b>			
Novartis Pharma (Pakistan) Limited, Karachi	PKR 24.8 m	98	* \*/
<b>Panama</b>			
Novartis Pharma (Logistics), Inc., Panama	USD 10,000	100	*
<b>Philippines</b>			
Novartis Healthcare Philippines, Inc., Makati/Manila	PHP 298.8 m	100	*

Equity interest % above 50% and up to 100% of the voting rights fully consolidated

above 20% and up to 50% of the voting rights investment in associated company equity method accounting

(1) Share/paid-in capital may not reflect the taxable share/paid-in capital amount and does not include any paid-in surplus.

(2) Shares without par value.

(3) Percentage of total net income and equity attributable to Novartis.

m = million; bn = billion

F-106

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Percentage of total net income and equity attributable to Novartis.

m = million; bn = billion

F-107

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Table of Contents

## NOTES TO THE NOVARTIS GROUP

## CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 31. Principal Group subsidiaries and associated companies as at December 31, 2009 (Continued)

	Share/paid-in capital <sup>(1)</sup>	Equity interest %	Activities
<b>Switzerland</b>			
Novartis International AG, Basel	CHF 10.0 m	100	/*/
Novartis Holding AG, Basel	CHF 100.2 m	100	/*/
Novartis Research Foundation, Basel	CHF 29.3 m	100	/*/\
Novartis Foundation for Management Development, Basel	CHF 100,000	100	/*/
Novartis Foundation for Employee Participation, Basel	CHF 100,000	100	/*/
Novartis Sanierungsstiftung, Basel	CHF 2.0 m	100	/*/
Roche Holding AG, Basel	CHF 160.0 m	33/6 <sup>(3)</sup>	/*/ * \*/ /*\
Alcon, Inc., Hünenberg	CHF 14.8 m	25	/*/
Novartis Pharma AG, Basel	CHF 350.0 m	100	/*/ * \*/ /*\
Novartis Pharma Services AG, Basel	CHF 20.0 m	100	*
Novartis Pharma Schweizerhalle AG, MuttENZ	CHF 18.9 m	100	\*/
Novartis Pharma Stein AG, Stein	CHF 251,000	100	\*/ /*\
Novartis Pharma Schweiz AG, Bern	CHF 5.0 m	100	*
Speedel Holding AG, Basel	CHF 15.8 m	100	/*/
Sandoz AG, Basel	CHF 5.0 m	100	* /*\
Sandoz Pharmaceuticals AG, Steinhausen	CHF 100,000	100	*
Novartis Consumer Health S.A., Nyon	CHF 30.0 m	100	/*/ * \*/ /*\
Novartis Consumer Health Schweiz AG, Bern	CHF 250,000	100	*
Novartis Animal Health AG, Basel	CHF 101,000	100	/*/ * \*/ /*\
Novartis Centre de Recherche Santé Animale S.A., St.Aubin	CHF 250,000	100	/*\
CIBA Vision AG, Embrach	CHF 300,000	100	/*/ *
<b>Taiwan</b>			
Novartis (Taiwan) Co., Ltd., Taipei	TWD 170.0 m	100	* \*/
<b>Thailand</b>			
Novartis (Thailand) Limited, Bangkok	THB 230.0 m	100	*
<b>Turkey</b>			
Novartis Sağlık, Gıda ve Tarım Ürünleri Sanayi ve Ticaret A.S., Istanbul	TRY 98.0 m	100	* \*/
Sandoz İlaç Sanayi ve Ticaret A.S., Kadıköy-Istanbul	TRY 31.7 m	100	* \*/

Equity interest %      above 50% and up to 100% of the voting rights    fully consolidated  
above 20% and up to 50% of the voting rights    investment in associated company    equity method accounting

(1)      Share/paid-in capital may not reflect the taxable share/paid-in capital amount and does not include any paid-in surplus.

(2)      Shares without par value.

(3)      Percentage of total net income and equity attributable to Novartis.

m = million; bn = billion

Table of Contents

## NOTES TO THE NOVARTIS GROUP

## CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 31. Principal Group subsidiaries and associated companies as at December 31, 2009 (Continued)

	Share/paid-in capital <sup>(1)</sup>	Equity interest %	Activities
<b>USA</b>			
Novartis Corporation, East Hanover, NJ	USD 72.2 m	100	/*/
Novartis Finance Corporation, New York, NY	USD 1.7 bn	100	/*/
Novartis Capital Corporation, New York, NY	USD 1	100	/*/
Novartis Pharmaceuticals Corporation, East Hanover, NJ	USD 5.2 m	100	* \*/ /\
Novartis Institutes for BioMedical Research, Inc., Cambridge, MA	USD 1	100	/*/
Novartis Institute for Functional Genomics, Inc., San Diego, CA	USD 21,000	100	/*/
Idenix Pharmaceuticals, Inc., Cambridge, MA	USD 59,019	47	/*/
Novartis Vaccines and Diagnostics, Inc., Cambridge, MA	USD 3.0	100	/*/ * \*/ /\
Sandoz Inc., Princeton, NJ	USD 25,000	100	* \*/ /\
Eon Labs, Inc., Princeton, NJ	USD 1	100	* \*/ /\
Novartis Consumer Health, Inc., Parsippany, NJ	USD 0 <sup>(2)</sup>	100	* \*/ /\
Novartis Animal Health US, Inc., Greensboro, NC	USD 100	100	* \*/ /\
CIBA Vision Corporation, Duluth, GA	USD 301.3 m	100	/*/ * \*/ /\
<b>Venezuela</b>			
Novartis de Venezuela, S.A., Caracas	VEB 1.4 bn	100	*

In addition, the Group is represented by subsidiaries, associated companies or joint ventures in the following countries: Algeria, Cayman Islands, Costa Rica, Dominican Republic, Guatemala, the former Yugoslav Republic of Macedonia, Morocco, Peru and Uruguay.

Equity interest %  
 above 50% and up to 100% of the voting rights fully consolidated  
 above 20% and up to 50% of the voting rights investment in associated company equity method accounting

(1) Share/paid-in capital may not reflect the taxable share/paid-in capital amount and does not include any paid-in surplus.

(2) Shares without par value.

(3) Percentage of total net income and equity attributable to Novartis.

m = million; bn = billion