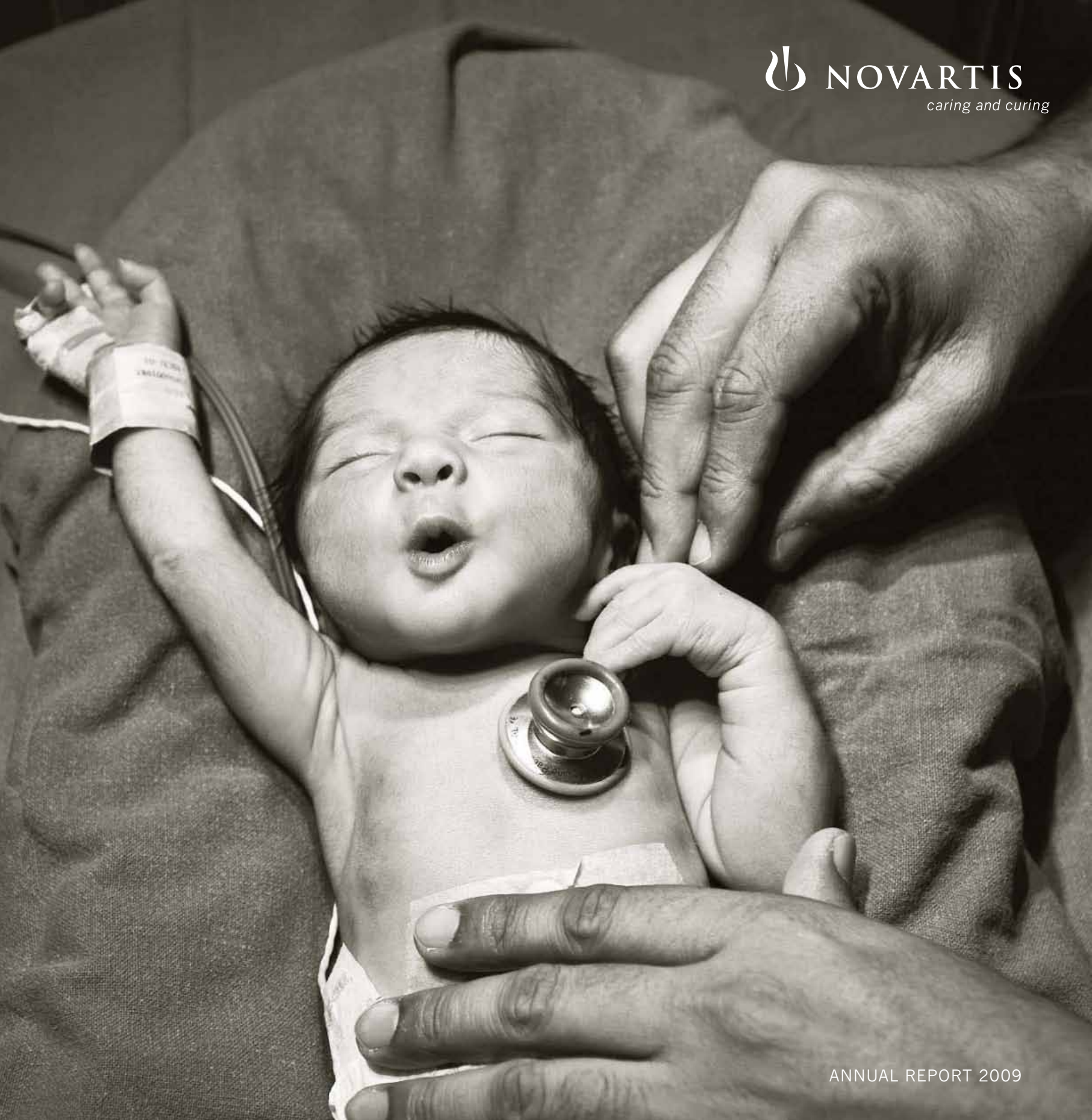


NOVARTIS

caring and curing

ANNUAL REPORT 2009

GROUP REVIEW

OUR MISSION

We want to discover, develop and successfully market innovative products to prevent and cure diseases, to ease suffering and to enhance the quality of life.

We also want to provide a shareholder return that reflects outstanding performance and to adequately reward those who invest ideas and work in our company.


HEALTH
CLINIC

CONTENTS

GROUP OVERVIEW

Novartis provides healthcare solutions that address the evolving needs of patients and societies worldwide.

We offer a portfolio focused on broad areas of healthcare to best meet these needs: innovative prescription medicines, cost-saving generic pharmaceuticals, preventive vaccines and diagnostic tools, and consumer health products.

FINANCIAL HIGHLIGHTS

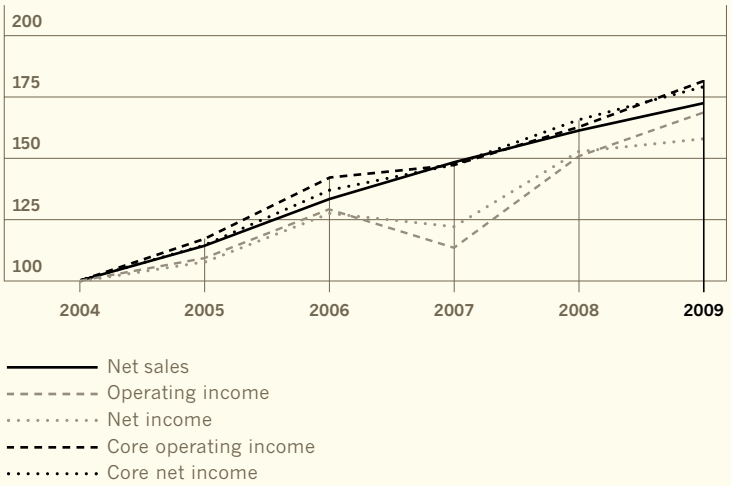
KEY FIGURES

(In USD millions, unless indicated otherwise)

	2009	2008
Net sales	**44 267**	41 459
Operating income	**9 982**	8 964
Return on net sales (%)	**22.5**	21.6
Net income	**8 454**	8 163
Basic earnings per share [1] (USD)	**3.70**	3.59
Core [2]		
Operating income	**11 437**	10 319
Return on core net sales (%) [3]	**25.8**	25.0
Net income	**10 267**	9 501
Basic earnings per share [1] (USD)	**4.50**	4.18
Research & Development	**7 469**	7 217
As a % of net sales	**16.9**	17.4
Number of associates (FTE) [4]	**99 834**	96 717
Return on average equity (%)	**15.7**	16.5
Free cash flow	**5 505**	4 301

NET SALES, OPERATING INCOME, NET INCOME, CORE OPERATING INCOME AND CORE NET INCOME [5]

(Index: 2004 = 100%)



SHARE INFORMATION

	2009	2008
Share price at year-end (CHF)	**56.50**	52.70
ADS price at year-end (USD)	**54.43**	49.76
Dividend [6] (CHF)	**2.10**	2.00
Payout ratio of net income from continuing operations (%)	**55**	48

2009 NET SALES BY REGION

(% and in USD millions)

United States	32	14 254
Europe	42	18 362
Asia/Africa/Australasia	18	8 085
Canada and Latin America	8	3 566
Total		**44 267**

[1] 2009 average number of shares outstanding: 2 267.9 million (2008: 2 265.5 million)
[2] Core results for operating income, net income and earnings per share (EPS) eliminate the impact of acquisition-related factors and other significant exceptional items. These adjustments are explained in detail on page 151.
[3] In 2008 based on core sales of USD 41 305 million
[4] Full-time equivalent positions at year-end
[5] To ease comparability, net sales, operating income and net income for the years 2004 to 2007 exclude the Consumer Health Divison Nutrition operations divested in 2007.
[6] Dividend payment for 2009: Proposal to 2010 Annual General Meeting

NEWS IN 2009

PERFORMANCE	Another year of record results as momentum from recently launched products drives growth across broad healthcare portfolio. Net sales rise 7% (+11% in local currencies), led by Pharmaceuticals and Vaccines and Diagnostics. Core operating income advances 11% to USD 11.4 billion on the solid business expansion and operational improvements while absorbing an adverse currency impact. Core operating income margin improves to 25.8% of net sales. Core net income up 8% to USD 10.3 billon, while core EPS grows at same pace to USD 4.50.
NEW PRODUCTS	More than 30 major regulatory approvals in the US, Europe and Japan rejuvenate the portfolio. Approvals include the new medicines *Afinitor*, *Ilaris*, *Onbrez Breezhaler* and *Valturna*. Other approvals include the first-ever biosimilars in Japan and Canada; vaccines against Japanese encephalitis and the influenza A (H1N1) pandemic virus; and the *Prevacid24HR* over-the-counter medicine.
PIPELINE	Novartis is advancing 145 pharmaceutical projects (Phase I trials to registration). Pipeline highlights include US and European regulatory submissions for FTY720 (multiple sclerosis). Our focus is on medicines and vaccines offering potential best-in-class status and health benefits.
RESEARCH	By exploring mechanisms of disease, teams at the Novartis Institutes for BioMedical Research are seeking to discover novel therapies. Biologics account for an increasing proportion of the exploratory pipeline.
PORTFOLIO	Strengthening our focused portfolio to meet evolving healthcare needs, Novartis commits to invest more than USD 1 billion in China to create the country's leading pharmaceutical R&D institute and expand offering of vaccines. Sandoz acquires EBEWE Pharma's specialty generics business, gaining a new growth platform and improving access to oncology medicines.
CORPORATE CITIZENSHIP	Engaging with society to improve healthcare is integral to how Novartis operates and important to our success. Access-to-medicine programs for those in need reach 79.5 million patients in 2009. Contributions of USD 1.5 billion represent 3% of net sales.
DIVIDEND	Proposal for 5% increase in 2009 dividend to CHF 2.10 per share (2008: CHF 2.00 per share), with a dividend yield of 3.7%.
ALCON	Novartis announces in January 2010 its intention to gain full ownership of Alcon Inc., a global leader in eye care, through completion of the April 2008 agreement with Nestlé S.A. to acquire its 77% majority stake in Alcon, and subsequently a proposed direct merger of Alcon into Novartis in the interests of all stakeholders.

Daniel Vasella, M.D.

DEAR SHAREHOLDER

I am pleased to report record results for 2009, both in sales and in profits, despite the global economic crisis that shaped the year.

Our Pharmaceuticals Division delivered an outstanding performance during the past year. This achievement was possible through new product growth and rejuvenation of our portfolio – both of which clearly bring value to patients and shareholders. Consumer Health and Sandoz, our generics division, showed solid growth, accelerating in the fourth quarter. The Vaccines and Diagnostics Division exceeded its targets thanks to the rapid rise in demand for influenza A (H1N1) pandemic vaccines.

The specific results were as follows:

– Net sales rose by 11% in local currencies (+7% in US dollars) to USD 44.3 billion.

– Operating income grew 11% to USD 10.0 billion.

– Net income climbed 4% to USD 8.5 billion, negatively influenced by currency effects, financing costs for Alcon and exceptional costs of USD 189 million from associated companies; excluding acquisition-related and significant one-off factors, net income rose 8% to USD 10.3 billion.

– Free cash flow before dividends showed dynamic growth and reached a level of USD 9.4 billion (+24%).

The **Pharmaceuticals** Division increased its net sales 12% in local currencies (+8% in US dollars) to USD 28.5 billion. This growth rate is twice the market, illustrating that we remain one of the strongest-growing companies in the industry. Oncology in particular posted outstanding growth rates: we have increased our global market share to 11% from 7.7% in 2001, and moved from fifth to second position in this competitive field. Operating income grew ahead of net sales despite increasing investments in research and development, and negative external factors, such as price-cutting measures and adverse exchange rates.

I am also pleased that we successfully rejuvenated our product portfolio. Two factors contributed to this accomplishment: the global launches of new products – *Lucentis*, *Exforge*, *Exjade*, *Exelon* Patch, *Reclast/Aclasta*, *Tekturna/Rasilez* – and our leukemia treatment *Tasigna*, which showed clear superiority to *Gleevec/Glivec* in comparative studies. New products accounted for 16% of total sales, a significant increase from 10% the previous year. We obtained regulatory approval for a number of important products in 2009 – in particular for the cancer medicine *Afinitor*, which shows considerable potential, and the biological therapy *Ilaris*.

The **Vaccines and Diagnostics** Division increased sales by 39% in local currencies (+38% in US dollars) to USD 2.4 billion, and operating income reached USD 372 million. These record results are largely due to the rapid development of several innovative influenza vaccines, in particular for protection against the influenza A (H1N1) virus. To date, nearly 50 million people have been infected, requiring exceptional efforts on a global scale to contain the pandemic. All vaccine production sites have been operating at maximum capacity since the summer, thanks to unprecedented support from hundreds of Novartis associates from other divisions. By the end of the year, approximately 116 million doses were delivered. To strengthen this division, we aim to discover and develop innovative vaccines to complement our influenza vaccines, which serve a cyclical public health need. One such innovative product is *Menveo*, a vaccine for meningococcal meningitis that is currently pending regulatory approval.

The generics division **Sandoz** achieved solid underlying growth (USD 7.5 billion, +5% in local currencies) in key markets thanks to new product launches and increased marketing initiatives. Operating income remained nearly stable (-1%) at USD 1.1 billion. As in past years, the business experienced an annual price erosion of about 7% and was further impacted by adverse exchange rates. Despite increases in efficiency and productivity, the impact of these factors could not be entirely neutralized. Falling sales had an impact in Eastern European countries against the backdrop of the global economic crisis. However, this was more than offset by new product launches and a significant increase in net sales from biosimilars, especially in the US.

The **Consumer Health** Division felt the impact of the global recession particularly in the first half of 2009. Nevertheless, the division posted a solid result: net sales grew 5% in local currencies to USD 5.8 billion, while operating income fell slightly by 3% to

USD 1.0 billion. In the OTC Business Unit, we invested significantly in the largest-ever launch campaign for *Prevacid24HR*, our proton pump inhibitor. The *Prevacid24HR* launch was one of the biggest prescription-to-OTC switches in recent years, sales exceeded USD 100 million in the few weeks following its November launch. CIBA Vision achieved stronger growth than any competitor in the contact lens and lens care industry. New product expansion helped accelerate solid growth in local currencies. Animal Health also grew faster than the global market.

We achieved strong 2009 results in a global market that will remain challenging for the foreseeable future. We must continue to focus all our efforts and engagement – even more in this environment – on adding value for patients, and, ultimately, for our company. This focus shields us from erratic, ill-considered action on one hand and from clinging defensively to the status quo on the other – both would weaken Novartis in the long term. Since Novartis was founded in 1996 we have experienced a rapid acceleration in economic globalization and information flow, increasing the complexity of managing multinational companies.

In light of these developments, we will only remain successful if we continue to navigate the rapidly changing environment with diligence, foresight and reflection, and venture to seize strategic opportunities, which are always accompanied by risk.

Our strategy, based on the concept of diversification within the healthcare sector, has again proven to be the right approach in the past year. The fact that more and more companies are starting to imitate our strategy of focused diversification does not guarantee long-term success – but does indicate that we recognized the signs of the times at a very early stage.

We have systematically transformed Novartis into a company focused clearly on growth areas of the healthcare market. Businesses in chemicals, nutrition and agribusiness, as well as beverages and medical nutrition, were spun off or sold. Other companies were added to our portfolio, including the generics manufacturers Hexal and Eon Labs, as well as the vaccines producer Chiron, where we successfully increased our holding to 100% in 2006 and have since nearly tripled sales.

Our strong yet adaptable corporate culture enabled the successful integration of these and other companies. Since the founding of Novartis, we have shaped our culture by proactively facing inevitable change with confidence in the future, without ever giving up our fundamental beliefs. Intensive training and continuing education of our associates established a corporate culture based on performance and results, integrity and cultural openness.

I firmly believe that our recently proposed merger with Alcon can result in a successful integration of the two companies. Ultimately, we aim not only to acquire the majority stake in Alcon from Nestlé, as agreed in April 2008, but also to integrate Alcon fully as a new and largely independent division via a direct merger into Novartis. This would immediately make Novartis a world leader in eye care. With our complementary product portfolios and synergies in research and development, Alcon and Novartis constitute an excellent strategic fit. Given the growing medical needs of the aging world population, ophthalmology is an area of dynamic growth.

Last year we also substantially strengthened our generics division Sandoz with the acquisition of EBEWE Pharma's specialty generics business, which specializes in injectable cancer medicines.

In addition, our Vaccines and Diagnostics Division announced plans to acquire an 85% stake in the Chinese vaccines manufacturer Zhejiang Tianyuan. This company is a leading privately owned producer of vaccines with a large range of competitive products in China and an interesting pipeline in the field of viral and bacterial diseases.

As a global company, our strategic investments are influenced by the fundamental eastward shift in the world economy. Twenty years ago, the equilibrium shifted from Europe to the US; today, we are experiencing a shift toward Asia. China, for example, has long been interesting not only as a highly dynamic market, but also as a promising research hub. That is why last fall we decided to increase our investment and the number of associates at our research center in Shanghai from 160 to nearly 1 000.

China is the most important market of the future. By 2013, sales in the pharmaceutical industry could nearly triple from their current level of USD 25 billion to more than USD 70 billion. This would make China, in only a few years, the third-largest pharmaceutical market after the US and Japan.

We are currently witnessing the dawn of a new era. "Globalization" no longer implies "westernization." A company that acknowledges that Asia will shape our society and economy in the future has the potential to base its actions on the ramifications of this shift. Projects in China are typically approached systematically, strategically and with a long-term horizon – in contrast to the West, where politics, economics and financial analysis are often short-term and characterized by a hasty response to risks and opportunities. I hope that we in the West succeed in returning to the values we once embraced, such as trust in the future and belief in progress.

Robust growth drivers will remain a distinguishing characteristic of the healthcare sector in the future. There are several contributing factors:

– Demographic changes are increasing the demand for medical care. Co- and multimorbidity are a feature of advanced age and, without effective medicines and adequate medical care, have a huge impact on quality of life.

– Chronic diseases are more common not only because of aging societies, but also because of lifestyle changes. In China there are almost 400 million smokers. In the US alone, the direct and indirect cost of obesity amounts to almost USD 500 billion annually – not including the cost of secondary diseases such as diabetes.

– The strong and stable growth of emerging markets, despite the financial crisis, is evident in the increased demand for medicines and treatments. Experience in 2009 again confirmed that demand for the best possible healthcare is outpacing economic growth in emerging markets. In the seven leading emerging markets acknowledged by IMS (Brazil, China, India, Mexico, Russia, South Korea and Turkey), the growth forecast for 2010 is between 12% and 14% and is likely to accelerate further in the years to come.

– Scientific and technological advances are creating new ways to better develop novel medicines that fight diseases we cannot treat today.

At the same time, there are several opposing forces: ever stricter regulatory authorities, financially restrictive payors increasingly aware of their power, and governments around the world trying to reduce healthcare system costs. Price-cutting is often used to reduce costs in the healthcare system; however, cutting prices across the board does not take into account the overall goal of improving productivity and quality in healthcare, which can only be achieved through transparency and the comparison of various treatment methods.

Our company can meet these challenges with confidence, because our aim is to discover and develop more innovative vaccines and medicines for patients. New and better medicines will continue to be appreciated by society and financially rewarded. Nevertheless, we should be aware that we must constantly adapt our business model to changing market demands to maintain our level of growth in the years to come.

Without better prevention and treatment, the cost of the most prevalent diseases in society – including diabetes, cancer and hypertension – will triple by the middle of the next decade, totaling billions annually for each disease area in the US alone.

Despite heated health policy controversies – where the pharmaceutical sector sometimes serves as the ideal scapegoat – I remain optimistic. I firmly believe society recognizes the value of medical progress and that the majority understands and accepts that incentives and investments make innovation possible.

Against the backdrop of cost pressure and inherent skepticism facing the pharmaceutical sector, innovation is more important than ever. Novartis is in a strong position. Our consistent investments in research and development, made regardless of business cycle pressures, are paying off: Novartis has one of the most competitive pipelines in the pharmaceutical industry with 145 projects in development. Sixty of these are new molecular entities. Since the turn of the millennium we

have received more Food and Drug Administration approvals than our competitors, outperforming them year after year.

In 2009, our company received more than 30 positive decisions from regulatory authorities in the US, EU and Japan, including a record number of six approvals in Japan for *Rasilez*, *Tasigna*, *Xolair*, *Co-Dio, Lucentis* and *Clozaril*. Furthermore, in January 2010, *Equa* (local brand name for *Galvus*), *Exforge* and *Afinitor* were approved in Japan, the world's second-largest pharmaceutical market. Additional approvals include *Afinitor* (cancer) in the US and EU; *Ilaris* (CAPS), *Extavia* (multiple sclerosis), and combination products *Valturna*, *Exforge* HCT and *Rasilez* (all hypertension), in the US. Regulatory authorities are currently reviewing QAB149 for the treatment of chronic obstructive pulmonary disease, the highly innovative medicine FTY720 for treatment of multiple sclerosis and the novel vaccine *Menveo*.

Even in a difficult global economic environment we continue to extend our engagement in the area of corporate social responsibility. The current global economic situation is a litmus test for the social responsibility of companies: Who is taking action and who is merely talking? Since the founding of Novartis, we have always viewed social responsibility as an integral part of our corporate strategy and acted accordingly. In 2009 we spent about USD 1.5 billion (which is again 3% of our net sales) on programs aimed at providing patients in need with access to our medicines, and on research to discover new vaccines and medicines for developing countries.

I would like to emphasize that our primary purpose as a pharmaceutical company is to discover and develop effective medicines and successfully bring them to market. By doing this, we make an indispensable contribution to help alleviate suffering, improve patients' quality of life and even save lives; we also make a major contribution toward lowering the direct and indirect cost of disease. It is the responsibility of governments, on the other hand, to provide for the welfare of their citizens including a functioning healthcare system. For this reason, we remain convinced that any access solution can only have a sustainable impact when governments, international organizations, local aid groups and the private sector collaborate – managing the complexity would be overwhelming for any one stakeholder.

Our engagement in malaria provides an example. We supply our malaria treatment Coartem to affected countries without profit, in cooperation with the World Health Organization (WHO), the United Nations Children's Fund (UNICEF), state health authorities and private aid organizations. To date, Novartis has supplied 300 million Coartem treatments, helping to save the lives of about 750 000 people suffering from malaria.

Since 2000 we have also supplied leprosy patients worldwide with the medicines they need free of charge in partnership with the WHO. Through the end of 2009, these donations, totaling USD 60 million, have cured more than 4.5 million patients.

The successful campaign against leprosy is a public health milestone. In the last two decades, more than 14 million people have been cured, resulting in a 95% decrease in leprosy cases worldwide. Novartis has played a crucial part in ensuring that this terrible disease, which has been the scourge of humankind for centuries, could be eradicated in the near future. Only three countries – Brazil, Timor-Leste and Nepal – have more than one in 10 000 people with leprosy.

Our associates are gratified by our contributions in the fight against leprosy and malaria, and of course, as our shareholders, you too can take pride in these achievements. These

successes are acknowledged by the WHO, as well as many nongovernmental organizations that do not always view us favorably. These stakeholders also recognize our commitment to researching new medicines and vaccines for diseases common in developing countries, which is the goal of our nonprofit research institutes in Siena, Italy, and Singapore.

We also recognize our responsibility in environmental issues. In 2005 we were among the first signatories of the Kyoto Protocol, which established binding targets for reductions in CO_2 emissions. In environmental protection, Novartis pursues a dual strategy: On one hand, we consistently strive to improve energy efficiency – for example, five Novartis sites have used solar energy systems since last year – on the other hand, we take advantage of voluntary CO_2 offsetting – for example, by planting more than three million trees in northeast Argentina.

We regularly and critically assess our strategy, to ensure it remains relevant for the future. In the same manner, we must constantly review our organizational processes and improve their effectiveness and efficiency. Given the difficult market environment and rising research and development costs, it is essential that we continue to work as efficiently and productively as possible. This also means simplifying processes and creating leaner and flatter structures, so that we can work more quickly, in less complicated ways. Avoiding unnecessary costs enables us to invest more in research and to cope with pricing pressures. We initiated "Project Forward" two years ago with these objectives in mind. The program's goal was to implement productivity improvements and achieve savings of USD 1.6 billion within three years. After just two years, the project has already exceeded this target by 46%.

In the new, post-crisis reality, governments and the public have rightly raised the ethical bar for good corporate governance. At Novartis we have always been convinced that integrity and transparency are indispensable for a sustainable and successful business. Our Code of Conduct, which our associates must learn and apply in their daily work, builds on these values. We also decided last year to include long-term objectives in the employment contracts of our associates, and systematically implement "clawback" provisions for bonuses. In concrete terms, this means that action may be taken to reclaim bonuses if it later emerges that the bonuses were paid out based on false information or dishonest management. Setting clear boundaries should prevent our financial incentive programs from abuse.

Last year, the Board of Directors formed a new committee to ensure that risks in the company are properly analyzed and evaluated, and respective processes are followed.

In addition, the Board of Directors has decided to propose at the upcoming Annual General Meeting that you, our shareholders, may consultatively vote on our Compensation System in the future. This vote should take place before every significant change to the Compensation System, but at least every three years. We continue to believe that a vote on individual compensation does not increase the likelihood of achieving business objectives. Decisions on compensation are a key strategic management tool of the Board of Directors, and are based on clearly defined objectives and performance criteria, which are confidential for competitive reasons. For many years, Novartis has voluntarily exceeded the legally required disclosure level in reporting individual compensation of the Executive Committee.

Appointing outstanding leaders to positions of great responsibility is crucial to the sustainable success of our company. The timely planning of CEO succession was initiated in 2008 with the creation of a transitory COO position. Completing this process the Board of Directors accepted my request to hand over my CEO responsibilities and has decided to appoint Joe Jimenez as the new CEO effective February 1. I felt it was timely after 14 years that I concentrate on the duties of Chairman of the Board, and will henceforth focus on the strategic priorities of Novartis and the tasks which lie within the area of accountability of the Board. Joe Jimenez will be fully in charge of all aspects of the operational business.

At Novartis, the question of whether the functions of CEO and Chairman should be separated or not, will continue to be answered in a flexible manner, according to the company's strategic requirements. This will be decided in the future in the best interest of shareholders and will not be rigidly prejudged for formalistic reasons.

I felt that this was the right moment for a transition, as our full pipeline and the acquisition of Alcon marks a new growth phase. Our business portfolio has been transformed to exclusively focus on healthcare, our pipeline is highly valued, and our research organization is productive and greatly respected. Our leadership team is competent and motivated. Due to all these factors, today, Novartis is one of the most admired companies in the healthcare industry.

Over the last several years, Joe Jimenez has led our Pharmaceuticals business, our most important division, back to the road of success. In this process, he has distinguished himself as an excellent leader with a focus on clear objectives and impressive implementation skills. It is not just his energy, his self-discipline and his engagement that makes him an ideal appointment as CEO. At least as important is his poised composure, as well as his sense of humor, which is also a great asset in this job.

Furthermore, Joe's international experience in several business sectors will allow him to move easily in different cultures and take on the responsibilities of a global leader implementing the Novartis strategy.

Joe Jimenez embodies two of the most important values in our corporate culture: a consistent focus on performance and a sense of responsibility towards patients and society. These two values have already shaped our predecessor companies Sandoz and Ciba-Geigy. Marc Moret never lost himself in theoretical reflection, but instead pursued his goals with energy and great determination, against all kinds of bureaucratic resistance which lurk in all big organizations. Alex Krauer was one of the first corporate leaders who understood that credibility and a holistic view are indispensable requirements for success in business. I owe a lot to my predecessors. It is with this in mind that I wish Joe Jimenez all the best as he assumes the responsibilities of his new position!

The Board appointed David Epstein as the new Head of our Pharmaceutical Division. Due to his great skills and sustained sense of continuity, David has led our oncology business to a thriving success.

In these times of leadership change, our finance department is not an exception. On February 1, 2010, Jon Symonds will take over as Chief Financial Officer (CFO) from Raymund Breu, who has reached the mandatory retirement age of 65. Since September 1, Jon Symonds has served as Deputy CFO of the Group and designated successor to Mr. Breu. Previously, Mr. Symonds was Managing Director, Investment Banking, with Goldman Sachs. Mr. Symonds' experience in the pharmaceutical industry goes back many years. He was CFO with AstraZeneca for eight years and, prior to that, Finance Director at Zeneca.

I extend my heartfelt thanks to Raymund Breu for his outstanding contributions as CFO and for his exceptional achievements in management during his 35 years in the service of our company. He played a crucial role in the founding of Novartis and has been an invaluable partner for me and my colleagues. Novartis owes a great deal to his expertise and his sound judgment. I would also like to thank our COO, Joerg Reinhardt, who for many years successfully led our product development before he took over the responsibility for our vaccines and diagnostics business. He has now decided to leave our company to pursue new opportunities.

As shareholders you are obviously interested in the development of the value of our company. Our total shareholder return since the founding of Novartis amounts to 9% annually, including continuously increasing dividends and business divestments. Our total shareholder return surpasses not only that of the global market, but also the pharmaceutical industry index and share price performance of important competitors. This shows that we remain in demand as a safe stock with attractive long-term performance.

In 2010, we expect net sales to grow at a mid-single-digit percentage rate in local currencies and for further improvement in the Group's operating income margin.

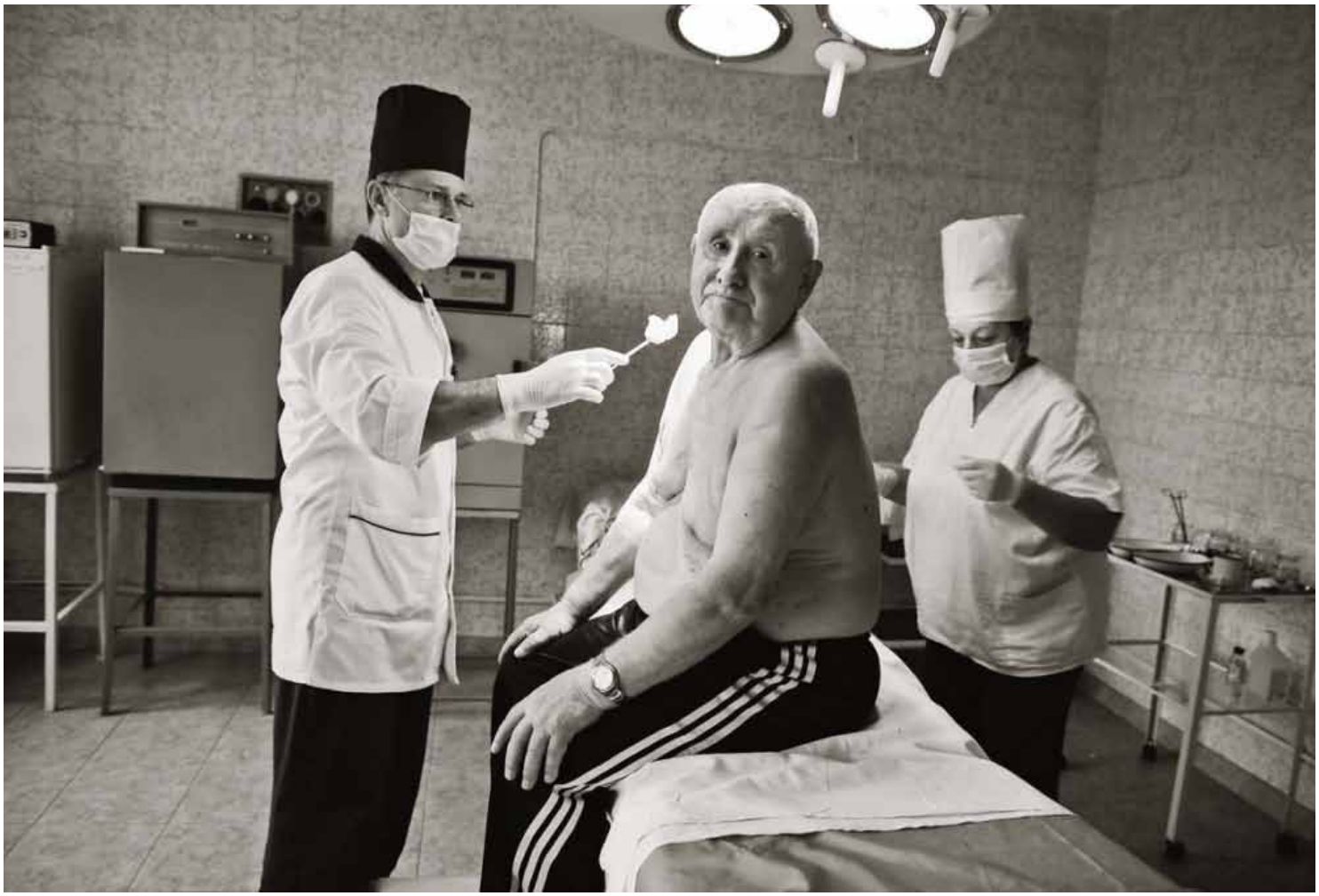
Most critically, the Pharmaceuticals Division is equipped to manage the period of increasing generic competition for our best-selling product, *Diovan*. It is gratifying to note that the rest of our cardiovascular portfolio – including the innovative medicine *Tekturna/Rasilez* and combination products – is growing dynamically, allowing us to most likely maintain our leading position in this therapeutic area. In addition, our broad product portfolio beyond pharmaceuticals offers further growth opportunities – not least in the field of eye care. But above all, at the start of this new decade, Novartis has a pipeline that is more promising than ever before in our corporate history.

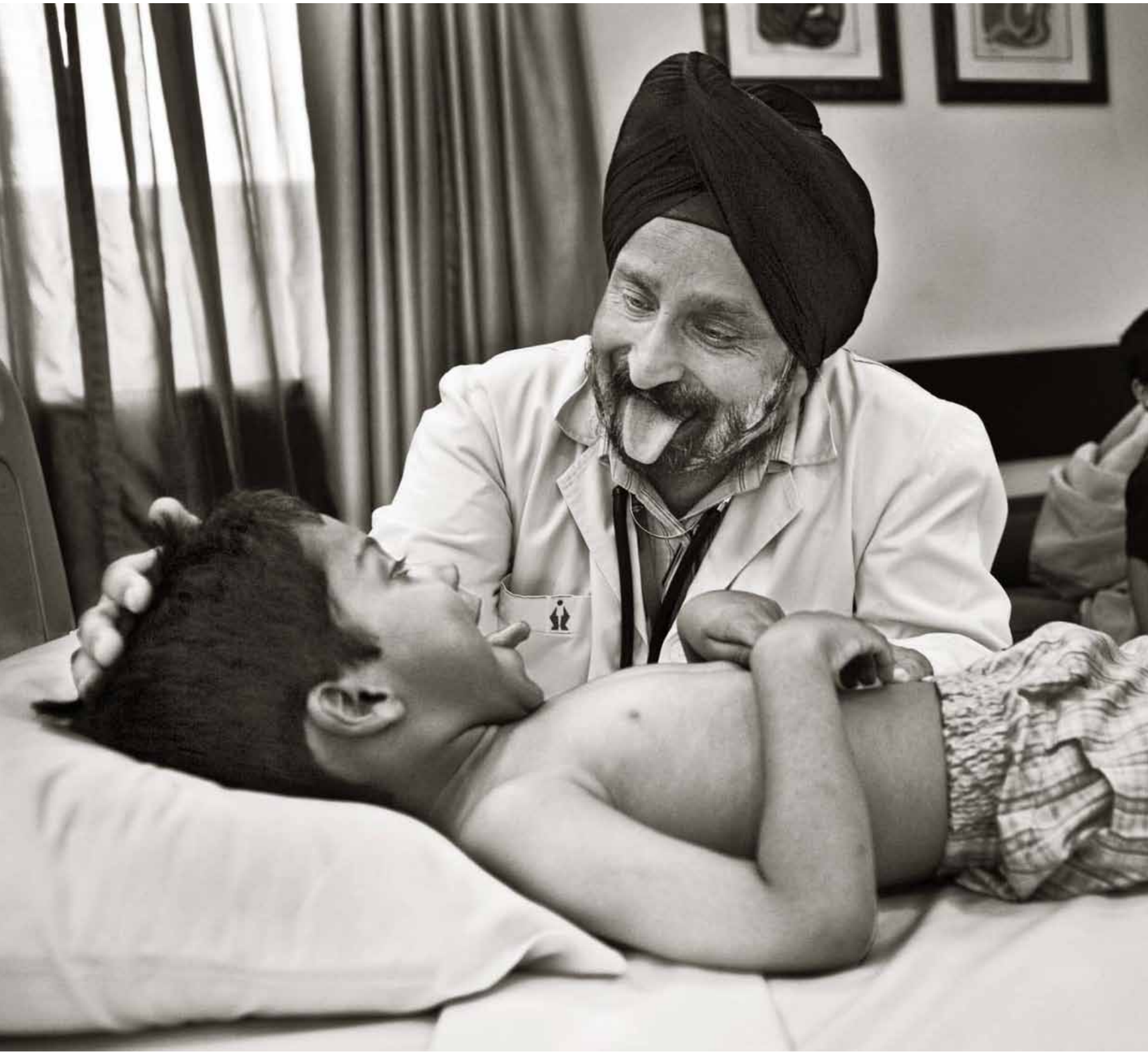
I would like to thank all our associates for their ongoing engagement, commitment to Novartis, and determination in this challenging environment. I am especially pleased that our associates, in ever-changing conditions, have remained fully engaged and undeterred in contributing to a successful year. We should not take this for granted; it deserves our utmost respect.

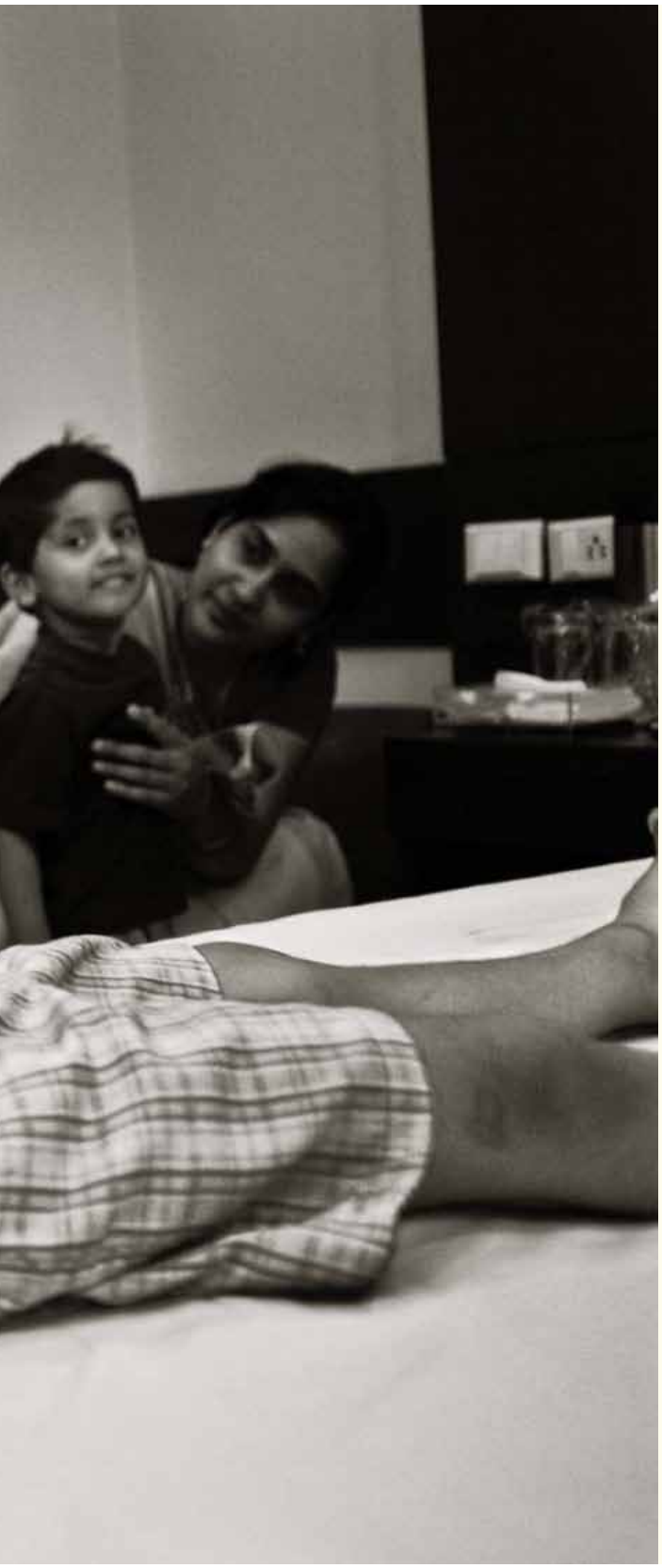
Finally, I thank you, our shareholders, for the trust you continue to place in our company. I am pleased to propose an increase in the dividend to CHF 2.10 (+5%) at the next Annual General Meeting.

Sincerely,

Daniel Vasella, M.D.
Chairman and Chief Executive Officer







HEALTHCARE PORTFOLIO

Innovation is flourishing, bringing new effective treatments to patients. There are significant challenges, however, and the healthcare environment is undergoing unprecedented change.

The world's population is aging. Better healthcare treatments are needed, also prompting payors to manage costs aggressively. Advancing science and technology are enabling new drug discovery while increasing the cost of innovation. Economic growth in emerging countries is providing better healthcare access, but the poorest still lack basic medicines. Changing lifestyles are leading to higher prevalence of chronic and degenerative diseases.

Our strategy is to provide healthcare solutions that address the evolving needs of patients and societies worldwide.

CONTENTS

EXCELLENT HEALTHCARE PORTFOLIO

Novartis has a well-positioned portfolio focused on broad areas of healthcare, and is the only company to have leadership positions in all of them.

PHARMACEUTICALS
Novartis creates innovative patent-protected pharmaceuticals that save lives and enhance outcomes for patients and healthcare providers. Our medicines are concentrated in therapeutic areas that include cardiovascular, oncology, neuroscience and ophthalmics, respiratory and auto-inflammatory diseases.

SANDOZ
Sandoz is a global leader in generic pharmaceuticals, providing affordable, high-quality medicines that improve access for patients and healthcare systems worldwide. Beyond supplying traditional off-patent medicines, Sandoz stands out for developing and producing differentiated generics and biosimilars.

PATIENT-CENTRIC PORTFOLIO

VACCINES AND DIAGNOSTICS
Novartis vaccines and diagnostic tools help prevent the spread of life-threatening bacterial and viral diseases. In 2009, we were a leader in the fight against the influenza A (H1N1) virus as well as seasonal flu, meningitis and other diseases. Our screening diagnostics help safeguard national blood supplies and ensure patient safety.

CONSUMER HEALTH
Novartis creates and markets a range of innovative products for empowered consumers. OTC (over-the-counter) treatments enable self-medication for common illnesses and conditions. Animal Health provides a range of products to care for pets and livestock. CIBA Vision provides contact lenses and lens care products.

LONG-TERM STRATEGIC INITIATIVES TO CREATE SUSTAINABLE GROWTH

Selectively strengthen portfolio Our businesses have excellent growth prospects. We constantly evaluate internal and external opportunities to improve their competitiveness and better position Novartis for success.

Step up innovation Focusing on unmet medical need inspires us to connect science with customer insights to develop new products. Novartis is reaping the benefits of long-term investments in innovation, achieving more than 30 major regulatory approvals in 2009.

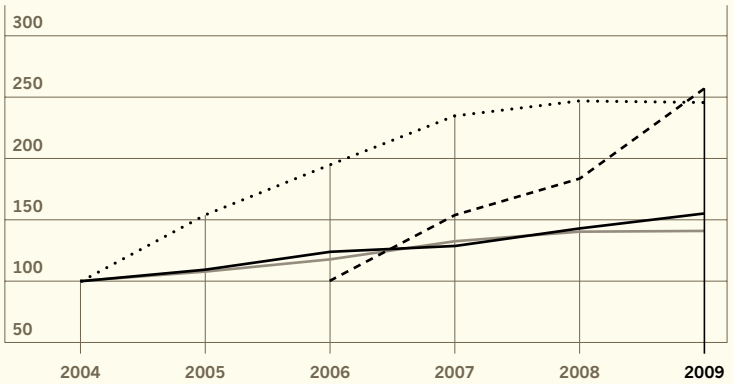
Expand in high-growth markets We are growing in the developed markets of North America, Europe and Japan. At the same time, we are investing to capture attractive growth opportunities in the top emerging markets of Brazil, China, Russia, India, South Korea and Turkey.

Improve organizational efficiency Productivity is an ongoing process. We continuously seek to deliver the highest-quality results even faster, while also freeing up resources for investments in innovation and business expansion.

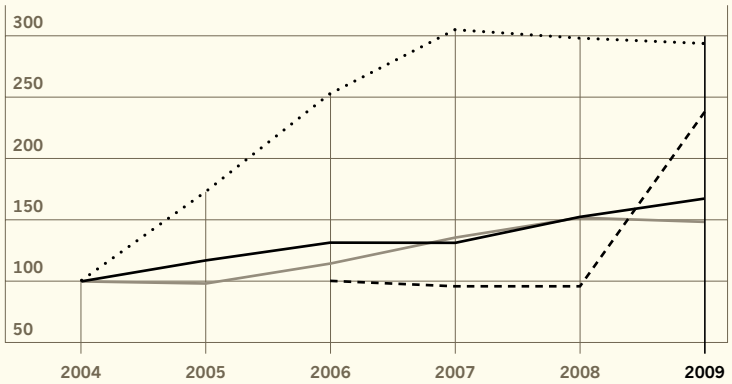
Sustain our performance-oriented culture We are proud of our inspiring and challenging work environment. We reward those who invest their talent and ideas to create value for patients and customers.

HEALTHCARE PORTFOLIO OVERVIEW

NET SALES BY DIVISION
(Index: 2004 = 100%; Vaccines and Diagnostics since 2006 acquisition)



CORE [1] OPERATING INCOME BY DIVISION
(Index: 2004 = 100%; Vaccines and Diagnostics since 2006 acquisition)



Pharmaceuticals — Vaccines and Diagnostics — Sandoz — Consumer Health

2009 NET SALES BY DIVISION
(% and in USD millions)

Pharmaceuticals	65	28 538
Vaccines and Diagnostics	5	2 424
Sandoz	17	7 493
Consumer Health	13	5 812
Total		**44 267**

2009 CORE [1] OPERATING INCOME BY DIVISION
(% and in USD millions)

Pharmaceuticals	74	9 068
Vaccines and Diagnostics	6	719
Sandoz	11	1 395
Consumer Health	9	1 118
Corporate Expenses, net		– 863
Total		**11 437**

2009 NET SALES BY REGION
(% and in USD millions)

	Pharmaceuticals		Vaccines and Diagnostics		Sandoz		Consumer Health	
United States	33	9 542	40	973	25	1 847	33	1 892
Europe	37	10 467	45	1 083	57	4 271	44	2 541
Asia/Africa/Australasia	21	6 079	12	303	11	820	15	883
Canada and Latin America	9	2 450	3	65	7	555	8	496
Total		**28 538**		**2 424**		**7 493**		**5 812**

[1] Core operating income eliminates the impact of acquisition-related factors and other significant exceptional items. These adjustments are explained in detail on page 151.

Left: Excellent Healthcare Portfolio
Right: Healthcare Portfolio Overview

EMERGING MARKETS

The Novartis Pharmaceuticals Division achieved robust growth during 2009 in six key emerging markets – China, Russia, Turkey, South Korea, Brazil and India. This dynamic performance reflected aggressive investments to step up research and development, as well as marketing and sales, in these emerging countries. An increasing number of collaborations with institutions in China and other key emerging countries is enabling Novartis to share both experience in drug discovery and the Group's world-leading development technology platform.

In November 2009, Daniel Vasella, M.D., Chairman and Chief Executive Officer of Novartis, announced plans to invest USD 1 billion over the next five years to step up research and development activities in China and significantly expand the existing China Novartis Institutes for BioMedical Research (CNIBR) in Shanghai.

"We are confident that our expanded investment in research and development will result in innovative therapies for patients in China and other countries, nurtured by the growing scientific excellence in China," Dr. Vasella said. The Shanghai center was founded in 2006, and specializes in basic research and development of new drugs to treat diseases that are highly prevalent in China, including infectious causes of cancer and liver diseases.

CNIBR is expected to become the largest comprehensive research and development center in China, with a staff of about 1 000 people, an increase from 160 people today. The institute will extend its collaborations with institutions in China, sharing both the drug development experience and the development technology platform of Novartis.

Novartis has invested more than USD 250 million in a new global technical center in Changshu, China, focused on technical research, development and manufacture of active pharmaceutical ingredients. The center is expected to be a critical part of the Novartis global production and supply chain network.

YOUNGER PORTFOLIO

In addition, Novartis agreed to pay the equivalent of USD 125 million for 85% of Zhejiang Tianyuan Bio-Pharmaceutical Co., a privately owned Chinese vaccines company that has grown dynamically in recent years. The acquisition is part of a strategic initiative by Novartis to enhance the prevention of diseases and build a leading vaccines business in China. Tianyuan offers a range of marketed vaccine products and focuses research and development activities on viral and bacterial diseases.

Novartis broke ground on a new vaccines plant in Brazil late last year, yet another example of continued investment in global vaccines infrastructure and pipeline. The new plant, located in Pernambuco state, represents an investment of up to USD 500 million and is expected to be fully operational by the end of 2014.

In 2009, Dr. Vasella also concluded an agreement with the government of South Korea, broadening the program of clinical trials to be conducted locally by Novartis as well as venture capital investments in the country's fledgling biotechnology industry. "We are no longer just a drug company in South Korea. We are an investor committed to innovation and the long-term development of a national biotechnology industry," said Peter Jager, Head of the Novartis Country Organization in South Korea.

The flurry of activity underscores dynamic growth by Novartis in six key emerging

markets: Brazil, China, India, Russia, South Korea and Turkey. Net sales in these six countries rose 19%, to USD 2.6 billion, in 2009, representing about 8.9% of net sales by the flagship Pharmaceuticals Division. As a result of aggressive investments in these markets, that proportion is expected to double, to more than 20% of the division's net sales, by 2012.

In emerging countries, just as in developed markets, Novartis benefits from a younger product portfolio than rival pharmaceutical companies. Growth in emerging markets is driven by innovative medicines that provide value for patients and payors compared with older, mature products facing competition from generics.

"We definitely have a younger portfolio in emerging markets," said Joe Jimenez, Head of the Pharmaceuticals Division and member of the Executive Committee of Novartis. For example, *Galvus* is already successful in some key emerging markets and Novartis is rolling out other new products launched in recent years.

"In the long run, the pharmaceutical industry is about innovation," Mr. Jimenez added. "Our research and development investment is at the high end of the industry, and we expect that to continue, to create a best-in-class pipeline over the next five years. We are not backing off that commitment to innovation one bit and that goes for our emerging-market strategy as well."

A common thread underlying Novartis strategy in emerging markets is expansion of local sales forces. "These are open markets where the physician has a high level of autonomy to prescribe," Mr. Jimenez added. "So you are going to see us invest in additional sales representatives in those countries."

While Novartis has extensive local manufacturing in Turkey and Brazil – as well as fledgling production facilities in China – broadening local production in emerging markets is another strategic priority. "We're looking for ways to move production to China, South Korea and Russia to lower our cost structure further," Mr. Jimenez said.

At the same time, the Consumer Health Division also sees potential for significant growth in China, which is the world's second largest market for veterinary products. Novartis Animal Health has posted compound annual net sales growth approaching 20% in China over the past five years. That success has been based on a strategy focusing primarily on pig production. Key customer groups include both the most modern, integrated pig production companies in China, as well as specialized household farms, usually run by individual families, that comprise by far the biggest share of the market.

Expansion of the sales force has helped the Animal Health organization in China almost double sales over the past four years, and steadily increase market penetration of *Denagard*, an anti-infective from Novartis used by pig farmers. In the next phase of expansion, Novartis Animal Health is expected to step up ongoing efforts to broaden the product portfolio available to Chinese customers, and to expand sales force optimization programs.

MANAGING VOLATILITY

According to IMS Health, a consulting firm specializing in the pharmaceutical industry, the top seven emerging markets worldwide are expected to grow at an average rate of between 13% and 16% in the next five years.[1] That forecast is in sharp contrast to the historically sluggish average annual growth of 4% to 7% projected for worldwide pharmaceutical sales in the same period.

China stands in a class by itself. IMS Health forecasts that average annual growth of China's pharmaceutical market will exceed 20% over the next five years. Net sales growth in China for the Novartis Pharmaceuticals Division accelerated sharply, to more than 30% in 2009, from 15% two years earlier.

The other priority emerging markets comprise a heterogeneous group, subject to volatile shifts in economic conditions and healthcare policies. In Turkey, for example, the rate of net sales growth accelerated in 2009 to 19%, from 7% in 2007, enabling Novartis to gain market share. But a severe program of cost-containment measures in Turkey, triggered by the economic recession, is expected to cause a steep decline of both the overall pharmaceutical market as well as net sales by Novartis in 2010.

South Korea's economy also declined during 2009 but is expected to return to growth this year. The overall pharmaceutical market is expected to expand at high-single-digit rates but Novartis expects sales growth to exceed 20% in 2010.

Clearly, managing volatility is a critical success factor in emerging countries. "To capture opportunities and handle risks, you have to be extremely flexible and quick because conditions can change virtually overnight," said Guldem Berkman, Head of the Novartis Country Organization in Turkey.

CHINA: HEALTHCARE REFORM

China is unique both in terms of the sheer potential of its pharmaceutical market and the exceptional rate of growth likely to be sustained over many years. "Given the level of industrialization and urbanization in China today, there is still a long way to go," said Emmanuel Puginier, M.D., Chairman Greater China Region for Novartis.

A primary objective of the sweeping healthcare reform program announced by the Chinese government is to increase coverage, particularly in rural areas. The government's goal is to have 90% of China's population covered by health insurance by 2011. At the same time, China plans to strengthen and expand the primary care system by building or refurbishing tens of

[1] The seven emerging countries tracked by IMS Health are Brazil, China, India, Mexico, Russia, South Korea and Turkey.

thousands of community health centers around the country.

Shoring up primary care is a priority because too many patients currently access China's healthcare system through large university hospitals, leading to bottlenecks and care that is unnecessarily expensive. The government believes a progressive shift of focus from university hospitals to community health centers will help to alleviate bottlenecks. "But this isn't something that can be done overnight. It will be complex to implement, and a series of pilot programs in different provinces over the next three to five years will test how best to implement the government's high-level vision for healthcare," Dr. Puginier cautioned.

"There is a difference between China and other emerging countries in the sophistication of policymaking and discipline of execution," he added. "Strategic investment by the government in education and infrastructure puts China in a completely different league. And the greater visibility and predictability allow us to deploy a strategy with a longer time horizon and greater confidence that investments will yield the expected return."

NEW OPPORTUNITIES

Novartis is working with these pilot programs to take advantage of new opportunities in China. The Novartis sales force has grown rapidly – driven in part by geographical expansion as health insurance coverage improves for China's inland provinces. A customer-centric commercial model will help Novartis target the unique needs of community health centers.

The Novartis portfolio has also widened as a result of recent reimbursement decisions by health authorities. In November 2009, the Ministry of Human Resources and Social Security released the first update of the National Reimbursement Drug List since 2004. Several Novartis medicines including *Aclasta*, *Comtan*, *Exelon*, *Myfortic*, *Sebivo* and *Trileptal* were granted reimbursement. "This was a very important milestone that will fuel our growth until the next update of the reimbursement list, expected in 2012," Dr. Puginier said.

Meanwhile buildup of the primary care network in China, including new community health centers, will engender entire classes of new customers best served by key account teams. Key account management is an increasingly important global trend. Cross-functional key account teams from Novartis – reinforced with specialist medical and health economic expertise – offer a convenient, single point of contact for senior executives, medical directors and procurement specialists at payor organizations who wield increasing influence over the medicines patients ultimately receive.

"It's interesting to see that the global capabilities we are developing for more mature markets are also relevant for China in the context of healthcare reform," Dr. Puginier mused.

Clinical development is another function heading for an overhaul. Development activities by Novartis in China traditionally have been dominated by studies needed to meet specific Chinese regulatory requirements after global development of a new medicine was already completed. As a result, new Novartis medicines have received approval in China up to six years later than initial approval in the United States or Europe.

That is changing, and China is rapidly becoming an integral part of global development programs. "When we think about the profile of a new compound, we need to ensure that we incorporate input from China – from patients, the medical community and key customers – with similar input from the United States, Europe and Japan," Dr. Puginier said. "Starting from Phase II,

there will be a cohort of patients from China in all future global development activities so that we no longer need to do China-specific studies at the very tail end of the process."

TURKEY: DEMOGRAPHICS AND HEALTHCARE REFORM

Positive demographic trends and steady expansion of state health insurance coverage have fueled sustained, double-digit growth of pharmaceutical sales in Turkey in recent years. Since 2004, the number of people covered under government healthcare insurance has increased to 60 million from 43 million. The improved coverage has been particularly significant in rural areas. Access to physicians and hospitals has also broadened for people covered under state health insurance, a break with the past when access to major hospitals was tightly restricted.

Novartis has expanded its General Medicines field force beyond urban centers to rural regions. At the same time, additional Novartis medicines have reached the market, despite increasingly stringent standards for regulatory approval and reimbursement. "During the past two years, *Exforge*, *Xolair* and *Tobi* were approved and received reimbursement, and *Lucentis* was launched in January 2009," said Ms. Berkman, the Novartis Country Head in Turkey.

That period of steady growth will be interrupted in 2010. Cost containment measures imposed by the Turkish government are expected to diminish the overall market by USD 2.5 billion, leading to a projected decline of nearly 20% for the Turkish pharmaceutical market in 2010. "The measures clearly will delay launches of new medicines and also could exacerbate unemployment already running at a rate of 15%," said Ms. Berkman, who has played a key role in negotiations with the government as co-chair of Turkey's national pharmaceutical industry association.

SOUTH KOREA: INCREASING VISIBILITY

In South Korea, aggressive investment programs and savvy partnerships in marketing, as well as research and development, underpinned a rapid acceleration of net sales growth in 2009. At the same time, however, market access is a major challenge in South Korea.

Harsh pricing and reimbursement regulations introduced in 2007 have slowed approvals of medicines by international companies to a trickle. Novartis has received approvals for *Exforge*, *Galvus*, *Exelon* Patch and *Lucentis* since the new rules took effect. *Sebivo*, a treatment for hepatitis B, was rejected twice by South Korean authorities but was finally approved, much delayed, in November 2009. Reimbursement applications are pending for *Xolair*, *Aclasta* and *Rasilez*, and discussions with the government are ongoing.

In addition to adding new sales representatives, Mr. Jager has stepped up investment in prelaunch activities for the new medicines to accelerate uptake following launch. "When you introduce three to five new products in the same year the risk is that you dilute the investment behind each brand," he said.

Moreover, Novartis has established "integrated account teams" that represent a single, integrated interface with major customers. "Key account management not only increases the visibility of Novartis," Mr. Jager added. "We are achieving faster product listings, and see better return on our investments as a result of improved alignment of commercial and medical activities across business units and divisions. In the end, it's all about maximizing customer focus and becoming more patient-centric as an organization."

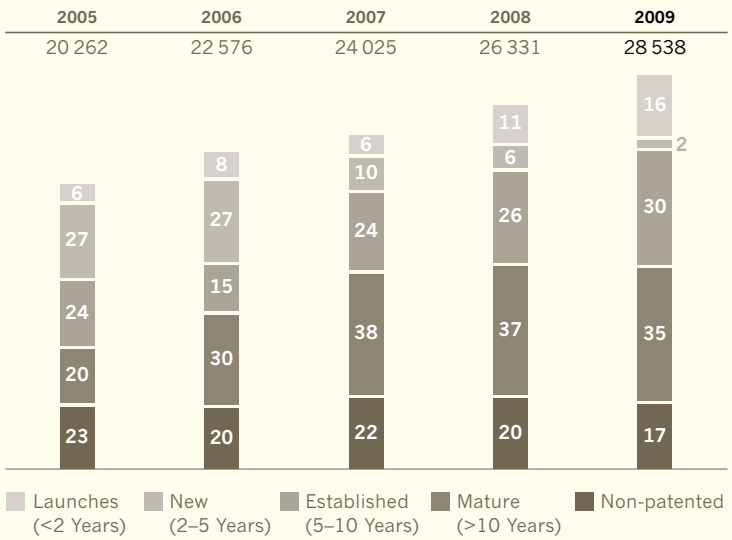
PHARMACEUTICALS OVERVIEW

KEY FIGURES
(In USD millions, unless indicated otherwise)

	2009	2008
Net sales	**28 538**	26 331
Operating income	**8 392**	7 579
Return on net sales (%)	**29.4**	28.8
Core operating income [1]	**9 068**	8 249
Return on core net sales (%) [2]	**31.8**	31.5
Research & Development	**5 840**	5 716
As % of net sales	**20.5**	21.7
Free cash flow	**9 170**	7 679
Net operating assets	**14 519**	14 812
Additions to property, plant & equipment [3]	**922**	1 115
Number of associates (FTE) [4] at year-end	**56 310**	53 632

[1] Core operating income eliminates the impact of acquisition-related factors and other significant exceptional items. These adjustments are explained in detail on page 151.
[2] In 2008 based on core sales of USD 26 227 million
[3] Excluding impact of business combinations
[4] Full-time equivalent positions at year-end

PORTFOLIO REJUVENATION
(% and total net sales in USD millions)



NEWS IN 2009

Dynamic underlying performance as the rapid growth of recently launched products transforms the portfolio and underpins double-digit expansion in all regions and therapeutic franchises.

Net sales rise 8% (+12% in local currencies) to USD 28.5 billion. Europe, the largest region, delivers solid performance, with improved results achieved in Japan, Latin America and Canada. The US returns to solid growth on the strength of new product launches.

Core operating income grows 10% to USD 9.1 billion on volume growth and productivity gains that support product launches and geographic expansion. Investments in R&D pipeline include the start of 14 Phase III trials in 2009. Core operating income margin improves to 31.8% of net sales from 31.5% in 2008.

Recently launched products (USD 4.7 billion, +81% lc) provide 16% of net sales, up from 10% in 2008. Key growth drivers among products launched since 2007 include *Lucentis*, *Exforge*, *Exjade*, *Exelon* Patch, *Reclast/Aclasta*, *Tekturna/Rasilez*, *Afinitor* and *Ilaris*.

Oncology (USD 9.0 billion, +14% lc) is the largest therapeutic franchise with 32% of net sales and four top-selling products, led by *Gleevec/Glivec* (USD 3.9 billion). Cardiovascular and Metabolism (USD 8.8 billion, +9% lc) builds on global leadership of *Diovan* (USD 6.0 billion) and momentum of new high blood pressure medicines *Exforge* and *Tekturna/Rasilez*.

Development pipeline achieves many positive regulatory decisions. *Afinitor* gains US and European approvals for kidney cancer, trials are underway in other cancers. *Onbrez Breezhaler* (chronic obstructive pulmonary disease) is approved in Europe and quickly launched in Germany. Other approvals include *Ilaris* (CAPS) and high blood pressure combination therapies *Valturna*, *Exforge* HCT and *Tekturna* HCT. FTY720 (multiple sclerosis) is submitted for US and European regulatory approvals.

PIPELINE

Novartis is consistently rated as having one of the industry's most respected pipelines with 145 projects in clinical development. Several of these pharmaceutical projects, which include potential uses of new molecular entities as well as additional indications or new formulations for marketed products, are for potentially best-in-class medicines that would advance treatment standards.

The following table provides an overview of selected pharmaceutical projects.

Project/compound	Common name	Mechanism of action
ABF656	albinterferon alfa 2-b	Interferon alpha-type activity (direct antiviral and immunomodulatory)
ACZ885	canakinumab	Anti-interleukin-1ß monoclonal antibody
AEB071	sotrastaurin	Protein kinase C inhibitor
AFQ056	–	Metabotropic glutamate receptor 5 antagonist
AGO178	agomelatine	MT1/MT2[4] agonist and 5-HT2c[5] antagonist
AIN457	–	Anti-interleukin-17 monoclonal antibody
ASA404	vadimezan	Tumor vascular disrupting agent
Certican/Zortress	everolimus	Growth-factor-induced cell proliferation inhibitor
Diovan/Starlix NAVIGATOR	valsartan, nateglinide	Angiotensin II receptor antagonist and insulin secretagogue
EPO906	patupilone	Microtubule depolymerization inhibitor
FTY720	fingolimod	Sphingosine-1-phosphate receptor modulator
LBH589	panobinostat	Histone deacetylase inhibitor
LCI699	–	Aldosterone synthase inhibitor
LCZ696	–	Dual angiotensin II receptor antagonist and neutral endopeptidase inhibitor
Lucentis	ranibizumab	Anti-VEGF[6] monoclonal antibody fragment
Mycograb	efungumab	Antibody fragment vs. fungal HSP90[7]
NIC002	–	Nicotine Qbeta therapeutic vaccine
NVA237	glycopyrronium bromide	Long-acting muscarinic antagonist
PKC412	midostaurin	Signal transduction inhibitor
PRT128	elinogrel	P2Y12 inhibitor
PTK796	–	Inhibition of bacterial protein synthesis
PTZ601	–	Inhibition of bacterial cell wall synthesis
QAB149	indacaterol	Long-acting beta-2 agonist
QAX028	–	Long-acting muscarinic antagonist

[1] Refers to planned submission date for lead indication only
[2] Refers to current phase for lead indication only
[3] US submission done by Human Genome Sciences, Inc. (HGS)
[4] Melatonin receptor subtypes 1 and 2
[5] Serotonin receptor subtype 2c
[6] Vascular endothelial growth factor
[7] Heat shock protein 90

continued on next page

Indication	Therapeutic area	Formulation	Planned submission dates[1]	Current phase[2]
Chronic hepatitis C	Immunology and Infectious Diseases	Injection	Submitted EU, US[3]	Registration
Refractory gout (lead indication), systemic onset juvenile idiopathic arthritis, type 2 diabetes	Immunology and Infectious Diseases, Cardiovascular and Metabolism	Injection	2010	III
Prevention of organ rejection	Immunology and Infectious Diseases	Oral	≥2013	II
L-dopa induced dyskinesia in Parkinson's disease	Neuroscience and Ophthalmics	Oral	2012	II
Major depressive disorder	Neuroscience and Ophthalmics	Oro-dispersible	2012	III
Uveitis (lead indication), psoriasis, rheumatoid arthritis	Neuroscience and Ophthalmics, Immunology and Infectious Diseases	Subcutaneous, Intravenous injection	2011	III
Non-small cell lung cancer	Oncology	Intravenous infusion	2011	III
Prevention of organ rejection	Immunology and Infectious Diseases	Oral	Submitted US (approved EU)	Registration
Prevention of new-onset type 2 diabetes, cardiovascular morbidity and mortality	Cardiovascular and Metabolism	Oral	2010	III
Ovarian cancer	Oncology	Intravenous infusion	2010	III
Multiple sclerosis	Neuroscience and Ophthalmics	Oral	Submitted US, EU	Registration
Hodgkin's lymphoma (lead indication), multiple myeloma	Oncology	Oral	2010	II
Heart failure	Cardiovascular and Metabolism	Intravenous infusion	≥2013	II
Heart failure	Cardiovascular and Metabolism	Oral	≥2013	III
Diabetic macular edema (lead indication), Retinal vein occlusion	Neuroscience and Ophthalmics	Intravitreal injection	Submitted EU	Registration
Invasive candidiasis	Immunology and Infectious Diseases	Intravenous infusion	≥2013	III
Smoking cessation	Respiratory	Injection	≥2013	II
Chronic obstructive pulmonary disease	Respiratory	Inhalation	2011	III
Aggressive systemic mastocytosis (lead indication), acute myeloid leukemia	Oncology	Oral	2011	II
Acute coronary syndrome/Chronic coronary heart disease	Cardiovascular and Metabolism	IV, Oral	≥2013	II
Complicated skin and subcutaneous tissue infections	Immunology and Infectious Diseases	IV, Oral	2012	III
Staphylococcal skin and subcutaneous tissue infections/hospital-acquired bacterial infections such as pneumonia	Immunology and Infectious Diseases	Intravenous infusion	2012	II
Chronic obstructive pulmonary disease	Respiratory	Inhalation	Submitted US (approved EU)	Registration
Chronic obstructive pulmonary disease	Respiratory	Inhalation	≥2013	II

PIPELINE (CONTINUED)

GLOSSARY

Project/Compound Novartis brand name for marketed products (*in italics*) or project reference code (combination of three letters and three numbers) for compounds, that are individual molecular entities.

Common name The official International Non-proprietary Name (INN) for an individual molecular entity as designated by the World Health Organization (WHO).

Indication A disease or condition for which a compound or marketed product is in development and studied as a potential therapy.

Mechanism of action Specific biochemical interaction through which a drug substance produces its pharmacological effect.

Formulation The way in which a medicine is administered, such as via tablet, injection, skin patch, infusion or device.

Phase I First stage of testing in humans, which includes Proof-of-Concept trials conducted on a small group of homogenous patients to provide early insight into efficacy, safety and toxicity of a molecule in a given indication

Phase II Following successful Proof-of-Concept results, confirmatory trials are performed in larger patient groups to further assess the efficacy and safety of how well a compound works, including at various doses and in various indications.

Phase III Final clinical trials before regulatory submissions to test a compound against a placebo or another medicine to determine definitive efficacy and safety in patients.

Submitted Comprehensive data provided to various regulatory agencies for marketing approval.

Project/compound	Common name	Mechanism of action
QMF149	indacaterol, mometasone furoate	Long acting beta-2 agonist and corticosteroid
QTI571 *(Glivec)*	imatinib	Signal transduction inhibitor
QVA149	indacaterol, glycopyrronium bromide	Long-acting beta-2 agonist and long-acting muscarinic antagonist
RAD001 (*Afinitor*)	everolimus	mTOR[8] inhibitor
SBR759	–	Calcium-free polymeric iron (III)-based phosphate binder
SMC021	salmon calcitonin	Regulator of calcium homeostasis, inhibition of osteoclast activity
SOM230	pasireotide	Somatostatin analogue
Tasigna	nilotinib	Signal transduction inhibitor
Tekturna SPC[9]	aliskiren, amlodipine, hydrochlorothiazide	Direct renin inhibitor, calcium channel blocker and diuretic
Tekturna ASPIRE HIGHER trials	aliskiren	Direct renin inhibitor
TKI258	dovitinib lactate	VEGFR1-3, FGFR 1-3, PDGFR and angiogenesis RTK inhibitor
Xolair	omalizumab	Anti-IgE monoclonal antibody
Valturna/Rasival SPC	aliskiren, valsartan	Direct renin inhibitor and angiotensin II recpetor antagonist
Zometa	zoledronic acid	Osteoclast inhibitor

[8] Mammalian target of rapamycin protein
[9] Single-pill combination

Indication	Therapeutic area	Formulation	Planned submission dates[1]	Current phase[2]
Asthma, chronic obstructive pulmonary disease	Respiratory	Inhalation	≥2013	II
Pulmonary arterial hypertension	Respiratory	Oral	2011	III
Chronic obstructive pulmonary disease	Respiratory	Inhalation	2012	II
Neuroendocrine tumors (NET) (lead indication), Tuberous sclerosis complex, breast cancer, gastric cancer, Diffuse large B cell lymphoma	Oncology	Oral	2010	III
Hyperphosphatemia	Immunology and Infectious Diseases	Powder for Oral suspension	2011	II
Osteoarthritis (lead indication), osteoporosis	Immunology and Infectious Diseases	Oral	2011	III
Cushing's disease (lead indication), acromegaly, refractory/resistant carcinoid syndrome	Oncology	Injection	2010	III
Newly diagnosed chronic myeloid leukemia (lead indication), First line metastatic gastro-intestinal stromal tumor, Metastatic melanoma with c-KIT mutation	Oncology	Oral	Submitted US, EU	Registration
Hypertension	Cardiovascular and Metabolism	Tablet	2010	III
Renal and cardiovascular events	Cardiovascular and Metabolism	Oral	2010	III
Renal cell carcinoma	Oncology	Oral	2012	II
Allergic asthma in patients age 6-12	Respiratory	Lyophilised powder for reconstitution as subcutaneous injection	Submitted US (approved EU)	Registration
Hypertension	Cardiovascular and Metabolism	Tablet	Submitted EU (approved US)	Registration
Adjuvant breast cancer	Oncology	Intravenous infusion	Submitted US, EU	Registration

PHARMACEUTICALS

Rejuvenation of the Pharmaceuticals Division's product portfolio accelerated during 2009. Medicines launched since 2007 generated net sales of USD 4.7 billion, 16% of the division's total net sales. Recently launched products – and innovative medicines approved during 2009 – are expanding options for patients in therapeutic areas in which Novartis already is an industry leader, as well as targeting other diseases with unmet medical need. Moreover, the division's strong, late-stage development pipeline benefited from positive regulatory decisions, underpinning prospects for continued growth.

Recently launched products are transforming the Pharmaceuticals Division and positioning Novartis as one of the industry's fastest growing companies.

Buoyant net sales of medicines launched since 2007 accelerated the ongoing portfolio rejuvenation, accounting for a strong and growing percentage of the division's growth. In 2009, all key therapeutic areas and regions expanded at double-digit rates.

The Pharmaceuticals Division's development pipeline realized excellent progress, with 25 regulatory approvals in the United States, European Union and Japan. Currently 145 projects are in clinical development.

Net sales in the top six emerging markets rose dynamically, with only limited signs to date of adverse impact from global economic conditions. These six markets – Brazil, China, India, Russia, South Korea and Turkey – represented a growing share of the Pharmaceuticals Division's net sales during 2009. (See Emerging Markets story, page 18.)

A rise in the division's operating income reflected dynamic business expansion and productivity gains that enabled significant investments to further bolster growth. "Cost reductions not only help to improve profit margins but also ensure that we can continue to invest in research and development, as well as emerging growth markets, while showing good operating income progression," said Joe Jimenez, Head of the Pharmaceuticals Division and member of the Executive Committee of Novartis.

"The fundamentals are strong, with multiple growth drivers, not one silver bullet," Mr. Jimenez added. "These results underscore our solid foundation and robust growth as we approach a period during which we will lose sales due to the loss of patent protection on *Diovan* and other significant products."

RECENT LAUNCHES

Recently launched medicines fueled strong net sales growth by the Cardiovascular and Metabolism therapeutic franchise. *Tekturna/Rasilez*, the first new class of high blood pressure medicine in more than a decade, is growing consistently.

Regulatory authorities in the United States and European Union have also approved single-pill combinations including aliskiren, the common name for *Tekturna/Rasilez*.

Galvus and *Eucreas*, oral treatments for type 2 diabetes, have been expanding rapidly in many European, Latin American and Asia-Pacific markets. Launched in 2008, *Galvus* is approved in 69 countries. *Eucreas*, a single-pill combination with the oral antidiabetes medicine metformin, is available in 50 countries.

Net sales rose at Novartis Oncology, the largest therapeutic franchise, fueled by double-digit growth of *Gleevec/Glivec*, a pioneering targeted treatment for chronic myeloid leukemia (CML) and other types of tumors. Expanding the CML franchise,

Novartis has launched *Tasigna*, a therapy for patients who are resistant or intolerant to prior treatment including *Gleevec/Glivec*. The Oncology Business Unit was further strengthened by approvals in the United States and European Union of *Afinitor*, for use in treatment of patients with advanced renal cell carcinoma whose disease progressed on or after treatment with VEGF-targeted therapy.[1]

Other successful products include *Lucentis*, a biologic eye therapy that delivered robust performances in France, the United Kingdom, Australia and Japan. Approved in more than 80 countries, *Lucentis* is the only treatment proven to maintain and improve vision in patients with the "wet" form of age-related macular degeneration, a leading cause of blindness in people over 50. (Genentech holds the US rights to *Lucentis*.)

Exelon/Exelon Patch, a therapy for mild to moderate forms of Alzheimer's disease as well as mild to moderate dementia associated with Parkinson's disease, also grew strongly in 2009. More than half of net sales come from *Exelon* Patch, the novel skin patch launched in late 2007 and now available in more than 50 countries worldwide.

In Japan, the world's second-largest pharmaceuticals market, Novartis received approval for six new medicines during 2009, including *Rasilez* within the cardiovascular portfolio; *Tasigna* in oncology; *Lucentis;* and *Xolair*, a biologic treatment for severe persistent bronchial asthma. Regulatory applications are also pending for *Exforge* and *Galvus,* and approvals are expected to underpin momentum in the Japanese market.

"These launches are really helping us to jump-start growth in Japan," Mr. Jimenez said.

[1] Vascular endothelial growth factor

DRIVING REJUVENATION

Medicines to treat cardiovascular disease and cancer epitomize the way innovation is driving rejuvenation of the Pharmaceuticals Division's portfolio.

Tekturna/Rasilez was approved during 2007 in both the United States and the European Union, and received approval from Japanese regulatory authorities in 2009 for treatment of high blood pressure, alone or in combination with other medicines. Regulatory agencies in the United States and the European Union also approved *Tekturna* HCT, a single-pill combination of aliskiren and the diuretic hydrochlorothiazide, one of the commonly used high blood pressure medications.

The US Food and Drug Administration, which had approved *Tekturna* HCT, broadened its indication last year to include initial therapy for patients likely to need multiple drugs to achieve their blood pressure goals. Other single pills with aliskiren are currently under development.

Novartis submitted the combination of aliskiren and amlodipine to regulatory authorities for approval in 2009. A calcium channel blocker, amlodipine is one of the world's leading high blood pressure medicines.

Combinations are important to help patients improve adherence to treatment of hypertension. Up to 65% of patients with high blood pressure do not have their condition under control and, if left untreated, hypertension increases the risk of stroke, heart attack and heart failure.

"The majority of people with hypertension require more than one medication to control their blood pressure," said David Calhoun, M.D., Professor of Medicine, Vascular Biology and Hypertension Program, at the University of Alabama.

During 2009, the FDA also approved *Valturna*, a single-pill combination of aliskiren

and valsartan, the active ingredient in *Diovan*. Along with the convenience of a single pill, *Valturna* offers significantly greater blood pressure reduction than either valsartan or aliskiren alone.

Further evidence of the commitment of Novartis to hypertension and *Tekturna/ Rasilez* is the ASPIRE HIGHER clinical trial program, a cardio-renal outcomes program involving more than 35 000 patients in 14 clinical trials. The ASPIRE HIGHER program is studying the potential protective effects of direct renin inhibition in a variety of kidney and heart diseases, including diabetic kidney disease and heart failure.

STRIKING RESULTS

The development and launch of *Tasigna* represents an important advance for patients resistant or intolerant to *Gleevec/Glivec*. "*Tasigna* drives home our commitment to develop compounds to fulfill unmet medical need by pursuing indications for patients with limited treatment options," said David Epstein, Head of Novartis Oncology and permanent attendee of the Executive Committee of Novartis.

Initial approvals of *Tasigna* were for treatment of patients with CML who failed to respond or were intolerant of *Gleevec/ Glivec*. Combined net sales of *Gleevec/Glivec* and *Tasigna* account for more than 90% of worldwide sales for treatments against CML.

Tasigna was designed to target Bcr-Abl more preferentially and potently than *Gleevec/Glivec*. Bcr-Abl is an aberrant protein, encoded by a defective gene, that drives uncontrolled proliferation of white blood cells, causing CML,

Results of the first key head-to-head comparison – a international study in newly diagnosed CML patients – showed *Tasigna* produced faster and deeper responses than *Gleevec/Glivec,* and was well tolerated. "The results are striking," Mr. Epstein said. "We now know *Tasigna* reduces the level of Bcr-Abl faster and to a lower level than *Gleevec/Glivec* with profound implications for improving patients' outcomes."

The study was the first to use molecular traces of key biomarkers specific to CML as a primary endpoint. "Molecular monitoring enables clinicians to monitor residual disease that older methods cannot detect," Mr. Epstein added. "A regulatory application for *Tasigna* was submitted to US authorities ahead of plan at the end of 2009."

The ability to identify biomarkers that can be used to select patients likely to respond to specific treatments represents an important step toward customized medicine. Another Phase III study with *Tasigna*, expected to begin in early 2010, will use a diagnostic test to select melanoma patients with a mutated form of the aberrant protein c-Kit who are considered most likely to respond to treatment. "It's a form of cancer with huge unmet need," Mr. Epstein said.

The need to find surrogate endpoints and biomarkers has been well established in oncology, and Novartis has built a broad biomarker discovery program in recent years. "We have biomarker discovery programs under way for the majority of medicines that we have in the clinic," Mr. Epstein said.

DEVELOPMENT MILESTONES

Important development milestones during 2009 included approval by regulators in the United States and the European Union of the anticancer medicine *Afinitor* (also known by the research number RAD001) as well as *Ilaris* (known by the research number ACZ885). *Ilaris* was approved for treatment of cryopyrin-associated periodic syndrome, or CAPS, a lifelong auto-inflammatory disease with debilitating symptoms and few treatment options.

RAD001 and ACZ885 exemplify another key Novartis strategy: exploring multiple disease indications. In addition to the initial approvals for treatment of patients with advanced renal cell carcinoma whose disease progressed on or after standard therapy, RAD001 is being studied in multiple cancer types, including neuroendocrine, breast and gastric carcinoma. Moreover, the active ingredient in *Afinitor*, known by the common name everolimus, was approved by the European Union in 2003 for the prevention of organ rejections in heart and kidney transplants, and is available in different dosage strengths outside the United States under the trademark *Certican*.

In the United States, 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. Novartis will work with the FDA to address all additional issues to finalize FDA's review of the product. In 2008, Phase III development of everolimus was initiated worldwide for the prevention of organ rejection in liver transplantation.

ACZ885 is a fully human monoclonal antibody that blocks the action of the inflammatory protein interleukin-1 beta (IL-1 beta). Studies with ACZ885 are ongoing in other diseases in which IL-1 beta is believed to play an important role, from hard-to-treat gout, one of the most painful forms of arthritis, to systemic juvenile idiopathic arthritis (SJIA) and type 2 diabetes. Results from a Phase II study last year showed ACZ885 is significantly more effective than an injectable corticosteroid in reducing pain and preventing recurrent attacks, or flares, of chronic gout. Injectable corticosteroids have traditionally been given to

hard-to-treat patients as a last resort against acute pain. Injectable corticosteroids are not appropriate for all patients, however.

Current treatments address symptoms of acute gout flares and do not achieve sustained suppression of inflammation or prevent recurrent flares. Phase III studies with ACZ885 in chronic gout began in both the United States and Europe during 2009. Phase III studies are also under way in SJIA, the most severe form of arthritis in children. ACZ885 has been designated as an orphan drug for treatment of SJIA in the United States, the European Union and Switzerland.

EMERGING RESPIRATORY PORTFOLIO

In December, the European Union approved *Onbrez Breezhaler*, a new once-daily maintenance bronchodilator treatment of airflow obstruction in adult patients with chronic obstructive pulmonary disease (COPD).

Also known by the research number QAB149, *Onbrez Breezhaler* is the first new inhaled compound for the treatment of COPD to be made available to EU patients in seven years. QAB149 was also filed with the FDA in late 2008. In October 2009, Novartis received a "complete response letter" in which the FDA requested additional information on the dosing proposed, which Novartis is working to address.

COPD is a progressive, life-threatening respiratory disease that impairs lung function, resulting in chronic breathlessness. COPD affects 210 million people worldwide and currently ranks 10th in overall disease burden, ahead of asthma and diabetes.

While incurable, COPD can be managed and improving airflow with the use of long-acting bronchodilators is central to symptomatic relief. Regulatory submissions by Novartis were supported by data from clinical studies involving more than 4 000 patients in 30 countries. Data on all evaluated doses of QAB149 show a good overall safety and tolerability profile. The most common adverse drug reactions – inflammation of the nasal passages, cough, upper respiratory tract infection and headache – were mild or moderate in the vast majority of cases and became less frequent when treatment was continued.

Improving the management of COPD is a priority focus for Novartis and *Onbrez Breezhaler* is the lead compound in an expected once-daily portfolio for treatment of this growing public health issue. Three other COPD treatments from Novartis are currently undergoing clinical testing as monotherapies – and as components in potential combination therapies.

TRANSFORMING TREATMENT OF MULTIPLE SCLEROSIS

Novartis also cleared key hurdles during 2009 for its emerging franchise in the treatment of multiple sclerosis. In August, the FDA approved *Extavia*, a new Novartis branded version of interferon beta-1b, the standard of care for relapsing forms of multiple sclerosis. Novartis gained approval for its own branded version of interferon beta-1b through agreements with Bayer Schering AG. Also available in Europe, *Extavia* is the first in a new portfolio of medicines expected from Novartis to help patients manage this devastating disease.

Novartis also submitted regulatory applications in the United States and Europe for FTY720, a medicine with the potential to be the first multiple sclerosis treatment in a new class known as sphingosine 1-phosphate receptor modulators that act on inflammation and may have a direct beneficial effect on cells in the central nervous system.

Initial results from the two-year Phase III FREEDOMS study show that FTY720, known by the common name fingolimod, was significantly superior to placebo in reducing both relapses and disability progression in patients with relapsing-remitting multiple sclerosis. The results from FREEDOMS build

on TRANSFORMS, a one-year Phase III study showing FTY720 at the 0.5 milligram dose reduced relapses by 52% compared with interferon beta-1a. FTY720 has a well-studied safety profile in clinical trials representing more than 5 300 patient years of exposure – including some patients now in their sixth year of treatment.

"We are proud to have reached this critical milestone in the development of FTY720, a novel oral therapy that has the potential to transform the treatment of this ultimately disabling disease," said Trevor Mundel, M.D., Global Head of Development at the Pharmaceuticals Division.

"The 0.5 milligram dose of FTY720 offers compelling efficacy on all relevant endpoints compared to both placebo and a standard of care, complemented by extensive safety data."

Multiple sclerosis is a chronic autoimmune disease in which the body's immune system attacks the myelin sheath, a protective tissue surrounding nerve fibers that carry electrical signals to the brain. Destruction of myelin causes problems with muscle control and strength, vision, balance sensation and mental function. Multiple sclerosis affects an estimated 2.5 million patients worldwide and is one of the leading causes of neurological disability in young adults.

NOVARTIS INSTITUTES FOR BIOMEDICAL RESEARCH

Nature is deeply conservative, and the same core signaling pathways are used time and time again across species – in fundamental cellular processes as well as in the generation of organ systems. Defects in these signaling pathways are the underlying cause of disease, and scientists at the Novartis Institutes for BioMedical Research (NIBR) are racing to unravel pathways as a source of potential targets for drug discovery. Innovative technologies enable NIBR scientists to interrogate pathways in unprecedented ways, and new medicines such as the anticancer treatment *Afinitor* show how pathways are starting to yield to that approach.

Single proteins are the building blocks of life, assembled in core signaling pathways that regulate critical cellular functions and are conserved through evolution – from fruit flies to humans – in highly reproducible ways. Like the World Wide Web or other signaling networks, these are robust systems, but ones still vulnerable to attack at key nodes.

In the Novartis Institutes for BioMedical Research (NIBR), scientists are seeking ways to understand these pathways – and their vulnerable nodes – in great enough detail 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.

A shortage of validated targets remains a major challenge in drug discovery. Although the Human Genome Project was billed as a treasure trove of targets, reality has fallen short of expectations. "The problem is that genes are not targets until they're related to a disease," said Mark C. Fishman, M.D., President of NIBR and member of the Executive Committee of Novartis. "We don't yet know the function of the majority of human genes, or their role in disease. But we often do know which pathways are activated, especially in cancer."

NIBR's Developmental and Molecular Pathways platform (DMP) focuses on critical signaling pathways that play fundamental roles during embryonic development as well as later, in adult life. "Our mission is to find new entry points in pathways that we can modulate to right the imbalance in a disease setting," said Jeffery Porter, Ph.D., Global Head of DMP.

The approval by regulatory agencies in the United States and the European Union of RAD001, also known by the common name everolimus, marks a breakthrough for the pathway-based research strategy. Approved in 2009 for treatment of patients with advanced renal cell carcinoma after failure of treatment with sunitinib or sorafenib, RAD001 works by inhibiting the protein mTOR. This protein is a master switch in cells that controls fundamental processes such as growth and proliferation.

Under the trademark *Certican*, everolimus has been approved as an immunosuppressant to prevent rejection of organ transplants in more than 40 countries outside the United States.[1]

It has taken decades, however, to unravel the complex connections between mTOR and cancer-related pathways. Novartis began parallel development of RAD001 in cancer in 2002.

"Today RAD001 has found a place in the clinic for the treatment of patients with advanced renal cell carcinoma and mTOR has become a poster child, illustrating what

[1] For information about the everolimus transplantation regulatory status in the United States see page 31.

we are trying to achieve on many levels," Dr. Porter said. "We aspire to find more key nodes in fundamental signaling pathways like this one."

NEW FIELD OF MEDICINE

Developmental biology has been a critical influence in shaping the vision of drug discovery at NIBR. Dr. Fishman's career was influenced by pioneering experiments in the late 1970s that eventually earned Christiane Nuesslein-Volhard and Eric Wieschaus the 1995 Nobel Prize in medicine. "They showed it is possible to understand complicated decisions of development in terms of the way single genes play out," Dr. Fishman explained.

Another seminal insight was that genes always acted in cascades, or pathways. Mutations in several different genes all led to a fruit fly without a wing, for example. "Not only could you dissect development in terms of how single genes acted, you could get the same effect by hitting any of several components of a pathway," Dr. Fishman added.

Nature is deeply conservative, and the same fundamental pathways are used time and time again across species – in fundamental cellular processes as well as in the generation of organ systems. Moreover, defects in those core signaling pathways are the underlying cause of disease. "When I was given the opportunity to come to Novartis, a big part of what I set out to do was to invent a new field of medicine by developing therapeutics around these pathways," Dr. Fishman said.

A comprehensive account of that vision appeared in the scientific journal "Nature," in a 2005 article co-authored by Dr. Fishman and Dr. Porter, a blueprint that defined the mission of the DMP group. "We attempt to unravel pathways as a source of potential targets for drug discovery and to find pathway modulators – new therapeutic entry points – that we can exploit to correct a signaling imbalance," Dr. Porter said.

He compared initial stages of pathway mapping to analysis of a satellite photo. "We first try to capture all components, and then zero in on key nodes and the ways that pathways are interwoven into networks," Dr. Porter said. To probe the function of potential targets, he added, "We might introduce a mutant form of a key component; in effect, taking out a traffic light to see what happens."

Signaling pathways relay essential information about the external environment to a cell. They also transmit decisions about whether to grow or when to divide to key nodes that implement those decisions. There is a high degree of interdependence among pathways, and among components within the same pathway, however.

"Backup systems and feedback loops normally compensate when the function of one target node is blocked, so it's really hard to turn a pathway completely off," Dr. Porter said. Sometimes, adjusting the strength of a signal up or down can be a more effective therapeutic approach.

"I think of using medicines as dimmers as much as on-off switches," he added.

TRACKING mTOR

The mTOR pathway was one of the first Dr. Porter and his team studied. "It took us awhile to appreciate all the places an mTOR inhibitor could be important," Dr. Porter said. Along with immunosuppression and treatment of cancer, RAD001 currently is in Phase III clinical trials for treatment of tuberous sclerosis, a genetic disorder in which tumors form in the brain and kidneys, leading to seizures and mental disabilities.

Normally mTOR is kept under tight control in the cell. But genetic mutations or other biological defects can jam the pathway in the "on" position, triggering uncontrolled growth and proliferation characteristic of cancer. In recent years, the mTOR program gradually converged with another NIBR

program focusing on PI3 kinases, a large family of enzymes often linked with cancer.

Importantly, mTOR appears to be a node in the downstream branch of the PI3 kinase pathway. Novartis was the first major pharmaceutical company to develop medicines that target both the upstream and downstream branches of the pathway. Those programs reflect a central tenet of NIBR research: to attack multiple targets within a pathway believed to play a major role in a disease like cancer.

In a paper published last year in the scientific journal "Cell," NIBR scientists reported breakthroughs in understanding yet another enigmatic branch of the mTOR pathway. Scientists have known for years that mTOR also is activated by nutrients – yet the essential nodes in this "nutrient" branch of the pathway have remained elusive.

Curiously, while the PI3 kinase branch of the pathway has attracted growing interest in recent years, the nutrient branch of mTOR predates the PI3 kinase branch in evolutionary terms and has important implications for cancer research. "Tumor metabolism – potential differences in the way tumor cells take up and utilize nutrients versus normal cells – is an area of intense research interest today," said Leon Murphy, Ph.D., head of the NIBR laboratory that worked on the nutrient branch of the mTOR pathway.

INTERROGATING THE Wnt PATHWAY

Another pathway of interest to NIBR is the so-called Wnt pathway. Wnt proteins are a large ancient family of signaling molecules and the pathway plays important roles in key developmental processes – and possibly even self-renewal of embryonic stem cells and regeneration of many normal tissues. Deregulated activity of the Wnt pathway has been implicated in many cancers, making the pathway an attractive target for anticancer therapies. "We've known for 20 years that the Wnt pathway fires inappropriately in colon cancer because of the loss of a molecular brake on the system," Dr. Porter said.

Development of therapies, however, has been hampered by the limited number of "druggable" targets – components in the Wnt pathway amenable to inhibition by traditional chemical drugs or biologic medicines. In search of new targets, Dr. Porter and his team have discovered more than 100 new proteins associated with the Wnt pathway. "Not all of these will be therapeutic targets, but using modern tools we can begin to determine which ones might be critical for signaling," he added.

Two enzymes have emerged as promising targets, offering new avenues for potential therapies acting on the Wnt pathway. Normally, Wnt pathway activity is carefully controlled by cyclical fluctuations in a protein called beta catenin. When the pathway is dormant, beta catenin is held in check by a so-called destruction complex in the cell.

When the pathway is activated, however, the destruction complex is disabled, and levels of beta catenin rise, eventually activating genes that drive cell growth and proliferation. Mutations in a gene called APC also can activate the Wnt pathway, arresting the destruction complex and driving uncontrolled cell proliferation.

Using drugs that inhibit two enzymes known as tankyrase 1 and 2, NIBR scientists have mimicked the normal function of the destruction complex, restoring degradation of beta catenin and blocking the abnormal signaling through the Wnt pathway. "Once control of beta catenin is lost, it becomes very important to look at backup systems," Dr. Porter said. "By activating the backup system, it may be possible to bring things back into balance."

Initial experiments to inhibit the tankyrase enzymes were done with a so-called tool compound that can demonstrate the potential mechanism of action but lacks properties needed to win regulatory approval. Novartis scientists have optimized a portfolio of tankyrase inhibitors as potential development candidates. "It's not limited to cancer," Dr. Porter added. "There are other indications where even transient inhibition of the Wnt pathway could provide major benefits for patients."

The experiments that confirmed the role of tankyrase enzymes in the Wnt pathway epitomize the multidisciplinary approach adopted by the DMP group. "We use a number of different technologies, the newest of which enable us to interrogate pathways in unprecedented ways," Dr. Porter said. "And it's working. The pathways are starting to yield to our approach."

VACCINES AND DIAGNOSTICS OVERVIEW

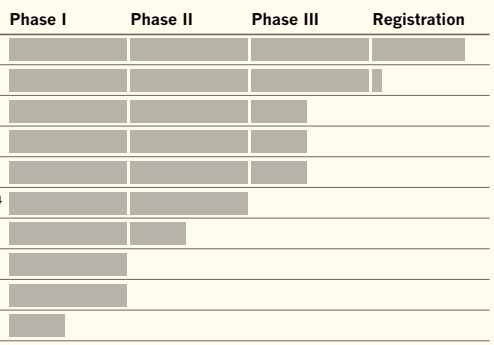
KEY FIGURES

(In USD millions, unless indicated otherwise)

	2009	2008
Net sales	**2 424**	1 759
Operating income	**372**	78
Return on net sales (%)	**15.3**	4.4
Core operating income [1]	**719**	309
Return on core net sales (%) [2]	**29.7**	18.1
Research & Development	**508**	360
As a % of net sales	**21.0**	20.5
Free cash flow	**– 82**	– 226
Net operating assets	**5 583**	4 984
Additions to property, plant & equipment [3]	**437**	435
Number of associates (FTE) [4] at year-end	**5 416**	4 774

[1] Core operating income eliminates the impact of acquisition-related factors and other significant exceptional items. These adjustments are explained in detail on page 151.
[2] In 2008 based on core sales of USD 1 709 million
[3] Excluding impact of business combinations
[4] Full-time equivalent positions at year-end

VACCINES DEVELOPMENT PIPELINE



[1] Neisseria meningitidis bacteria serogroups A, C, W-135 and Y
[2] H5N1 vaccine intended for use before a pandemic outbreak
[3] Neisseria meningitidis bacteria serogroup B
[4] Intercell opt-in candidate
[5] Influenza cell culture
[6] Group B Streptococcus
[7] Cytomegalovirus, collaboration with AlphaVax

NEWS IN 2009

Novartis helps to address public health threat with major investments to rapidly deliver influenza A (H1N1) pandemic vaccines. Strong growth in emerging markets and regulatory approvals for *Ixario* (Japanese encephalitis vaccine) help expand global presence.

Net sales rise 38% (+39% in local currencies) to USD 2.4 billion. A rapid response after the outbreak of the A (H1N1) pandemic in April 2009 enables the delivery of more than 100 million vaccine doses to governments around the world. Pediatric and rabies vaccines and emerging markets help offset price pressure on seasonal influenza vaccines and decline in tick-borne encephalitis vaccines. Core operating income rises to USD 719 million despite significant investments in A (H1N1) vaccines.

Pioneering innovation: Novartis becomes the first company to produce A (H1N1) vaccines with modern cell-culture biotechnology that complements 50-year-old egg-based production. Looking to the future, Novartis opens the first large-scale US-based manufacturing facility for influenza cell-culture vaccines and adjuvants.

Menveo, a novel vaccine to protect against deadly meningococcal disease, progresses toward European regulatory approval, which is anticipated in early 2010 for initial use in adolescents and adults. A US regulatory decision is also expected in the first half of 2010. Trials for use in infants, most at risk for this disease, are underway. Global MenB vaccine, against B serogroup, also continues in clinical trials.

Targeted geographic expansion as Novartis offers its first vaccine in Japan and announces plans to acquire a majority interest in Chinese vaccines supplier Zhejiang Tianyuan.

VACCINES AND DIAGNOSTICS

Following the declaration of the first influenza pandemic of the 21st century, associates at the Novartis Vaccines and Diagnostics Division surmounted extraordinary challenges to develop and deliver tens of millions of doses of vaccine against the influenza A (H1N1) 2009 virus, as well as seasonal flu vaccine. The pandemic campaign underscored the commitment by Novartis to respond to a worldwide public health challenge.

"The virus writes the rules, and this one, like all influenza viruses, can change the rules, without rhyme or reason, at any time," warned Margaret Chan, M.D., Director-General of the World Health Organization, as she declared a pandemic on June 11, 2009. Just the next day, Novartis announced the successful production of the first batch of influenza A (H1N1) vaccine, weeks ahead of expectations, achieving global media coverage and a massive boost to the company's reputation for innovation and leadership.

Earlier in 2009, an influenza virus with pandemic potential had been discovered in Mexico and the United States, sparking a global race to develop a vaccine. Novartis scientists had gone to work immediately, and within days had analyzed the lineage and heritage of the virus, confirming the unique combination of genes in the new strain, known officially as influenza A (H1N1) 2009 virus. Working around the clock, Novartis scientists combined the protective antigens of the pandemic strain with a standard manufacturing strain, to make the world's first potential attenuated vaccine strain in just 17 days.

These were the first of repeated breakthroughs achieved by the Novartis Vaccines and Diagnostics Division against the backdrop of rapid spread of the virus.

Celtura, a Novartis vaccine derived from the cell-based manufacturing technology, was one of the first pandemic vaccines to begin clinical trials. So-called "pilot trials" gave regulatory agencies and prospective customers the first preliminary readout from human testing, indicating *Celtura* elicited a protective immune response, even at very low doses, paving the way for a larger global vaccine supply than otherwise would have been possible.

Positive results of a study conducted at the University of Leicester (England) were published in the prestigious "New England Journal of Medicine" in early September. In an accompanying editorial, Kathleen Neuzil, M.D., director of the influenza project at the Program for Appropriate Technology in Health, called the upbeat data "eagerly anticipated as governments, public health officials and other stakeholders respond to the first influenza pandemic in over 40 years. The authors and their collaborators are to be commended for their prompt execution of the trials and rapid sharing of the results."

FULLY ENGAGED

To deliver millions of doses of vaccine in the months that followed, Novartis associates surmounted extraordinary challenges. When the initial cases of "swine flu" in the United States and Mexico were reported in April, the Vaccines and Diagnostics Division's major manufacturing sites were engaged with production of seasonal influenza vaccine. As the seasonal campaign continued

through the summer, supply chain specialists raced to procure raw materials and supplies for the coming round of pandemic vaccine production.

There were additional challenges. The Vaccines and Diagnostics Division had invested more than USD 2 billion since 2006 to upgrade and expand production capacity as well as to accelerate development of novel vaccines, including the cell-culture technology used to manufacture *Celtura*. Virtually all of that new capacity, however, was due to come on stream in 2010 or later. The pandemic forced a dramatic acceleration of that timetable to make production of the A (H1N1) pandemic vaccines possible.

Along with bricks and mortar, additional production staff had to be found, and human resources specialists worked tirelessly to this end. In addition to contract staff hired by the sites, other Novartis divisions loaned hundreds of experienced employees, including supervisors, to reinforce the A (H1N1) production effort. "It was like bringing on a whole new factory in three months," said Matthew Stober, Global Head Technical Operations at the Vaccines and Diagnostics Division.

"But it wasn't just a matter of finding people and telling them to show up," Mr. Stober added. "Our Human Resources team did a great job in obtaining visas and work permits, arranging housing, and all kinds of other things that had to be done before those additional employees could walk in the door. Then we had to train them so they could do the job right the first time. Every drop of vaccine was like gold."

In early October, Novartis announced that it had completed delivery of 27 million doses of seasonal flu vaccine to the United States ahead of schedule. Parallel production of pandemic vaccine had been under way for weeks, and the first shipments of influenza A (H1N1) vaccine arrived in the United States on September 27, less than four months after the WHO declared the pandemic.

"It is an extraordinary achievement to complete deliveries of seasonal influenza vaccine early, while working hard to produce large quantities of A (H1N1) pandemic vaccines at the same time," said Andrin Oswald, M.D., Head of the Vaccines and Diagnostics Division and permanent attendee of the Executive Committee of Novartis. "This should help physicians and public health officials better prepare for the upcoming flu season and balance the needs for pandemic and seasonal vaccination."

UNIQUE PORTFOLIO

Uniquely for any manufacturer, Novartis developed three different A (H1N1) pandemic vaccines. An A (H1N1) vaccine produced in Liverpool, England, using traditional egg-based technology and the Novartis seasonal influenza vaccine *Fluvirin* platform, was earmarked for the United States.

Governments outside the United States were able to purchase *Focetria*, an egg-based vaccine manufactured in Siena, Italy, or *Celtura*, produced in Marburg, Germany. Both *Focetria* and *Celtura* contain *MF59*, a proprietary adjuvant, or additive that can enhance the ability of the immune system to elicit a protective immune response in those people being vaccinated. Adjuvanted vaccines like *Focetria* and *Celtura* require smaller doses of antigen and elicit an enhanced immune response, helping to stretch scarce vaccine supplies to meet global demand. The US government opted against using adjuvanted vaccines in its national vaccination program but placed orders worth USD 483 million with Novartis for a bulk supply of *MF59* for the national stockpile of pre-pandemic avian influenza vaccines.

This broad Novartis portfolio of pandemic vaccines reflected a longstanding commitment to influenza at a time when many rivals had abandoned the field. The genesis of cell-culture technology dated from the 1980s, but Novartis guided the process through a marathon of testing to win European Union approval for the cell-based seasonal flu vaccine *Optaflu* in June 2007.

Influenza vaccines have been produced in chicken eggs since the 1950s, but growing the virus in cell culture can offer more flexibility and speed compared with egg-based production. "It's a switch from using tens of millions of eggs as small, individual fermenters to much larger 'artifical' fermenters in which vaccine can be produced in a contained system," says Rino Rappuoli, Ph.D., Head Vaccines Research at the division.

"We'll continue to live with egg-based vaccines for some time, but Novartis Vaccines is the only company that has approved, adjuvanted vaccines produced in cell culture."

Underscoring the strategic importance of cell-based production, Novartis and the US government are sharing the cost of a new factory under construction in Holly Springs, North Carolina. The Novartis Holly Springs facility was officially inaugurated in November 2009. If licensed in an emergency, the facility will be ready to respond to a pandemic as early as 2011. The plant is planned to be running at full-scale commercial production in 2013.

When fully operational, the Holly Springs site will be a key link in the US pandemic preparedness program, with potential capacity to produce 50 million doses of seasonal influenza vaccine each year and targeted capacity to produce 150 million doses of adjuvanted avian pandemic influenza vaccine within six months of declaration of a pandemic.

US government policy calls for establishing domestic capability to produce up to 600 million doses of avian pandemic vaccine within six months of a pandemic outbreak.

The Vaccines and Diagnostics Division actually launched development of pandemic flu vaccines in 1997, the year that a highly virulent avian H5N1 strain first appeared in humans in Hong Kong. During the outbreak of avian flu in 1999, a field trial of the first H5N1 pandemic vaccine candidate in combination with *MF59* adjuvant elicited robust immune responses in people vaccinated. Lessons from that earlier development program gave Novartis a head start on the A (H1N1) program.

"Our job is to be prepared for whatever the influenza virus is going to throw at us, and that's exactly what we have been doing," Dr. Rappuoli said. "We have solutions for society to face the pandemic that we didn't have a few years ago – and we are using them."

STEPPING FORWARD

Procurement was a formidable hurdle for the pandemic vaccine program. With several companies embarking on development of A (H1N1) vaccines, speed was critical, and management at the Vaccines and Diagnostics Division quickly approved significant investments. "We had to do a whole lot of things at risk," recalled Mr. Stober. "We had limited contracts and if no customers actually ordered vaccine, we would have been crushed commercially. But we felt we had to step forward to ensure the public was protected."

The division's procurement function scrambled to redesign the whole sourcing process for the coming six months at a point when there was no visibility in terms of the volumes that ultimately would be needed. Supply specialists faced three primary challenges: eggs, syringes and multidose vials.

The general rule of thumb in production is that one egg is needed to grow enough virus for each dose of vaccine. Hundreds of millions of doses required hundreds of millions of pathogen-free eggs, purchased from a limited number of qualified, audited farmers in Europe with facilities meeting stringent standards of quality and hygiene.

"You can't double production by just pushing a button," said Gianluca Filacchione, Head of Procurement at Novartis Vaccines. To be sure, farmers were able to redirect some eggs being sold to retail food channels. But the division normally secured egg supplies well in advance to expand production. "It takes more than a year for a new flock to reach the maturity necessary to produce the right number of eggs with the quality that we are asking for," added Mr. Filacchione. "But in the first week after the outbreak of swine flu, we rolled the dice and locked down all the eggs we could find in the market."

Syringes posed another challenge. There is a small number of companies that manufacture syringes worldwide, and meetings with their senior executives revealed they needed at least a year to significantly ramp up production. The companies adopted a straightforward approach to customers: first come, first served. "Timing was everything, and we got there first," Mr. Filacchione said.

Multidose vials hold enough vaccine for about 10 vaccinations and make it possible for companies to make more vaccine available than in single-dose syringes in a relatively short period of time. As governments and health authorities wrangled over the design of vials they preferred, Novartis hedged its bets by purchasing supplies of glass and reserving production capacity with vial producers. Mr. Filacchione also bought cardboard and capacity at printing firms for packaging. "We wanted to make sure nothing would hold us up," he added.

That commitment rubbed off on some suppliers. One packaging firm promised to give priority treatment to orders from Novartis for pandemic vaccine packaging – and slashed the normal delivery time from nine weeks to only two. "Firms selling boxes,

or eggs, or plastic bags for a chemical process don't have the same commitment to health as a pharmaceutical company," Mr. Filacchione observed. "But when we reminded them why this project was so important, many of our suppliers responded to the challenge."

SHORT NOTICE

At the Liverpool site, 2009 was a pivotal year when production of *Fluvirin*, a seasonal influenza vaccine from Novartis, would move to a new, highly automated plant, replacing older manufacturing facilities. The transition was carefully planned to avoid disruptions in manufacture of seasonal flu vaccine.

"Suddenly along came swine flu," said John Sullivan, Head of the Liverpool site. "Novartis couldn't afford to lose production capacity so we continued operations at our old facility to fulfill the contract for A (H1N1) vaccine that we had received from the US government. At the same time, we accelerated operational readiness of the new facility by several months to be able to run both facilities as near to capacity as possible."

To underpin parallel production, it was necessary to bring in about 300 additional production workers, the equivalent of a complete new work force, Mr. Sullivan said. There was an additional stumbling block: limited capacity for pre-incubation, a process required to prepare eggs for production. "We put together a plan for a second incubation center, representing a significant investment, on very short notice – over a weekend, really," he added. "My management team said typically they would need 10 months to get the new facility qualified and ready to go. Instead, we got the project done in five months."

At the same time, the management team was scrambling to prepare the new facility, known as Site 4, for regulatory inspections by the US Food and Drug Administration. A critical step in the approval process is a pre-approval inspection, conducted by four FDA inspectors over a 10-day period. Originally the pre-approval inspection for Site 4 had been scheduled for October, paving the way for final approval of the site shortly before year's end. "Novartis suggested to the FDA that we move up the inspection to August, which meant bringing forward all of our readiness planning," Mr. Sullivan recalled.

"It played havoc with other plans, but the team at Site 4 really stepped up to the challenge, and the inspection was very successful." The FDA granted final approval of Site 4 on October 9, 2009.

The Marburg, Germany, site pioneered cell-culture technology and was gradually increasing production capacity for *Optaflu*, a cell-based seasonal flu vaccine, as well as *Celtura*. The expansion program shifted into high gear in May. Two additional production lines for *Celtura* were brought on stream as well as a third production line for *MF59*.

EXPANDED SECONDARY MANUFACTURING

Following the initial bulk manufacturing process, vaccines proceed to secondary production and are filled in final dosage forms, syringes or multidose vials. In yet another challenge for the Vaccines and Diagnostics Division, however, capacity for secondary production of A (H1N1) vaccines fell far short of demand.

Seasonal influenza vaccines are trivalent, comprising three separate strains that are blended together before filling in a final dosage form. All A (H1N1) vaccines are monovalent, consisting of a single strain.

"We needed three times as much secondary manufacturing capacity for A (H1N1) vaccines to match our bulk production," Mr. Stober said.

Sandoz, the generics division of Novartis, cleared a production line at a plant in Ljubljana, Slovenia, to fill *Celtura* in multidose vials. Third-party suppliers provided added filling capacity for *Focetria* and some of the A (H1N1) vaccine made in Liverpool.

"There was a huge amount of regulatory work – especially completion of process validation to gain approval for all these new secondary suppliers," Mr. Stober said. "Bringing on a third party normally takes up to a year. We did it in less than half the usual time."

BOOSTING YIELDS

Every year, mutations in the influenza A and B virus strains circulating in humans transform key surface proteins enough to elude destruction by natural antibodies built up by people who have had influenza or have antibodies generated through vaccination. Vaccine producers try to keep pace by shuffling the strains in a vaccine as often as the virus itself changes.

That makes for hectic production cycles and close cooperation between vaccine manufacturers and health authorities. After analyzing circulating viral strains collected by dozens of specialized laboratories in its global surveillance network, the WHO recommends the strains to be included in seasonal flu vaccines for the coming year. Then a few government-sponsored labs incorporate those viral strains into fast-growing hybrid seed strains that are distributed to vaccine manufacturers globally.

Manufacturers of seasonal influenza vaccines turn the hybrid viral seed into working seed used to inoculate hundreds of millions of eggs. "Growing the very small amounts of the raw material you get from the laboratories into an approved and qualified working seed takes several weeks and involves quite a lot of testing as well," Mr. Sullivan explained.

For production of A (H1N1) vaccine, the egg-based seed virus from the US Centers for Disease Control and Prevention reached manufacturers around mid-July. Once

in production, however, it proved a big challenge. Initial yields languished at about a third of levels expected from a seasonal H1 strain, reducing the number of doses per egg and delaying vaccination programs planned by public health authorities worldwide.

To mitigate the impact, production of *Focetria* vaccine in Italy as well as the A (H1N1) vaccine from Liverpool changed quickly to different seed strains. "When you make this strain change, there is a huge development program and lots of regulatory work that has to be done," Mr. Stober said. "The key worry was the risk of a supply gap because of the time required to develop reagents and do calibration standards."

Following changes to the seed virus strains, production climbed steadily through the final months of last year. By late October, deliveries were under way in both the United States and Europe, and net sales of pandemic vaccines in 2009 reached USD 1 billion.

REAL-TIME DATA

Novartis initiated testing of its A (H1N1) pandemic vaccines under intense time pressure to ensure licensure as quickly as possible. "We started 12 clinical trials in more than 9 000 people in all age groups within three months of the A (H1N1) virus being identified," said Ralf Clemens, M.D., Ph.D., Head Global Development at Novartis Vaccines. Further studies have been initiated since then and the entire A (H1N1) program will comprise 27 clinical trials and two observational studies including almost 75 000 people.

Studies progressed in close collaboration with health authorities. Dr. Clemens and his team held weekly meetings with officials from the FDA, the European Medicines Agency (EMEA), as well as regulators from Germany and Italy.

Novartis adopted some innovative features in the initial trials of A (H1N1) vaccines to provide regulators a rapid readout on efficacy of the new vaccines. The first pilot trial of *Celtura* was conducted at the University of Leicester. Results were relayed to regulators on both sides of the Atlantic prior to publication in the "New England Journal of Medicine."

"Cell-culture technology enabled us to produce and develop *Celtura* faster than egg-based vaccines," Dr. Clemens said. "That's why we were first."

In Costa Rica, Novartis also conducted a pilot trial of the Liverpool-made vaccine involving more than 1 000 elderly people, adults and children. "We were the first company to have data with a vaccine for the United States," Dr. Clemens added. Results were collected weekly, and the analysis shared immediately with FDA officials. "It was unusual but it gave them real-time data that were helpful in their own internal decision making," Dr. Clemens said.

Earlier studies of a Novartis candidate vaccine against avian flu in 2007 provided a head start in development of the A (H1N1) pandemic vaccines. That study indicated that a pandemic and a seasonal vaccine could be administered simultaneously. "We could see there was no interference," Dr. Clemens said. That observation looms large for plans to include A (H1N1) as a component of future seasonal influenza vaccine.

Following the pilot trial of *Celtura*, a pivotal trial was conducted in Germany, the Netherlands, Switzerland and Belgium. Results showed that *Celtura* generated a protective immune response after a single 3.75-microgram antigen dose in most age groups. That was a fraction of the 15-microgram dose required for unadjuvanted vaccines.

A pivotal study with *Focetria*, the adjuvanted egg-based pandemic vaccine, was conducted in the same centers as *Celtura*. "There was such demand from people wanting to be vaccinated that we decided to simply keep the ball rolling with *Focetria*," Dr. Clemens said.

The FDA approved the A (H1N1) vaccine made in Liverpool in mid-September. Approval of *Focetria* by the EMEA followed in late September, and *Celtura* was approved by German regulatory authorities at the beginning of November. These approvals, however, were accompanied by significant requirements for post-marketing surveillance. "In Europe we are planning for observational studies involving 45 000 volunteers who will be followed up on a monthly basis for any serious adverse event," Dr. Clemens said. "This is a huge undertaking."

COLD CHAIN

Stringent logistical requirements for shipping pandemic vaccines around the world were equally daunting. All vaccines are sensitive biologic substances that progressively lose potency, but the loss of potency occurs faster when a vaccine is exposed to temperatures outside a recommended storage range. Any loss of potency is permanent and irreversible.

"Temperature control is critical," said Stuart Dickson, Global Head Supply Chain at the Vaccines and Diagnostics Division. "The vaccines must be kept between 2 degrees Celsius and 8 degrees Celsius at all times – it's part of the quality of the product. That means we have to assure control in the distribution, and the receiving warehouse has to be quality approved, receive these goods quickly and have the technical skill to handle cold chain."

In Europe, temperature-controlled trucks have been the prime vehicle for distribution. The Liverpool-made A (H1N1) vaccine, however, was shipped from Liverpool to the United States by air in special containers. Distribution of seasonal influenza vaccines usually requires about 700 of these containers. For A (H1N1) pandemic vaccine, at least twice that number was needed.

"A lot of people have worked their hearts out supporting this endeavor," Mr. Dickson added. "It's like a polar expedition. You know where you're trying to go, and you know that it's going to be tough. We're still in the middle of our journey and totally dedicated to succeed."

RETHINKING INFLUENZA

Last July, with preparations for production of pandemic vaccines in full swing, Novartis assembled a select group of influenza experts in Siena for a conference called "Rethinking Influenza." Participants ranged from senior executives from the Vaccines and Diagnostics Division and prominent academics to public health officials at the epicenter of the pandemic, including Robin Robinson, Deputy Assistant Secretary for Preparedness and Response within the US Department of Health and Human Services, and Professor David Salisbury, Chair of the WHO's Strategic Advisory Group of Experts (SAGE), the principal advisory group to the WHO for vaccines and immunization.

In October, eight participants including Dr. Rappuoli of Novartis, Dr. Robinson and Dr. Salisbury summarized their deliberations in an article in the journal "Science." Although the pandemic has the potential to cause a social and economic emergency, they wrote, "It also provides an opportunity to rethink our approach to influenza virus disease, and to develop more effective vaccines and economically sustainable solutions for developing and developed countries."

The article summarized swings in market conditions for seasonal influenza vaccines, from a low point around the year 2000 when major manufacturers abandoned the field, to a resurgence in 2003 through 2005 sparked by outbreaks of avian flu caused by H5N1, a potential pandemic virus. Between 2006 and 2008, global manufacturing capacity surged to 750 million doses per year from 400 million, and development of both adjuvants and cell-culture production technologies made major strides.

Those preparations left the world better prepared to face the A (H1N1) virus than any previous pandemic. But Dr. Rappuoli pointed to major problems that remained unsolved. "We still don't have enough capacity to produce enough pandemic vaccine for developed countries, and certainly not for developing countries," he said at the conference. "The present model for influenza vaccination is not sustainable to support pandemic preparedness."

In the "Science" article, the authors cited other lessons from the A (H1N1) outbreak. "Until A (H1N1) the scientific community believed that a pandemic strain could only arise from a strain that had not previously been widely disseminated in humans," they noted. A (H1N1) showed, however, that human varieties may follow separate lines of evolution and generate potentially pandemic strains within an existing influenza strain. The authors called for epidemiological studies to include developing countries, humans, their livestock and wild animals to be able to map the diversity and circulation of the virus.

They emphasized that most knowledge of influenza virus is based on data accumulated in developed countries, leaving an incomplete and sometimes inaccurate view of virus spread and its global impacts. "Improved influenza surveillance in developing countries is needed and it seems appropriate to add influenza to the vaccines recommended by the Expanded Program for Immunization," the authors said. "The increase in vaccination would be based on excess manufacturing capacity for seasonal vaccines, and would encourage both international and local vaccine manufacturers to invest in additional capacity so as to sustain the surge capacity that is necessary in case of a pandemic."

Failure to act on those recommendations would be costly, Dr. Rappuoli had warned during the conference. "If we don't change the game, we'll just go from one panic to the next, increasing capacity one day but shutting it down the next," he said. "And that means never seeing global implementation of vaccination programs, so people will continue to die."

As Klaus Stohr, Ph.D., Global Head of Influenza Strategy Liaison at Novartis Vaccines and Diagnostics, added: "Before joining Novartis, when I was leading the Global Influenza Program at the WHO including pandemic preparedness, we had gone some way to put the structures and processes in place to respond to a pandemic. Experience in 2009 has demonstrated that we need to prepare even better for the future. An effective response requires governments, vaccine manufacturers and other stakeholders to work closely together, in an uncertain environment, at top speed. Novartis has certainly played its full part in tackling this pandemic, and we can be proud of that."


Self Medication

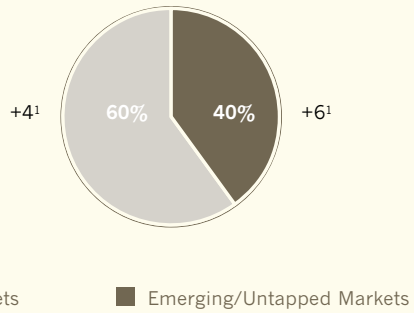
SANDOZ OVERVIEW

KEY FIGURES
(In USD millions, unless indicated otherwise)

	2009	2008
Net sales	**7 493**	7 557
Operating income	**1 071**	1 084
Return on net sales (%)	**14.3**	14.3
Core operating income [1]	**1 395**	1 421
Return on core net sales (%)	**18.6**	18.8
Research & Development	**613**	667
As a % of net sales	**8.2**	8.8
Free cash flow	**1 841**	1 066
Net operating assets	**15 151**	13 948
Additions to property, plant & equipment [2]	**282**	422
Number of associates (FTE) [3] at year-end	**23 423**	23 146

[1] Core operating income eliminates the impact of acquisition-related factors and other significant exceptional items. These adjustments are explained in detail on page 151.
[2] Excluding impact of business combinations
[3] Full-time equivalent positions at year-end

2009 NET SALES – ESTABLISHED VS. EMERGING/UNTAPPED MARKETS
(In %)



[1] 2009 Sandoz net sales growth in local currencies vs. 2008

NEWS IN 2009

Building a solid base for future growth as a global leader in generic pharmaceuticals: Steady improvement in 2009 led by turnaround in the US and contributions from all regions as well as important progress in differentiated generics.

Net sales slip 1% to USD 7.5 billion, but rise 5% in local currencies. German retail generics and biosimilars (+4% lc) solidify leadership position in a challenging market. US retail generics and biosimilars (+5%) helped by 25 new product launches, up from 17 in 2008. Sandoz continues to expand in Asia-Pacific, Russia and other markets with high growth potential.

Core operating income declines 2% to USD 1.4 billion. Improved underlying business expansion and benefits of productivity gains are more than offset by adverse currency impact. Core operating margin declines 0.2 percentage points to 18.6% of net sales.

Sandoz acquires EBEWE Pharma's specialty generics business for USD 1.3 billion in September, creating a new global growth platform in generic oncology injectables. EBEWE offers more than 15 marketed products and a strong pipeline with many potential near-term launches.

A pioneer in developing biosimilars, or generic biotechnology drugs, Sandoz is positioned to provide cost savings and improved access. Filgrastim, a third biosimilar, is launched in Europe, while somatropin becomes the first-ever biosimilar approved in Japan and Canada.

Serving areas with 90% of the world's population, Sandoz generates 40% of net sales from emerging and untapped generics markets. Targets for expansion include emerging markets and countries with low generic utilization, such as Japan and some European markets.

SANDOZ

The acquisition of EBEWE Pharma GmbH, a specialist in generic oncology injectables, places Sandoz, the generics division of Novartis, among the top five global manufacturers in the expansive global market for injectable generics. Injectables underpin the Sandoz portfolio of differentiated generic products that are more difficult to develop, manufacture and market – but offer higher growth and profitability. Along with 15 marketed products, EBEWE brings Sandoz a deep development pipeline including more than 20 distinct molecules.

Sandoz, the generics division of Novartis, reinforced a key growth platform in 2009 by acquiring the specialty generic injectables business of EBEWE Pharma GmbH in a USD 1.3 billion transaction.

EBEWE, based in Unterach, Austria, specializes in generic oncology injectables. Together with existing businesses in retail generics, anti-infectives and biosimilars, the acquisition places Sandoz among the top five global manufacturers of injectable generics, a dynamic market with more than USD 10 billion in annual sales.

Biosimilars are follow-on versions of existing biologic medicines that have lost patent protection – a promising market niche in which Sandoz is the pioneer and global leader.

Injectables underpin the Sandoz portfolio of differentiated generic products that are more difficult to develop, manufacture and market – but offer higher growth and profitability than more commoditized generics. “This will greatly enhance our range of differentiated, affordable, high-quality generic medicines,” said Jeff George, Head of Sandoz and permanent attendee of the Executive Committee of Novartis. “Together with EBEWE, we will improve access to affordable cancer drugs for patients worldwide.”

EBEWE brings Sandoz a portfolio of 15 marketed injectable anticancer products as well as a deep development pipeline including more than 20 distinct molecules. Launch opportunities are expected to sustain dynamic growth. Moreover, access to the global sales and marketing organization of Sandoz could fuel growth of EBEWE products in North America, Latin America and Japan, markets in which the firm has not traditionally had a strong presence.

Oncology is the biggest therapeutic area in the pharmaceutical industry today and the global market for cancer medicines is expected to grow at an annual rate of 12% to 15%, reaching USD 80 billion by 2012. According to IMS Health, a consulting firm specializing in the pharmaceuticals industry, up to 30 new anticancer agents are expected to be approved from 2008 to 2012. Generic manufacturers are also poised for growth; injectable oncology medicines with worldwide annual sales of USD 9 billion are set to lose patent protection by 2015.

BEYOND THE TRADITIONAL APPROACH

The purchase of EBEWE was a logical step, as Sandoz was the Austrian company’s biggest single customer and links had become increasingly close in recent years. Hexal AG, the German generics giant acquired by Sandoz in 2005, had a longstanding relationship with EBEWE, and licensed marketing rights to oncology products as well as innovative packaging technology.

Sandoz built on that foundation – as well as a growing commitment to the field of

oncology, according to Friedrich Hillebrand, Ph.D., EBEWE's former Chief Executive Officer and Head of the new Oncology Injectables business at Sandoz . "It became clear that if we ever decided to look for a potential partner to acquire EBEWE, Sandoz would be our first choice," Dr. Hillebrand said.

Following the acquisition, EBEWE was designated a new business center of excellence for oncology injectables within the Sandoz organization. Dr. Hillebrand has joined the Sandoz executive management committee. "Sandoz has treated our employees very well," Dr. Hillebrand added. "It has been the best outcome in all respects."

Like other generic manufacturers, EBEWE strives to claim coveted first-to-market positions by challenging patents on originator compounds. But EBEWE also goes beyond this traditional approach and offers customers additional features and benefits few rivals can match.

Anticancer medicines traditionally have been delivered to hospitals in vials or ampoules containing a lyophilized, or essentially freeze-dried, powder with a texture similar to instant coffee. This powder must be mixed with liquid by doctors or nurses immediately before administration. EBEWE, however, delivers the vast majority of its products in ready-to-use solutions – a safety bonus for healthcare professionals who administer the treatments. "These substances are highly toxic and it is a competitive advantage to really understand how they are used in hospitals," Dr. Hillebrand said. "We have focused on helping the entire delivery chain – from our factory to the patient."

One example of ready-to-use innovation is EBEWE's gemcitabine, a generic version of the blockbuster anticancer medication marketed by Eli Lilly & Co. under the brand name Gemzar®. While the originator medicine is available in a lyophilized form, EBEWE and Sandoz have jointly launched a more convenient, ready-to-use formulation in Europe.

Another innovative step by EBEWE is the development of specialized packaging techniques to increase safety in the transportation and handling of toxic anticancer medicines. The company's unique Onco-Safe system involves a polymer coating on individual vials and ampoules to prevent breakage and surface contamination.

"We have to stay ahead of rival generics companies," Dr. Hillebrand said. "But we try to avoid competing primarily on price. We want to talk to customers about other parts of the value chain and how our products can help address their needs."

SHARED DISTRIBUTION CHANNELS

Pooling sales and marketing acumen could provide significant benefits because injectable oncology products, anti-infectives and even biosimilars cater primarily to hospitals and often share distribution channels. "Global reach helps you to build the kind of robust supply chain required in the unforgiving hospital environment," said Ernst Meijnders, Head of Anti-Infectives at Sandoz. "And once the infrastructure is established, you want to ensure that you have a broad range of products."

As a leading global manufacturer of anti-infectives, Sandoz offers both the injectable formulations used inside the hospital to treat acute infections plus oral formulations – capsules and pills – that are more convenient for patients who continue treatment after being discharged. Traditionally, however, the Sandoz sales force hasn't focused on decision makers that EBEWE sales representatives see regularly on critical-care wards and in chemotherapy departments. "Now that comes together around common customers as they are all heavily hospital-driven," Mr. George said.

Individual countries are at such different stages of evolution in treatment of cancer that it isn't yet possible to implement a uniform global marketing strategy, Dr. Hillebrand added. "We tailor our approach country by country, according to market dynamics."

Moreover, despite the flood of new targeted anticancer medicines expected to reach the market in the next five years, Dr. Hillebrand insists affordable, generic versions of established chemotherapy regimens in broad use today will remain the foundation of treatment. "These are the medicines we have in our existing portfolio, as well as our development pipeline," he said.

PIONEERING BIOSIMILARS

Injectable generics provide a bridge to biosimilars – large molecules in injectable dosage forms that in some cases also must be self-injected by patients. Sandoz is the only company to gain marketing authorization of three biosimilar products, and the division has a comprehensive biosimilar pipeline with numerous projects at various stages of development.

In regulatory breakthroughs in 2006, the recombinant human growth hormone *Omnitrope* became the first biosimilar product to receive regulatory approval in the United States and the European Union. During 2009, regulatory authorities in Japan and Canada granted approval of *Omnitrope* as the first biosimilar to reach patients in both countries.

Complementing *Omnitrope*, *Binocrit*, a biosimilar epoetin alfa used to regulate the formation of red blood cells, was approved by the European Union in 2007.

Breaking new ground again last year, Sandoz received approval from the European Union for a third biosimilar: *Zarzio*, known by the common name filgrastim and based on Neupogen® from Amgen Inc. *Zarzio* is indicated for treatment of neutropenia, a condition characterized by a lack of one of the most common types of infection-fighting

white blood cells and often associated with chemotherapy or bone marrow transplants, as well as advanced HIV infections.

The biosimilar program at Sandoz is based on more than 25 years of experience in development and production of biologic medicines. Sandoz codeveloped and manufactured interferon alpha in the 1980s, and currently manufactures more than a dozen recombinant proteins on behalf of other companies in addition to the Novartis Pharmaceuticals Division and Vaccines and Diagnostics Division.

Like EBEWE, Sandoz also has developed delivery systems that enhance convenience for patients. *Omnitrope* was originally launched in a lyophilized form. But regulators in the United States and the European Union subsequently approved a new, more patient-friendly liquid pen form in which *Omnitrope* is marketed in a ready-to-use cartridge that can be loaded into the pen for injection.

"Biopharmaceuticals offer real therapeutic hope to patients suffering from the most complex diseases of modern society," Mr. George said. "Biosimilars, pioneered by Sandoz, increase access to these essential drugs, lowering treatment costs and saving money for patients and healthcare systems more broadly."

TIGHT COST CONTROL

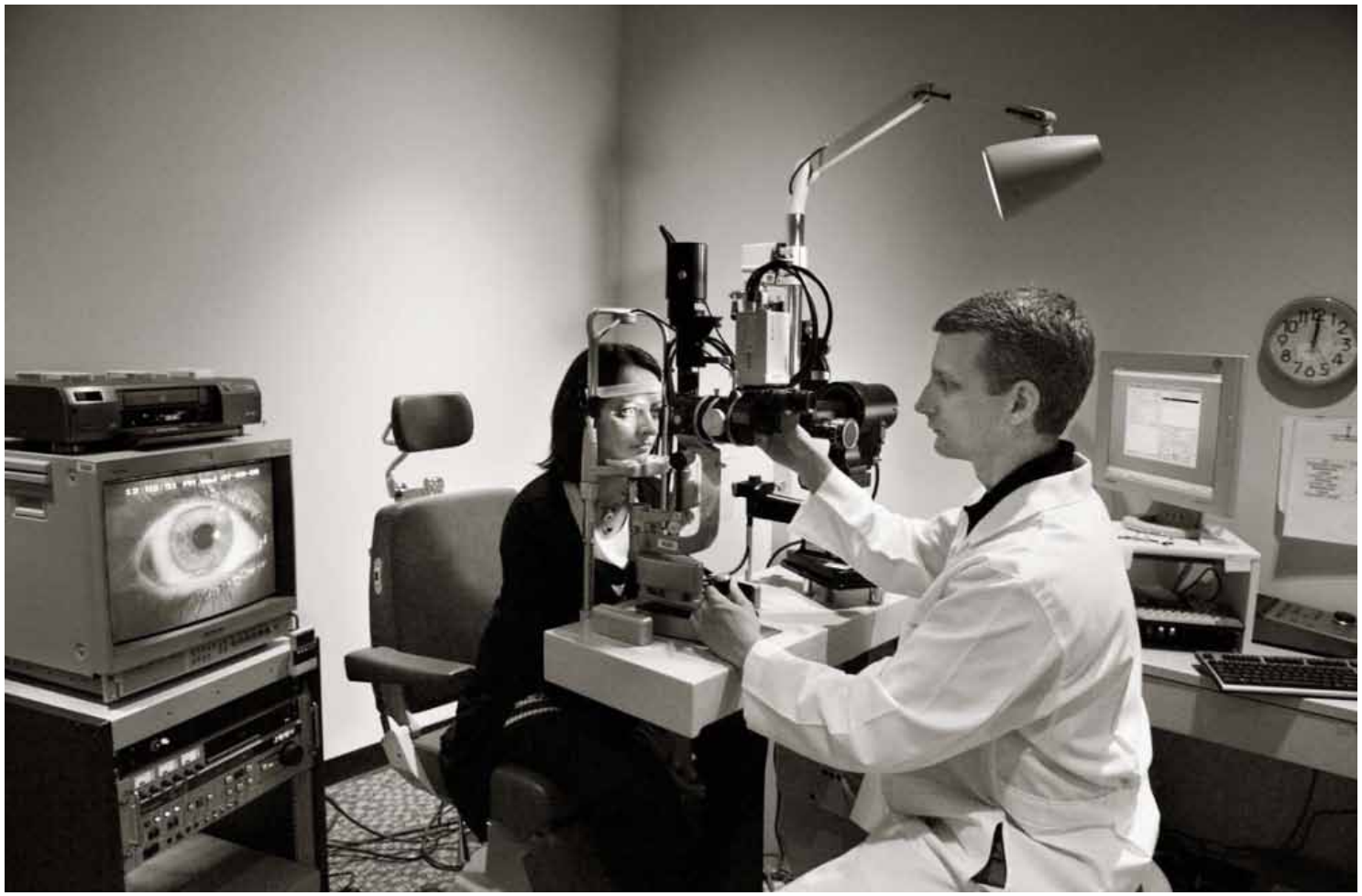
While differentiated generic products generate a steadily increasing proportion of net sales, more commoditized generics still account for more than two-thirds of net sales at Sandoz. Commoditized generics are fiercely competitive, with annual price erosion of about 10%.

"To offset that price erosion we have to recreate half our operating profit – well over USD 500 million per year – through a combination of increased volume, product introductions and cost reductions," Mr. George said.

Tight cost control is critical for success, but at times, Sandoz has faced challenges. Operating costs rose significantly faster than sales in 2008, which led Mr. George to initiate a broad operating improvement program known as Project Compete that reduced annual costs by more than USD 300 million in 2009. Of those savings, more than 80% were unrelated to employee head count. "We're finding ways to become more efficient and continuously improve the way we work," Mr. George said.

In 2009, Sandoz management also completed a comprehensive remediation program at a production site in Wilson, North Carolina. In August 2008, Sandoz received a Warning Letter from the US Food and Drug Administration (FDA) regarding deviations from Good Manufacturing Practices (GMP) at the Wilson site. Sandoz subsequently initiated voluntary recalls of a number of products.

The remediation program at the Wilson site addressed specific validation and documentation issues cited by the FDA, and Mr. George replaced top management at the US unit of Sandoz as well as management at the North Carolina plant. A reinspection by FDA officials in August confirmed that issues identified in the Warning Letter had been resolved, the site was back in GMP compliance, and a stay on new product approvals from the Wilson site was lifted.



CONSUMER HEALTH OVERVIEW

KEY FIGURES

(In USD millions, unless indicated otherwise)

	2009	2008
Net sales	**5 812**	5 812
Operating income	**1 016**	1 048
Return on net sales (%)	**17.5**	18.0
Core operating income [1]	**1 118**	1 125
Return on core net sales (%)	**19.2**	19.4
Research & Development	**346**	313
As a % of net sales	**6.0**	5.4
Free cash flow	**1 139**	995
Net operating assets	**3 168**	3 179
Additions to property, plant & equipment [2]	**164**	160
Number of associates (FTE) [3] at year-end	**12 539**	13 014

[1] Core operating income eliminates the impact of acquisition-related factors and other significant exceptional items. These adjustments are explained in detail on page 151.
[2] Excluding impact of business combinations
[3] Full-time equivalent positions at year-end

2009 CONSUMER HEALTH MARKET INFORMATION

	OTC	Animal Health	CIBA Vision
Novartis net sales in USD millions	2 997	1 101	1 714
Novartis sales growth (lc) [1]	5.2%	3.8%	5.4%
Market segment growth [2]	3.4%	– 1.4%	2.0%
Novartis market share [2]	3.2%	7.0%	21.4%
Global industry rank [3]	4	6	2

[1] 2009 local currency growth vs. prior year
[2] MAT Q3 2009, local currency; sources (OTC: Nicholas Hall, Animal Health: Internal analysis; CIBA Vision: Internal Analysis)
[3] MAT Q3 2009, local currency; sources (OTC: Nicholas Hall; Animal Health: Vetnosis; CIBA Vision: Internal Analysis)

NEWS IN 2009

Consumer Health provides access to trusted brands for healthy lifestyles. Three business units – OTC, Animal Health and CIBA Vision – are building globally competitive positions through innovative products and geographic expansion.

Net sales (USD 5.8 billion, 0% in USD; +5% in local currencies) show improved underlying results as all businesses outgrow their markets despite challenging conditions. Adverse currency impact more than offsets underlying improvements in core operating income, resulting in the core operating income margin falling slightly to 19.2% of net sales.

OTC expands global presence with brands serving self-care needs in gastrointestinal, analgesics, cough, cold, allergy, skin care and smoking cessation. The US launch of *Prevacid24HR* in November offers consumers the first and only OTC version of a proton pump inhibitor for treatment of frequent heartburn in its original formulation.

Animal Health expands companion-animal presence with focus on key countries and new products such as *Onsior* for pain relief in cats and dogs. Despite global farming crisis, advances are made in antiparasitics for livestock and vaccines for aquaculture.

CIBA Vision, the industry's fastest-growing contact lens and lens care company, benefits from new product launches in the US and Europe. New product enhancements for healthy vision include breathable lenses and color contacts.

CONSUMER HEALTH

Prevacid24HR, a new over-the-counter (OTC) treatment for frequent heartburn pain, is expected to become the latest addition to the portfolio of Consumer Health Division brands with annual sales exceeding USD 100 million. The Consumer Health Division is also driving growth by rejuvenating regional OTC brands, launching new contact lens products and expanding the Animal Health development pipeline in close cooperation with other Novartis divisions.

In 2009, 15 brands at the Novartis Consumer Health Division posted sales of more than USD 100 million, and 12 of those brands gained market share during the year.

The latest addition to the roster of important consumer brands is expected to be *Prevacid24HR*, a new over-the-counter (OTC) version of prescription *Prevacid*, the widely prescribed proton pump inhibitor. *Prevacid24HR* treats frequent heartburn pain for a full 24 hours.

Novartis acquired the rights to commercialize *Prevacid24HR* in the United States in 2005 and the OTC Business Unit has made meticulous preparations for its biggest launch in years. "This opportunity is massive, and we're making major investments to build the brand," said George Gunn, MRCVS, Head of the Consumer Health Division and permanent attendee of the Executive Committee of Novartis.

At the same time, the Consumer Health Division is driving growth by rejuvenating existing brands at OTC as well as the other two business units. Successful OTC brands such as *Savlon* in the United Kingdom, *Fenistil* in Germany and *Otrivin* in Scandinavia gained market share through line extensions and strong marketing support.

Innovation has helped rejuvenate the brand portfolio at the CIBA Vision Business Unit, a global leader in contact lenses and lens care products. Under its two master brands, *Air Optix* and *Dailies*, CIBA Vision has launched new lenses to improve comfort, correct astigmatism and alleviate presbyopia, the age-related inability of the eye to focus on close objects.

New product launches enabled the Animal Health Business Unit to continue its record of faster-than-market increases of net sales since 2004. Over that six-year period, Novartis Animal Health also built a deep development pipeline with a distinctive strategy emphasizing close cooperation with other Novartis divisions.

Because a modest research budget in Animal Health was unlikely to produce repeated breakthrough discoveries from its own labs, "we set out to look at the innovation we have across the whole Novartis Group," said Dr. Gunn, who heads Animal Health in parallel with the Consumer Health Division. Today, the Animal Health development pipeline includes more than 50 projects in areas ranging from dermatology and cardiorenal disease to obesity and lactation. More than half of these projects trace their origin across other Novartis divisions, and a number of new veterinary medicines have reached the final, pivotal stage of clinical testing.

Dr. Gunn plans to apply the same pragmatic approach more broadly. "We have many good assets, and we need to produce more value out of them," he said. "The first step in that effort is making the most of what we've got."

DYNAMIC PORTFOLIO

OTC brands improve access to treatment by giving consumers the option of self-medication at a reasonable cost. "More Americans are taking greater ownership of their healthcare decisions today," said Dirk Van de Put, Global Head of the OTC Business Unit. "Providing broad access to *Prevacid24HR*, this very effective treatment for frequent heartburn, is a milestone in the over-the-counter medicine category."

Digestive health is the fourth-biggest OTC category in the United States, growing at a rate of about 4% per year. *Prevacid24HR* augments a dynamic portfolio of digestive health brands at Novartis, ranging from *Benefiber*, a bulk fiber supplement, and the antacid *Maalox*, to *Gas-X*, a remedy to ease the bloating and discomfort of gas, available in multiple formats, including liquid gels, chewable tablets and thin strips that melt in the mouth.

Prevacid24HR was approved by the US Food and Drug Administration in the form of 15 milligram delayed-release capsules for treatment of frequent heartburn, defined as occurring two or more days per week. A proton pump inhibitor, *Prevacid24HR* works by reducing the amount of acid produced in the stomach, limiting the potential for acid to back up into the esophagus to cause heartburn.

The *Prevacid24HR* launch by Novartis represents one of the biggest prescription-to-OTC switches in recent years. The prescription medicine achieved peak annual sales exceeding USD 3 billion prior to loss of patent protection, and more than 21 million patients were prescribed *Prevacid* to treat their acid-related disorders.

Novartis Consumer Health has extensive experience in taking prescription products over-the-counter, enabling more patients to get access to medicine they need to treat appropriate symptoms. *Voltaren*, *Lamisil* and *Nicotinell* – three of the biggest global switches by the OTC Business Unit – originated as prescription medicines discovered and developed by Novartis.

The success of *Prevacid24HR* built on that in-depth experience, combined with meticulous planning. Initial demand is notoriously difficult to forecast, and supply glitches – limiting product availability at the crucial early stages of a launch – had burdened many previous prescription-to-OTC switches. The supply chain for *Prevacid24HR* averted shortages through a strategy allowing a rapid increase of output in response to sudden peaks in demand.

OTC established cross-functional teams to promote *Prevacid24HR* to large retail customers including national pharmacy chains. In the United States, both Wal-Mart Stores Inc. and Walgreen Co. jointly developed TV commercials and other advertising with Novartis. *Prevacid24HR* was the first OTC product displayed in the food sections as well as pharmacies in Wal-Mart stores. "It was a breakthrough," said Jeanne Bennett, Vice President OTC Marketing.

Meanwhile, CVS Caremark Corp. packed its pharmacies around the United States with special in-store displays introducing *Prevacid24HR*. "These activities all strengthened the strategic nature of our relationship with these retailers," Ms. Bennett added.

A DIFFERENT TWIST

In 2009, the Animal Health Business Unit launched two new products that underscored complementary approaches to research and development it has undertaken in recent years.

Zolvix is a breakthrough treatment for control of parasitic worms in sheep, including worms resistant to previously available treatments. Resistance is a significant problem for sheep farmers worldwide, and *Zolvix* represents the first new class of worm control therapy to reach the market in more than two decades.

Scientists at Animal Health identified the active ingredient in *Zolvix* after testing hundreds of chemically related molecules. The drug works by targeting a newly identified receptor found only in parasitic worms. That selective mode of action also helped establish a robust safety profile for *Zolvix* during clinical studies.

Onsior, a new painkiller for cats and dogs launched across the European Union last year, exemplified a different path: borrowing discoveries from other Novartis divisions. Just as with prescription-to-OTC switches, development of veterinary versions of human medicines is a familiar formula. *Onsior*, however, gave that formula a different twist.

"This is not your classic switch of a successful human product where you have enough data on safety to take the product into OTC, or perhaps into another species," said Fabian Kausche, Dr. med.vet., Head Research and Development at Novartis Animal Health. The active ingredient in *Onsior*, known by the common name robenacoxib, was discovered by the Novartis Pharmaceuticals Division but never became a serious candidate for development as a human medicine. "It's an example of how we work systematically today, looking at early-stage compounds that may be of no interest to other divisions," Dr. Kausche added. "It's creating value for Animal Health but also value for Novartis."

Ironically, the *Onsior* program was galvanized by the success of *Deramaxx*, a painkiller approved in the United States for treatment of pain in dogs. Both *Onsior* and *Deramaxx* are "coxibs," drugs that selectively target an enzyme family that causes pain but don't affect a closely related family of enzymes that can trigger unwanted side effects.

Deramaxx was licensed from Pfizer Inc. under an agreement that ultimately restricted possibilities of expanding use of the drug into additional indications, species and

geographic markets. Unencumbered by such constraints, *Onsior* is the first and only coxib approved for the relief of pain and inflammation in both cats and dogs. Moreover, Novartis Animal Health has developed two formulations – a convenient injectable version for veterinary surgery and tablets for ongoing pain control outside the clinic. *Onsior* tablets are flavored, and the cat formulation is designed to have an attractive taste for finicky felines.

EXCHANGE OF DISCOVERIES

Development of *Onsior* was under way when Dr. Gunn took the helm at Animal Health in 2004 and immediately embarked on improving cross-divisional collaboration in research programs. Working closely with peers from Pharmaceuticals, scientists from Animal Health trawled through mountains of data, searching for mechanisms or compounds with potential veterinary indications. For example, certain animals have receptor systems similar to humans, and a chemical with activity against these receptors in humans would be of potential interest in animals, as well.

"In year one, our target was to identify three leads for Animal Health development programs," Dr. Gunn recalled. "We actually got several times that number."

Subsequently, collaborations between Animal Health and the rest of Novartis have expanded. Synergies continue to emerge, particularly with the Vaccines and Diagnostics Division where the exchange of discoveries runs in both directions. When Novartis raced to develop a pandemic vaccine against the influenza A (H1N1) virus in 2009, Animal Health was able to help. "We had 13 isolates of swine flu virus from pigs that we gave the Vaccines Division immediately, and we also did some serum testing for their pandemic vaccine project," Dr. Gunn said.

Novartis Animal Health has even enlisted the services of the Pharmaceuticals Division's Modeling and Simulation function. "Normally we take animal data and try to humanize it, but the reverse is also possible," said Donald R. Stanski, M.D., Head of the Modeling and Simulation group. "We are going to reverse-engineer some of our platforms modeling hypertension and other diseases to help Animal Health understand clinical pharmacology in dogs, cats, cattle and fish. They are going to pick out the molecules but it's important to get the dose and duration right."

CIBA VISION

Recently launched products enabled CIBA Vision to accelerate growth and gain global market share in 2009. Products introduced during the past two years underscored a strong focus on innovation and portfolio renewal.

CIBA Vision has a full portfolio of products that meets all vision correction needs including spherical astigmatism, a subtle difference in the shape of the cornea that blurs vision, and presbyopia, gradual loss of the eye's ability to focus on close objects. The products are offered under two master brands: *AirOptix* and *Dailies*.

The *AirOptix* family of products achieved buoyant double-digit net sales growth as a result of successful launches of innovative contact lenses. *AirOptix* contact lenses are made of silicone hydrogel, a patented lens technology that helps maintain moisture by minimizing the rate of lens dehydration. This allows more oxygen to be transmitted through the lens when compared with traditional contact lenses, resulting in a healthy, natural feeling. Oxygen and moisture are increasingly important with advancing age and waning supplies of natural tears to keep the eyes moist.

AirOptix for astigmatism contact lenses provide excellent overall fitting predictability and comfort to consumers with a subtle difference in the shape of their cornea. An estimated 40% of people who wear soft contact lenses have astigmatism but only 28% wear toric lenses, indicating a significant market opportunity. In recent years, the toric lens segment has grown at nearly triple the rate of the overall contact lens market.

AirOptix Multifocal contact lenses address the needs of consumers who have presbyopia. The condition usually begins around age 40 and causes many wearers to abandon contact lenses due to dissatisfaction with vision and comfort. *AirOptix* Multifocal lenses offer clear vision at all distances, helping consumers through the different stages of presbyopia. As much as 57% of the vision-corrected population is eligible for a presbyotic correction, but only 7% currently wear multifocal contact lenses, leaving a significant untapped market potential.

The *Dailies* family of contact lenses complements CIBA Vision's product portfolio, offering comfort and flexibility in a daily disposable modality. *Dailies AquaComfort Plus* contact lenses, the flagship product of the *Dailies* portfolio, continue to be a main driver of the business. In 2009, CIBA Vision announced extended parameters for *Dailies Toric* lenses (for people with astigmatism), enabling eye care practitioners to fit the majority of patients with astigmatism who desire the convenience, comfort and health provided by a daily disposable lens.

CORPORATE CITIZENSHIP

Corporate Citizenship at Novartis is an integral part of how we operate and a key to our success.

Our Corporate Citizenship commitment rests on four pillars:

Patients

Novartis seeks to ease suffering and enhance the quality of life for patients, including those who cannot afford treatment.

People and Communities

We strive to provide our associates with the safest possible workplaces, and to promote their health and well-being. We are an integral part of the communities that host our operations.

Environment

Careful stewardship of natural resources – particularly tight control of waste, greenhouse gas emissions and energy efficiency – is important to Novartis.

Ethical Business Conduct

We strive for high performance with integrity.

CONTENTS

CORPORATE CITIZENSHIP KEY PERFORMANCE INDICATORS

Indicator [1]	2009	2008	2007	2006	2005
Economic [2]					
Net sales in USD billions	**44.3**	41.5	38.1	34.4	29.4
Net income in USD billions, % *of net sales*	**8.5, *19%***	8.2, *20%*	6.5, *17%*	6.8, *20%*	5.8, *20%*
Research & Development in USD billions, % *of net sales*	**7.5, *17%***	7.2, *17%*	6.4, *17%*	5.3, *15%*	4.8, *16%*
Purchased goods and services [3] in USD billions, % *of net sales*	**21.3, *48%***	20.3, *49%*	19.4, *51%*	15.8, *46%*	13.3, *45%*
Personnel costs in USD billions, % *of net sales*	**10.9, *25%***	10.6, *25%*	9.9, *26%*	8.7, *25%*	7.5, *25%*
Taxes in USD billions, % *of net income before taxes*	**1.5, *15%***	1.3, *14%*	0.9, *13%*	1.2, *15%*	1.0, *14%*
Dividends in USD billions, % *of net income*	**4.6, *55%***	3.9, *48%*	3.3, *51%*	2.6, *38%*	2.0, *35%*
Cash returned to shareholders via share repurchases in USD billions, % *of Group total net income*	**0.0, *0%***	0.3, *0%*	4.7, *39%*	0.0, *0%*	0.5, *8%*
Share price at year-end (CHF)	**56.50**	52.70	62.10	70.25	69.05
Patients					
Access to medicine [4]: value in USD millions	**1 510**	1 259	937	755	696
Access to medicine [4]: number of patients reached [million]	**79.5**	73.7	65.7	33.6	6.5
People and Communities					
Number of full-time equivalent positions	**99 834**	96 717	98 200	100 735	90 924
Resignations (incl. retirements), separations, hiring (% of associates)	**– 8, – 3, 14**	– 10, – 5, 14	9, 4, 17	8, 4, 19	8, 4, 16
Women in management [5]: % of management, % of Board of Directors	**35, 16.9**	37, 8.3	35, 8.3	31, 0.0	28, 0.0
Number of associate nationalities	**144**	143	139	–	–
Lost-time injury and illness rate (LTIR) [6] [per 200 000 hours worked] [2]	**0.22**	0.34	0.42	0.45	0.51
Total recordable case rate (TRCR) [6,7] [per 200 000 hours worked] [2]	**0.94**	1.09	1.41	1.43	1.34
Transportation-related injuries leading to lost time [2,6]	**58**	77	92	–	–
Environment [2,8]					
Contact Water use (excludes cooling water) [million m^3]	**15.0**	15.1	15.4	15.2	15.0
Energy use [million GJ], on site and purchased	**17.0**	16.8	16.7	16.4	15.3
Emission CO_2/GHG, Scope 1: Combustion and processes [1000 t]	**400**	404	408	408	383
Emission CO_2/GHG, Scope 1: Vehicles [1000t]	**177**	184	198	187	202
Total operational waste not recycled [1000 t], hazardous and non-hazardous	**164**	165	177	156	115
Ethical Business Conduct					
Number of associates trained on Code of Conduct (e-learning courses) [9]	**29 493**	15 990	16 697	14 574	33 000
Managers completing certification on Code of Conduct	**26 300**	26 750	27 000	23 000	20 000
Cases of misconduct reported/substantiated [10]	**913/240**	884/374	906/421	651/326	442 [11]/241 [11]
Dismissals/resignations (related to misconduct) [10]	**155**	217	249	154	131 [11]
Number of suppliers	**206 155**	228 769	228 558	–	–
Number of suppliers informed of Novartis Third-Party Guidelines (Annual sales of more than USD 10 000)	**45 858**	28 792	61 715	42 200	39 000
Number of suppliers to confirm key standards [12] (self-declaration)	**842**	1 157	1 377	8 600	5 500

[1] Data reported in the "Ethical Business Conduct" (except "Number of suppliers" items) and "Health, Safety & Environment" sections include the entire Group; Data reported in "Number of suppliers" items excludes the Vaccines and Diagnostics Division
[2] Years 2005 to 2007 have been adjusted to exclude the Consumer Health Division Nutrition operations divested in 2007, unless otherwise stated
[3] As included in the Group's Value Added Statement
[4] See table on page 72 (Access-to-medicine table)
[5] Management defined locally; the actual reporting relationship of these executives is to executives and/or the boards of directors within the companies that employ them
[6] Excludes data for contractors
[7] Includes all work-related injury and illness, whether leading to lost time or not
[8] Details see: www.corporatecitizenship.novartis.com/environmental-care
[9] 2009 figure includes new associates and other associates not previously trained
[10] Figures of previous years have been updated to reflect completion of outstanding investigation
[11] From April to December 2005
[12] In 2007 Novartis modified financial requirements for self-declarations by suppliers, focusing on suppliers with the highest business volumes and resulting in a significant decline in the number confirming key standards

NEWS IN 2009

PATIENTS	Treatments worth USD 1.5 billion are contributed through Novartis access-to-medicine programs in 2009, reaching 79.5 million patients in need. Deliveries of the pioneering antimalarial medicine *Coartem* climb 14% to 84 million treatments. By the end of 2009, 300 million *Coartem* treatments have been delivered without profit since 2001, saving an estimated 750 000 lives. Following initial approval in late 2008 by Switzerland's regulatory agency, Swissmedic, the new pediatric formulation *Coartem* Dispersible receives marketing authorization in 25 malaria-endemic developing countries. The Novartis Vaccines Institute for Global Health, a research institute with a nonprofit mission to focus on development of vaccines for diseases of the developing world, is awarded a grant from the Wellcome Trust to develop a bivalent vaccine for typhoid fever, a disease that affects more than 21 million people worldwide every year. Novartis announces the official extension of its tuberculosis (TB) drug donation to Tanzania, committing to deliver a further 250 000 treatments over the next three to four years. Between 2005 and 2008, Novartis delivered 250 000 TB treatments to Tanzania.
PEOPLE AND COMMUNITIES	Novartis conducts the first Global Employee Survey, aiming to understand key drivers of engagement for associates. The response rate is a stellar 90%, signaling a high level of involvement as well as a broad-based commitment to making Novartis an even stronger company.
ENVIRONMENT	Underscoring the voluntary commitment by Novartis to the Kyoto protocol, solar energy systems have been installed to date at five sites around the world. Group-wide solar electricity capacity is tripled in 2009 by completion of a 1-megawatt solar power system at a Pharmaceuticals Division site in Vacaville, California.
ETHICAL BUSINESS CONDUCT	Novartis abides by the highest standards of animal welfare – and ensures that the same high standards are maintained in Novartis-sponsored studies performed with external partners. Nevertheless, Novartis associates have been subjected to an increasingly violent campaign of harassment and intimidation by animal rights extremists using illegal methods to pursue their objective of stopping the use of animals in research.
RANKINGS	Novartis again achieves top-level positions in influential rankings and is named one of the leaders in the pharmaceutical sector of the Dow Jones Sustainability Index; ranks number two in "Fortune" magazine's list of "World's Most Admired Companies" in the pharmaceutical industry; is named one of the top 20 companies in DiversityInc's "Top 50 Companies for Diversity" and, for the third year, is recognized as a top pharmaceutical company in the 2009 "World's Most Ethical Companies" list from Ethisphere Institute.

CORPORATE CITIZENSHIP

Innovation is the essence of the mission of Novartis, underpinning a uniquely broad range of healthcare solutions that address the evolving needs of patients and societies worldwide. While Corporate Citizenship begins with the success of the core business, attaining those objectives with integrity and in an environmentally sustainable manner is essential to maintain a high level of employee engagement.

During 2009, medicines and vaccines from Novartis were used to treat and protect more than 930 million people around the world, according to internal estimates.

That contribution reflects a consistent strategy of focused diversification in healthcare – and a uniquely broad range of healthcare solutions addressing the evolving needs of patients and societies worldwide. Innovation is the essence of the mission of Novartis. Investment in research and development by Novartis ranks among the highest in the pharmaceutical industry, measured as a percentage of sales. Focusing on unmet medical need inspires Novartis associates to connect science with customer insights to develop new medicines and vaccines.

Corporate Citizenship at Novartis begins with the success of the core business and growth generated by a constant stream of new products, improving access to treatment as well as prevention of disease. At the same time, Novartis associates strive to create value beyond business success and to operate in a manner that is environmentally sustainable and responsible to an increasingly diverse array of stakeholders. Those aspirations are reflected in the four pillars underpinning Corporate Citizenship: Commitment to Patients, Commitment to People and Communities, Commitment to the Environment, and Commitment to Ethical Business Conduct.

Drug discovery at Novartis is driven by unmet medical need, combined with strong scientific rationale for addressing that need worldwide. The uniquely long development and commercialization cycles in the pharmaceutical industry mean that selection of research projects must take into account future trends in demographics and disease.

In coming decades, the world's population will age, and population growth increasingly will come in Asia and Africa while flattening in developed countries in North America and Europe. The Pharmaceuticals Division is expanding rapidly in emerging markets, and in November 2009 Novartis announced a USD 1 billion investment to expand research and development activities in China over the next five years. The investment builds on the establishment of the China Novartis Institutes for BioMedical Research in Shanghai in 2006, and will extend and increase collaboration with institutions in China.

An initial focus of research at the Shanghai institute has been infectious causes of cancer, an area of unmet need in the Asia-Pacific region and China in particular. Liver cancer is a common complication of infection by the hepatitis B virus that kills an estimated 300 000 people in China each year.

ACCESS TO MEDICINE

Through access-to-medicine programs, Novartis also is helping poor patients in the developing world benefit from the revolution in biomedical science and technology that underpins the Group's commercial research. Treatments worth USD 1.5 billion were contributed through access-to-medicine programs in 2009, reaching 79.5 million patients in need.

For almost a decade, Novartis has helped transform treatment of malaria through a partnership with the World Health Organization (WHO), providing the pioneering medicine *Coartem* at no profit for public sector use by countries in sub-Saharan Africa. By the end of 2009, almost 300 million *Coartem* treatments had been delivered, saving an estimated 750 000 lives in more than 50 malaria-endemic countries, the vast majority in Africa. During 2009, Novartis and partner Medicines for Malaria Venture introduced *Coartem* Dispersible, a new child-friendly formulation that eases administration and enables accurate dosing for children, the most vulnerable group of malaria patients.

Since 2000, Novartis has provided free treatments for all leprosy patients worldwide, as well as fixed-combination tablets to treat tuberculosis patients in the world's poorest countries under separate collaborations with the WHO. In addition, research centers funded by Novartis have nonprofit missions to discover medicines and vaccines against diseases of the developing world.

EMPLOYEE ENGAGEMENT

Creating a diverse and inclusive working environment is critical to success and Novartis strives to sustain a high level of employee engagement that fosters high achievement and employee satisfaction. In 2009, Novartis conducted a global employee survey to measure engagement and capture feedback from associates about their experience of working at Novartis. The high score received for "Integrity and Social Responsibility" was particularly important because that category is the top driver of engagement for employees at Novartis.

The Group's Diversity & Inclusion initiative is increasingly important at a time of changing global workforce dynamics. A focus on culture, talent and marketplace generates value by effectively optimizingthe share of available talent, consolidating competitive advantage for Novartis and serving customers with excellence. Special programs implemented in China and Russia have led to significant decreases in turnover and higher engagement for associates in those markets.

ENERGY AND SAFETY

In 2005, Novartis voluntarily committed to the Kyoto protocol, the international agreement that sets binding targets for reducing greenhouse gas emissions by 2012. Programs to improve energy efficiency and reduce emissions continued to make progress during 2009.

Energy Excellence Awards introduced in 2004 showcase the progress of the energy efficiency strategy and reduction of emissions. To date, Novartis has invested about USD 43 million in projects recognized with Energy Excellence Awards and the simple payback was just 11 months. Taken together these projects have reduced energy consumption by 7% and greenhouse gas emissions by 4.5%. Moreover, significant progress was achieved in generating renewable energy from locally available biofuels during the year.

During 2009, the Group-wide lost-time injury and illness rate (LTIR) decreased from 0.34 in 2008 to 0.22, or 222 incidents where associates were unable to come to work for a least one day. Underscoring the steady decline of the LTIR in recent years, the Executive Committee of Novartis set a midterm target for 2012 of reducing the accident rate to 0.2, or approximately 200 accidents per year. However, due to substantial progress this year in reducing the LTIR by 35 % to 0.22, a target of 0.20 has been set for 2010, i.e., two years in advance of the original target.

ANIMAL WELFARE

Animal experimentation is a mandatory part of modern discovery and development of innovative medicines. Novartis is required by law and regulation in countries around the world to conduct animal testing to confirm the efficacy and safety of medicines.

"We do so with the utmost sensitivity, however, abiding by the highest standards of animal welfare and using the most advanced technology to reduce animal testing where possible, through alternative methods including testing in cells or computer modeling," said Paul Herrling, Ph.D., Head of Corporate Research at Novartis.

During the past year, however, Novartis associates have been subjected to an increasingly violent campaign of harassment and intimidation by animal rights extremists using illegal and terroristic methods. Novartis has implemented additional security measures to protect the health and safety of associates, and is working closely with law enforcement authorities at the local, regional and national levels to investigate these crimes and bring those responsible to justice.

CORPORATE CITIZENSHIP: TARGETS AND RESULTS FOR 2009 AND TARGETS FOR 2010

UN GLOBAL COMPACT

Targets 2009	Results 2009	Targets 2010
Participate in the Human Rights Working Group of the UN Global Compact to advance thinking on compliance assessments for human rights as well as concepts for access to medicine.	Supported the Human Rights Working Group. Launched a comprehensive project to review human rights due diligence activities, based on the human rights assessment tools currently available.	Compile the learnings of the four pilot applications of the Human Rights Compliance Assessment tool in order to further integrate it into existing management systems.

RESPECT FOR HUMAN RIGHTS

Targets 2009	Results 2009	Targets 2010
Test the tool for assessing human rights compliance in a fourth country and continue to facilitate the development of a pharma-specific version by sharing the pioneering experience. Test the Business Leadership Initiative on Human Rights (BLIHR) matrix tool for a cross-check of the company's main policies regarding the completeness in terms of human rights.	Tested a draft version for the pharmaceutical industry of the Human Rights Compliance Assessment tool with Novartis Indonesia. In April 2009, hosted the final BLIHR conference to follow up on BLIHR's work aimed at integrating human rights into business activities.	Participate in the Human Rights Working Group and publish another "Communication on Progress" report acknowledged as "notable" by the Global Compact Office.

TRANSPARENT REPORTING

Targets 2009	Results 2009	Targets 2010
Release the 2008 "Communication on Progress" on the 10 principles of the UN Global Compact. Continuously update Citizenship@Novartis.	2008 "Communication on Progress" released in January.	Release 2009 "Communication on Progress." Continuously update Citizenship@Novartis.

GOVERNMENT RELATIONS/LOBBYING

Targets 2009	Results 2009	Targets 2010
Publish additional position papers about healthcare topics of interest to external stakeholders. Continue improving Public Affairs skills in all markets.	Published or updated Novartis perspective on six key topics. (See page 93 for link to "Perspectives on Key Issues.") Expanded worldwide training for Public Affairs staff. In 2009, Novartis spent USD 29 million in support of major international, US and pan-European trade associations.	Continue to identify and publish Novartis perspectives on healthcare issues.

FINANCIAL COMMUNITY

Targets 2009	Results 2009	Targets 2010
Release 2008 Global Reporting Initiative (GRI) report using the third generation guidelines (G3) and maintain ranking. Strive to maintain a top industry rating for corporate citizenship engagement.	2008 Novartis GRI report used the GRI G3 sustainability reporting guidelines at an application level of A+, checked and confirmed by the GRI. In 2009, Novartis continued to achieve high ratings in several corporate citizenship industry rankings. (For more on rankings, see page 63.)	Release 2009 Novartis GRI report at an application level of A+. Strive to maintain high ratings on key industry corporate citizenship rankings.

COMMITMENT TO PATIENTS

Access-to-medicine programs at Novartis target diseases from malaria and leprosy to tuberculosis and cancer. Moreover, Novartis finances research institutes with nonprofit missions – to discover new medicines and vaccines specifically tailored to the needs of developing countries. During 2009, Novartis access-to-medicine programs reached 79.5 million patients in need, through contributions valued at USD 1.5 billion.

For more than 20 years, Philip Thuma, M.D., has divided his time between caring for patients and conducting malaria research in Macha, a rural farming district in the Southern province of Zambia.

His father was an American physician and missionary who established the Macha Mission Hospital in 1957. Dr. Thuma grew up in Macha and returned after earning a medical degree in the United States. Macha Mission Hospital serves the local population of more than 160 000 people, and during the peak malaria transmission period from December through June, the disease traditionally caused more than 1 400 pediatric admissions and the deaths of about 60 children per year.

In 2003, Zambia introduced *Coartem*, the breakthrough antimalarial medicine developed by Novartis and Chinese partners, as first-line therapy, replacing chloroquine, a drug rendered ineffective by the emergence of drug-resistant malaria parasites. Novartis provides *Coartem* at no profit for public sector use in developing countries under a partnership with the World Health Organization (WHO) and other United Nations agencies.

In 2004, reflecting the introduction of *Coartem*, the number of pediatric admissions at Macha Mission Hospital declined to 423 from more than 1 400 the previous year, and the number of deaths halved, to 18. In 2005, pediatric admissions fell further, to 123, and the number of deaths declined to six.

Dr. Thuma acknowledged that changes in hospital-based data may not always reflect what is happening in the community. But other preventive measures such as indoor residual spraying and insecticide-treated bed nets weren't widely used in the Macha area until 2007. And when *Coartem* wasn't available during the 2006-2007 malaria transmission season because of supply problems within Zambia's state health service, both the number of children admitted to Macha Mission Hospital with malaria and the number of deaths quadrupled.

"We believe that the introduction and widespread use of *Coartem* contributed to the reduction in malaria case load seen at Macha Mission Hospital," Dr. Thuma said. And the improvement has been sustained with a record low number of pediatric inpatient malaria cases during 2009.

CHANGE IN POLICY

Macha Hospital is not an isolated success story. The number of malaria-related deaths across Zambia has declined by 70% since *Coartem* was adopted as first-line therapy. "We are beginning to see that the change in policy has really helped our country," said Elizabeth Chizema-Kawesha, M.D., Director Technical Support Services at Zambia's Ministry of Health and formerly Head of the National Malaria Control Program.

While Zambia was the first country in Africa to adopt *Coartem* as first-line therapy, demand has surged as other countries revised national malaria treatment guidelines and replaced older, failing medicines with artemisinin-based combination therapies (ACT), the new class of antimalarial medicines pioneered by *Coartem*. Zanzibar, Ethiopia and Rwanda have also achieved reductions of more than 60% in deaths of children under the age of 5, the group most vulnerable to malaria.

During 2009, the *Coartem* program passed several major milestones. Deliveries during the year climbed 14% to 84 million *Coartem* treatments, a 20-fold increase from only 4 million treatments as recently as 2004. Sourcing and manufacturing effeciencies enabled Novartis to reduce prices by 52% – from an average price per treatment of USD 1.57 in 2005 to USD 0.76 in 2009 – facilitating access to treatment for patients. From 2001 through 2009, 300 million *Coartem* treatments had been delivered, saving an estimated 750 000 lives in more than 60 malaria-endemic countries – the vast majority in Africa.

In 2009, *Coartem* became the first ACT approved by the US Food and Drug Administration, making the United States the latest of more than 80 countries in which *Coartem* is available.

In addition, Novartis and Medicines for Malaria Venture, a nonprofit foundation based in Switzerland, developed *Coartem* Dispersible, a new pediatric formulation that is sweet tasting and designed to disperse quickly in small amounts of water. Novartis began to roll out *Coartem* Dispersible and delivered 15 million treatments during 2009. Countries receiving early deliveries ranged from Zambia, Mozambique, Tanzania and Mali to Nigeria, Uganda, Myanmar, Togo and Niger.

Coartem Dispersible tablets contain the same amounts of active ingredients and work the same way to cure malaria as the regular *Coartem* tablet, but represent an attractive alternative for babies and children who find it difficult to swallow crushed or bitter tablets. Crushing tablets is an inefficient procedure that can result in loss of drug and ingestion of a reduced dose of the drug.

"We see the launch of *Coartem* Dispersible as a solution to save the lives of our children," Dr. Chizema-Kawesha said. "You can imagine the agony of a mother or health worker trying to crush the regular tablet to treat a child with malaria. The new *Coartem* Dispersible tablet is easily dispersed in water and provides more time for health workers to do other things once the child has been able to swallow the medicine," she added.

"I'm sure that if we gave an opportunity to our children to be on therapeutic committees, they would opt for a medicine that is sweet tasting and easy to swallow."

Following approval by Switzerland's regulatory agency, Swissmedic, *Coartem* Dispersible has received marketing authorization in 25 countries, and the new formulation accounted for 49% of *Coartem* treatments delivered for children since launch. In January 2010, Novartis began deliveries to Nigeria, which purchased 13 million *Coartem* Dispersible treatments in the biggest order received for the new formulation to date.

VISIONARY LEADERSHIP IN MALI

The launch of *Coartem* Dispersible underscores the contribution of another small but visionary African village in the battle against malaria. Kolle is a dusty farming village with roughly 2 500 residents located about 60 kilometers southwest of Bamako, the capital of Mali.

During early months of the year, fields surrounding the village are baked by temperatures that frequently exceed 40 degrees Celsius. With the onset of the rainy season in June and July, however, those same fields become breeding grounds for mosquitoes spreading the deadly Plasmodium falciparum form of malaria.

Endemic village malaria is the leading cause of morbidity and mortality in Mali. On average, each of the 2 million children under age 5 undergoes two episodes of malaria per year. In Kolle, three or four yearly episodes aren't unusual.

As in most traditional Malian villages, a council of elders provides local leadership. In a visionary decision, elders in Kolle consented to construction of a local health clinic, one of only a dozen nationwide, and then vigorously promoted participation of residents in clinical studies.

In 2006, children in Kolle took part in a multinational study comparing *Coartem* Dispersible with conventional *Coartem* tablets. During the clinical study, each child with malaria appearing at the health center was randomly assigned treatment with either regular *Coartem* tablets or the new dispersible formulation. All children remained at the center for three days of treatment, and then returned for follow-up clinical and blood tests coordinated by Hamma Maiga, M.D., part of a team of physicians and technicians from the Malaria Research and Training Center (MRTC) at the University of Bamako, led by Issaka Sagara, M.D. MRTC staff were present in Kolle for the duration of the study and Dr. Sagara emphasized, "Support from the elders and parents who brought their children back to the health center for follow-up visits was critical."

During a visit to Kolle last year, Silvio Gabriel, Executive Vice President and Head of Malaria Initiatives at Novartis, praised the foresight of the elders that has placed the village on the world map of malaria research. "Kolle was the best center we had in Africa in terms of speed of recruitment and quality of data in our study," Mr. Gabriel added. The

NOVARTIS ACCESS-TO-MEDICINE PROJECTS 2009

Project	Objective	Target region	Value (USD millions)	Patients
Malaria/WHO [1]	Provide *Coartem* at cost for public sector use	Africa, Asia, Latin America	299	75 000 000
Leprosy/WHO [2]	Eliminate leprosy by providing free medications to all patients worldwide with WHO	Global	5	282 000
Tuberculosis [2]	Donation of fixed-dose combinations	Tanzania	2	73 000
Fasciolasis [3]	Providing free of charge *Egaten* to treat patients that are infected with Fascioliasis	Bolivia, Peru, Yemen	0.3	387 000
Novartis Foundation for Sustainable Development (NFSD) [4,5]	Improve health and quality of life of poor people in developing countries through think tank, policy and project work	Developing countries	9	3 628 000
Novartis Institute for Tropical Diseases (NITD) [4]	Discover novel treatments and prevention methods for major tropical diseases; NITD discoveries to be available in poor endemic countries without profit	Developing countries	14	–
Novartis Vaccines Institute for Global Health (NVGH) [4]	To develop effective and affordable vaccines for neglected infectious diseases of developing countries	Developing countries	5	–
US patient assistance program (PAP) [2] (excl. *Gleevec*)	Assistance to patients experiencing financial hardship, without third-party insurance coverage for their medicines	United States	136	100 000
Gleevec US PAP [2]	Within capability of Novartis, continue to ensure access for patients in the US who cannot afford the drug	United States	96	5 000
Glivec Global PAP/ *Tasigna* Global PAP [2,6,7]	Within capability of Novartis, continue to ensure access for patients outside the US who cannot afford the drug	Global (excluding US)	912	33 000
Together Rx Access	Discount program for the uninsured	United States	0.3	5 000
Emergency relief & other product donations	Support to humanitarian organizations	Global	32	–
Total			**1 510**	**79.5 million**

[1] During 2009, 75 million *Coartem* treatments reached patients based on a preliminary analysis of local distribution. Of these, 33.9 million treatments came from shipments completed in 2008, and 41.1 million from the total shipment of 84 million completed in 2009. The value of the *Coartem* program in 2009 was calculated using the number of treatments shipped in 2009 and the ex-factory price of *Coartem* to private-sector purchasers in malaria-endemic developing countries, minus payments to Novartis to cover costs under terms of the public-private partnership with the WHO. These payments were received through the WHO, UNICEF and other procurement agencies, acting on behalf of governments and other public sector institutions in developing countries eligible to receive *Coartem* at the not-for-profit price.

[2] Ex-factory price to private market

[3] Manufacturing costs

[4] Novartis operating costs

[5] Patients reached include beneficiaries of NFSD healthcare-related services such as patients, healthcare professionals and students

[6] Value and number of patients reached include donations under shared contribution and co-pay models

[7] US *Tasigna* donations are included in US patient assistance program

225 children from Kolle enrolled in the study represented about 25% of total participants.

The study, published last year in the prestigious British medical journal "Lancet," showed that *Coartem* Dispersible provides a high cure rate of 97.8%, comparable to the 98.5% cure rate of conventional *Coartem* tablets. Investigators also reported that the new *Coartem* formulation had a favorable safety profile.

PATIENT IMPACT

The declining number of malaria cases in countries with successful control programs has prompted another change in policy: widespread use of rapid diagnostic tests to confirm a diagnosis of malaria prior to treatment of adults. Because infants and young children are exceptionally vulnerable to malaria, physicians still treat virtually all cases of fever in children under the age of 5 pre-emptively, with antimalarial drugs.

But in a study in two health districts in Ethiopia with a combined population of 200 000 people, only 10% of preliminary diagnoses of malaria in adults were confirmed by use of rapid diagnostic tests. Indeed, with almost 90% of initial diagnoses actually proving negative, use of rapid diagnostic tests more than covered their cost in the study by reducing waste in terms of inappropriate use of *Coartem*. "The major finding here is that use of rapid diagnostic tests pays," said Gebre Ab Barnabas, M.D., Head of the Health Bureau in Tigray, Ethiopia's northernmost region.

With effective treatment now readily available in most urban centers, leading countries are turning their attention to improving access to effective treatment in remote rural areas. Because of the limited number of healthcare professionals, community health workers are spearheading improved access to malaria treatment in rural areas.

"We decided that before deploying diagnostic tests and ACTs, it was important to provide training, and determine whether community health workers could make a correct diagnosis of malaria and then treat patients correctly," Dr. Chizema-Kaweshi said. Results of pilot studies in 14 of Zambia's 72 health districts have been positive. and use of diagnostic tests by community health workers was expanded to 28 districts by the end of 2009.

LEPROSY: A TRAVELING CLINIC IN BRAZIL

Since 2000, Novartis has provided free treatment for all leprosy patients worldwide in a collaboration with the WHO. Novartis is taking that commitment a step further in Brazil, one of the few countries globally that hasn't yet achieved the WHO's leprosy elimination target.

With an estimated 40 000 new cases of leprosy reported annually in Brazil, "the challenge is to further increase diagnosis so that patients with leprosy can receive treatment," said Alexander Triebnigg, Head of the Novartis Country Organization in Brazil. "Today, up to 8% of all new leprosy cases are children under the age of 15."

In partnership with Morhan, a nongovernmental organization dedicated to the elimination of leprosy, Novartis has financed a mobile leprosy clinic and laboratory that will travel to regions where the disease is still prevalent, particularly poor areas in Northern Brazil. Doctors and nurses will be provided by local branches of Brazil's Unified Health System (SUS, the national health service) under an agreement reached with the National Association of Municipal Health Secretariats and local governments hosting the mobile clinic.

"We announce and promote the arrival of the mobile leprosy unit in small and medium cities, as well as remote towns," Mr. Triebnigg added. "The aim is to increase awareness so that people across all age groups with possible symptoms can see a doctor and, if diagnosed, receive immediate treatment."

COMBATING INFECTIOUS DIARRHEA

Novartis has established not-for-profit research institutes focusing on discovery and development of medicines and vaccines against "neglected" diseases that take a heavy toll in developing countries. Yet scientists in mainstream commercial research also help address these diseases sometimes. A research program targeting cystic fibrosis, one of the most common genetic diseases among people of European descent, alerted scientists at the Novartis Institutes for BioMedical Research (NIBR) to a potential application in secretory diarrhea, a scientifically related disorder of even greater unmet medical need.

Cystic fibrosis is caused by mutations that cripple the function of an ion channel known as CFTR that also plays a key role in controlling intestinal secretions, including severe diarrhea induced by the cholera toxin and other pathogens. In 2007, NIBR initiated a research program aiming to discover treatments for infectious diarrhea.

Last year, NIBR established a collaboration and licensing agreement with the Institute for One World Health, a nonprofit company based in the United States. Under the pact, NIBR will deliver a development compound to the Institute for One World Health that will conduct clinical trials and, if successful, distribute the new medicine in developing countries.

"We are committed to reducing morbidity and mortality from infectious diarrhea," said Mark C. Fishman, M.D., President of NIBR and member of the Executive Committee of Novartis. "More children die of these disorders than malaria, tuberculosis and AIDS combined."

COMMITMENT TO PATIENTS: TARGETS AND RESULTS FOR 2009 AND TARGETS FOR 2010

STAKEHOLDER ENGAGEMENT

Targets 2009	Results 2009	Targets 2010
Continue to embed patient advocates as partners in advising on drug development and launch plans. Further collaborate on projects with major international patient groups to help raise awareness on burden of disease and patient needs. Continue involvement of Novartis in civil society debate on critical topics with relevant stakeholders.	Reflecting ongoing R&D programs targeting polycystic kidney disease, Novartis convened global meeting of patient groups to define needs in preparation for clinical studies. Worked with diabetes patient groups in national meetings, aiming to improve patient care. Piloted Corporate Citizenship communications with EU institutions, NGOs, patients and healthcare professionals.	Further develop links with patient groups in strategic disease areas for Novartis (MS, COPD). Support efforts by patient advocates to define disease burden and help improve treatment outcomes. Expand Corporate Citizenship dialogue with stakeholders.

ACCESS TO MEDICINE

Targets 2009	Results 2009	Targets 2010
Launch pediatric dispersible formulation of *Coartem.* Pursue efficient production of *Coartem* with uninterrupted supply. Collect data on the experience of using the new pediatric dispersible formulation of *Coartem* in endemic countries. Expand the Indian pilot of "Arogya Parivar" business model, that provides health education and makes quality medicines accessible and affordable to underserved rural regions.	By the end of 2009, 300 million *Coartem* treatments had been delivered, saving an estimated 750 000 lives. New pediatric formulation, *Coartem* Dispersible, now approved in 25 malaria-endemic developing countries, with deliveries to 18 countries during 2009. According to customer feedback, *Coartem* Dispersible is the pediatric formulation of artemether/lumefantrine preferred by mothers and caregivers. *Coartem* is the first artemisinin-based combination therapy approved by the US Food and Drug Administration. Arogya Parivar expanded to increase accessibility of health education, and products, for 32 million predominantly underprivileged people in India.	Continue rollout of *Coartem* Dispersible. Complete first deliveries of *Coartem* and *Coartem* Dispersible under phase one of the Affordable Medicines Facility for malaria – meant to serve underpriviliged malaria patients. Extend reach of Arogya Parivar in India to 50 million people and initiate similar programs in China and sub-Saharan Africa.

NOVARTIS INSTITUTE FOR TROPICAL DISEASES

Targets 2009	Results 2009	Targets 2010
Translate preclinical study findings in dengue fever, tuberculosis and malaria into strategic clinical development programs. Continue expansion of pipeline in all three disease areas. Maintain dynamic teaching and training activities, as well as significant scientific international presence in tropical disease research and development.	Dengue research progressed with series of preclinical compounds tested in vivo. Tuberculosis research, in collaboration with Grand Challenge 11, led to identification of candidate compounds against anaerobic bacteria. NITD hosted more than 30 students during 2009.	Continue progression of dengue and malaria development candidates and selection of drug candidates active against multi-drug resistant and extensively drug-resistant tuberculosis bacterial strains.

NOVARTIS VACCINES INSTITUTE FOR GLOBAL HEALTH

Targets 2009	Results 2009	Targets 2010
First vaccine (a conjugate for typhoid fever) enters pilot-scale GMP (good manufacturing practices) production. Prepare start of clinical trials in 2010. Develop process for pilot-scale GMP production in 2010 for vaccines for paratyphoid in Asia and nontyphoid Salmonella in Africa.	Plans in place to begin clinical trials of typhoid vaccine. Manufacturing process established and clinical grade material available. Manufacturing methods also demonstrated on laboratory scale for additional vaccines – against paratyphoid fever, nontyphoid Salmonella and Shigella.	Start Phase I and Phase II of typhoid vaccine trials in Europe and India. Launch pilot scale manufacture of the paratyphoid vaccine. Develop pilot scale process for nontyphoid Salmonella and Shigella vaccines.

COMMITMENT TO PEOPLE AND COMMUNITIES

The broad portfolio of healthcare businesses at Novartis offers ample opportunities to foster strong employee engagement. During 2009, almost 300 Novartis associates from other divisions volunteered for temporary assignments with the Vaccines and Diagnostics Division to support production of pandemic influenza vaccines. It's the latest example from Novartis operations around the world showing that enhanced employee engagement can translate into improved productivity, profitability and customer focus.

Maurizio Spatano is a supervisor with more than two decades of experience in Chemical Operations at the Novartis Pharmaceuticals Division.

During 2009, he moved from a position at the new development and manufacturing plant in Changsu, China, to a special cross-divisional assignment in Marburg, Germany, to support production of a novel Novartis vaccine against pandemic influenza. As a shift supervisor, he was tasked to lead a team of eight associates and help bring a new production line on stream. Although he had never been to Marburg before agreeing to the six-month assignment, Mr. Spatano said he jumped at the chance to join such a special project and help literally millions of people depending on the Novartis vaccine to protect their health.

Meanwhile, Brad Booth relocated to pandemic vaccine production in Liverpool, England, from the Broomfield, Colorado, manufacturing site of Sandoz, the generics division of Novartis. In Liverpool, Mr. Booth serves as a microbiology compliance officer – a prize catch because potential recruits with experience in either microbiology or quality assurance have been in particular demand.

"What we are trying to do in this project is awe-inspiring," he said. "There is a global spotlight on us, and everyone has had to take a lot on themselves to make it happen. But I feel that Novartis has put a lot of faith in me, and it's exciting to be here."

In a striking example of employee engagement, almost 300 Novartis associates – including some retirees – are shoring up pandemic vaccine programs in Marburg and Liverpool. Human Resource teams at both sites – with support from corporate headquarters in Switzerland – worked overtime conducting interviews, securing work permits for assignees, arranging accommodation, and even designing shuttle-bus services for associates working late shifts.

The Liverpool site accelerated commissioning of a new vaccine factory and extended production at an aging plant scheduled for closure. Parallel production at the old and new plants "means that we had to import almost a complete separate work force," said Liverpool's site head John Sullivan.

External hires account for about two-thirds of the reinforcements, but about 70 Novartis associates have moved to Liverpool from other sites in the United Kingdom and Ireland – as well as Romania, India, Canada and the United States.

Marburg has borrowed experienced Novartis associates from German sites operated by the Pharmaceuticals Division, as well as Sandoz. "Other Novartis divisions have done a great job of stepping in and supporting us," said Matthew Stober, Global Head Technical Operations at the Vaccines and Diagnostics Division. (See Vaccines and Diagnostics story, page 40.)

GLOBAL EMPLOYEE SURVEY

It is easy to understand why associates would respond to the challenge of a public health emergency like pandemic influenza. But fostering employee engagement is a critical competitive factor for a global enterprise like Novartis.

Academic research defines engagement as high enjoyment and motivation – when employees feel empowerment, the ability to make a meaningful contribution through their work and opportunities for personal growth. Importantly, research has established that a high level of employee engagement can enhance profitability of an enterprise. Moreover, high levels of engagement are closely linked with increased employee retention, productivity and customer focus.

In 2009, Novartis completed its first-ever Global Employee Survey across the entire organization. The Global Employee Survey aimed to understand what drives engagement for associates at Novartis. The response rate was a stellar 90%, signaling a high level of involvement as well as a broad-based commitment to making Novartis an even stronger company.

The survey pointed out several areas in which Novartis excelled. Associates showed a high level of recognition of the company's values, with 88% of respondents declaring they "fully support the values for which the organization stands." In addition, 79% of respondents gave Novartis positive scores for integrity and social responsibility; 87% of associates indicated they were willing to go beyond what is required to help Novartis succeed; and 81% said their Novartis manager encourages associates to come up with new and different ways of doing things. Each of these scores ranked above the Global Pharmaceutical Companies Index, an industry benchmark.

At the same time, Novartis associates highlighted several areas where there is room for improvement. To improve understanding of employee engagement, divisions, units and departments analyzed more than 3 500 result reports to understand their "engagement picture." These reports were used to communicate and discuss results, and to identify priority areas. In turn, each division and unit formulated and implemented action plans to improve engagement, retention and overall performance based on their own results.

The survey has not only been an important tool to better understand what engages employees, but also to assess strategic and managerial implications for the company. Most companies spend only a fraction of the effort to understand the views of their employees compared with those of their customers. The survey has provided Novartis with input from associates around the world, better enabling the company to respond successfully to changing commercial models, new ways of working, and sharper focus on innovation and customers.

CAREER DEVELOPMENT

The healthcare industry offers opportunities for associates to combine professional advancement, with a positive impact on society and human health.

That's particularly true of emerging markets that are expected to be a driving force in future growth at Novartis. Recruiting local executives with the international experience, language and other skills needed to work successfully in a global company has become increasingly competitive. However the global organization and diverse portfolio of healthcare businesses at Novartis provide opportunities to gain broad experience, paving the way to rapid career development.

For China and Russia, two highly dynamic markets, special retention programs have been put in place, leading to significant decreases in employee turnover. The Beijing International MBA program and the Novartis Business Academy program in Russia were expanded in 2009 to become the

ASSOCIATES BY REGION AND DIVISION AS OF DECEMBER 31 [1]

	United States		Canada and Latin America		Europe		Asia/Africa/ Australasia		Total	
	2009	2008	**2009**	2008	**2009**	2008	**2009**	2008	**2009**	2008
Pharmaceuticals	13 504	13 546	4 351	4 391	25 073	24 044	13 382	11 651	56 310	53 632
Vaccines and Diagnostics	1 322	1 018	64	8	3 792	3 578	238	170	5 416	4 774
Sandoz	1 222	1 161	2 597	2 594	15 286	15 021	4 318	4 370	23 423	23 146
Consumer Health	3 687	3 812	1 423	1 447	4 735	4 651	2 694	3 104	12 539	13 014
Corporate Research & Shared Services	677	681	22	24	564	568	159	154	1 422	1 427
Corporate	113	111	20	23	544	527	47	63	724	724
Total	**20 525**	20 329	**8 477**	8 487	**49 994**	48 389	**20 838**	19 512	**99 834**	96 717

[1] Full-time equivalent positions

Novartis corporate universities in China and Russia, respectively. Increased investment in the programs is expected to further enhance the personal and career development of associates, as well as to improve engagement and retention.

DIVERSITY AND INCLUSION

Established by Novartis in 2006, the Diversity and Inclusion Advisory Council (DIAC) includes 11 academics, business leaders, consultants and journalists who help identify challenges, barriers and opportunities that the various businesses face toward the advancement of diversity and inclusion at Novartis. All Novartis divisions have appointed their own Diversity and Inclusion leaders; defined a strategy to support a well-defined business case; and introduced metrics to measure progress over time.

DIAC member Vinita Bali, Managing Director of Kolkata, India-based Britannia Industries Ltd., told Novartis associates last year that major progress had been achieved. She emphasized that the Diversity and Inclusion initiative "is a business imperative that will provide differentiation and competitive advantage for Novartis."

Ms. Bali also cited major market initiatives "where diversity and inclusion is a key part of divisions' segmentation strategy as well as their go-to-market strategy. This is an important area and one in which the DIAC will continue to work with the divisions and the functions to add value."

DIVERSE AND INNOVATIVE

A diverse organization is more likely to be a creative one. Healthcare offers a unique platform to attract new associates from geographies where Novartis has a growing presence. And by forging closer links with local communities and patients, Novartis can better focus research on areas of unmet medical need.

One example is Julia Hatto, a chemist at a Novartis research site in Horsham, England, who was awarded the 2009 "Inspiration and Industry Award" by the UK's Royal Society of Chemistry. Ms. Hatto was recognized for a series of initiatives that helped build strong partnerships with primary and secondary schools in England and have given hundreds of students hands-on experience with chemistry and principles of science.

At the Novartis Institutes for BioMedical Research (NIBR), selection of research projects takes into account major trends in demographics and disease as well as scientific rationale. "I think we should be treating the whole world," said Mark C. Fishman, M.D., President of NIBR and member of the Executive Committee of Novartis. "Looking ahead to 2050, population growth will come in Africa and Asia but flatten in Europe and North America. In the beginning of the 20th century, Europe was 25% of the world's population. By 2050, it will be 7%."

In 2006, NIBR established the China Novartis Institutes for BioMedical Research (CNIBR), a new research and development center in Shanghai. The center provides an opportunity to recruit among a wave of outstanding scientists who trained in Europe or the United States but now have a strong desire to return home to China. In November 2009, Novartis announced plans to invest USD 1 billion over the next five years to step up research and development activities in China, and significantly expand CNIBR. The Shanghai institute is expected to become the largest comprehensive research and development center in China with a staff of about 1 000 people, an increase from 160 people today. "We see an opportunity to network with local academic institutions to expand our intellectual base in China beyond what we could bring in ourselves," Dr. Fishman said.

Scientists in the Shanghai center are focusing on disorders that affect predominantly the Chinese, and more broadly, the Asian population. Liver cancer, for example, is a common complication of infection by the hepatitis B virus. About half the estimated 500 million people worldwide chronically infected with hepatitis B live in China, where the virus kills more than 300 000 each year. "We want to focus on liver cancer, while also building broad expertise about other forms of liver disease that we plan to work with in the future," said En Li, Head of the Shanghai research center.

While its worldwide staff includes scientists from almost 50 countries, NIBR is stepping up activities aimed to recruit qualified women and members of minority groups at its global headquarters in Cambridge, Massachusetts, and other sites around the world. A fellowship program established in recent years helped to double the number of women chemists, and a global diversity council has been established – including NIBR scientists as well as representatives from staff functions – to promote similar initiatives.

COMMITMENT TO PEOPLE AND COMMUNITIES: TARGETS AND RESULTS FOR 2009 AND TARGETS FOR 2010

LIVING WAGES

Targets 2009	Results 2009	Targets 2010
Continue using established processes to update living wage levels annually and adjust salaries of associates that are below those levels.	For the first time since the program began, no salaries were found below living wage levels (2005: 93, 2006: 21, 2007: 11, 2008: 3).	Continue to update living wage levels annually and adjust salaries of associates that are below those levels.

GLOBAL EMPLOYEE SURVEY

Targets 2009	Results 2009	Targets 2010
Administer the Novartis Global Employee Survey in March 2009. Communicate findings to associates and implement follow-up actions.	Response rate of 90% was achieved; 87% of Novartis associates said they are willing to work beyond what is required to help the company succeed, and 88% said they fully support Novartis values. Results of survey have been communicated to all associates and follow-on analysis and actions are planned.	Continue implementation of Group-wide, division and local follow-on actions to further improve employee engagement and retention.

DIVERSITY AND INCLUSION

Targets 2009	Results 2009	Targets 2010
Leverage Diversity and Inclusion (D&I) initiative to enhance marketing effectiveness, improve integration of diversity and inclusion in talent development, and improve training programs on diversity and inclusion. Further implement employee resource groups; diversity-specific mentoring programs; and awareness training programs. Establish training for fair and objective recruitment.	Created Group-wide D&I vision, focusing on culture, talent and markets. Developed global Employee Resource Group guideline to support divisions and units. Launched formal D&I Leadership Network to foster strategies and action plans. Continued implementation of mentoring and development program. Further challenge and guidance from Diversity and Inclusion Advisory Council for senior Novartis leadership on D&I strategy and results.	Create divisional D&I action plans based on Global Employee Survey results. Establish Group and divisional D&I goals. Establish Inclusive Leadership metrics linked to the Performance Management process. Develop internal and external staffing strategies to further improve diversity.

LOST-TIME INJURY AND ILLNESS RATE (LTIR)

Targets 2009	Results 2009	Targets 2010
Reduce LTIR to 0.31.	0.22	Reduce LTIR to 0.20.

TOTAL RECORDABLE CASE RATE (TRCR)

Targets 2009	Results 2009	Targets 2010
Improvement of 10% by end of 2009, based on 2008 data.	0.94	Annual improvement of 10% while ensuring uniform measurement across the Group.

COMMITMENT TO THE ENVIRONMENT

Novartis seeks to reduce energy consumption by improving efficiency of energy use in existing operations, adopting renewable energy sources where economically attractive and undertaking carbon offset projects to complement internal initiatives. In 2009, solar energy systems achieved major gains.

In 2005, Novartis voluntarily committed to the Kyoto protocol, the international agreement that sets binding targets for reducing greenhouse gas emissions.

For an expanding company like Novartis, cutting carbon emissions is a challenge, especially because healthcare is not an energy-intensive industry. Nevertheless, Novartis is on track to achieve its 2012 target of reducing greenhouse gas emissions by 5% against 1990 levels. This is equivalent to a reduction of about 25% of the Group's actual greenhouse gas emissions.

"We have a dual strategy for reducing energy consumption," said Keith Saveal, Head Corporate Health, Safety, Environment and Business Continuity Management. "The primary focus is to improve the efficiency of energy used in existing operations and to adopt renewable energy sources wherever it makes economic sense to do so. The second track is to undertake carbon offset projects to complement internal initiatives to reduce greenhouse gas emissions."

Today Novartis is generating renewable energy from locally available biofuels at a number of sites, a result of initiatives implemented in recent years. At a production facility in Mahad, India, boilers used to generate steam are powered by bagasse, fibrous waste remaining after sugar cane stalks are crushed to extract their juice. Installation of the bagasse-fired boilers, replacing earlier generation equipment that consumed fuel oil, also enabled the Mahad site to eliminate emissions of sulfur dioxide that represented one-sixth of the Group's total annual emissions of the gas when it was installed in 2003.

In Wehr, Germany, a boiler providing plant steam supply was converted from natural gas to a sustainable supply of wood chips readily available from the nearby Black Forest. Using locally available wood chips today provides 70% of Wehr's fuel needs and has increased Group-wide use of renewable energy from biomass by 50%. Use of wood chips is expected to eliminate 3 400 tons of carbon dioxide emissions per year by the Wehr site, which represents about 1% of all on-site Scope 1 greenhouse gas emissions at Novartis.[1] Moreover, by using wood chips, the Wehr site can benefit from more stable energy prices in the future.

SOLAR POWER SYSTEMS

Solar energy systems have been installed at five Novartis sites to date, ranging from the US headquarters of the Pharmaceuticals Division in East Hanover, New Jersey, to CIBA Vision's main European production facility in Grosswallstadt, Germany, and the Vaccines and Diagnostics Division's site in Rosia, Italy.

[1] For definitions of Scope 1 and Scope 2, see "The Reporting Process" on page 86.

Group-wide solar electricity capacity was tripled in 2009 by the biggest single solar installation at Novartis to date, a 1-megawatt solar power system at the Pharmaceuticals Division facility in Vacaville, California. The Vacaville system began generating power in September.

In addition to supplying 20% of the site's electricity needs, the solar energy system is expected to reduce greenhouse gas emissions by 1 400 metric tons of carbon dioxide per year. The site also expects to save more than USD 200 000 a year in electricity costs and collect annual rebates of USD 450 000 during the first five years of operations.

The Vacaville project reflects the importance of tailoring renewable energy solutions to local conditions. Vacaville has 25% more sunny days per year than the national average for the United States, according to Diane Johnson, Head of Engineering at the Vacaville site. "We have a lot of very sunny, cloudless days, which make Vacaville a prime location for solar," Ms. Johnson added.

Since 2004, the annual Novartis Energy Excellence Awards have recognized projects delivering substantial energy savings and reductions of greenhouse gas emissions. The 250 projects submitted for the Energy Excellence Awards program are forecast to save USD 80 million in energy costs and reduce carbon dioxide emissions by more than 300 000 tons per year. Projects submitted for the awards in 2009 alone are expected to provide cost savings of USD 24.5 million.

The Vacaville solar power system earned honorable mention in 2006 and won a 2009 Energy Excellence Award, underscoring the enterprise as well as the tenacity of local champions of the project. "The Vacaville system isn't a project with an attractive payback," Mr. Saveal said. "It required value engineering and tenacity to get the project to pay back within its lifetime, and gain formal management approval."

FERMENTING IDEAS

Vacaville is a microbial bulk fermentation facility, one of the pharmaceutical industry's most energy-intensive manufacturing processes. Electricity was one of the biggest items in the site's annual operating budget, and Matthew Mitchell, Vacaville's Facility Supervisor, was an early proponent of tapping solar power to save costs.

In 2006, when Mr. Mitchell and Todd Johnson, Utility Engineer for the Vacaville Site, submitted the solar project for the Energy Excellence Awards, their objective was unorthodox. "We weren't looking for recognition; we hoped the Energy Excellence Awards could help us get our project approved," Mr. Mitchell said. Securing honorable mention in the contest was an important step toward ultimate success of the project.

In 2007, Mr. Saveal met with Vacaville Site Head Rob Carter and together they developed a strategy to make the dream of a solar power system reality. Ms. Johnson took the lead in implementing that strategy but there were significant hurdles. "A lot of companies install solar panels on roofs, but with a limited number of buildings at the Vacaville site, we knew we couldn't get anywhere near the energy capacity needed," Mr. Mitchell recalled.

Early proposals failed to justify the high capital costs but prospects brightened in 2008. Improvements in solar panel efficiencies – combined with renewal of financial incentives for solar energy in the US government's economic stimulus package – allowed the Vacaville team to create a more viable proposal. Potential rebates from the California Solar Initiative complemented benefits of federal tax credits in the revised project plan and, coupled with savings on electricity costs for the site and environmental benefits, tipped the balance in favor of the USD 7 million investment.

Due to the timing of the decision, however, the team faced further challenges. "We were

racing to meet a rebate expiration deadline, which forced us to come up with an innovative way to install the solar panels," said Jaime Romo, Project Manager for the solar power system. "Ultimately the project was finished almost a month ahead of schedule."

Vacaville's solar power system comprises more than 4 000 photovoltaic panels covering about 20 000 square meters. A tracking system keeps the panels optimally aligned to the sun throughout the day to maximize power generation. As summer temperatures in Vacaville routinely exceed 35 degrees Celsius, the site has its highest energy demand for cooling at midday, the same time the solar array is generating at maximum capacity.

"Before going solar we normally had our peak power draw from the grid around noon during the summer," Ms. Johnson said. "But since we turned our solar system on, midday has become the lowest point in our power usage."

CARBON-FREE CAMPUS

Novartis is relying exclusively on renewable energy in the transformation of its corporate headquarters with more than 10 000 associates in Basel, Switzerland, to a carbon-free campus. Each new office building on the redeveloped St. Johann campus uses only about a third of the energy required by average office buildings. Renewable energy sources will be used: 80 kilowatts of solar panels have been installed on the new Human Resources building designed by Canadian architect Frank Gehry.

Heating for new campus buildings is derived from waste burned in an incineration plant from which Novartis will purchase carbon dioxide-free steam. The Rhine River, which flows past the campus, will be the primary energy source for cooling campus buildings.

Cooling water from the Rhine is distributed through a closed circulation system and ultimately channeled back into the river. The net effect will be a minimal difference in water temperature returned to the Rhine.

Ground water or Rhine water also is being used for cooling processes at other sites. The new Novartis data center located at the production site in Stein, Switzerland, 30 kilometers from Basel, is cooled with ground water of about 12 degrees Celsius.

"Whether it is a forest, waste sugar cane or solar power, we look for sustainable solutions based on renewable resources that are available locally," Mr. Saveal said. "Using water from the Rhine to cool buildings is one of the big steps for renewable energy in the campus project."

SEQUESTERING CARBON DIOXIDE

Carbon offset projects also are needed to enable Novartis to reach its voluntary Kyoto target for reduced on-site greenhouse gas emissions. As the Group has expanded its operations, annual greenhouse gas emissions have risen to about 25% above the 1990 baseline. From the current level, emissions must decline by about 100 000 tons of carbon dioxide equivalent to meet the benchmark level set by the Kyoto protocol. While on-site emissions at Novartis have declined slightly since 2006, carbon offsetting will provide further help toward achieving the target.

The first Novartis carbon offset project involves creation of a new natural forest on a 34-square-kilometer parcel of former grazing land in northeastern Argentina. The project already has resulted in the planting of about 3 million trees. Through the project, Novartis will collect an estimated 125 000 tons of carbon dioxide equivalent from 2007 to 2012, and up to 3 million tons by 2040. A wood products business based on environmentally sound forest management practices will enable the forest to serve as a sustainable carbon sink while creating jobs and bolstering the local economy.

Carbon sequestration, the uptake of carbon dioxide by trees as they grow and mature, is a cost-efficient and environmentally benign alternative to many emission-reduction measures. Novartis is one of a handful of organizations – and the first healthcare company – to undertake establishment of a new forest as a project eligible for certification by the Clean Development Mechanism, a scheme initiated by the United Nations agency overseeing the Kyoto protocol.

The Novartis project in Argentina received Forest Stewardship Council certification in 2008, the most recognized label for wood products that confirms compliance with standards of sustainable forestry. Approval of the new forest project by the government of Argentina and qualification by the required independent validator are progressing. Both steps must be finalized before the project can be submitted to the United Nations for accreditation.

Novartis has initiated a second carbon offset project in the West African republic of Mali, consisting of the plantation of jatropha bushes and the transformation of their fruits into a renewable biofuel. Plantations have reached to more than 1 800 hectares, and first steps of biofuel generation are under way.

NOVARTIS HEALTH, SAFETY AND ENVIRONMENT (HSE) DATA 2009

	Novartis Group [1]		Pharmaceuticals (excl. Research)		Novartis Research [2]		Vaccines and Diagnostics		Sandoz		Consumer Health	
	2009	**2008**	**2009**	**2008**	**2009**	**2008**	**2009**	**2008**	**2009**	**2008**	**2009**	**2008**
Employees												
HSE personnel (number of associates working at least 50% for HSE)	**467**	491	**200**	216	**24**	26	**34**	37	**157**	147	**50**	65
Health/Safety												
Lost-time injury and illness rate (LTIR) [per 200 000 hours worked]	**0.22**	0.34	**0.24**	0.37	**0.24**	0.26	**0.16**	0.51	**0.22**	0.41	**0.16**	0.15
Total Recordable Case Rate (TRCR) [per 200 000 hours worked]	**0.94**	1.09	**0.97**	1.20	**1.68**	1.38	**0.40**	1.52	**0.80**	0.99	**0.90**	0.71
Production												
Total production (1000t = metric tons)	**161**	164	**24**	28	**0**	0	**0.7**	0.3	**87**	84	**50**	51
Resources												
Contact Water use (million m^3)	**15.0**	15.1	**4.3**	4.2	**0.4**	0.4	**1.0**	1.0	**7.8**	8.0	**1.6**	1.6
Energy use (million GJ)	**17.0**	16.8	**5.6**	5.6	**1.1**	1.0	**1.3**	1.2	**7.4**	7.4	**1.5**	1.5
Emissions into water												
Effluent discharge (million m^3)	**15.0**	15.1	**3.9**	4.1	**0.4**	0.4	**1.1**	1.0	**7.7**	7.8	**2.0**	1.7
Chemical oxygen demand (COD) (1000t)	**3.3**	3.6	**0.3**	0.6	**0.0**	0.0	**0.0**	0.0	**2.8**	2.7	**0.2**	0.2
Emissions into air												
Sulfur dioxide SO_2 (t)	**75**	64	**7**	6	**0**	0	**0**	0	**65**	57	**2**	1
Nitrogen oxide NO_2 (t)	**290**	302	**110**	119	**8**	8	**25**	19	**127**	134	**20**	22
Volatile organic compounds (VOC) halogenated (t)	**211**	238	**4**	10	**10**	12	**0**	0	**197**	216	**0**	0
Volatile organic compounds (VOC) non-halogenated (t)	**1 529**	1 630	**236**	313	**33**	37	**2**	2	**1 161**	1 209	**97**	70
Emissions CO_2/GHG												
Scope 1, Combustion and process (1000t)	**400**	404	**154**	157	**10**	11	**29**	29	**178**	179	**29**	27
Scope 1, Vehicles (1000t)	**177**	184	**129**	135	**0.2**	0.2	**3**	2	**27**	26	**14**	15
Scope 2, From purchased energy (1000t)	**916**	926	**220**	239	**76**	68	**83**	77	**390**	391	**146**	151
Waste												
Non-hazardous operational waste not recycled (1000t)	**53**	44	**8**	8	**2**	2	**29**	20	**9**	9	**6**	6
Hazardous operational waste not recycled (1000t)	**112**	122	**53**	58	**1**	1	**1**	1	**55**	59	**2**	2
Non-hazardous operational waste recycled (1000t)	**33**	31	**10**	10	**1**	1	**2**	2	**14**	12	**6**	6
Hazardous operational waste recycled (1000t)	**39**	30	**26**	21	**0**	0	**0**	0	**13**	9	**0**	0

[1] Novartis Group including Novartis International AG, which is not listed separately
[2] HSE data for Novartis Research includes NIBR and Corporate Research

THE REPORTING PROCESS

The HSE Data Management System and data collection process are key elements of Corporate Citizenship Management at Novartis. The data describes our major material flows across company boundaries and environmental impacts originating from our own operations (Scope 1), as well as greenhouse gas emissions (GHG) from the generation of purchased energy (Scope 2). We do not monitor environmental impacts from the manufacture and delivery of purchased goods and services, nor the use of resources and other related emissions for activities outside company boundaries (Scope 3), such as GHG emissions from transportation by third parties.

HSE data is collected and reviewed on a quarterly basis. The 2009 environmental and resource data published in the Annual Report and on our website are actual data for the period from January through September and best estimates for the period October through December, which will be updated with actual data in the first quarter of 2010. Significant deviations will be reported on our website and restated in next year's Annual Report. The Empoyees and Health/Safety data are actual from January through December 2009.

COMMITMENT TO THE ENVIRONMENT: TARGETS AND RESULTS FOR 2009 AND TARGETS FOR 2010

ENERGY-EFFICIENCY IMPROVEMENT

Targets 2009	Results 2009	Targets 2010
10% by end 2010, based on 2006 level.	16% improvement.	Final year of the four-year target to improve energy efficiency by 10% based on 2006.

CONTACT-WATER-EFFICIENCY IMPROVEMENT

Targets 2009	Results 2009	Targets 2010
10% by end 2010, based on 2005 level.	35% improvement.	Final year of the five-year target to improve water efficiency by 10% based on 2005.

VOLATILE ORGANIC COMPOUNDS (VOC) EMISSIONS HALOGENATED

Targets 2009	Results 2009	Targets 2010
Decreased to 220 tons.	211 tons.	Decrease to 200 tons by 2010.

VOLATILE ORGANIC COMPOUNDS (VOC) NON-HALOGENATED

Targets 2009	Results 2009	Targets 2010
Decrease to 1 550 tons.	1 529 tons.	Decrease to 1 500 tons by 2010.

CO_2 FROM VEHICLES

Targets 2009	Results 2009	Targets 2010
Decrease 10% by end 2010, based on 2005 level.	12% improvement.	Final year of the five-year target to improve CO_2 emissions from vehicles by 10% based on 2005.

SCOPE 1 GHG EMISSIONS FROM OPERATIONS

Targets 2009	Results 2009	Targets 2010
Decrease 5% below 1990 level by 2008-2012.	400 kilotons.	Decrease 5% below 1990 level of 308 kilotons by 2012, including carbon offsetting.

HAZARDOUS WASTE EFFICIENCY IMPROVEMENT

Targets 2009	Results 2009	Targets 2010
Stabilize efficiency of hazardous waste not recycled by 2010, then improve by 10% on 2008 baseline by 2012.	11% improvement.	Stabilize efficiency of hazardous waste not recycled.

NON-HAZARDOUS WASTE EFFICIENCY IMPROVEMENT

Targets 2009	Results 2009	Targets 2010
Stabilize efficiency of non-hazardous waste not recycled by 2010, then improve by 20% on 2008 baseline by 2012.	17% decrease in efficiency.	Stabilize efficiency of non-hazardous waste not recycled.


ЦИОННАЯ
ИМ ВХОД ВОСПРЕЩЕН

COMMITMENT TO ETHICAL BUSINESS CONDUCT

Dozens of Novartis associates have been subjected to an increasingly violent campaign of harassment and intimidation by animal rights extremists attempting to stop the use of animals in research. Animal experimentation, however, is a mandatory part of discovery and development of innovative medicines. Novartis abides by the highest standards of animal welfare – and ensures that the same high standards are maintained in Novartis-sponsored studies performed with external partners.

Over the past year, Novartis associates have been subjected to an increasingly violent campaign of harassment and intimidation by animal rights extremists using illegal and terroristic methods to pursue their objective of stopping the use of animals in research.

The incidents span several countries and have affected dozens of associates. Cars of associates in Switzerland and Germany have been damaged, incendiary devices have been placed under parked vehicles, and threatening slogans have been spray painted on homes. A fire was set at a sports club used by Novartis associates in Huningue, France, near corporate headquarters in Basel, Switzerland.

Extremists also burned a vacation home in Austria owned by Daniel Vasella, M.D., Chairman and Chief Executive Officer of Novartis. In a particularly repugnant incident, the graves of Dr. Vasella's family were desecrated and the urn containing the remains of Dr. Vasella's mother was stolen. Novartis is working closely with law enforcement authorities at the local, regional and national levels to investigate these crimes and bring those responsible to justice. Additional security measures have been implemented to protect the health and safety of associates.

"The goal of the animal rights extremist movement is to stop all research using animals," said Andrew Jackson, Head of Corporate Security at Novartis. "Their campaigns of harassment and intimidation target most research-based pharmaceutical companies, academic institutions and other industries perceived to have links to the animal research industry."

Animal experimentation, however, is a mandatory part of modern discovery and development of innovative medicines. Moreover, Novartis is required by law and regulation in countries around the world to conduct animal testing to confirm the efficacy and safety of medicines.

"We do so with the utmost sensitivity, however, abiding by the highest standards of animal welfare and using the most advanced technology to reduce animal testing where possible, through alternative methods including testing in cells or computer modeling," said Paul Herrling, Ph.D., Head of Corporate Research at Novartis.

Requirements and responsibilities relating to animal welfare in Novartis-sponsored studies are outlined in the Novartis Animal Welfare Policy approved by the Executive Committee of Novartis in 2005. At the same time, a global Animal Welfare organization was established under the leadership of Dr. Herrling. About 40 Animal Welfare Officers who are deployed around the world also ensure that the same standards are maintained in Novartis-sponsored studies performed by external partners.

MANDATORY AUDITS

Prior to initiation of any external study sponsored by Novartis, third parties must be audited for compliance with national and international regulations, and Novartis animal welfare standards. National regulations apply whenever they exceed Novartis standards.

Obligatory minimum standards established by Novartis go beyond current laws and regulations on animal experimentation in the United States. For example, Novartis policy applies the same high standards to vertebrate species such as rodents and birds that are exempted from current US legislation. In addition, a special committee has been established by Novartis to evaluate and oversee experiments involving non-human primates.

Since the audit requirements were adopted in 2005, Novartis Animal Welfare Officers have conducted about 250 audits of third parties, Dr. Herrling said. Third parties were rated excellent by Novartis in 5% to 10% of audits and good or acceptable in about 85% of audits – but animal welfare standards were found to be unacceptable at between 5% and 10% of third parties. When the audit rating is unacceptable, proposed studies are put on hold until remedial action plans are developed and implemented – or collaborations are discontinued. "Cases of noncompliance are rare but they do occur," he added.

Often, third parties are initially skeptical about audit requirements from Novartis. "But during the audit they often realize that we can actually help them and they take advantage of our knowledge," Dr. Herrling said.

In 2008, a contract research organization in Japan failed a Novartis audit because of substandard housing of dogs used in experiments. The result posed a dilemma because the firm was the only one offering the expertise needed to conduct a study requested by Japanese regulatory authorities. Despite the need for significant investments, the president of the Japanese firm agreed to upgrade standards for housing of dogs and actually traveled to Switzerland with members of his senior management team to study local standards. When Novartis Animal Welfare Officers conducted a follow-up inspection late last year, the Japanese firm had built an exact replica of Swiss-standard dog housing, and passed the audit with high marks.

In another example, a contract research organization in a region with minimal legal requirements for animal experimentation was audited by Novartis Animal Welfare Officers and asked to broaden the interaction with the aim of raising standards in laboratories as well as animal housing. "By meeting Novartis standards, this firm secured a key quality reference it could use in contacts with other international pharmaceutical companies. It shows how we can also play an indirect role and help improve the lot of experimental animals by spreading the word," Dr. Herrling observed.

"Having said that, Novartis is a big organization and we work with more than 600 partners. We do our best and we have developed one of the best animal welfare systems in the pharmaceutical industry – but it's not perfect," he added. "There is always some likelihood that compliance problems can arise."

Parallel with internal company standards and international certification agencies, national governments also impose stringent regulations to ensure use of animals in experiments is absolutely necessary and that any suffering is reduced to an absolute minimum. Legislation is evolving continuously and the European Union is currently finalizing stringent new animal welfare guidelines expected to be introduced in 2010. The European guidelines set new standards in cage sizes as well as group housing of social animals. The new China Novartis Institutes for BioMedical Research (CNIBR) in Shanghai will conform to the new European guidelines.

In addition, China introduced animal welfare legislation for the first time in 2009. In some cases, such as the size of cages for mice and rats, China's standards are tougher than existing ones in the United States or Europe. On the other hand, rabbit cages under the new Chinese standards are smaller than existing rules in other major countries. "At CNIBR, just as with all of the Novartis research centers, our goal is to adopt the same high standards for each species," Dr. Herrling said.

COMMITMENT TO ETHICAL BUSINESS CONDUCT: TARGETS AND RESULTS FOR 2009 AND TARGETS FOR 2010[1]

MANAGEMENT FRAMEWORK

Targets 2009	Results 2009	Targets 2010
Implement new policies. Conduct regional workshops to strengthen application of program.	Policies refined for senior management approval. Conducted three regional workshops with 70 participants and focus on managing key drivers of ethical business conduct, as well as promotional practices.	Strengthen organizational processes that foster key drivers of ethical business conduct. Improve responsible leadership skills through further integration of integrity into leadership training.

CODE OF CONDUCT

Targets 2009	Results 2009	Targets 2010
Update Code of Conduct to include additional key behavioral standards (examples: innovation, customer focus, diversity). Roll out new leadership training for all levels of management.	As part of the new policy framework, the Code of Conduct was further prepared for senior management approval. New leadership training programs developed, piloted and launched. Interactive, online training program for integrity management rolled out to multiple audiences.	Drive cross-divisional organizational development (develop career path for integrity managers, leadership, talent management). Strengthen cross-divisional organizational cooperation.

FAIR MARKETING PRACTICES

Targets 2009	Results 2009	Targets 2010
Review codes in all divisions for inclusion of non-promotional activities, where relevant.	Divisional promotional codes updated where relevant, and training conducted. Divisional Compliance Committee also established in Sandoz, Consumer Health, and Vaccines and Diagnostics.	Strengthen clearance and self-monitoring processes within divisions.

THIRD PARTY MANAGEMENT

Targets 2009	Results 2009	Targets 2010
Design and pilot local supplier information programs to foster social responsibility initiatives. Audit additional 150 third parties from high-risk countries.	Piloted a roundtable in India to better understand experiences of suppliers with CC5 compliance Conducted 156 supplier audits in 2009 in countries ranging from Argentina, Brazil and China to Colombia, India and Mexico.	Optimize current approach to third party management to improve quality and effectiveness by focusing on key risks in the supply chain.

ANIMAL WELFARE

Targets 2009	Results 2009	Targets 2010
Monitor the implementation of animal-welfare-related processes in new facilities (Shanghai, Tokyo, Siena). Promote best animal welfare practices in third-party facilities by auditing facilities in countries with weak laws and regulations, and continuously upgrade contractual study conditions to the highest standards. Organize an animal welfare forum to align the global animal welfare community. Create a 3Rs Award ("Reduce, Refine, Replace") at Novartis.	Implementation monitored and nearly completed in Shanghai, Tokyo, and Siena. Third-party auditing included more than 70 audits, of which more than 20 in countries with weak laws and regulations. Four audited sites judged unacceptable for Novartis studies. Third parties coached on Novartis standards; quality of study protocols improved at several sites. Global Animal Welfare Forum was attended by about 50 participants. Highlight of the Forum: first Novartis 3Rs Award, recognizing projects at NIBR and Vaccines and Diagnostics Division.	Continuous risk assessment of internal animal experiments based on internal rules and Standard Operating Procedures (SOPs). Promote and monitor in-house animal welfare compliance. Continuous risk assessment of thirdparty providers based on Novartis Standards and SOPs. Promote best animal welfare practices at third parties. Continuous monitoring of animal welfare-related processes at Novartis facilities in Asia. Promote the 3Rs within Novartis and assign Novartis 3Rs Award.

[1] Product stewardship issues are referred to in the current Form 20-F on file with the US Securities and Exchange Commission.

FURTHER INFORMATION

Topic	Website Information
OVERVIEW	
Corporate Citizenship at Novartis	http://www.novartis.com/corporatecitizenship http://www.corporatecitizenship.novartis.com
Perspectives on Key Issues	http://www.corporatecitizenship.novartis.com/perspectives-key-issues
UN Global Compact	http://www.corporatecitizenship.novartis.com/un-global-compact
Global Reporting Initiative (GRI)	http://www.corporatecitizenship.novartis.com/gri-report
COMMITTMENT TO PATIENTS	
Overview: Patient initiatives	http://www.corporatecitizenship.novartis.com/patients
Novartis Foundation for Sustainable Development (NFSD)	http://www.novartisfoundation.org
Novartis Insitute for Tropical Diseases (NITD)	http://www.nitd.novartis.com
Novartis Vaccines Institute for Global Health (NVGH)	http://www.nvgh.novartis.com
COMMITTMENT TO PEOPLE AND COMMUNITIES	
Diversity and Inclusion	http://www.corporatecitizenship.novartis.com/diversity-inclusion
COMMITTMENT TO ENVIRONMENT	
Overview: HSE performance	http://www.corporatecitizenship.novartis.com/environmental-care
COMMITTMENT TO ETHICAL BUSINESS CONDUCT	
Overview: Ethical business conduct	http://www.corporatecitizenship.novartis.com/business-conduct
Novartis Code of Conduct and Policy on Corporate Citizenship	http://www.corporatecitizenship.novartis.com/code-of-conduct

INDEPENDENT ASSURANCE REPORT ON THE NOVARTIS CORPORATE CITIZENSHIP REPORTING

To the Audit and Compliance Committee of Novartis AG, Basel ("Novartis").

We have performed assurance procedures to provide limited assurance on the following aspects of the 2009 Corporate Citizenship (CC) reporting of Novartis.

SUBJECT MATTER

Data and information disclosed with the CC reporting of Novartis and its consolidated subsidiaries, for the business year ended December 31, 2009 on the following aspects:

- The management and reporting processes with respect to the CC reporting and CC key figures as well as the control environment in relation to the data aggregation of these key figures; and
- The CC key performance indicators on page 62, and the "Novartis access-to-medicine projects 2009" figures on page 72 published in the "Novartis Annual Report 2009".

CRITERIA

- The CC Policy including the CC Guidelines and the Code of Conduct prepared by Novartis, the CC and the compliance annual reporting guidance; and
- The defined procedures, by which CC and Health, Safety and Environment (HSE) data is gathered, collated and aggregated internally.

RESPONSIBILITY AND METHODOLOGY

The accuracy and completeness of CC and HSE indicators are subject to inherent limitations given their nature and methods for determining, calculating and estimating such data. Our Assurance Report should therefore be read in connection with Novartis' guidelines, definitions and procedures on the reporting of its CC and HSE performance.

The Board of Directors of Novartis AG is responsible for both the subject matter and the criteria. Our responsibility is to provide a conclusion on the subject matter based on our assurance procedures in accordance with the International Standard on Assurance Engagements (ISAE) 3000.

MAIN ASSURANCE PROCEDURES

Our assurance procedures included the following work:

- **Evaluation of the application of Group guidelines:**
  Reviewing the application of the Novartis internal CC reporting guidelines;
- **Site visits:**
  Visiting the Pharmaceuticals and Sandoz global headquarters, selected country and business-unit headquarters in China, Germany, Poland, Russia, Switzerland, the United Kingdom and the United States and an external supplier in France. The selection was based on quantitative and qualitative criteria; Interviewing personnel responsible for internal reporting and data collection at the sites we visited and at the Group level;
- **Review of the documentation and analysis of relevant policies and basic principles:**
  Reviewing the relevant documentation on a sample basis, including group CC policies, management and reporting structures and documentation;
- **Assessment of the processes and data consolidation:**
  Reviewing the appropriateness of the management and reporting processes for CC reporting; and
  Assessing the consolidation process of data at the Group level.

CONCLUSIONS

Based on our work described in this report and the assessment of criteria, nothing has come to our attention that causes us to believe that the data and information mentioned in the subject matter and disclosed with the Corporate Citizenship reporting does not give a fair picture of Novartis performance. Additionally, nothing has come to our attention that causes us to believe that the management and reporting processes as defined under the subject matter above are not functioning as designed, in all material respects.

Basel, January 25, 2010

PricewaterhouseCoopers AG

Dr. Thomas Scheiwiller Thomas Frei

CORPORATE GOVERNANCE REPORT

Novartis strives to create sustainable value. Our corporate governance framework is designed to support this. While it complies with all applicable laws and implements best corporate governance standards, it is tailor-made for Novartis.

CONTENTS

INTRODUCTION

The corporate governance framework of Novartis reflects a system of checks and balances between the powers of the shareholders, the Board of Directors and the management with the goal to safeguard the interests of Novartis and its shareholders while creating sustainable value.

Since the creation of Novartis in 1996, the Board of Directors continuously improved the corporate governance framework of Novartis by proactively implementing emerging best corporate governance standards long before these were embedded in the Swiss Code of Best Practice for Corporate Governance ("the Swiss Code") or in the law.

In 1999, Novartis established the new position of Lead Director as a check and balance following the election of Chief Executive Officer Daniel Vasella, M.D., to the additional post of Chairman. Moreover, three new Board committees – the Compensation Committee, the Audit and Compliance Committee and the Corporate Governance and Nomination Committee – were created, composed exclusively of independent Directors.

In 2002, five years before legislation came into force in 2007, requiring companies to disclose the total compensation of their executive management group as well as the highest compensation attributed to a member of the executive management, Novartis had already implemented even more rigorous disclosure standards by reporting the individual annual compensation of all members of the Executive Committee.

In 2004, two years earlier than required for non-US corporations, Novartis complied with the challenging certification requirements under the US Sarbanes-Oxley Act, in particular Section 404 of this Act.

In 2009, in the latest example of proactively implementing best corporate governance standards, the Board of Directors established a new Risk Committee that oversees the Group's enterprise risk management of the Group, strengthening the Board of Directors' supervisory function over management in this critical area. While fostering a culture of risk-adjusted decision making, the Risk Committee ensures that reasonable risk-taking and innovation are not constrained.

There is no single model for good corporate governance. An effective corporate governance framework depends on the history of a company, its culture, business, management, stakeholders and shareholders.

Even the most stringent rules and regulations are no guarantee against abuse, as has been demonstrated by corporate scandals and the failure of risk management systems at major financial institutions in recent years. Moreover, forcing all companies into one and the same corporate governance scheme is counterproductive

and disregards the need to tailor the governance along the specifics of each company at a given time.

The uniform call for a separation of the chairman and chief executive officer roles is a good example, particularly as split roles did not prevent many of the corporate scandals in recent years. Ethos Foundation, together with ten other shareholders, has filed a shareholder proposal at the Novartis Annual General Meeting to be held in February 2010 seeking a mandatory separation of the dual roles of Chairman and Chief Executive Officer currently held by Dr. Vasella. The Board of Directors regularly reviews the position of the Chairman and Chief Executive Officer and has put into place adequate control mechanisms as recommended by the Swiss Code. In the past, the Board of Directors was of the opinion that it is in the best interests of Novartis and its shareholders that Dr. Vasella serves in both roles. This may change in the future. It is in the interests of shareholders and stakeholders, however, for the Board of Directors to maintain flexibility and not to implement what at a particular time is deemed to be fashionable in corporate governance.

At the heart of good corporate governance lies a strong Board of Directors and the professionalism and integrity of management, creating the foundation for sustainable value. While the size, composition and structure of the Board of Directors are easy to describe and can easily be checked from the outside, it is difficult to demonstrate that the core processes like information flow and decision making are state-of-the-art. It is even more difficult, if not impossible, to describe the prevailing board culture, although the latter is essential for its effective function. Novartis aims to foster an atmosphere in which Directors can pose challenging questions, voice dissenting views and secure access to independent information through extensive contacts with senior Novartis executives – inside and outside the boardroom. Diversity of a Board of Directors is a critical success factor for its work. The Novartis Board of Directors today is diverse in terms of background, interests and skills.

At a time of increased investor activism in markets around the world, shareholders are pressing for a shift of power from the board of directors to the shareholders. However, some shareholders are represented by professional asset managers who, being evaluated and rewarded primarily on the basis of their short-term performance, often have a corresponding time horizon and seek to maximize the short-term value of their investments. Moreover, shareholders have neither a duty of loyalty nor a duty of care to the company and can pursue their own interests that may or may not be that of the company or other shareholders. In contrast, the majority of the more than 150 000 Novartis shareholders expect the Board of Directors to create sustainable value, and these are the shareholders that the Board of Directors has in mind when designing the best corporate governance framework.

OUR CORPORATE GOVERNANCE FRAMEWORK

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.

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.

OUR SHAREHOLDERS

SHARES

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 depositary 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 depositary 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

	Number of shares			
Year of reduction	As of Jan 1	Shares cancelled	As of Dec 31	Amount of capital reduced in CHF
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

A table with additional information on changes in the Novartis share capital can be found in Note 5 to the financial statements of Novartis AG.

CONVERTIBLE OR EXCHANGEABLE SECURITIES

Novartis has not issued convertible or exchangeable bonds, warrants, options or other securities granting rights to Novartis shares, other than options granted to associates as an element of compensation.

SHAREHOLDINGS

SIGNIFICANT SHAREHOLDERS

According to the share register, as of December 31, 2009, the following shareholders (including nominees and the ADR depositary) held more than 2% of the total share capital of Novartis with the right to vote these shares:[1]

- 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 depositary: 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%.

[1] Excluding 6.6% of the share capital held by Novartis AG, together with Novartis affiliates, as treasury shares.

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.

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:

NUMBER OF SHARES HELD

As of December 31, 2009	Number of registered shareholders	% of registered share capital
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[1]	35	54.13
Total registered shareholders/shares	159 219	75.91
Unregistered shares		24.09
Total		**100.00**

[1] Including Significant Shareholders as 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 representative of the entire Novartis investor base since nominees and JPMorgan Chase Bank, as ADR depositary, are registered as shareholders for a large number of beneficial owners.

REGISTERED SHAREHOLDERS BY TYPE AND GEOGRAPHIC REGION

As of December 31, 2009	Shareholders in %	Shares in %
Individual shareholders	95.94	13.04
Legal entities	3.94	40.71
Nominees, fiduciaries	0.12	46.25
Total	**100.00**	**100.00**
Switzerland[1]	89.53	45.09
Europe	9.10	10.66
United States	0.42	42.18
Other countries	0.95	2.07
Total	**100.00**	**100.00**

[1] Excluding 6.6% of the share capital held by Novartis AG, together with Novartis affiliates, as treasury shares

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 depositary, 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 (unabhängiger Stimmrechtsvertreter) appointed by Novartis pursuant to Swiss law.

RESOLUTIONS AND ELECTIONS AT GENERAL MEETINGS

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

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 – Our Shareholders – Shareholdings – Significant Shareholders. 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 – Our Shareholders – Shareholdings – 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 RESTRICTION 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 PROVISIONS

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 1/3% 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 below under – Our Management – Contracts with Members of the Executive Committee.

COMPOSITION OF THE BOARD OF DIRECTORS AND ITS COMMITTEES

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.

Name	Nationality	Year of birth	First election at AGM	Last election at AGM	Next election at AGM	Retirement due to statutory age limit
Daniel Vasella, M.D.	CH	1953	1996	2007	2010	2024
William Brody, M.D., Ph.D.[1]	US	1944	2009	2009	2012	2014
Peter Burckhardt, M.D.[2]	CH	1939	1996	2008		
Srikant Datar, Ph.D.	US	1953	2003	2009	2012	2024
Ann Fudge	US	1951	2008	2008	2011	2022
William W. George[2]	US	1942	1999	2006		
Alexandre F. Jetzer-Chung	CH	1941	1996	2008	2011	2011
Pierre Landolt	CH	1947	1996	2008	2011	2018
Ulrich Lehner, Ph.D.	D	1946	2002	2008	2011	2017
Hans-Joerg Rudloff	D	1940	1996	2007	2010	2011
Andreas von Planta, Ph.D.	CH	1955	2006	2009	2012	2026
Dr.Ing. Wendelin Wiedeking	D	1952	2003	2009	2012	2023
Marjorie M.T. Yang	CHN	1952	2007	2007	2010	2023
Rolf M. Zinkernagel, M.D.	CH	1944	1999	2009	2012	2014

[1] Since February 2009
[2] Until February 2009

ROLE OF THE BOARD OF DIRECTORS AND THE BOARD COMMITTEES

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 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).

Responsibilities	Membership comprises	Number of meetings held in 2009/approximate average duration of each meeting Attendance	Link
THE BOARD OF DIRECTORS		**8/6 hours**	
The primary responsibilities of the Board of Directors 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.	**Daniel Vasella** [1] William Brody [2] Srikant Datar Ann Fudge Alexandre F. Jetzer-Chung Pierre Landolt Ulrich Lehner Andreas von Planta Hans-Joerg Rudloff Wendelin Wiedeking Marjorie M.T. Yang Rolf M. Zinkernagel	8 6 8 7 7 7 8 7 8 6 8 8	Articles of Incorporation of Novartis AG Regulations of the Board of Directors, its Committees and the Executive Committee of Novartis AG (Board Regulations) http://www.novartis.com/corporate-governance
THE CHAIRMAN'S COMMITTEE		**8/1.5 hours**	
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.	**Daniel Vasella** [1] Ulrich Lehner Hans-Joerg Rudloff	8 8 7	Charter of the Chairman's Committee http://www.novartis.com/corporate-governance
THE COMPENSATION COMMITTEE		**5/1.5 hours**	
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.	**Hans-Joerg Rudloff** [1] Srikant Datar Ulrich Lehner Marjorie M.T. Yang	5 5 5 5	Charter of the Compensation Committee http://www.novartis.com/corporate-governance

[1] Chair
[2] since February 2009

Responsibilities	Membership comprises	Number of meetings held in 2009/approximate average duration of each meeting Attendance	Link
THE AUDIT AND COMPLIANCE COMMITTEE		**7/3 hours**	
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; – 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.	**Srikant M. Datar** [1,2] Ulrich Lehner [2] Andreas von Planta Hans-Joerg Rudloff [2]	7 7 7 7	Charter of the Audit and Compliance Committee http://www.novartis.com/corporate-governance
THE CORPORATE GOVERNANCE AND NOMINATION COMMITTEE		**3/2 hours**	
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	**Ulrich Lehner** [1] Ann Fudge Pierre Landolt Andreas von Planta Rolf M. Zinkernagel	3 3 2 3 3	Charter of the Corporate Governance and Nomination Committee http://www.novartis.com/corporate-governance
THE RISK COMMITTEE [3]		**1/1 hour**	
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.	**Andreas von Planta** [1] Ulrich Lehner Srikant M. Datar Hans-Joerg Rudloff	1 1 1 1	Charter of the Risk Committee http://www.novartis.com/corporate-governance

[1] Chair
[2] Audit Committee Financial Expert as defined by the US Securities and Exchange Commission (SEC)
[3] The Risk Committee was established in December 2009

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.

THE 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.

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.

THE LEAD DIRECTOR AND MEETINGS OF THE INDEPENDENT DIRECTORS

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.

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/investors/governance-documents.shtml

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.

INFORMATION AND CONTROL SYSTEMS OF THE BOARD OF DIRECTORS 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;
- 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.

From left to right: Wendelin Wiedeking, Srikant Datar, Rolf M. Zinkernagel, Ann Fudge, Ulrich Lehner, Marjorie Mun Tak Yang, Daniel Vasella, Hans-Joerg Rudloff, William Brody, Pierre Landolt, Andreas von Planta, Alexandre F. Jetzer-Chung

BOARD OF DIRECTORS

MEMBERS

Daniel Vasella, M.D.
Chairman and CEO
Swiss, age 56

Ulrich Lehner, Ph.D.
Vice Chairman and Lead Director
German, age 63

Hans-Joerg Rudloff
Vice Chairman
German, age 69

William Brody, M.D., Ph.D.
American, age 65

Srikant Datar, Ph.D.
American, age 56

Ann Fudge
American, age 58

Alexandre F. Jetzer-Chung
Swiss, age 68

Pierre Landolt
Swiss, age 62

Andreas von Planta, Ph.D.
Swiss, age 54

Dr. Ing. Wendelin Wiedeking
German, age 57

Marjorie Mun Tak Yang
Chinese, age 57

Rolf M. Zinkernagel, M.D.
Swiss, age 65

HONORARY CHAIRMAN

Alex Krauer, Ph.D.

CORPORATE SECRETARY

Monika Matti

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.

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.

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.

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. 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.

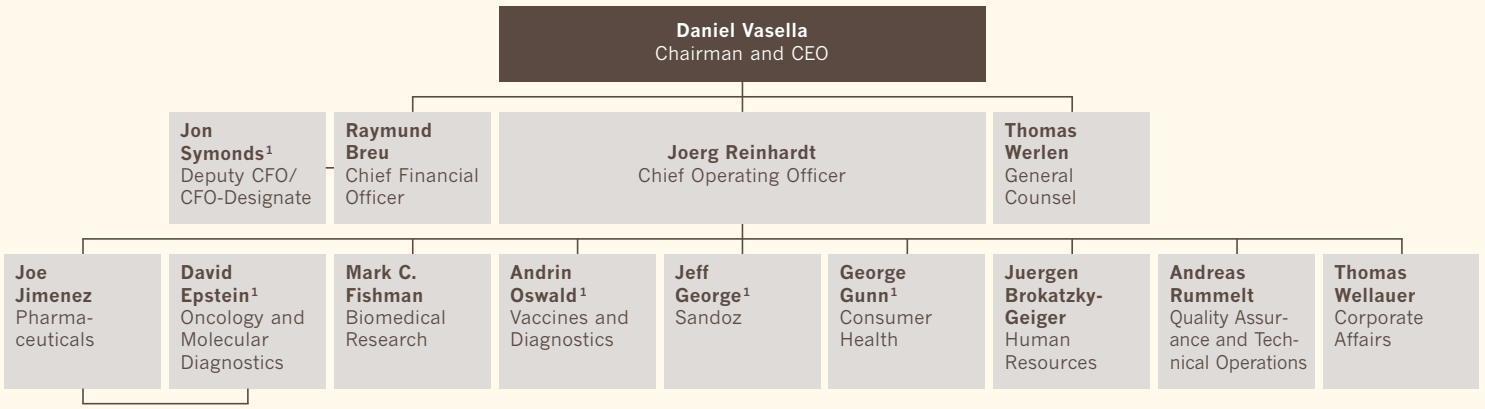
Rolf M. Zinkernagel, M.D.
Swiss, age 65

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.

COMPOSITION OF THE EXECUTIVE COMMITTEE



[1] Permanent Attendee of the Executive Committee

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 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.

ROLE AND FUNCTIONING OF THE EXECUTIVE COMMITTEE

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.

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.

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.

From left to right: Jeff George, Andreas Rummelt, Juergen Brokatzky-Geiger, David Epstein, Jon Symonds, Joe Jimenez, Daniel Vasella, Mark C. Fishman, Raymund Breu, Andrin Oswald, Joerg Reinhardt, Thomas Wellauer, Thomas Werlen, George Gunn

EXECUTIVE COMMITTEE

MEMBERS

Daniel Vasella, M.D.
Swiss, age 56

Raymund Breu, Ph.D.
Swiss, age 64

Juergen Brokatzky-Geiger, Ph.D.
German, age 57

Mark C. Fishman, M.D.
American, age 58

Joe Jimenez
American, age 50

Joerg Reinhardt, Ph.D.
German, age 53

Andreas Rummelt, Ph.D.
German, age 53

Thomas Wellauer, Ph.D.
Swiss, age 54

Thomas Werlen, Ph.D.
Swiss, age 44

PERMANENT ATTENDEES

David Epstein
American, age 48

Jeff George
American, age 36

George Gunn, MRCVS
British, age 59

Andrin Oswald, M.D.
Swiss, age 38

Jon Symonds
British, age 50

SECRETARY

Bruno Heynen

MEMBERS OF THE EXECUTIVE COMMITTEE

Daniel Vasella, M.D.
Swiss, age 56

Daniel Vasella, M.D., is Chief Executive Officer of Novartis, a position he has held 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. 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. 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 and the International Board of Governors of the Peres Center for Peace in Israel. 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.

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 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 NonExecutive 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 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 multinational 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 OF THE EXECUTIVE COMMITTEE

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, 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 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).

THE INDEPENDENT EXTERNAL AUDITORS

DURATION OF THE MANDATE AND TERMS OF OFFICE

Based on a recommendation by the Audit and Compliance Committee, the Board of Directors nominates an independent auditor for election at the Annual General Meeting. PricewaterhouseCoopers (PwC) assumed its existing auditing mandate for Novartis in 1996. The global engagement partner responsible for the mandate, Michael P. Nelligan, and the lead audit partner for Swiss regulatory purposes, Peter Kartscher, began serving in their respective roles in 2009. The Audit and Compliance Committee ensures that the lead auditor partners are rotated at least every five years.

INFORMATION TO THE BOARD OF DIRECTORS AND THE AUDIT AND COMPLIANCE COMMITTEE

The independent auditor, PwC, is responsible for opining on whether the audited consolidated financial statements comply with International Financial Reporting Standards (IFRS) and Swiss law and the separate parent financial statements of Novartis AG comply with Swiss law. Additionally, PwC is responsible for opining on the effectiveness of internal control over financial reporting.

The Audit and Compliance Committee, acting on behalf of the Board of Directors, is responsible for overseeing the activities of PwC. During 2009, the Audit and Compliance Committee held seven 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 and any other matters relevant for their audit.

On an annual basis, PwC provides to the Audit and Compliance Committee the written disclosures required by Rule 3526, "Communications with Audit Committees Concerning Independence," of the Public Company Accounting Oversight Board (PCAOB), and the Audit and Compliance Committee and PwC discuss PWC's independence from Novartis and Novartis management.

The Audit and Compliance Committee recommended to the Board of Directors, and the Board of Directors approved, inclusion of the audited financial statements in the Annual Report for the year ended December 31, 2009.

The Audit and Compliance Committee on a regular basis evaluates the performance of PwC and, once yearly, based on the outcome of the performance of PwC, decides on its recommendation to the Board of Directors whether PwC should be proposed to the Annual General Meeting for re-election. Also, once yearly the lead audit partners report to the Board of Directors on the activities of PwC during the current year and on the audit plan for the coming year by attending a Board meeting and answering any questions or concerns the Directors might have on the performance of PwC, or on the work PwC has conducted or is planning to conduct.

In order to assess the performance of PwC, the Audit and Compliance Committee requires a self-evaluation report from PwC, holds private meetings with the Chairman and Chief Executive Officer, the Chief Financial Officer and with the Head of Internal Audit and, if necessary, obtains an independent external assessment, and the Board of Directors also meets with the lead audit partners. Criteria applied for the performance assessment of PwC include technical and operational competence, independent and objective view, sufficient resources employed, focus on areas of significant risk to Novartis, willingness to probe and challenge, ability to provide effective, practical recommendations and open and effective communication and coordination with the Audit and Compliance Committee, the internal audit function and management.

PRE-APPROVAL OF AUDIT AND NON-AUDIT SERVICES

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.

Pre-approval is detailed as to the particular services 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.

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 USD thousands	2008 USD thousands
Audit Services	24 360	24 963
Audit-Related Services	4 300	3 200
Tax Services	110	400
Other Services	100	558
Total	**28 870**	**29 121**

Audit Services are defined as the standard audit work performed each year in order to issue opinions on the parent company and 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 non-recurring 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, advice for process improvements, benchmarking studies, assessment of certain non-financial processes and license fees for use of accounting and other reporting guidance databases.

FURTHER INFORMATION

THE GROUP STRUCTURE OF NOVARTIS

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 Note 31 to the Group's consolidated financial statements.

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 USD 291.0 million. The total market value of Novartis India Limited was USD 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 USD 9.3 billion. The total market value of Roche Holding AG was USD 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 USD 12.2 billion. The total market value of Alcon Inc. was USD 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 USD 67.3 million. The total market value of Idenix Pharmaceuticals, Inc., was USD 142.6 million. Novartis does not exercise control over Idenix Pharmaceuticals, Inc., which is independently governed, managed and operated.

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). A press release archive is available on the Novartis website:
http://www.novartis.com/newsroom/media-releases/index.shtml

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. Investors are also welcome to subscribe to a free e-mail service on this site.

WEBSITE INFORMATION

Topic	Information
Share Capital	
	Articles of Incorporation of Novartis AG http://www.novartis.com/corporate-governance Novartis key share data http://www.novartis.com/key-share-data
Shareholder Rights	
	Articles of Incorporation of Novartis AG http://www.novartis.com/corporate-governance Investor Relations information http://www.novartis.com/investors
Board of Directors and Executive Committee	
	Board Regulations http://www.novartis.com/corporate-governance
Senior Management	
	Senior Leadership Team http://www.novartis.com/executive-committee
Novartis Code for Senior Financial Officers	
	Novartis Code of Ethical Conduct for CEO and Senior Financial Officers http://www.novartis.com/corporate-governance
Additional Information	
	Novartis Investor Relations http://www.novartis.com/investors

COMPENSATION REPORT

Novartis aspires to be an employer of choice and to attract and retain the best talent worldwide.

Novartis offers associates around the world competitive compensation plans that are transparent, coherent and aligned with the Group's pay for performance philosophy. These plans underline the importance placed on superior performance resulting in sustainable value creation for the Group and its shareholders by satisfying customer needs.

The independent external advisor to the Board's Compensation Committee reviewed this report and concluded that it addresses required topics adequately to ensure transparency of key elements of the Group's compensation philosophy and executive compensation.

CONTENTS

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 the employment contracts and the individual compensation for selected key executives, including the members of 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, 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.

In accordance with accounting standards and Swiss law, the compensation awarded to Directors and the members of the Executive Committee is also presented in our audited Financial Report in note 27 to the Group's audited consolidated financial statements and note 11 to the audited financial statements of Novartis AG. The objectives, principles and elements of the Novartis Compensation Policy are set out below.

The Members of the Compensation Committee
Hans-Joerg Rudloff (chair)
Ulrich Lehner
Marjorie M.T. Yang
Srikant Datar

For further information on the Compensation Committee organization and responsibilities, see Corporate Governance Report – Our Board of Directors – Role of the Board and the Board Committees – The Compensation Committee.

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.

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 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:

BENCHMARK GROUP 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

COMPENSATION ELEMENTS

Base compensation	Variable compensation	Benefits

For a summary of our compensation elements and their drivers, see the summary table below.

EXECUTIVE COMPENSATION SUMMARY

Compensation element	Compensation plan	Main drivers	Performance measures	Linkage to compensation principles
Base compensation		Position, function, seniority	Market practice	Attract and retain key executives
Short-term variable compensation	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
Long-term variable compensation	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
	Long-Term Performance Plan	Achievement of long-term profit, measured through Economic Value Added (EVA) targets at Group level	Group EVA achievement	Attract and retain key executives
	Special Share Awards	Rewarding particular achievements or exceptional performance	Discretionary	
Benefits		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.

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:

ANNUAL INCENTIVE CALCULATION FORMULA

Actual annual incentive percentage = **Target incentive percentage** × **Business performance multiplier** × **Individual performance multiplier**

Under these plans, Novartis defines target incentive percentages of base compensation for each participating associate at the begin-

ning 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 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 11 600 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. 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 grant 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 (ADRs), 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).

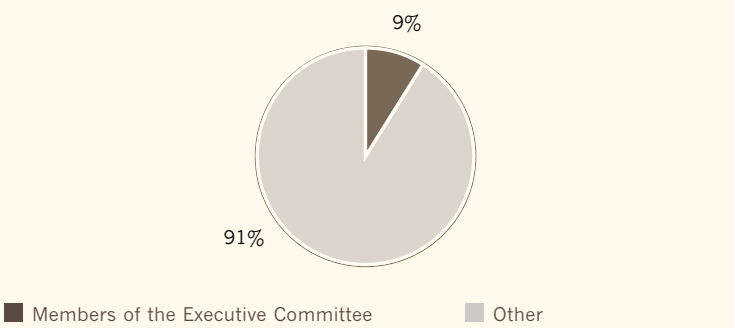
The terms of the share options granted since 2006 are shown in the table below.

TERMS OF SHARE OPTIONS

Grant year	Exercise price (CHF/USD)	Vesting (years) (CH/other countries)	Term (years)
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

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.

2009 TOTAL EQUITY VALUE AWARDED UNDER THE EQUITY PLAN "SELECT"



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.

LONG-TERM PERFORMANCE PLAN PERIOD

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.

LONG-TERM PERFORMANCE PLAN PARTICIPANTS HISTORY

Grant year = Target setting	Performance period	Award year = Payout in shares	Plan participants (number of key executives)
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.

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

The authorization levels are shown below.

COMPENSATION AUTHORIZATION LEVELS

Decision on	Recommendation	Authority
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.

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:

NON-EXECUTIVE DIRECTORS ANNUAL FEE RATES

	Annual fee (CHF)
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 [1]	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.

NON-EXECUTIVE DIRECTORS COMPENSATION IN 2009[1]

	Board directorship	Lead Director	Vice Chairman	Chairman's Committee	Audit and Compliance Committee	Risk Committee[2]	Compensation Committee	Corporate Governance and Nomination Committee	Delegated board directorship	Annual cash compensation (CHF)	Shares (number)	Total (CHF)[3]
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[4]	•									367 722	0	367 722
Pierre Landolt[5]	•							•		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[6]	•							•	•	683 752	0	683 752
Total										**4 950 454**	**17 453**	**5 861 533**

See note 11 to the Financial Statements of Novartis AG for 2008 data.

[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 under – Compensation 2009 – Compensation for Performance in 2009 – Valuation Principles.

[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 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.

CHAIRMAN AND CHIEF EXECUTIVE OFFICER COMPENSATION HISTORY

		Short-term incentives			
Year	Base compensation (CHF)	Cash	Shares	Total cash compensation (CHF)[1]	Total compensation (CHF)
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[2]	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.

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 MEMBERS OF THE EXECUTIVE COMMITTEE

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 members 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.

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 members 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 member 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 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 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[1] period. In addition, associates in Switzerland, including the members of the Executive Committee, may block[2] 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 note 27 to the Group's consolidated financial statements for information on executive officer and Director compensation as reported 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.

EXECUTIVE COMMITTEE COMPENSATION FOR PERFORMANCE IN 2009[1]

		Base compensation	Variable compensation						Benefits		Total		Total
			Short-term incentive plans		Long-term incentive plans								
					Equity Plan "Select"		Long-Term Performance Plan	Special share awards	Pension benefits	Other benefits		Future LSSP/ESOP match[10]	Including future LSSP/ESOP match[11,12]
	Currency	Cash (Amount)	Cash (Amount)	Shares (Number)[2]	Shares (Number)[3]	Options (Number)[4]	Shares (Number)[5]	Shares (Number)[6]	(Amount)[7]	(Amount)[8]	(Amount)[9]	Shares (Number)	(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	CHF	1 125 504	0	18 210	0	736 957	13 963	11 639	106 109	0	3 275 938	506	3 289 187
Juergen Brokatzky-Geiger	CHF	663 924	0	11 997	28 792	0	8 279	0	163 128	30 006	3 251 278	11 997	3 751 966
Mark C. Fishman	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
Joe Jimenez	CHF	991 674	1 200 000	0	82 364	0	12 356	0	235 764	83 385	7 294 932	0	7 294 932
Joerg Reinhardt	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
Andreas Rummelt	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 Wellauer	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[13]	**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**

See note 11 to the Financial Statements of Novartis AG for 2008 data.

[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.

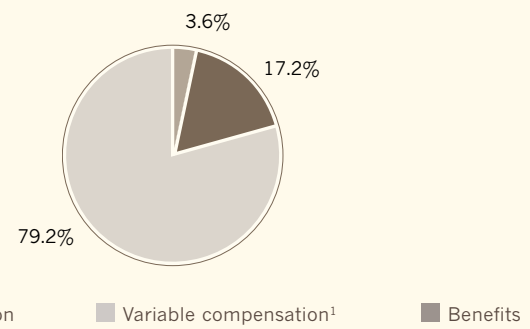
2009 EXECUTIVE COMMITTEE TOTAL COMPENSATION MIX – CASH AND EQUITY-BASED COMPENSATION

	Cash[1]	Equity-based compensation[2]
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.

2009 EXECUTIVE COMMITTEE COMPENSATION ELEMENTS



[1] Including future LSSP/ESOP match.

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 Novartis shares or ADRs that are owned directly or indirectly by "persons closely linked"[1] 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"[1] 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"[1] 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.

[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.

SHARES OWNED BY NON-EXECUTIVE DIRECTORS

	Number of shares[1]
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[2]	29 791
Andreas von Planta	107 664
Wendelin Wiedeking	27 930
Marjorie M.T. Yang	18 000
Rolf M. Zinkernagel	22 800
Total	**370 572**

[1] Includes holdings of "persons closely linked" to Non-Executive Directors (see definition under – Share Ownership – Ownership Guidelines).
[2] According to Pierre Landolt, of the total number, 29 580 shares are held by the Sandoz Family Foundation.

SHARE OPTIONS OWNED BY NON-EXECUTIVE DIRECTORS

	Number of share options		
	Granted by Novartis in 2002 or earlier[1]	Share options acquired in the market[2]	Total
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[3]	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
Total	**88 732**	**0**	**88 732**

[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 under – Share Ownership – Ownership Guidelines).
[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 under – Share Ownership – Ownership Guidelines) owned 1% or more of the outstanding shares of Novartis, either directly or through share options.

As of December 31, 2009, all members of the Executive Committee who have served at least three years on the Executive Committee have met or exceeded their personal Novartis ownership requirements.

SHARES OWNED BY MEMBERS OF THE EXECUTIVE COMMITTEE

	Number of shares[1]
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
Total	**5 001 225**

[1] Includes holdings of "persons closely linked" to members of the Executive Committee (see definition under – Share Ownership – Ownership Guidelines).

SHARE OPTIONS OWNED BY MEMBERS OF THE EXECUTIVE COMMITTEE

	Number of share options[1]						
	2010	2009	2008	2007	2006	Other	Total
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
Total	**2 538 588**	**2 743 939**	**2 270 274**	**1 639 425**	**589 163**	**2 567 587**	**12 348 976**

[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 under – Share Ownership – Ownership Guidelines) on the market.

LOANS AND OTHER PAYMENTS

LOANS TO NON-EXECUTIVE DIRECTORS OR MEMBERS OF THE EXECUTIVE COMMITTEE

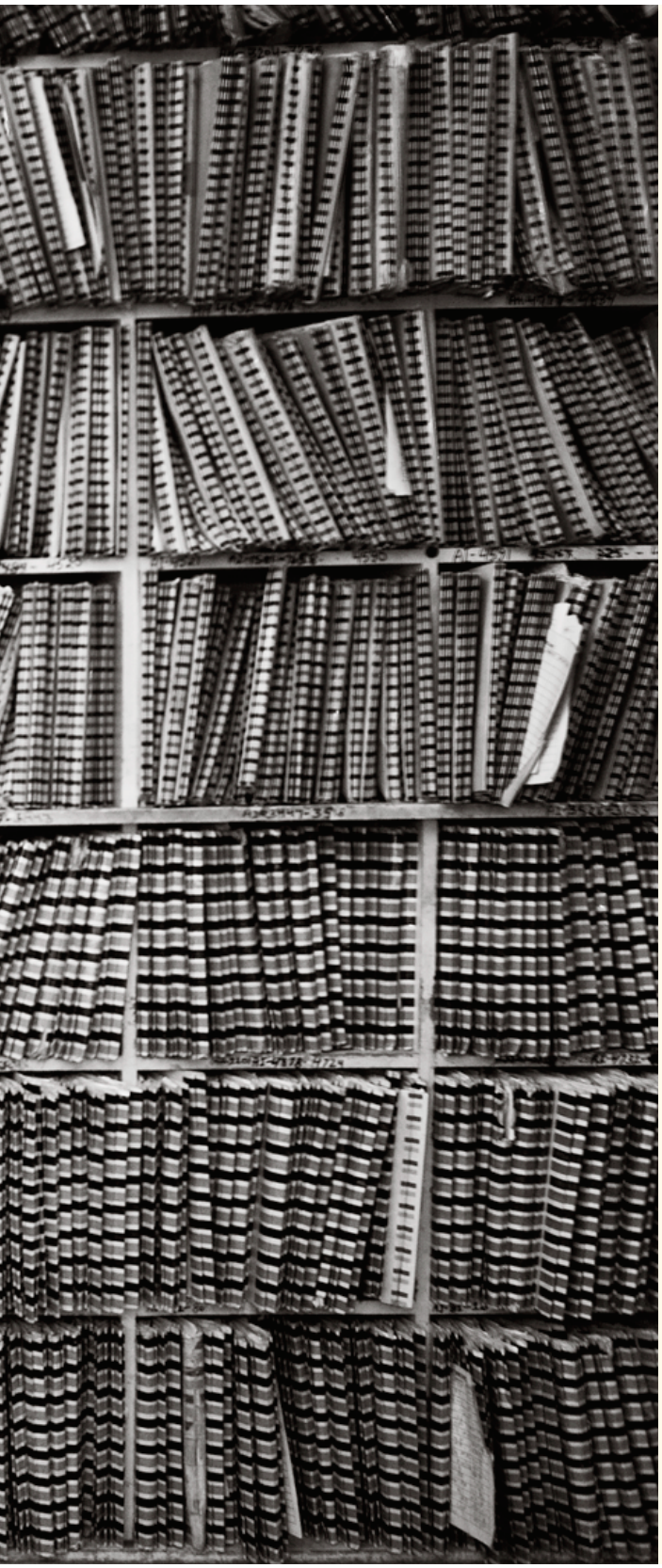
No loans were granted to current or former Non-Executive Directors or members of the Executive Committee during 2009. No such loans were outstanding as of December 31, 2009.

OTHER PAYMENTS TO NON-EXECUTIVE DIRECTORS OR MEMBERS 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 under – Share Ownership – Ownership Guidelines).

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 under – Share Ownership – Ownership Guidelines), except for an amount of CHF 62 298 that was paid to the Honorary Chairman.



FINANCIAL REPORT

CONTENTS

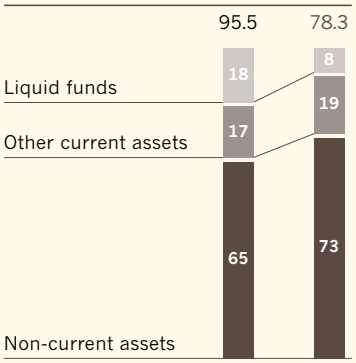
FINANCIAL HIGHLIGHTS 2009

KEY FIGURES

	2009 USD millions	2008 USD millions	Change %
Net sales	**44 267**	41 459	7
Operating income	**9 982**	8 964	11
Return on net sales (%)	**22.5**	21.6	
Net income	**8 454**	8 163	4
Basic earnings per share (USD)[1]	**3.70**	3.59	3
Core[2]			
Operating income	**11 437**	10 319	11
Return on core net sales (%)[3]	**25.8**	25.0	
Net income	**10 267**	9 501	8
Basic earnings per share (USD)	**4.50**	4.18	8
Change in net liquidity	**4 708**	– 8 654	
Equity at year-end	**57 462**	50 437	14
Dividend (CHF)[4]	**2.10**	2.00	5

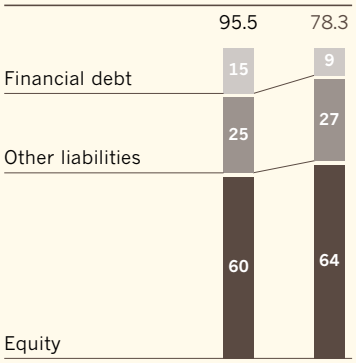
TOTAL ASSETS

(In USD billions and %)



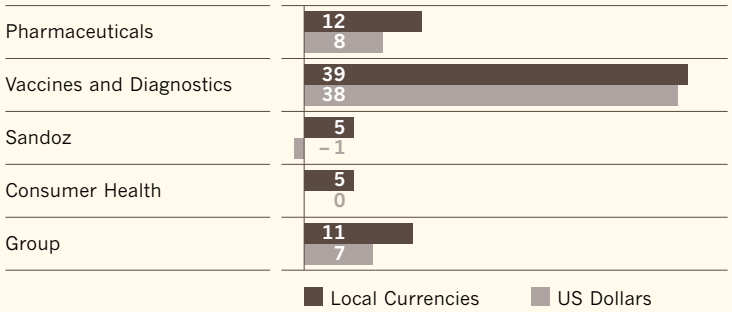
TOTAL EQUITY AND LIABILITIES

(In USD billions and %)



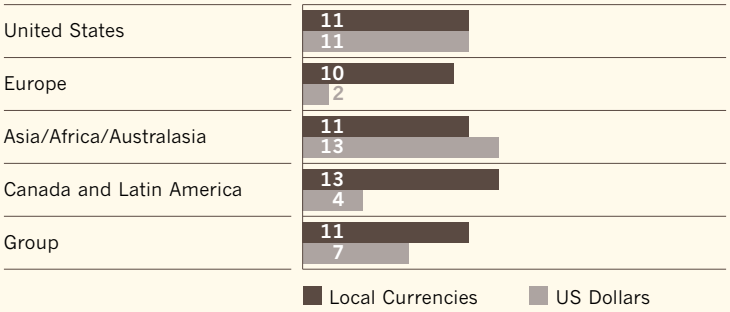
NET SALES GROWTH

(In %)



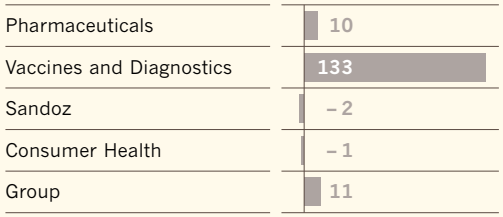
NET SALES GROWTH BY REGION

(In %)



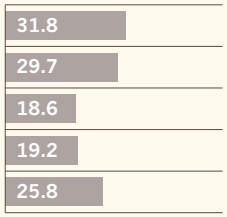
CORE OPERATING INCOME GROWTH

(In %)[2]



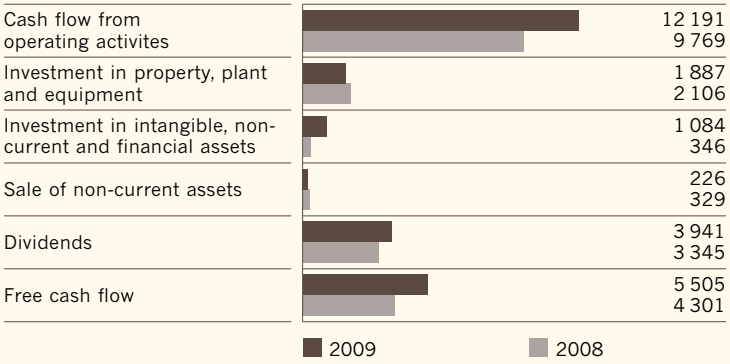
CORE OPERATING MARGIN

(In %)[2]



CASH FLOW FROM OPERATING ACTIVITIES AND FREE CASH FLOW

(In USD millions)



[1] 2009 average number of shares outstanding: 2 267.9 million (2008: 2 265.5 million)

[2] Core results for operating income, net income and earnings per share (EPS) eliminate the impact of acquisition-related factors and other significant exceptional items. These adjustments are explained in detail on page 151.

[3] In 2008 based on core sales of USD 41 305 million

[4] Dividend payment for 2009: Proposal to 2010 Annual General Meeting

KEY FINANCIAL DEVELOPMENTS IN 2009

NOVARTIS IN 2009	achieves another year of record results as momentum of recently launched products drives growth across broad healthcare portfolio
NET SALES	rise 7% (+11% in local currencies, or lc) to USD 44.3 billion on the underlying double-digit business expansion led by Pharmaceuticals and contributions from influenza A (H1N1) pandemic vaccines in Vaccines and Diagnostics
PHARMACEUTICALS	ranks as one of the industry's fastest-growing companies in 2009 on rapid growth of recently launched products, with net sales rising 8% (+12% lc) to USD 28.5 billion
VACCINES AND DIAGNOSTICS	posts 38% (+39% lc) net sales increase to USD 2.4 billion, responding to the global pandemic influenza crisis in 2009 by making significant investments and completing the delivery of more than 100 million A (H1N1) vaccines within only a few months
SANDOZ	net sales fall 1% to USD 7.5 billion, but rise 5% lc as negative currency overshadows operational gains from new product launches, a sharper commercial focus and a return to growth in the US
CONSUMER HEALTH	expands market share in all businesses amid challenging economic conditions, with net sales of USD 5.8 billion (0% in USD, +5% lc) hampered by negative currency impact
OPERATING INCOME	advances 11% to USD 10.0 billion on the solid business expansion and productivity gains, more than offsetting impact of negative currency movements (–9 percentage points). Operating income margin improves to 22.5% of net sales from 21.6% in 2008. Core operating income grows 11% to USD 11.4 billion, core operating margin of 25.8%
NET INCOME	grows 4% to USD 8.5 billion, at a slower pace than operating income due to Alcon-related financing costs and reduced income from associated companies. Core net income rises 8% to USD 10.3 billion
BASIC EARNINGS PER SHARE	rise 3% to USD 3.70 from USD 3.59 in 2008, largely in line with net income, while core basic EPS rises 8% to USD 4.50
DIVIDEND	of CHF 2.10 per share proposed for 2009 to shareholders represents a 5% increase from CHF 2.00 in 2008 and a dividend yield of 3.7%
PRODUCTIVITY	gains are achieved throughout the Group. The Forward initiative to improve speed, flexibility and productivity is completed in 2009, a year ahead of schedule after reaching USD 2.3 billion of cumulative savings and exceeding the target by USD 0.7 billion

This operating and financial review should be read together with the Group's consolidated financial statements in this Annual Report. 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.

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 USD 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 (USD 18.4 billion, +10% lc) and the United States (USD 14.3 billion, +11% lc) as well as the top six emerging markets (USD 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 USD 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 USD 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 USD 8.5 billion, while basic EPS was up 3% to USD 3.70. Core net income of USD 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 USD 4.50 in 2009, up from USD 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 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 USD 825 billion, 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 USD 310 billion, while the top five European countries (France, Germany, Italy, Spain and the United Kingdom) are forecast to grow 1–3% to approximately USD 150 billion as rising costs continue to pressure governments. In Japan, overall pharmaceutical sales are expected to contract slightly to approximately USD 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 USD 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 dis-

eases 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%	USD 820–830 billion	4–7%	USD 975 billion to 1.0 trillion
US	3–5%	USD 310–320 billion	2–5%	USD 325–355 billion
Top 5 Europe	1–3%	USD 145–155 billion	1–4%	USD 160–190 billion
Top emerging markets [1]	12–14%	USD 105–115 billion	13–16%	USD 160–190 billion
Japan	–2% to 0%	USD 86–90 billion	1–4%	USD 97–107 billion
Rest of World	6–8%	USD 160–170 billion	5–8%	USD 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 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 USD 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.

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.

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 USD 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 USD 3.7 billion for 2006–2008 compared to only USD 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 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 H5N1 vaccines) and 2009 (from 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 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 Pharmaceuticals Corporation (NPC) has recently entered into a plea agreement with the US Attorneys' 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 USD 318 million to a total of USD 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. See note 20 to our consolidated financial statements for further information on various legal proceedings.

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.

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.

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 industry-wide 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. 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 USD 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 USD 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 USD 28.7 billion, or approximately 65% (2008: 64%) of the Group's net sales in the world's seven largest developed markets, while USD 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 USD 2.3 billion of cumulative cost savings since 2007 and exceeding its 2010 goal of USD 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.

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.

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 (USD 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 (USD 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 USD 0.7 billion, which resulted in goodwill of USD 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 USD 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 USD 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 the development and commercialization of relaxin. The purchase price consists of an initial payment of USD 120 million. Corthera's current shareholders are eligible to receive additional payments of up to USD 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 the first quarter of 2010.

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 USD 38.5 billion. On July 7, 2008, Novartis acquired a 25% stake in Alcon, representing 74 million shares, from Nestlé for USD 10.4 billion in cash. At December 31, 2009, Alcon's share price on the New York Stock Exchange

(NYSE) was USD 164.35, which was above the Group's carrying value of USD 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 (USD 888 million) excluding USD 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 USD 472 million, which resulted in goodwill of USD 493 million in 2008. As a result of this purchase price allocation, the value of the initial 9.5% stake rose by USD 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 USD 102 million in cash to acquire 100% of Protez, whose owners are eligible for additional payments of up to USD 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 USD 72 million, which resulted in goodwill of USD 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 USD 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 2009

Corporate – Issuance of bond in US dollars

On February 5, Novartis issued a two-tranche bond totaling USD 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 USD 2 billion was issued by the Group's US entity, Novartis Capital Corp., while a 5.125% 10-year tranche totaling USD 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 USD 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 (USD 80 million). Almost all large institutional investors and quasi-institutional shareholders participated in the offer. This transaction resulted in USD 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 TRANSACTION IN 2008

Corporate – Issuance of bonds in Swiss francs

On June 26, Novartis issued two Swiss franc bonds totaling CHF 1.5 billion (approximately USD 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.

2009 SUBSEQUENT EVENT – ALCON

In 2008, Novartis entered into an agreement to purchase Nestle's 77% stake in Alcon Inc. for up to USD 38.5 billion, or an average price of USD 168 per share. Under the terms of the agreement, Novartis acquired a 25% Alcon stake from Nestlé in 2008 for USD 10.4 billion, or USD 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 USD 28.1 billion (contains the 17% control premium for the 77% stake over Alcon's share price of USD 143 at the time of the April 2008 announcement), or USD 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, 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 = USD 1.00, this proposal represents an implied price of USD 153 per Alcon share and a 12% premium to Alcon's unaffected publicly traded share price as determined by Novartis of USD 137 per share. Alcon's closing share price was USD 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.

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 USD 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.

The following tables reconcile IFRS results to core results:

2009 AND 2008 RECONCILIATION OF IFRS RESULTS TO CORE RESULTS

2009	IFRS results USD millions	Amortization of intangible assets[1] USD millions	Impairments[2] USD millions	Acquisition-related restructuring and integration items[3] USD millions	Exceptional items[4] USD millions	Core results USD millions
Net sales	**44 267**					**44 267**
Other revenues	836				– 28	808
Cost of Goods Sold	– 12 179	938	– 69	18		– 11 292
Gross profit	**32 924**	**938**	**– 69**	**18**	**– 28**	**33 783**
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
Operating income	**9 982**	**1 025**	**75**	**18**	**337**	**11 437**
Income from associated companies	293	569	92		97	1 051
Financial income	198					198
Interest expense	– 551					– 551
Income before taxes	**9 922**	**1 594**	**167**	**18**	**434**	**12 135**
Taxes	– 1 468					– 1 868[5]
Net income	**8 454**					**10 267**
Attributable to:						
Shareholders of Novartis AG	8 400					10 213
Non-controlling interests	54					54
Average number of shares outstanding – Basic (million)	**2 267.9**					**2 267.9**
Basic earnings per share (USD)[6]	3.70					4.50
Average number of shares outstanding – Diluted (million)	**2 276.6**					**2 276.6**
Diluted earnings per share (USD)[6]	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 amortization of the purchase price allocation related to intangible assets, primarily for the Roche and Alcon investments.

[2] Impairments: Cost of Goods Sold includes impairment charges for acquired rights to in-market products and production-related impairment charges, including a partial reversal of USD 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 USD 92 million impairment charge taken for an Alcon pharmaceutical development project.

[3] Acquisition-related restructuring and integration items: Cost of Goods Sold includes charges of USD 18 million related to the EBEWE Pharma specialty generics business acquisition.

[4] Exceptional items: Other revenues reflects a USD 28 million gain from a settlement of Vaccines and Diagnostics; Other income reflects divestment gains in Pharmaceuticals; Other expense includes an increase of USD 345 million in legal provisions principally for the *Trileptal* and *TOBI* US government investigations; Income from associated companies reflects a USD 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.

2008	IFRS results[1] USD millions	Amortization of intangible assets[2] USD millions	Impairments[3] USD millions	Acquisition-related restructuring and integration items[4] USD millions	Exceptional items[5] USD millions	Core results USD millions
Net sales	**41 459**				**– 154**	**41 305**
Other revenues	1 125				– 49	1 076
Cost of Goods Sold	– 11 439	969	29			– 10 441
Gross profit	**31 145**	**969**	**29**		**– 203**	**31 940**
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	182	– 1 388
Operating income	**8 964**	**1 095**	**450**	**17**	**– 207**	**10 319**
Income from associated companies	441	398				839
Financial income	384					384
Interest expense	– 290					– 290
Income before taxes	**9 499**	**1 493**	**450**	**17**	**– 207**	**11 252**
Taxes	– 1 336					– 1 751[6]
Net income	**8 163**					**9 501**
Attributable to:						
Shareholders of Novartis AG	8 125					9 463
Non-controlling interests	38					38
Average number of shares outstanding – Basic (million)	**2 265.5**					**2 265.5**
Basic earnings per share (USD)[7]	3.59					4.18
Average number of shares outstanding – Diluted (million)	**2 284.2**					**2 284.2**
Diluted earnings per share (USD)[7]	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 USD 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 USD 17 million related to acquisitions during the year.

[5] Exceptional items: Net sales adjustments reflect a USD 104 million gain from a release of US government rebate provisions in Pharmaceuticals and USD 50 million due to a change in contractual terms in Vaccines and Diagnostics; Other revenues reflects USD 49 million from a settlement in Vaccines and Diagnostics; Other income includes USD 141 million of divestment gains and USD 45 million from the release of pre-launch inventory provisions in Pharmaceuticals; Other expense includes USD 79 million for exceptional increases in legal provisions in Pharmaceuticals and various restructuring charges of USD 75 million and USD 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.

2009 AND 2008 RECONCILIATION OF DIVISIONAL OPERATING INCOME TO CORE OPERATING INCOME

	Pharmaceuticals		Vaccines and Diagnostics	
	2009 USD millions	2008 USD millions	2009 USD millions	2008 USD millions
Operating income	**8 392**	**7 579**	**372**	**78**
Amortization of intangible assets	**366**	**414**	**312**	**318**
Impairments				
Intangible assets	– 11	320	18	1
Property, plant & equipment	4	13		
Financial assets	37	53		
Total impairments	**30**	**386**	**18**	**1**
Acquisition-related restructuring and integration items (including acquisition-related accounting impact of inventory adjustments), net		**6**		**11**
Exceptional items				
Exceptional gains from divesting brands, subsidiaries and financial investments	– 65	– 141		
Other restructuring expenses		75		
Legal provisions, litigations and exceptional settlements	345	79	17	– 49
Product recall costs				
Release of pre-launch inventory provisions		– 45		
Release of US government rebate provision		– 104		
Change in contractual terms triggering revenue recognition				– 50
Total exceptional items	**280**	**– 136**	**17**	**– 99**
Total adjustments	**676**	**670**	**347**	**231**
Core operating income	**9 068**	**8 249**	**719**	**309**
Core return on net sales	**31.8%**	**31.5%**	**29.7%**	**18.1%**

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 for 2009 and 2008 for currencies most important to the Group:

Currency		2009 %	2008 %
US dollar (USD)	Net sales	35	34
	Operating expenses	33	31
Euro (EUR)	Net sales	31	32
	Operating expenses	31	28
Swiss franc (CHF)	Net sales	3	2
	Operating expenses	12	16
Japanese yen (JPY)	Net sales	8	7
	Operating expenses	4	5
Other currencies	Net sales	23	25
	Operating expenses	20	20

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 transac-

Sandoz		Consumer Health		Corporate		Total	
2009 USD millions	2008 USD millions	2009 USD millions	2008 USD millions	2009 USD millions	2008 USD millions	2009 USD millions	2008 USD millions
1 071	**1 084**	**1 016**	**1 048**	**– 869**	**– 825**	**9 982**	**8 964**
260	**284**	**84**	**77**	**3**	**2**	**1 025**	**1 095**
6	23	13				26	344
	2	5			1	9	16
				3	37	40	90
6	**25**	**18**		**3**	**38**	**75**	**450**
18						**18**	**17**
						– 65	– 141
40						40	75
						362	30
	28						28
							– 45
							– 104
							– 50
40	**28**					**337**	**– 207**
324	**337**	**102**	**77**	**6**	**40**	**1 455**	**1 355**
1 395	**1 421**	**1 118**	**1 125**	**– 863**	**– 785**	**11 437**	**10 319**
18.6%	**18.8%**	**19.2%**	**19.4%**			**25.8%**	**25.0%**

tions affect our consolidated financial statements and on how foreign exchange rate exposure is managed, see notes 1, 5 and 16 to the Group's consolidated financial statements.

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

	2009		2008	
USD per unit	Average for year	Year end	Average for year	Year end
EUR	1.393	1.436	1.470	1.411
CHF	0.923	0.965	0.925	0.948
JPY (100)	1.070	1.086	0.970	1.107

The following table provides a summary of the currency translation impact on key Group figures due to the conversions into USD, 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 change in % 2009	Local currencies change in % 2008	USD change in % 2009	USD change in % 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 note 16 to the Group's consolidated financial statements.

The following table provides a breakdown of liquid funds and financial debt by currency:

LIQUID FUNDS AND FINANCIAL DEBT BY CURRENCY
(As of December 31)

	Liquid funds in % 2009	Liquid funds in % 2008	Financial debt in % 2009	Financial debt in % 2008
USD	92	71	46	22
EUR	1	7	21	18
CHF	7	19	19	36
JPY			12	21
Other		3	2	3
	100	100	100	100

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

Our principal accounting policies are set out in note 1 to the Group's consolidated financial statements 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 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 pharmaceuticals industry, our gross sales are subject to various deductions that are composed primarily 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 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.
– 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:

PROVISIONS FOR REVENUE DEDUCTIONS

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

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

GROSS TO NET SALES RECONCILIATION

2009	Income statement charge: Charged through revenue deduction provisions 2009 USD millions	Income statement charge: Charged directly without being recorded in revenue deduction provisions 2009 USD millions	Total 2009 USD millions	In % of 2009 gross sales
Gross sales subject to deductions			**54 691**	**100.0**
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
Total gross to net sales adjustments	**– 6 245**	**– 4 179**	**– 10 424**	**– 19.1**
Net sales			**44 267**	**80.9**

2008	Income statement charge: Charged through revenue deduction provisions 2008 USD millions	Income statement charge: Charged directly without being recorded in revenue deduction provisions 2008 USD millions	Total 2008 USD millions	In % of 2008 gross sales
Gross sales subject to deductions			**49 972**	**100.0**
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
Total gross to net sales adjustments	**– 5 291**	**– 3 222**	**– 8 513**	**– 17.1**
Net sales			**41 459**	**82.9**

ACQUISITION ACCOUNTING

The Group's 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 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 & Devel-

opment 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.

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:

	Pharmaceuticals %	Vaccines and Diagnostics %	Sandoz %	Consumer Health %
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 USD 132 million were recorded. This is relating to various impairment charges of USD 88 million, mainly for upfront and milestone payments in the Pharmaceuticals Division and USD 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 USD 106 million mainly relating to *Famvir* product rights.

In 2008, we recorded impairment charges of USD 344 million, which included a full impairment of USD 223 million for the termination of the *Aurograb* (infections) development project and USD 97 million for various impairments of upfront and milestone payments and product rights in the Pharmaceuticals Division. Additionally, various impairments totaling USD 24 million were recorded in the other 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 note 11 to the Group's consolidated financial statements.

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).

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.

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 note 4 to the Group's consolidated financial statements.

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 USD 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 USD 7 million, and if the same decrease were assumed for the return on assets, pension expense would have increased by USD 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 note 25 to the Group's consolidated financial statements.

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.

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 note 26 to the Group's consolidated financial statements.

CONTINGENCIES

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 note 20 to the Group's consolidated financial statements.

We record accruals for contingencies 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 "Noncurrent 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 & 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.

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.

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.

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 USD 28.5 billion, or 65%, of net sales and for USD 8.4 billion, or 78%, 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 USD 2.4 billion, or 5%, of net sales and provided USD 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 USD 7.5 billion, or 17%, of net sales and for USD 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.

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".

In 2009, Consumer Health accounted for USD 5.8 billion, or 13%, of net sales and for USD 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.

RESULTS OF OPERATIONS

KEY FIGURES

	Year ended Dec 31, 2009 USD millions	Year ended Dec 31, 2008 USD millions	Change %
Net sales	**44 267**	**41 459**	**7**
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
Operating income	**9 982**	**8 964**	**11**
Income from associated companies	293	441	– 34
Financial income	198	384	– 48
Interest expense	– 551	– 290	90
Income before taxes	**9 922**	**9 499**	**4**
Taxes	– 1 468	– 1 336	10
Net income from continuing operations	**8 454**	**8 163**	**4**
Net income from discontinued operations		70	
Group net income	**8 454**	**8 233**	**3**
Attributable to:			
Shareholders of Novartis AG	*8 400*	*8 195*	*3*
Non-controlling interests	*54*	*38*	*42*
Basic earnings per share	**3.70**	**3.59**	**3**

CORE KEY FIGURES

	Year ended Dec 31, 2009 USD millions	Year ended Dec 31, 2008 USD millions	Change %
Core operating income	**11 437**	**10 319**	**11**
Core net income	**10 267**	**9 501**	**8**
Core earnings per share	**4.50**	**4.18**	**8**

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.

OVERVIEW – RESULTS OF 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 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 USD 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 (USD 18.4 billion, +10% lc) and the United States (USD 14.3 billion, +11% lc) as well as the top six emerging markets (USD 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 USD 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 USD 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 USD 8.5 billion, while basic EPS was up 3% to USD 3.70. Core net income of USD 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 USD 4.50 in 2009, up from USD 4.18 in 2008.

NET SALES

	Year ended Dec 31, 2009 USD millions	Year ended Dec 31, 2008 USD millions	Change in USD %	Change in local currencies %
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**
Net sales	**44 267**	**41 459**	**7**	**11**

PHARMACEUTICALS DIVISION

All geographic regions and therapeutic areas contributed to the double-digit expansion in local currencies, driven by recently launched products (USD 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 (USD 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* (USD 3.9 billion, +12% lc) and three additional products – *Zometa, Femara* and *Sandostatin* – that each achieved more than USD 1 billion of sales. *Exforge* and *Tekturna/Rasilez* (high blood pressure) and *Galvus* (type 2 diabetes) drove expansion of Cardiovascular and Metabolism (USD 8.8 billion, +9% lc), complementing *Diovan* (USD 6.0 billion, +6% lc) as Novartis expanded its position as the global leader in hypertension. *Lucentis* (USD 1.2 billion, +47% lc) and *Exelon* (USD 954 million, +22% lc) fueled growth in Neuroscience and Ophthalmics (USD 4.9 billion, +12% lc).

All regions benefited from the product portfolio transformation, particularly Europe (USD 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 (USD 2.5 billion, +13% lc), while the US (USD 9.5 billion, +11% lc) and Japan (USD 3.1 billion, +9% lc) both showed renewed growth. All six top emerging markets (USD 2.6 billion, +19% lc) – Brazil, China, India, Russia, South Korea and Turkey – advanced at robust double-digit rates.

TOP 20 PHARMACEUTICALS DIVISION PRODUCT NET SALES – 2009

Brands		United States USD millions	% change in local currencies	Rest of world USD millions	% change in local currencies	Total USD millions	% change in USD	% change in local currencies
Diovan/Co–Diovan	Hypertension	2 492	4	3 521	7	6 013	5	6
Gleevec/Glivec	Chronic myeloid leukemia	1 088	21	2 856	9	3 944	7	12
Zometa	Cancer complications	718	8	751	9	1 469	6	9
Femara	Breast cancer	572	18	694	14	1 266	12	16
Lucentis	Age-related macular degeneration			1 232	47	1 232	39	47
Sandostatin (group)	Acromegaly	458	6	697	8	1 155	3	7
Exelon (group)	Alzheimer's disease	362	30	592	18	954	17	22
Neoral/Sandimmun	Transplantation	90	–8	829		919	–4	–1
Voltaren (group)	Inflammation/pain	5		792	1	797	–2	1
Exforge (group)	Hypertension	229	53	442	83	671	65	72
Top ten products total		**6 014**	**11**	**12 406**	**13**	**18 420**	**9**	**12**
Exjade (group)	Iron chelator	247	16	405	34	652	23	27
Lescol	Cholesterol reduction	121	–21	442	–8	563	–13	–11
Comtan/Stalevo (group)	Parkinson's disease	217	9	337	17	554	10	14
Aclasta	Osteoporosis	328	84	144	97	472	86	88
Ritalin (group)	Attention Deficit/Hyperactivity Disorder	343	–1	106	21	449	2	4
Tegretol (incl. CR/XR)	Epilepsy	91	–38	284	–1	375	–17	–13
Foradil	Asthma	14		343	3	357	–8	3
Myfortic	Transplantation	135	42	218	22	353	22	28
Xolair	Asthma	90	181	248	45	338	60	65
Lotrel	Hypertension	322	–17			322	–17	–17
Top 20 products total		**7 922**	**10**	**14 933**	**13**	**22 855**	**9**	**12**
Rest of portfolio		1 620	13	4 063	10	5 683	7	11
Total Division net sales		**9 542**	**11**	**18 996**	**12**	**28 538**	**8**	**12**

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 (USD 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 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 (USD 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 (USD 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 (USD 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 (USD 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 (USD 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 (USD 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 (USD 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 (USD 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 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 (USD 1.2 billion, +7% lc), 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 (USD 652 million, +27% lc), 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 (USD 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 (USD 1.2 billion, +47% lc), 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** (USD 954 million, +22% lc), 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 (USD 919 million, –1% lc), 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 (USD 797 million, +1% lc, 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.

Lescol (USD 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 (USD 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 (USD 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 (USD 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 (USD 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 USD 571 million.

Certican (USD 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 (USD 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 lifelong 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 USD 1.0 billion of net sales from pandemic vaccines and adjuvants in 2009. 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.

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, which added one percentage point to sales growth in 2009, 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.

DEVELOPMENT UPDATE

Novartis ranks as having one of the industry's most competitive development pipelines with 145 projects in pharmaceutical clinical development, of which 60 involve new molecular entities.

2009 SELECTED MAJOR SUBMISSIONS: US, EUROPE AND JAPAN

Product	Active ingredient	Indication	Submission date
ABF656[1]	albumin interferon alpha-2b	Hepatitis C	US – Q4 EU – Q4
FTY720	fingolimod	Multiple sclerosis	US – Q4 EU – Q4
Lucentis	ranibizumab	Diabetic macular edema	EU – Q4
Tasigna	nilotinib	First-line chronic myeloid leukemia (CML)	US – Q4 EU – Q4
Tekturna/Rasilez and amlodipine	aliskiren and amolodipine	Hypertension	US – Q4 EU – Q4
TOBI-TIP	*TOBI* inhaled powder	Cystic fibrosis	EU – Q4
Zometa	zoledronic acid	Adjuvant breast cancer	US – Q4 EU – Q4

[1] US submission completed by Human Genome Sciences

2009 SELECTED MAJOR APPROVALS: US, EUROPE AND JAPAN

Product	Active ingredient	Indication	Approval date
Afinitor	everolimus	Kidney cancer	US – Q1 EU – Q3
Coartem	artemether and lumefantrine	Malaria	US – Q2
Co-Dio	valsartan and diuretic	Hypertension	JP – Q1
Clozaril	clozapine	Schizophrenia	JP – Q2
Exforge HCT	valsartan, amlodipine and diuretic	Hypertension	US – Q2 EU – Q4
Extavia	interferon beta-1b	Multiple sclerosis	US – Q3
A (H1N1) vaccines			US – Q3 EU – Q3
Ilaris	canakinumab	Cryopyrin-associated periodic syndrome (CAPS)	US – Q2 EU – Q4
Ixiaro		Japanese encephalitis vaccine	US – Q1 EU – Q2
Lucentis	ranibizumab	Age-related macular degeneration	JP – Q1
Omnitrope	somatropin biosimilar	Human growth hormone	JP – Q2
Onbrez Breezhaler	indacaterol	Chronic obstructive pulmonary disease (COPD)	EU – Q4
Prevacid24HR	lansoprazole	OTC brand – frequent heartburn	US – Q2
Rasilez	aliskiren	Hypertension	JP – Q3
Reclast	zoledronic acid	Postmenopausal osteoporosis prevention	US – Q2
Valturna	aliskiren and valsartan	Hypertension	US – Q3
Xolair	omalizumab	Asthma	JP – Q1

Pharmaceuticals

AIN457, a fully human monoclonal antibody that blocks action of interleukin-17A – a major trigger of inflammation involved in a variety of diseases such as uveitis, psoriasis and rheumatoid arthritis – has begun Phase III studies in November 2009 for use in treating a form of uveitis, an inflammation in the eye, with regulatory submissions possible in 2010.

Gilenia **(FTY720,** fingolimod), a once-daily oral compound in development for certain forms of multiple sclerosis, was submitted in December 2009 for US and European regulatory approvals. The clinical program provides safety experience in more than 2,300 MS patients, including some patients in their sixth year of therapy.

QAB149 (indacaterol), a once-daily long-acting bronchodilator for adult patients with chronic obstructive pulmonary disease (COPD), gained European regulatory approval in November 2009 as *Onbrez Breezhaler* and was launched in Germany in December. *Onbrez Breezhaler* has demonstrated greater improvements in lung function, breathlessness and quality of life compared to current therapies and is the first new inhaled compound in Europe for treatment

of COPD in more than seven years. In the US, Novartis received a Complete Response letter from the FDA in October requesting additional information on the dosing proposed for QAB149. Novartis is working with the FDA to determine what clinical trials will be required.

Vaccines and Diagnostics

Menveo, a novel vaccine in development to protect against the four common A, C, W-135 and Y serogroups of meningococcal meningitis, is awaiting European regulatory approval in early 2010 after a positive opinion in December 2009 for initial use in adolescents (from age 11) and adults. A US regulatory decision is also expected in the first half of 2010. Trials are underway in other age groups.

MenB, an investigational vaccine being developed to offer a new way to protect against the B serogroup of meningococcal meningitis, is in Phase III studies in Europe, where patient enrollment has been completed and a regulatory submission remains on track for 2010. The B serogroup is estimated to cause about 70% of meningococcal disease in Europe, with infants and toddlers most at risk. MenB has shown potential to be the first to protect infants as young as six months based on Phase II trial results. In the US, discussions with the FDA are planned for 2010 to determine the scope of Phase III trials.

OPERATING INCOME BY DIVISIONS

	Year ended Dec 31, 2009 USD millions	% of net sales	Year ended Dec 31, 2008 USD millions	% of net sales	Change %
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 & expenses, net	– 869		– 825		
Operating income	**9 982**	**22.5**	**8 964**	**21.6**	**11**

CORE OPERATING INCOME BY DIVISIONS

	Year ended Dec 31, 2009 USD millions	% of net sales	Year ended Dec 31, 2008 USD millions	% of net sales	Change %
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 & expenses, net	– 863		– 785		**10**
Core operating income	**11 437**	**25.8**	**10 319**	**25.0**	**11**

PHARMACEUTICALS DIVISION

Operating income rose 11% to USD 8.4 billion and the operating income margin was 29.4% of net sales, up from 28.8% in 2008. Core operating income (USD 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 USD 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 USD 676 million, which was largely unchanged from USD 670 million in 2008, were a USD 318 million increase in legal provisions as part of pending settlements to resolve US federal investigations into 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 USD 100 million.

VACCINES AND DIAGNOSTICS DIVISION

Operating income of USD 372 million rose sharply from USD 78 million in 2008, with the operating income margin rising to 15.3% from 4.4% in 2008. Core operating income of USD 719 million in 2009 included substantial contributions from the A (H1N1) pandemic flu 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 A (H5N1) pandemic flu vaccines.

SANDOZ DIVISION

Operating income declined 1% to USD 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 USD 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

Operating income fell 3% to USD 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 USD 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.

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

	Year ended Dec 31, 2009 USD millions	Year ended Dec 31, 2008 USD millions	Change %
Net sales	**44 267**	**41 459**	**7**
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
Operating income	**9 982**	**8 964**	**11**

CORE OTHER REVENUES AND OPERATING EXPENSES

	Year ended Dec 31, 2009 USD millions	Year ended Dec 31, 2008 USD millions	Change %
Net sales	**44 267**	**41 305**	**7**
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
Core operating income	**11 437**	**10 319**	**11**

OTHER REVENUES

Other revenues declined 26% to USD 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.

COST OF GOODS SOLD

Cost of Goods Sold rose 6% to USD 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 USD 11.3 billion.

MARKETING & SALES

Marketing & Sales rose 2% to USD 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 USD 12.1 billion, with the same operating income margin for 2009.

RESEARCH & DEVELOPMENT

Research & Development grew 3% to USD 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 USD 5.8 billion, or 20.5% of the division's sales. Core R&D increased 8% to USD 7.3 billion.

GENERAL & ADMINISTRATION

General & Administration expenses were up only 2% to USD 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 USD 782 million in 2009. For core results, other income rose 12% in 2009, due mainly to the elimination of various exceptional gains exceeding a USD 25 million threshold in 2008.

Other expense, which largely consists of litigation settlement costs, impairment of financial assets and pension expenses, grew 14% to USD 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 USD 25 million threshold, other expense was up 4% on a comparable basis to USD 1.4 billion in 2009.

NON-DIVISIONAL INCOME AND EXPENSE

	Year ended Dec 31, 2009 USD millions	Year ended Dec 31, 2008 USD millions	Change %
Operating income	**9 982**	**8 964**	**11**
Income from associated companies	293	441	– 34
Financial income	198	384	– 48
Interest expense	– 551	– 290	90
Income before taxes	**9 922**	**9 499**	**4**
Taxes	– 1 468	– 1 336	10
Net income from continuing operations	**8 454**	**8 163**	**4**
Net income from discontinued operations		70	
Group net income	**8 454**	**8 233**	**3**
Attributable to:			
Shareholders of Novartis AG	*8 400*	*8 195*	*3*
Non-controlling interests	*54*	*38*	*42*
Basic EPS (USD)	3.70	3.59	3

CORE NON-DIVISIONAL INCOME AND EXPENSE

	Year ended Dec 31, 2009 USD millions	Year ended Dec 31, 2008 USD millions	Change %
Core operating income	**11 437**	**10 319**	**11**
Income from associated companies	1 051	839	25
Financial income	198	384	– 48
Interest expense	– 551	– 290	90
Core income before taxes	**12 135**	**11 252**	**8**
Taxes	– 1 868	– 1 751	7
Core net income	**10 267**	**9 501**	**8**
Attributable to:			
Shareholders of Novartis AG	*10 213*	*9 463*	*8*
Non-controlling interests	*54*	*38*	*42*
Core basic EPS (USD)	4.50	4.18	8

INCOME FROM ASSOCIATED COMPANIES

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.

In 2009, exceptional charges totaling USD 189 million for actions taken by Roche and Alcon were the factors for the 34% reduction in income from associated companies to USD 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 USD 321 million in 2009, down from USD 439 million in 2008. The 2009 contribution reflects an estimated USD 593 million share of Roche's net income in 2009 and a negative prior-year adjustment of USD 40 million. This contribution, however, was reduced by USD 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 USD 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 USD 28 million of loss compared to a loss of USD 11 million in 2008. Anticipated net income of approximately USD 493 million from Alcon for 2009 and a positive prior-year adjustment of USD 5 million were reduced by USD 434 million for the amortization of intangible assets and other charges as well as an impairment charge of USD 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 USD 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 USD 9 million and other investments contributed USD 9 million.

FINANCIAL INCOME AND INTEREST EXPENSE

Financial income declined 48% to USD 198 million in 2009, mainly due to lower financial yields and currency losses in 2009. Interest expense rose 90% to USD 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 USD 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 note 6 to the Group's consolidated financial statements. The core tax rate at 15.4% was slightly lower than the 2008 rate of 15.6%.

NET INCOME

Net income rose 4% to USD 8.5 billion in 2009. Core net income was up 8% to USD 10.3 billion.

BASIC EARNINGS PER SHARE

Basic earnings per share were USD 3.70, up 3% from USD 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 USD 4.50 in 2009 from USD 4.18 in 2008.

CONDENSED CONSOLIDATED BALANCE SHEETS

	Dec 31, 2009 USD millions	Dec 31, 2008 USD millions	Change USD millions
Total non-current assets	61 814	57 418	4 396
Cash, marketable securities and derivative financial instruments	17 449	6 117	11 332
Other current assets	16 242	14 764	1 478
Total assets	**95 505**	**78 299**	**17 206**
Total equity	57 462	50 437	7 025
Financial debt	13 988	7 364	6 624
Other liabilities	24 055	20 498	3 557
Total equity and liabilities	**95 505**	**78 299**	**17 206**

Total assets rose to USD 95.5 billion at December 31, 2009, from USD 78.3 billion at the end of 2008. Non-current assets were USD 61.8 billion at the end of 2009, an increase of USD 4.4 billion mainly from the capital expenditure and the acquisition of the EBEWE group in Q3 2009.

The Group's equity improved by USD 7.1 billion to USD 57.5 billion at the end of 2009 compared to USD 50.4 billion at the end of 2008. Comprehensive income totaled USD 10.2 billion in 2009, mainly driven by net income of USD 8.5 billion (2008: USD 8.2 billion), actuarial gains of USD 0.9 billion (2008: loss of USD 2.1 billion) and currency translation gains of USD 0.8 billion, compared to a loss of USD 1.1 billion in 2008. This more than offset the USD 3.9 billion in dividend payments. A total of USD 225 million of treasury shares was sold in 2009.

The year-end debt/equity ratio increased to 0.24:1 in 2009 from 0.15:1 in 2008 reflecting the issuance of the USD 5 billion bond (two tranches) in the US in the first quarter and the issuance of a EUR 1.5 billion bond in the second quarter. At December 31, 2009 the Group's financial debt of USD 14 billion consisted of USD 5.3 billion in current and USD 8.7 billion in non-current liabilities.

Credit agencies maintained their ratings of Novartis debt during 2009. Moody's rated the Group as Aa2 for long-term maturities and P-1 for short-term maturities, and Standard & Poor's had ratings 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+.

LIQUIDITY AND CAPITAL RESOURCES

The following table sets forth certain information about the Group's cash flow and net liquidity/debt.

	2009 USD millions	2008 USD millions	Change USD millions
Cash flow from operating activities of continuing operations	12 191	9 769	2 422
Cash flow used for investing activities of continuing operations	– 14 219	– 10 367	– 3 852
Cash flow from / used for financing activities	2 809	– 2 573	5 382
Cash flow from discontinued operations		– 105	105
Currency translation effect on cash and cash equivalents	75	– 46	121
Net change in cash and cash equivalents	**856**	**– 3 322**	**4 178**
Change in marketable securities	10 476	– 3 762	14 238
Change in current and non-current financial debts	– 6 624	– 1 570	– 5 054
Change in net liquidity / debt	**4 708**	**– 8 654**	**13 362**
Net debt / liquidity at January 1	– 1 247	7 407	– 8 654
Net liquidity / debt at December 31	**3 461**	**– 1 247**	**4 708**

Cash flow from operating activities was USD 12.2 billion in 2009, a 24.8% increase from USD 9.8 billion in 2008 and reflected USD 1.3 billion lower working capital requirements compared to 2008.

Cash outflows from investing activities amounted to USD 14.2 billion in 2009 and included USD 10.5 billion in marketable securities investments net financed with proceeds from bond offerings as well as USD 0.9 billion for the acquisition the EBEWE Pharma generics business in Sandoz and USD 1.9 billion for capital expenditures.

Cash inflows from financing activities were a net USD 2.8 billion in 2009, as proceeds from bond issues totaling USD 7.1 billion were partially reduced by the dividend payment for 2008 of USD 3.9 billion and other items totaling USD 0.4 billion.

Overall liquidity at the end of 2009 amounted to USD 17.4 billion compared to USD 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 USD 1.2 billion at the end of 2008 compared to net liquidity of USD 3.5 billion at the end of 2009.

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.

CONTRACTUAL OBLIGATIONS

The following table summarizes the Group's contractual obligations and other commercial commitments as well as the effect these obligations and commitments are expected to have on the Group's liquidity and cash flow in future periods:

		Payments due by period			
	Total USD millions	Less than 1 year USD millions	2–3 years USD millions	4–5 years USD millions	After 5 years USD millions
Non-current financial debt	**8 704**	29	748	2 027	5 900
Operating leases	**2 030**	306	378	218	1 128
Unfunded pensions 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
Total contractual cash obligations	**15 476**	**1 297**	**2 265**	**3 354**	**8 560**

The Group expects to fund the R&D and purchase commitments with internally generated resources.

INTERNAL CONTROL OVER FINANCIAL REPORTING

The Group's management has assessed the effectiveness of internal control over financial reporting. The Group's independent statutory auditor also issued an opinion on the effectiveness of internal control over financial reporting. No material weaknesses were revealed in 2009 from this review.

FREE CASH FLOW AFTER DIVIDENDS

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:

	2009 USD millions	2008 USD millions	Change USD millions
Cash flow from operating activities	**12 191**	**9 769**	**2 422**
Purchase of property, plant & equipment	– 1 887	– 2 106	219
Purchase of intangible assets	– 846	– 210	– 636
Purchase of financial assets	– 215	– 131	– 84
Purchase of non-current non-financial assets	– 23	– 5	– 18
Proceeds from sale of property, plant & equipment	48	58	– 10
Proceeds from sale of intangible assets	51	169	– 118
Proceeds from sale of financial assets	124	99	25
Proceeds from sales of non-current non-financial assets	3	3	
Free cash flow before dividend	**9 446**	**7 646**	**1 800**
Dividends paid to shareholders of Novartis AG	– 3 941	– 3 345	– 596
Free cash flow from continuing operations	**5 505**	**4 301**	**1 204**
Free cash flow from discontinued operations		– 237	237
Group free cash flow	**5 505**	**4 064**	**1 441**

Free cash flow from continuing operations rose 28% to USD 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 USD 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 USD 9.4 billion in 2009, reflecting the strong focus on business performance and control of fixed and working capital.

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.

The Group uses 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).

The following table summarizes the free cash flow by division:

	2009 USD millions	2008 USD millions	Change USD millions
Pharmaceuticals	9 170	7 679	1 491
Vaccines and Diagnostics	– 82	– 226	144
Sandoz	1 841	1 066	775
Consumer Health continuing operations	1 139	995	144
Corporate and other	– 2 622	– 1 868	– 754
Dividends paid to shareholders of Novartis AG	– 3 941	– 3 345	– 596
Total continuing operations	**5 505**	**4 301**	**1 204**
Discontinued operations		– 237	237
Group free cash flow	**5 505**	**4 064**	**1 441**

EARNINGS BEFORE INTEREST, TAX, DEPRECIATION AND AMORTIZATION (EBITDA)

The Group defines the non-IFRS measure of earnings before interest, tax, depreciation and amortization (EBITDA) as operating income excluding depreciation of property, plant & equipment, amortization of intangible assets (including any related impairment charges) as well as income from associated companies, financial income, interest expense and taxes.

	2009 USD millions	2008 USD millions	Change USD millions
Operating income	**9 982**	**8 964**	**1 018**
Depreciation of property, plant & equipment	1 241	1 205	36
Amortization of intangible assets	1 025	1 095	– 70
Impairments of property, plant & equipment and intangible assets	35	370	– 335
Group EBITDA from continuing operations	**12 283**	**11 634**	**649**
EBITDA from discontinued operations		70	– 70
Group EBITDA	**12 283**	**11 704**	**579**

The following table provides an overview of EBITDA by division:

	2009 USD millions	% of net sales	2008 USD millions	% of net sales
Pharmaceuticals	9 410	33.0	8 959	34.0
Vaccines and Diagnostics	800	33.0	484	27.5
Sandoz	1 613	21.5	1 671	22.1
Consumer Health continuing operations	1 217	20.9	1 228	21.1
Corporate and other	– 757		– 708	
EBITDA from continuing operations	**12 283**	**27.7**	**11 634**	**28.1**
EBITDA from discontinued operations			70	
Group EBITDA	**12 283**	**27.7**	**11 704**	**28.2**

ENTERPRISE VALUE

Enterprise value is a non-IFRS measure representing the total amount that shareholders and debt holders have invested in Novartis, less the Group's liquidity.

	Dec 31, 2009 USD millions	Dec 31, 2008 USD millions	Change USD millions
Market capitalization	124 003	113 151	10 852
Non-controlling interests	75	149	– 74
Financial debts	13 988	7 364	6 624
Liquidity	– 17 449	– 6 117	– 11 332
Enterprise value	**120 617**	**114 547**	**6 070**
Enterprise value/EBITDA	**10**	**10**	

ECONOMIC VALUE ADDED (EVA)

Novartis utilizes its own definitions for measuring Economic Value Added (EVA), a non-IFRS measure, which is utilized for determining payouts under the Long-Term Performance Plan. The following table shows Group EVA for 2009 and 2008 utilizing the Novartis definitions.

	Year ended Dec 31, 2009 USD millions	Year ended Dec 31, 2008 USD millions	Change %
Operating income	**9 982**	**8 964**	**11**
Income from associated companies	293	441	– 34
Operating interest	– 366	– 270	36
Operating tax	– 1 996	– 1 875	6
Capital charge	– 4 379	– 4 023	9
Economic Value Added	**3 534**	**3 237**	**9**

Operating interest is the internal charge on average working capital based on the short-term borrowing rates of the entity owning them.

Operating tax is the internal tax charge for each entity applying the applicable tax rate to the profit before tax of each entity unadjusted for tax-disallowed items or tax loss carryforwards.

The capital charge is the notional interest charge on the Group's average non-current assets based on an internally calculated weighted average cost of capital for the Group.

VALUE ADDED STATEMENT

A total of 48% of the 2009 revenue from net sales was used to purchase goods and services from suppliers. Of the total of USD 21.4 billion of Net Value Added, a non-IFRS measure, 51% was paid either directly or indirectly to associates, 21% was retained in the business for future expansion and 9% was paid to public authorities and financial institutions. Dividends paid to shareholders of Novartis AG and non-controlling interests represented 19% of the Net Value Added.

ORIGIN OF VALUE ADDED

	2009 USD millions	2009 % of net sales	2008 % of net sales
Net sales	**44 267**	**100**	**100**
Other revenues, change in inventory and own manufactured items	599	1.4	4.1
	44 866	**101.4**	**104.1**
Services bought from third parties:			
Material costs and other operating expenses	– 21 323	– 48.2	– 49.0
Gross value added	**23 543**	**53.2**	**55.1**
Depreciation, amortization and impairments on property, plant & equipment and intangible assets	– 2 301	– 5.2	– 6.4
Financial income	198	0.4	0.9
Net Value Added	**21 440**	**48.4**	**49.6**

SUMMARY OF QUARTERLY FINANCIAL DATA FOR 2009 AND 2008

USD millions unless indicated otherwise	Q1	Q2	Q3	Q4	2009	Q1	Q2	Q3	Q4	2008
Net sales	**9 709**	**10 546**	**11 086**	**12 926**	**44 267**	**9 909**	**10 726**	**10 747**	**10 077**	**41 459**
Other revenues	217	196	204	219	836	307	264	283	271	1 125
Cost of Goods Sold	– 2 585	– 2 824	– 3 103	– 3 667	– 12 179	– 2 648	– 2 936	– 3 021	– 2 834	– 11 439
Gross profit	**7 341**	**7 918**	**8 187**	**9 478**	**32 924**	**7 568**	**8 054**	**8 009**	**7 514**	**31 145**
Marketing & Sales	– 2 721	– 2 990	– 2 863	– 3 476	– 12 050	– 2 815	– 3 106	– 2 877	– 3 054	– 11 852
Research & Development	– 1 694	– 1 802	– 1 825	– 2 148	– 7 469	– 1 674	– 1 767	– 1 942	– 1 834	– 7 217
General & Administration	– 505	– 542	– 542	– 692	– 2 281	– 519	– 559	– 538	– 629	– 2 245
Other income	171	180	70	361	782	327	168	134	197	826
Other expense	– 245	– 400	– 393	– 886	– 1 924	– 399	– 329	– 451	– 514	– 1 693
Operating income	**2 347**	**2 364**	**2 634**	**2 637**	**9 982**	**2 488**	**2 461**	**2 335**	**1 680**	**8 964**
Income from associated companies	83	124	– 21	107	293	137	119	88	97	441
Financial income	– 48	91	51	104	198	148	85	93	58	384
Interest expense	– 86	– 136	– 173	– 156	– 551	– 57	– 61	– 96	– 76	– 290
Income before taxes	**2 296**	**2 443**	**2 491**	**2 692**	**9 922**	**2 716**	**2 604**	**2 420**	**1 759**	**9 499**
Taxes	– 321	– 399	– 379	– 369	– 1 468	– 408	– 338	– 338	– 252	– 1 336
Net income from continuing operations	**1 975**	**2 044**	**2 112**	**2 323**	**8 454**	**2 308**	**2 266**	**2 082**	**1 507**	**8 163**
Net income from discontinued operations						15	– 6	19	42	70
Group net income	**1 975**	**2 044**	**2 112**	**2 323**	**8 454**	**2 323**	**2 260**	**2 101**	**1 549**	**8 233**
Attributable to:										
Shareholders of Novartis AG	*1 962*	*2 035*	*2 098*	*2 305*	*8 400*	*2 317*	*2 249*	*2 090*	*1 539*	8 195
Non-controlling interests	*13*	*9*	*14*	*18*	*54*	*6*	*11*	*11*	*10*	38
Basic earnings per share (USD)	*0.87*	*0.90*	*0.93*	*1.01*	*3.70*	*1.02*	*0.99*	*0.92*	*0.66*	*3.59*
Net sales by division										
Pharmaceuticals	**6 433**	**7 115**	**7 217**	**7 773**	**28 538**	**6 264**	**6 928**	**6 709**	**6 430**	**26 331**
Vaccines and Diagnostics	**247**	**247**	**543**	**1 387**	**2 424**	**280**	**322**	**666**	**491**	**1 759**
Sandoz	**1 726**	**1 774**	**1 850**	**2 143**	**7 493**	**1 906**	**1 948**	**1 899**	**1 804**	**7 557**
Consumer Health	**1 303**	**1 410**	**1 476**	**1 623**	**5 812**	**1 459**	**1 528**	**1 473**	**1 352**	**5 812**
Group net sales	**9 709**	**10 546**	**11 086**	**12 926**	**44 267**	**9 909**	**10 726**	**10 747**	**10 077**	**41 459**
Operating income by division										
Pharmaceuticals	**2 062**	**2 213**	**2 211**	**1 906**	**8 392**	**2 096**	**2 178**	**1 743**	**1 562**	**7 579**
Vaccines and Diagnostics	**– 67**	**– 167**	**23**	**583**	**372**	**– 53**	**– 75**	**180**	**26**	**78**
Sandoz	**291**	**247**	**312**	**221**	**1 071**	**345**	**246**	**293**	**200**	**1 084**
Consumer Health	**235**	**271**	**303**	**207**	**1 016**	**262**	**304**	**292**	**190**	**1 048**
Corporate income & expense, net	– 174	– 200	– 215	– 280	– 869	– 162	– 192	– 173	– 298	– 825
Total continuing operations	**2 347**	**2 364**	**2 634**	**2 637**	**9 982**	**2 488**	**2 461**	**2 335**	**1 680**	**8 964**
Discontinued operations						24	6	28	12	70
Group operating income	**2 347**	**2 364**	**2 634**	**2 637**	**9 982**	**2 512**	**2 467**	**2 363**	**1 692**	**9 034**
Core operating income	**2 611**	**2 663**	**2 959**	**3 204**	**11 437**	**2 653**	**2 654**	**2 922**	**2 090**	**10 319**
Core net income	**2 302**	**2 394**	**2 679**	**2 892**	**10 267**	**2 437**	**2 432**	**2 665**	**1 967**	**9 501**
Core earnings per share	*1.01*	*1.05*	*1.17*	*1.26*	*4.50*	*1.07*	*1.07*	*1.17*	*0.86*	*4.18*

SUMMARY OF GROUP FINANCIAL DATA 2005–2009

USD millions unless indicated otherwise		2009	2008	2007	2006	2005
Net sales to third parties from continuing operations		**44 267**	**41 459**	**38 072**	**34 393**	**29 446**
Change relative to preceding year	%	6.8	8.9	10.7	16.8	14.6
Pharmaceuticals Division net sales		28 538	26 331	24 025	22 576	20 262
Change relative to preceding year	%	8.4	9.6	6.4	11.4	9.5
Vaccines and Diagnostics net sales		2 424	1 759	1 452	956	
Change relative to preceding year	%	37.8	21.1	n.m.		
Sandoz Division net sales		7 493	7 557	7 169	5 959	4 694
Change relative to preceding year	%	– 0.8	5.4	20.3	26.9	54.2
Consumer Health Division net sales from continuing operations		5 812	5 812	5 426	4 902	4 490
Change relative to preceding year	%	0.0	7.1	10.7	9.2	8.4
Net sales from discontinued operations [1]				1 728	2 627	2 766
Operating income from continuing operations		**9 982**	**8 964**	**6 781**	**7 642**	**6 507**
Change relative to preceding year	%	11.4	32.2	– 11.3	17.4	9.2
As a % of net sales	%	22.5	21.6	17.8	22.2	22.1
As a % of average equity	%	18.5	18.0	15.0	20.5	20.2
As a % of average net operating assets	%	18.9	19.1	16.7	22.4	25.0
Operating income from discontinued activities [1]			70	6 152	532	398
Net income from continuing operations		**8 454**	**8 163**	**6 540**	**6 825**	**5 881**
Change relative to preceding year	%	3.6	24.8	– 4.2	16.1	9.4
As a % of net sales	%	19.1	19.7	17.2	19.8	20.0
Net income from discontinued operations [1]			70	5 428	377	260
Total Group net income		**8 454**	**8 233**	**11 968**	**7 202**	**6 141**
As a % of average equity	%	15.7	16.5	26.4	19.3	19.0
Dividends of Novartis AG [2]		**4 609**	**3 941**	**3 345**	**2 598**	**2 049**
As % of net income from continuing operations	%	54.5	48.3	51.1	38.1	34.8
Cash flow from operating activities [3]		**12 191**	**9 769**	**9 210**	**8 304**	**7 750**
Change relative to preceding year	%	24.8	6.1	10.9	7.1	21.9
As a % of net sales	%	27.5	23.6	24.2	24.1	26.3
Free cash flow [3]		**5 505**	**4 301**	**3 761**	**4 045**	**4 657**
Change relative to preceding year	%	28.0	14.4	– 7.0	– 13.1	45.1
As a % of net sales	%	12.4	10.4	9.9	11.8	15.8
Purchase of property, plant & equipment [3]		**1 887**	**2 106**	**2 549**	**1 779**	**1 078**
Change relative to preceding year	%	– 10.4	– 17.4	43.3	65.0	– 10.6
As a % of net sales	%	4.3	5.1	6.7	5.2	3.7
Depreciation of property, plant & equipment [3]		**1 241**	**1 205**	**1 130**	**977**	**771**
As a % of net sales	%	2.8	2.9	3.0	2.8	2.6
Research & Development [3]		**7 469**	**7 217**	**6 430**	**5 321**	**4 797**
As a % of net sales	%	16.9	17.4	16.9	15.5	16.3
Pharmaceuticals Division Research & Development		**5 840**	**5 716**	**5 088**	**4 265**	**3 972**
As a % of Pharmaceuticals Division net sales	%	20.5	21.7	21.2	18.9	19.6
Total assets		**95 505**	**78 299**	**75 452**	**68 008**	**57 732**
Liquidity		17 449	6 117	13 201	7 959	10 933
Equity		57 462	50 437	49 396	41 294	33 164
Debt/equity ratio		0.24:1	0.15:1	0.12:1	0.18:1	0.25:1
Current ratio		1.7:1	1.3:1	1.6:1	1.3:1	1.4:1
Net operating assets [3]		**54 001**	**51 684**	**41 989**	**39 120**	**29 133**
Change relative to preceding year	%	4.5	23.1	7.3	34.3	27.5
As a % of net sales	%	122	125	110	114	99
Personnel costs [3]		**10 920**	**10 634**	**9 893**	**8 692**	**7 450**
As a % of net sales	%	24.7	25.6	26.0	25.3	25.3
Full-time equivalent associates at year-end [3]		**99 834**	**96 717**	**98 200**	**94 241**	**83 313**
Net sales per full-time equivalent associate (average) [3]	USD	450 438	425 402	395 675	387 409	374 219

[1] Including discontinued Consumer Health operations (Gerber, Medical Nutrition and Nutrition & Santé).
[2] 2009: Proposed dividend for approval at the Annual General Meeting in February 2010. In all years, figure reflects only amounts paid to third party shareholders of Novartis AG.
[3] Only continuing operations.
n.m. - not meaningful

NOVARTIS SHARE DEVELOPMENTS IN 2009

– Swiss-listed Novartis shares rise 7% to CHF 56.50
– American Depositary Shares (ADS) rise 9% to USD 54.43

The pharmaceutical industry demonstrated its defensive investment character in 2009, offering further shelter from the global financial and economic crisis during a year of unprecedented market turbulence that also brought to an end one of the worst decades for stock markets since the end of World War II.

Novartis earned its reputation as a consistent performer in 2009 as its shares finished at CHF 56.50, an increase of 7% from the 2008 year-end closing price of CHF 52.70. The Novartis American Depositary Shares (ADS) rose 9% to USD 54.43 from USD 49.76 in 2008, reflecting changes in the value of the Swiss franc against the US dollar. The Swiss Market Index (SMI) in comparison rose at a faster 18% pace in 2009 – but on the back of a 35% decline in 2008.

Over a longer-term period, Novartis has consistently delivered a solid performance, providing a 9.0% compounded annual total shareholder return between January 1, 1996, and December 31, 2009, clearly exceeding the compounded returns of 7.5% of its large pharmaceutical peers or the returns of 7.6% of the world pharmaceutical index (MSCI).

The market capitalization of Novartis amounted to USD 124 billion as of December 31, 2009, compared to USD 113 billion at the end of 2008.

CONTINUOUSLY RISING DIVIDEND SINCE 1996

The Board of Directors proposes a 5% increase in the dividend payment for 2009 to CHF 2.10 per share (2008: CHF 2.00) for approval at the Annual General Meeting in February 2010. This represents the 13th consecutive increase in the dividend paid per share since the creation of Novartis in December 1996. If the 2009 dividend proposal is approved by shareholders, dividends paid out on the outstanding shares will amount to approximately USD 4.6 billion (2008: USD 3.9 billion), resulting in a payout ratio of 55% of net income (2008: 48%). Based on the 2009 year-end share price of CHF 56.50, the dividend yield will be 3.7% (2008: 3.8%). The dividend payment date has been set for March 5, 2010. With the exception of 167.7 million treasury shares, all shares issued are dividend bearing.

SHARE REPURCHASE PROGRAMS

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.

DIRECT SHARE PURCHASE PLANS

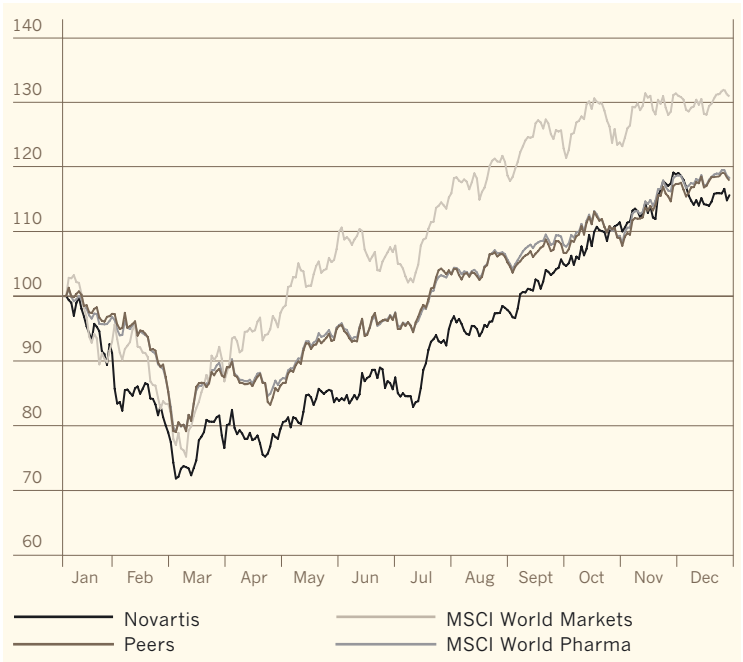
Novartis has been offering US investors since 2001 an ADS Direct Plan that provides investors an easy and inexpensive way of directly purchasing Novartis shares and of reinvesting dividends. This plan holds Novartis ADSs that are listed on the New York Stock Exchange under the trading symbol NVS. At the end of 2009, the ADS Direct Plan had 784 participants.

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.

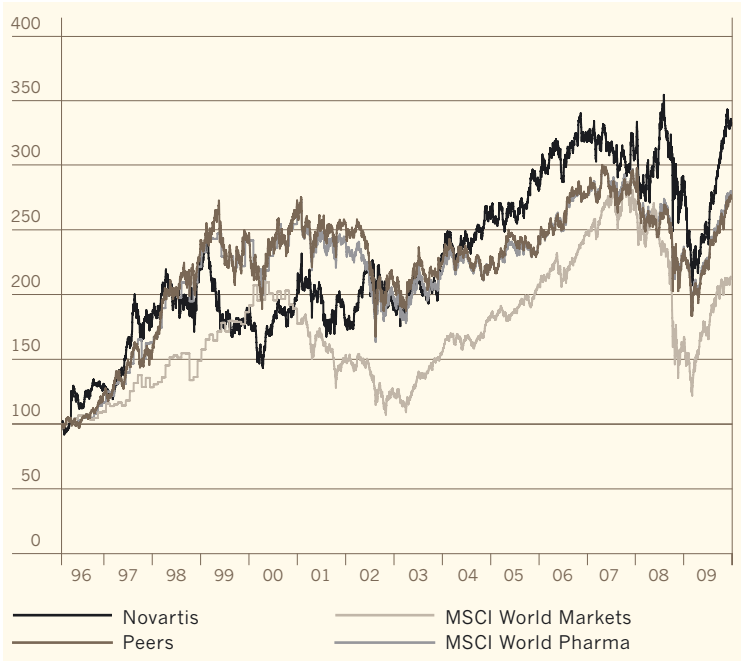
INFORMATION ON NOVARTIS SHARES

Further information can be found on the Internet at http://www.novartis.com/investors.

NOVARTIS 2009 SHARE PRICE MOVEMENT
(in USD)



NOVARTIS 1996–2009 TOTAL SHAREHOLDER RETURN
(in USD)



KEY NOVARTIS SHARE DATA

	2009	2008
Issued shares	**2 637 623 000**	**2 643 623 000**
Of which treasury shares:		
Reserved for share-based compensation	67 202 918	72 195 401
Not specifically reserved	296 066 731[1]	306 574 757
Treasury shares	**363 269 649**	**378 770 158**
Outstanding shares at December 31	**2 274 353 351**	**2 264 852 842**
Average number of shares outstanding	**2 267 855 586**	**2 265 536 699**

[1] Approximately 189 million treasury shares are held in entities that limit their availability for use

PER-SHARE INFORMATION[1]

	2009	2008
Basic earnings per share (USD)		
– Continuing operations	3.70	3.59
– Discontinued operations	0.00	0.03
– Total	3.70	3.62
Diluted earnings per share (USD)		
– Continuing operations	3.69	3.56
– Discontinued operations		0.03
– Total	3.69	3.59
Operating cash flow (USD)		
– Continuing operations	5.38	4.31
– Discontinued operations	0.00	– 0.10
– Total	5.38	4.21
Year-end equity for Novartis AG shareholders (USD)	25.23	22.20
Dividend (CHF)[2]	2.10	2.00

[1] Calculated on average number of shares outstanding, except year-end equity per share
[2] 2009: Proposal to shareholders for approval at the Annual General Meeting on February 26, 2010.

KEY RATIOS – DECEMBER 31

	2009	2008
Price/earnings ratio[1]	14.7	13.9
Enterprise value/EBITDA	9.8	9.8
Dividend yield (%)[1]	3.7	3.8

[1] Based on Novartis share price at the end of each year

KEY DATA ON AMERICAN DEPOSITARY SHARES (ADS) ISSUED IN THE US

	2009	2008
Year-end ADS price (USD)	54.43	49.76
High	56.16	61.06
Low	33.96	43.85
Number of ADSs outstanding[1]	275 495 384	308 775 497

[1] The depositary, JP Morgan Chase Bank, holds one Novartis AG share for every American Depositary Share (ADS) issued

SHARE PRICE (CHF)

	2009	2008
Year-end share price	56.50	52.70
High	56.90	66.25
Low	39.64	45.62
Year-end market capitalization (USD billions)[1]	**124.0**	**113.2**
Year-end market capitalization (CHF billions)[1]	**128.5**	**119.4**

[1] Market capitalization calculated based on number of shares outstanding (excluding treasury shares)

TRADING

Novartis shares are listed in Switzerland and traded on the SIX Swiss Exchange, while American Depositary Shares (ADSs) are listed on the New York Stock Exchange.

SYMBOLS

	SIX Swiss Exchange (Reuters/Bloomberg)	NYSE (Reuters/ Bloomberg)
Shares	NOVN.VX/NOVN VX	
ADSs		NVS

WIDELY DISPERSED SHAREHOLDINGS

Novartis shares are widely held. As of December 31, 2009, Novartis had approximately 159 000 shareholders (2008: 153 000) listed in its share register, representing 76% of issued shares. Based on the Novartis AG share register and excluding treasury shares, approximately 45% (2008: 44%) of the shares registered by name were held in Switzerland and 42% were held in the US (2008: 40%). Approximately 13% of the shares registered in the share register were held by individual investors, while 87% were held by legal entities, nominees and fiduciaries.

CONSOLIDATED INCOME STATEMENTS

(For the years ended December 31, 2009 and 2008)

	Note	2009 USD millions	2008 USD millions
Net sales	3	**44 267**	**41 459**
Other revenues		836	1 125
Cost of Goods Sold		– 12 179	– 11 439
Gross profit		**32 924**	**31 145**
Marketing & Sales		– 12 050	– 11 852
Research & Development		– 7 469	– 7 217
General & Administration		– 2 281	– 2 245
Other income		782	826
Other expense		– 1 924	– 1 693
Operating income	3	**9 982**	**8 964**
Income from associated companies	4	293	441
Financial income	5	198	384
Interest expense	5	– 551	– 290
Income before taxes		**9 922**	**9 499**
Taxes	6	– 1 468	– 1 336
Net income from continuing operations		**8 454**	**8 163**
Net income from discontinued operations			70
Group net income		**8 454**	**8 233**
Attributable to:			
Shareholders of Novartis AG		*8 400*	*8 195*
Non-controlling interests		*54*	*38*
Basic earnings per share (USD)	7		
– Continuing operations		3.70	3.59
– Discontinued operations			0.03
– Total		3.70	3.62
Diluted earnings per share (USD)	7		
– Continuing operations		3.69	3.56
– Discontinued operations			0.03
– Total		3.69	3.59

The accompanying notes form an integral part of the consolidated financial statements.

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

(For the years ended December 31, 2009 and 2008)

	Note	2009 USD millions	2008 USD millions
Net income from continuing operations		**8 454**	**8 163**
Fair value adjustments on financial instruments, net of taxes	8.1	93	– 510
Gains/(losses) from defined benefit plans, net of taxes	8.2	949	– 2 140
Novartis share of equity recognized by associated companies, net of taxes	8.3	– 43	– 201
Revaluation of previously owned non-controlling interest	8.4		38
Currency translation effects	8.5	789	– 1 122
Net income from discontinued operations			70
Total comprehensive income		**10 242**	**4 298**
Attributable to:			
Shareholders of Novartis AG		*10 180*	*4 275*
Non-controlling interests		*62*	*23*

The accompanying notes form an integral part of the consolidated financial statements.

CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

(For the years ended December 31, 2009 and 2008)

	Note	Share capital USD millions	Treasury shares USD millions	Share premium USD millions	Retained earnings USD millions	Total fair value adjustments attributable to Novartis USD millions	Total reserves USD millions	Non-controlling interests USD millions	Total equity USD millions
Total equity at January 1, 2008		**990**	**– 175**	**198**	**45 031**	**3 179**	**48 408**	**173**	**49 396**
Total comprehensive income					**8 009**	**– 3 734**	**4 275**	**23**	**4 298**
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
Total of other equity movements		**– 31**	**36**		**– 3 215**		**– 3 215**	**– 47**	**– 3 257**
Total equity at December 31, 2008		**959**	**– 139**	**198**	**49 825**	**– 555**	**49 468**	**149**	**50 437**
Total comprehensive income					**8 357**	**1 823**	**10 180**	**62**	**10 242**
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
Total of other equity movements		**– 2**	**7**		**– 3 086**		**– 3 086**	**– 136**	**– 3 217**
Total equity at December 31, 2009		**957**	**– 132**	**198**	**55 096**	**1 268**	**56 562**	**75**	**57 462**

The accompanying notes form an integral part of the consolidated financial statements.

CONSOLIDATED BALANCE SHEETS
(At December 31, 2009 and 2008)

	Note	2009 USD millions	2008 USD millions
Assets			
Non-current assets			
Property, plant & equipment	10	14 075	13 100
Goodwill	11	12 039	11 285
Intangible assets other than goodwill	11	10 331	9 534
Investments 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
Total non-current assets		**61 814**	**57 418**
Current assets			
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
Total current assets		**33 691**	**20 881**
Total assets		**95 505**	**78 299**
Equity and liabilities			
Equity			
Share capital	18	957	959
Treasury shares	18	– 132	– 139
Reserves		56 562	49 468
Issued share capital and reserves attributable to Novartis AG shareholders		**57 387**	**50 288**
Non-controlling interests		75	149
Total equity		**57 462**	**50 437**
Liabilities			
Non-current liabilities			
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
Total non-current liabilities		**18 573**	**11 358**
Current liabilities			
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
Total current liabilities		**19 470**	**16 504**
Total liabilities		**38 043**	**27 862**
Total equity and liabilities		**95 505**	**78 299**

The accompanying notes form an integral part of the consolidated financial statements.

CONSOLIDATED CASH FLOW STATEMENTS
(For the years ended December 31, 2009 and 2008)

	Note	2009 USD millions	2008 USD millions
Net income from continuing operations		**8 454**	**8 163**
Reversal of non-cash items	23.1	5 448	4 514
Dividends from associated companies		504	248
Dividends received from marketable securities		3	9
Interest and other financial receipts		106	402
Interest and other financial payments		– 654	– 268
Taxes paid		– 1 623	– 1 939
Cash flow before working capital and provision changes		**12 238**	**11 129**
Restructuring payments and other cash payments from provisions		– 735	– 730
Change in net current assets and other operating cash flow items	23.2	688	– 630
Cash flow from operating activities		**12 191**	**9 769**
Purchase of property, plant & equipment		– 1 887	– 2 106
Proceeds from disposals of property, plant & equipment		48	58
Purchase of intangible assets		– 846	– 210
Proceeds from disposals of intangible assets		51	169
Purchase of financial assets		– 215	– 131
Proceeds from disposals of financial assets		124	99
Purchase of non-current non-financial assets		– 23	– 5
Proceeds from disposals of non-current non-financial assets		3	3
Acquisition of interest in associated company			– 10 447
Acquisitions and divestments of businesses	23.3	– 925	– 1 079
Acquisition of non-controlling interests		– 81	
Purchase of marketable securities		– 14 103	– 4 020
Proceeds from disposals of marketable securities		3 635	7 302
Cash flow used for investing activities		**– 14 219**	**– 10 367**
Acquisition of treasury shares		– 461	– 3 348
Disposal of treasury shares		685	2 875
Proceeds from issuance of share capital to third parties by subsidiaries		39	
Increase in non-current financial debts		7 052	1 481
Repayment of non-current financial debts		– 22	– 68
Change in current financial debts		– 491	– 118
Dividend payments and cash contributions to non-controlling interests		– 52	– 50
Dividends paid to shareholders of Novartis AG		– 3 941	– 3 345
Cash flow from / used for financing activities		**2 809**	**– 2 573**
Cash flow from discontinued operations	23.4		– 105
Net effect of currency translation on cash and cash equivalents		75	– 46
Net change in cash and cash equivalents		**856**	**– 3 322**
Cash and cash equivalents at January 1		2 038	5 360
Cash and cash equivalents at December 31		**2 894**	**2 038**

The accompanying notes form an integral part of the 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 (USD). The functional currency of certain Swiss and foreign finance companies used for preparing the financial statements is USD instead of the respective local currencies. This reflects the fact that the cash flows and transactions of these entities are primarily denominated in USD. Generally, the respective local currency is used as the 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 USD 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 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.

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 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).

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.

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 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 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.

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 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 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 and 2008. 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 (USD 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 (USD 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 USD 0.7 billion, which resulted in goodwill of USD 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 USD 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 USD 120 million. Corthera's current shareholders are eligible to receive additional payments of up to USD 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.

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 USD 38.5 billion. On July 7, 2008, Novartis acquired a 25% stake in Alcon, representing 74 million shares, from Nestlé for USD 10.4 billion in cash. At December 31, 2009, Alcon's share price on the New York Stock Exchange (NYSE) was USD 164.35, which was above the Group's carrying value of USD 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 (USD 888 million) excluding USD 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 USD 472 million, which resulted in goodwill of USD 493 million in 2008. As a result of this purchase price allocation, the value of the initial 9.5% stake rose by USD 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 USD 102 million in cash to acquire 100% of Protez, whose owners are eligible for additional payments of up to USD 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 USD 72 million, which resulted in goodwill of USD 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 USD 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 2009

CORPORATE – ISSUANCE OF BOND IN US DOLLARS

On February 5, Novartis issued a two-tranche bond totaling USD 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 USD 2 billion was issued by the Group's US entity, Novartis Capital Corp., while a 5.125% 10-year tranche totaling USD 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 USD 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 (USD 80 million). Almost all large institutional investors and quasi-institutional shareholders participated in the offer. This transaction resulted in USD 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 USD 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.

3. SEGMENTATION OF KEY FIGURES 2009 AND 2008

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.

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, manufacturers, 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.

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.

3. SEGMENTATION OF KEY FIGURES 2009 AND 2008 (CONTINUED)

	Pharmaceuticals		Vaccines and Diagnostics	
(In USD millions)	**2009**	**2008**	**2009**	**2008**
Net sales to third parties	**28 538**	**26 331**	**2 424**	**1 759**
Sales to other Divisions	175	198	46	20
Net sales of Divisions	**28 713**	**26 529**	**2 470**	**1 779**
Other revenues	377	620	390	414
Cost of Goods Sold	– 4 955	– 4 481	– 1 415	– 1 270
Of which amortization and impairments of product and marketing rights and trademarks	*– 230*	*– 353*	*– 287*	*– 286*
Gross profit	**24 135**	**22 668**	**1 445**	**923**
Marketing & Sales	– 8 369	– 8 109	– 297	– 247
Research & Development	– 5 840	– 5 716	– 508	– 360
General & Administration	– 870	– 843	– 176	– 177
Other income	414	447	27	38
Other expense	– 1 078	– 868	– 119	– 99
Of which amortization and impairments of capitalized intangible assets included in function costs	*– 125*	*– 381*	*– 43*	*– 33*
Operating income	**8 392**	**7 579**	**372**	**78**
Income from associated companies	– 14			
Financial income				
Interest expense				
Income before taxes				
Taxes				
Net income from continuing operations				
Net income from discontinued operations				
Group net income				
Attributable to:				
Shareholders of Novartis AG				
Non-controlling interests				
Included in net income are:				
Interest income				
Depreciation of property, plant & equipment	– 659	– 623	– 98	– 87
Amortization of intangible assets	– 366	– 414	– 312	– 318
Impairment charges on property, plant & equipment	– 4	– 23		
Impairment charges on intangible assets	11	– 320	– 18	– 1
Impairment charges on financial assets	– 37	– 53		
Additions to restructuring provisions	– 19	– 102		
Equity-based compensation of Novartis equity plans	– 535	– 546	– 30	– 22
Total assets	**24 013**	**22 741**	**6 704**	**5 795**
Total liabilities	– 9 494	– 7 929	– 1 121	– 811
Total equity	**14 519**	**14 812**	**5 583**	**4 984**
Net liquidity /(net debt)				
Net operating assets	**14 519**	**14 812**	**5 583**	**4 984**
Included in total assets and total liabilities are:				
Total property, plant & equipment	7 947	7 546	1 471	1 105
Additions to property, plant & equipment [1]	922	1 115	437	435
Total goodwill and intangible assets	6 930	6 417	3 163	3 460
Additions to goodwill and intangible assets [1]	809	98	12	42
Total investment in associated companies	19	1	2	2
Additions to investment in associated companies	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

Sandoz		Consumer Health		Total of operating divisions		Corporate (including eliminations)		Total Group	
2009	**2008**	**2009**	**2008**	**2009**	**2008**	**2009**	**2008**	**2009**	**2008**
7 493	**7 557**	**5 812**	**5 812**	**44 267**	**41 459**			**44 267**	**41 459**
264	270	44	53	529	541	– 529	– 541		
7 757	**7 827**	**5 856**	**5 865**	**44 796**	**42 000**	**– 529**	**– 541**	**44 267**	**41 459**
10	25	59	66	836	1 125			836	1 125
– 4 201	– 4 119	– 2 111	– 2 071	– 12 682	– 11 941	503	502	– 12 179	– 11 439
– 256	*– 283*	*– 96*	*– 76*	*– 869*	*– 998*			*– 869*	*– 998*
3 566	**3 733**	**3 804**	**3 860**	**32 950**	**31 184**	**– 26**	**– 39**	**32 924**	**31 145**
– 1 330	– 1 413	– 2 054	– 2 083	– 12 050	– 11 852			– 12 050	– 11 852
– 613	– 667	– 346	– 313	– 7 307	– 7 056	– 162	– 161	– 7 469	– 7 217
– 385	– 408	– 376	– 383	– 1 807	– 1 811	– 474	– 434	– 2 281	– 2 245
105	62	72	111	618	658	164	168	782	826
– 272	– 223	– 84	– 144	– 1 553	– 1 334	– 371	– 359	– 1 924	– 1 693
– 10	*– 24*	*– 1*	*– 1*	*– 179*	*– 439*	*– 3*	*– 2*	*– 182*	*– 441*
1 071	**1 084**	**1 016**	**1 048**	**10 851**	**9 789**	**– 869**	**– 825**	**9 982**	**8 964**
7	4			– 7	4	300	437	293	441
								198	384
								– 551	– 290
								9 922	**9 499**
								– 1 468	– 1 336
								8 454	**8 163**
									70
								8 454	**8 233**
								8 400	*8 195*
								54	*38*
								156	306
– 276	– 278	– 99	– 103	– 1 132	– 1 091	– 109	– 114	– 1 241	– 1 205
– 260	– 284	– 84	– 77	– 1 022	– 1 093	– 3	– 2	– 1 025	– 1 095
	– 2	– 5		– 9	– 25		– 1	– 9	– 26
– 6	– 23	– 13		– 26	– 344			– 26	– 344
				– 37	– 53	– 3	– 37	– 40	– 90
– 40	– 29			– 59	– 131			– 59	– 131
– 28	– 29	– 55	– 50	– 648	– 647	– 129	– 99	– 777	– 746
17 685	**15 914**	**4 508**	**4 491**	**52 910**	**48 941**	**42 595**	**29 358**	**95 505**	**78 299**
– 2 534	– 1 966	– 1 340	– 1 312	– 14 489	– 12 018	– 23 554	– 15 844	– 38 043	– 27 862
15 151	**13 948**	**3 168**	**3 179**	**38 421**	**36 923**	**19 041**	**13 514**	**57 462**	**50 437**
						– 3 461	1 247	– 3 461	1 247
15 151	**13 948**	**3 168**	**3 179**	**38 421**	**36 923**	**15 580**	**14 761**	**54 001**	**51 684**
3 080	2 927	926	850	13 424	12 428	651	672	14 075	13 100
282	422	164	160	1 805	2 132	78	77	1 883	2 209
10 683	9 372	1 577	1 561	22 353	20 810	17	9	22 370	20 819
35	21	101	22	957	183	10	5	967	188
18	16			39	19	17 752	17 693	17 791	17 712
				22		29	9 498	51	9 498
						17 449	6 117	17 449	6 117
						13 988	7 364	13 988	7 364
						6 223	5 520	6 223	5 520

3. SEGMENTATION OF KEY FIGURES 2009 AND 2008 (CONTINUED)

The following countries accounted for more than 5% of at least one of the respective Group totals for the years ended December 31, 2009 and 2008:

Country	Net sales[1]				Total of selected non-current assets[2]			
USD millions	**2009**	**%**	**2008**	**%**	**2009**	**%**	**2008**	**%**
Switzerland	604	2	531	1	23 341	43	22 896	44
United States	14 254	32	12 861	31	11 717	22	12 014	23
Germany	4 035	9	4 114	10	4 649	8	4 471	9
Japan	3 545	8	2 987	7	142		164	
France	2 355	5	2 284	6	349	1	348	1
Other	19 474	44	18 682	45	14 038	26	11 738	23
Group	**44 267**	**100**	**41 459**	**100**	**54 236**	**100**	**51 631**	**100**
Europe	18 362	42	18 034	44	37 772	70	35 640	69
Americas	17 820	40	16 286	39	15 193	28	14 857	29
Asia / Africa / Australasia	8 085	18	7 139	17	1 271	2	1 134	2
Group	**44 267**	**100**	**41 459**	**100**	**54 236**	**100**	**51 631**	**100**

[1] Net sales from operations by location of third party customer.
[2] Total of property, plant and equipment, goodwill, intangible assets and investment in associated companies

The Group's largest customer accounts for approximately 8% and the second and third largest ones for approximately 7% and 6%, each of net sales. No other customer accounts for 2% or more of net sales. The highest amounts of trade receivables outstanding were for these three customers. They amounted to 9% and twice 6%, respectively, of the Group's trade receivables at December 31, 2009.

PHARMACEUTICALS DIVISION THERAPEUTIC AREA NET SALES

Therapeutic areas

	2009 USD millions	2008 USD millions	Change USD %
Cardiovascular and Metabolism			
Diovan	*6 013*	*5 740*	*5*
Exforge	*671*	*406*	*65*
Lotrel	*322*	*386*	*– 17*
Tekturna/Rasilez	*290*	*144*	*101*
Galvus	*181*	*43*	*321*
Total strategic franchise products	**7 477**	**6 719**	**11**
Mature products (including Lescol)	**1 319**	**1 464**	**– 10**
Total Cardiovascular and Metabolism products	**8 796**	**8 183**	**7**
Oncology			
Gleevec/Glivec	*3 944*	*3 670*	*7*
Zometa	*1 469*	*1 382*	*6*
Femara	*1 266*	*1 129*	*12*
Sandostatin	*1 155*	*1 123*	*3*
Exjade	*652*	*531*	*23*
Tasigna	*212*	*89*	*138*
Afinitor	*70*	*1*	*NM*
Other	231	286	– 19
Total Oncology products	**8 999**	**8 211**	**10**
Neuroscience and Ophthalmics			
Lucentis	*1 232*	*886*	*39*
Exelon/Exelon Patch	*954*	*815*	*17*
Comtan/Stalevo	*554*	*502*	*10*
Ritalin/Focalin	*449*	*440*	*2*
Tegretol	*375*	*451*	*– 17*
Trileptal	*295*	*332*	*– 11*
Extavia	*49*		*NM*
Other	649	775	– 16
Total strategic franchise products	**4 557**	**4 201**	**8**
Mature products	**384**	**404**	**– 5**
Total Neuroscience and Ophthalmics products	**4 941**	**4 605**	**7**
Respiratory			
Foradil	*357*	*387*	*– 8*
Xolair	*338*	*211*	*60*
TOBI	*300*	*295*	*2*
Other	104	104	0
Total strategic franchise products	**1 099**	**997**	**10**
Mature products	**88**	**87**	**1**
Total Respiratory products	**1 187**	**1 084**	**10**

Therapeutic areas

	2009 USD millions	2008 USD millions	Change USD %
Immunology and Infectious Diseases			
Neoral/Sandimmun	*919*	*956*	*– 4*
Reclast/Aclasta	*472*	*254*	*86*
Myfortic	*353*	*290*	*22*
Certican	*118*	*95*	*24*
Other	232	177	31
Total strategic franchise products	**2 094**	**1 772**	**18**
Mature products	**941**	**1 098**	**– 14**
Total Immunology and Infectious Diseases products	**3 035**	**2 870**	**6**
Additional products			
Voltaren (excluding OTC)	*797*	*814*	*– 2*
Enablex/Emselex	*223*	*201*	*11*
Everolimus sales to stent manufacturers	*215*		*NM*
Other	345	363	– 5
Total additional products	**1 580**	**1 378**	**15**
Total strategic franchise products	**24 226**	**21 900**	**11**
Total mature and additional products	**4 312**	**4 431**	**– 3**
Total Division net sales[1]	**28 538**	**26 331**	**8**

NM – Not meaningful

[1] Net sales in 2008 include a one-time contribution of USD 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.

4. ASSOCIATED COMPANIES

Novartis has the following significant investments in associated companies which are accounted for using the equity method:

	Balance sheet value		Net income statement effect	
	2009 USD millions	2008 USD millions	2009 USD millions	2008 USD millions
Roche Holding AG, Switzerland	7 471	7 167	321	439
Alcon Inc., Switzerland	10 137	10 418	– 28	– 11
Others	183	127		13
Total	**17 791**	**17 712**	**293**	**441**

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:

	Asset billions	Liabilities billions	Revenue billions	Net income billions
Roche (CHF)	76.1	22.3	47.9	10.8
Alcon (USD)	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.

The December 31, 2009 balance sheet value allocation is as follows:

	USD 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 implicit Novartis goodwill	2 749
Total residual value of purchase price	**7 428**
Accumulated equity accounting adjustments and translation effects	43
December 31, 2009 balance sheet value	**7 471**

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 and 2008 are as follows:

	2009 USD millions	2008 USD millions
Amortization of fair value adjustments relating to intangible assets net of taxes of USD 41 million (2008: USD 40 million)	– 135	– 132
Prior-year adjustment	– 40	11
Novartis share of Roche's estimated current-year consolidated net income	496	560
Net income effect	**321**	**439**

The market value of the Novartis interest in Roche (Reuters symbol: RO.S) at December 31, 2009, was USD 9.3 billion (2008: USD 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.

The December 31, 2009 balance sheet value allocation is as follows:

	USD 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
Total residual value of purchase price	**9 801**
Accumulated equity accounting adjustments	336
December 31, 2009 balance sheet value	**10 137**

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 USD millions	2008 USD millions
Depreciation and amortization of fair value adjustments relating to property, plant & equipment, inventory and intangible assets, net of taxes of USD 115 million (2008: USD 57 million)	– 526	– 266
Prior-year adjustment	5	
Novartis share of Alcon's estimated current-year consolidated net income	493	255
Net income effect	**– 28**	**– 11**

The market value of the Group's interest in Alcon (NYSE symbol: ACL) at December 31, 2009, was USD 12.2 billion, (2008: USD 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."

"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:

	Discounted Cash Flow Method	Discounted Dividend Method
Sales growth rate after terminal period	2.0–4.0%	2.0–4.0%
Discount rate	7.5–8.0%	7.5–8.0%
Dividend and other cash payouts to shareholders (as % of EPS)	NA	40–70%

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 USD 120–170. Novartis management judged the mid-point of this range, USD 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:

Assumption	Sensitivity	Effect on "value in use" (USD per share)
Discount rate	+1%	–20 to –30
	–1%	+30 to +50
Terminal growth rate	+1%	+25 to +30
	–1%	–15 to –20
Dividend payout	+20.0%	+10 to +25
	–20.0%	–10 to –25

5. FINANCIAL INCOME AND INTEREST EXPENSE

	2009 USD millions	2008 USD millions
Interest income	156	306
Dividend income	3	9
Net capital gains on available-for-sale securities	110	102
Impairment of available-for-sale securities	– 20	– 169
Income on options and forward contracts	97	28
Expenses on options and forward contracts	– 85	
Other financial income		11
Other financial expense	– 23	– 59
Currency result, net	– 40	156
Total financial income	**198**	**384**
Interest expense	– 442	– 249
Expense due to discounting long-term liabilities	– 109	– 41
Total interest expense	**– 551**	**– 290**

6. TAXES

INCOME BEFORE TAXES

	2009 USD millions	2008 USD millions
Switzerland	4 281	6 189
Foreign	5 641	3 310
Total income before taxes	**9 922**	**9 499**

CURRENT AND DEFERRED INCOME TAX EXPENSE

	2009 USD millions	2008 USD millions
Switzerland	– 413	– 435
Foreign	– 1 593	– 1 313
Total current income tax expense	**– 2 006**	**– 1 748**
Switzerland	188	92
Foreign	350	320
Total deferred tax income	**538**	**412**
Total income tax expense	**– 1 468**	**– 1 336**

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 %
Expected tax rate	15.8	14.7
Effect of disallowed expenditures	3.0	2.4
Effect of utilization of tax losses brought forward from prior periods	– 0.4	– 0.2
Effect of income taxed at reduced rates	– 0.1	– 0.1
Effect of tax credits and allowances	– 1.4	– 1.7
Effect of tax rate change on opening balance		– 1.9
Effect of write-down of investments in subsidiaries	– 1.7	– 0.1
Prior year and other items	– 0.4	1.0
Effective tax rate	**14.8**	**14.1**

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 USD 45 million in 2009 and by USD 23 million in 2008, respectively.

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
Basic earnings per share		
Weighted average number of shares outstanding	2 267 855 586	2 265 536 699
Net income attributable to shareholders of Novartis AG (USD millions)		
– Continuing operations	8 400	8 125
– Discontinued operations		70
– Total	8 400	8 195
Basic earnings per share (USD)		
– Continuing operations	3.70	3.59
– Discontinued operations		0.03
– Total	3.70	3.62

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
Diluted earnings per share		
Weighted average number of shares outstanding	2 267 855 586	2 265 536 699
Adjustment for dilutive shares and options	8 695 458	18 706 935
Weighted average number of shares for diluted earnings per share	2 276 551 044	2 284 243 634
Net income attributable to shareholders of Novartis AG (USD millions)		
– Continuing operations	8 400	8 125
– Discontinued operations		70
– Total	8 400	8 195
Diluted earnings per share (USD)		
– Continuing operations	3.69	3.56
– Discontinued operations		0.03
– Total	3.69	3.59

Options equivalent to 109.3 million shares (2008: 66.5 million) were excluded from the calculation of diluted earnings EPS since they were not dilutive.

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.

The following table summarizes these fair value adjustments attributable to Novartis shareholders:

	Fair value adjustments to marketable securities USD millions	Fair value adjustments of deferred cash flow hedges USD millions	Gains/losses from defined benefit plans USD millions	Revaluation of initial non-controlling interests USD millions	Cumulative translation effects USD millions	Total fair value adjustments USD millions
Fair value adjustments at January 1, 2008	**407**	**18**	**– 1 369**	**647**	**3 476**	**3 179**
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
Total fair value adjustments in 2008	**– 265**	**– 245**	**– 2 140**	**38**	**– 1 122**	**– 3 734**
Fair value adjustments at December 31, 2008	**142**	**– 227**	**– 3 509**	**685**	**2 354**	**– 555**
Fair value adjustments on financial instruments	89	4				93
Net gains from defined benefit plans			949			949
Currency translation effects					781	781
Total fair value adjustments in 2009	**89**	**4**	**949**		**781**	**1 823**
Fair value adjustments at December 31, 2009	**231**	**– 223**	**– 2 560**	**685**	**3 135**	**1 268**

8.1) The 2009 and 2008 changes in the fair value of financial instruments consist of the following:

	Fair value adjustments to marketable securities USD millions	Fair value adjustments of deferred cash flow hedges USD millions	Total USD millions
Fair value adjustments at January 1, 2009	**142**	**– 227**	**– 85**
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
Fair value adjustments during the year	**89**	**4**	**93**
Fair value adjustments at December 31, 2009	**231**	**– 223**	**8**

	Fair value adjustments to marketable securities USD millions	Fair value adjustments of deferred cash flow hedges USD millions	Total USD millions
Fair value adjustments at January 1, 2008	**407**	**18**	**425**
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
Fair value adjustments during the year	**– 265**	**– 245**	**– 510**
Fair value adjustments at December 31, 2008	**142**	**– 227**	**– 85**

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 USD 299 million of realized losses were deferred. The financings were completed in 2009 and the previously realized losses of USD 299 million are now being amortized into the income statement over the period of the long-term financings.

8.2) Net gains/losses on defined benefit plans arise from:

	2009 USD millions	2008 USD millions
Defined benefit pension plans before tax	1 256	– 2 879
Other post-employment benefit plans before tax	– 19	27
Taxation on above items	– 288	712
Total after tax	**949**	**– 2 140**

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.

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 USD 38 million.

8.5) As a result of the liquidation of a subsidiary, USD 0.4 million of cumulative currency translation gains have been transferred into financial income in 2008.

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 USD 3.9 billion, and was paid in 2009 (2008: CHF 1.60 per share dividend payment that amounted to USD 3.3 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 USD 225 million (2008: purchase of 6.4 million for USD 435 million) and 8.5 million shares (2008: 6.8 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). 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 USD 296 million).

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).

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.

10. PROPERTY, PLANT & EQUIPMENT MOVEMENTS

	Land USD millions	Buildings USD millions	Plant and other equipment under construction USD millions	Other property, plant & equipment USD millions	Total USD millions
2009					
Cost					
January 1	**658**	**8 560**	**2 440**	**12 315**	**23 973**
Impact of business combinations	2	21	2	39	64
Reclassifications [1]	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
December 31	**709**	**9 380**	**2 176**	**13 635**	**25 900**
Accumulated depreciation					
January 1	**– 18**	**– 3 727**	**– 1**	**– 7 127**	**– 10 873**
Reclassifications [1]		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
December 31	**– 13**	**– 3 869**	**– 8**	**– 7 935**	**– 11 825**
Net book value at December 31	**696**	**5 511**	**2 168**	**5 700**	**14 075**
Insured value at December 31					**27 147**
Net book value of property, plant & equipment under finance lease contracts					**4**
Commitments for purchases of property, plant & equipment					**548**

[1] Reclassifications between various asset categories due to completion of plant and other 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 USD 350 million cost reimbursement for construction activities and equipment, of which USD 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 USD 1 million in 2009.

10. PROPERTY, PLANT & EQUIPMENT MOVEMENTS (CONTINUED)

	Land USD millions	Buildings USD millions	Plant and other equipment under construction USD millions	Other property, plant & equipment USD millions	Total USD millions
2008					
Cost					
January 1	**630**	**7 987**	**2 517**	**11 666**	**22 800**
Impact of business combinations				44	44
Reclassifications[1]	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
December 31	**658**	**8 560**	**2 440**	**12 315**	**23 973**
Accumulated depreciation					
January 1	**– 12**	**– 3 365**	**– 22**	**– 6 768**	**– 10 167**
Reclassifications[1]	– 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
December 31	**– 18**	**– 3 727**	**– 1**	**– 7 127**	**– 10 873**
Net book value at December 31	**640**	**4 833**	**2 439**	**5 188**	**13 100**
Insured value at December 31					**28 595**
Net book value of property, plant & equipment under finance lease contracts					**3**
Commitments for purchases of property, plant & equipment					**674**

[1] Reclassifications between various asset categories due to completion of plant and other equipment under construction.

11. GOODWILL AND INTANGIBLE ASSET MOVEMENTS

	Goodwill USD millions	Acquired research & development USD millions	Core technologies USD millions	Trademarks, product & marketing rights USD millions	Other intangible assets USD millions	Total of intangible assets other than goodwill USD millions
2009						
Cost						
January 1	**11 976**	**3 028**	**754**	**10 599**	**942**	**15 323**
Impact of business combinations	548	161	427	241		829
Reclassifications [1]		– 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
December 31	**12 624**	**3 216**	**1 271**	**11 737**	**954**	**17 178**
Accumulated amortization						
January 1	**– 691**	**– 477**	**– 201**	**– 4 561**	**– 550**	**– 5 789**
Reclassifications [1]			– 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
December 31	**– 585**	**– 547**	**– 273**	**– 5 395**	**– 632**	**– 6 847**
Net book value at December 31	**12 039**	**2 669**	**998**	**6 342**	**322**	**10 331**

[1] Reclassifications between various asset categories as a result of product launches of acquired In-Process Research & Development.

	Goodwill USD millions	Acquired research & development USD millions	Core technologies USD millions	Trademarks, product & marketing rights USD millions	Other intangible assets USD millions	Total of intangible assets other than goodwill USD millions
2008						
Cost						
January 1	**11 854**	**2 836**	**797**	**10 065**	**855**	**14 553**
Impact of business combinations	523	250		486	47	783
Reclassifications [1]		– 50		49	1	
Additions		108	3	44	33	188
Disposals	– 5	– 2		– 11	– 10	– 23
Currency translation effects	– 396	– 114	– 46	– 34	16	– 178
December 31	**11 976**	**3 028**	**754**	**10 599**	**942**	**15 323**
Accumulated amortization						
January 1	**– 744**	**– 212**	**– 154**	**– 3 613**	**– 435**	**– 4 414**
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
December 31	**– 691**	**– 477**	**– 201**	**– 4 561**	**– 550**	**– 5 789**
Net book value at December 31	**11 285**	**2 551**	**553**	**6 038**	**392**	**9 534**

[1] Reclassifications between various asset categories as a result of product launches of acquired In-Process Research & Development.

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 USD millions	Acquired research & development USD millions	Core technologies USD millions	Trademarks, product & marketing rights USD millions	Other intangible assets USD millions	Total of intangible assets other than goodwill USD 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
Total	**12 039**	**2 669**	**998**	**6 342**	**322**	**10 331**
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;
– 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:

	Pharmaceuticals %	Vaccines and Diagnostics %	Sandoz %	Consumer Health %
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 USD 132 million were recorded. This is relating to various impairment charges of USD 88 million, mainly for upfront and milestone payments in the Pharmaceuticals Division and USD 44 million 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 USD 106 million mainly relating to *Famvir* product rights.

In 2008, Novartis recorded impairment charges totaling USD 344 million. These relate to an impairment charge of USD 223 million for *Aurograb* and USD 97 million for various other impairments of upfront and milestone payments and product rights in the Pharmaceuticals Division. Additionally, Novartis recorded various impairment charges of USD 24 million for product rights in the Sandoz and Vaccines and Diagnostics Divisions.

12. DEFERRED TAX ASSETS AND LIABILITIES

	Property, plant & equipment USD millions	Intangible assets USD millions	Pensions and other benefit obligations of associates USD millions	Inventories USD millions	Tax loss carryforwards USD millions	Other assets, provisions and accruals USD millions	Valuation allowance USD millions	Total USD millions
Deferred tax assets at January 1, 2008	**75**	**208**	**512**	**1 243**	**204**	**1 342**	**– 17**	**3 567**
Deferred tax liabilities at January 1, 2008	**– 838**	**– 2 087**	**– 588**	**– 214**		**– 739**		**– 4 466**
Net deferred tax balance at January 1, 2008	**– 763**	**– 1 879**	**– 76**	**1 029**	**204**	**603**	**– 17**	**– 899**
At January 1, 2008	**– 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
Net deferred tax balance at December 31, 2008	**– 729**	**– 1 688**	**762**	**1 052**	**211**	**691**	**– 20**	**279**
Deferred tax assets at December 31, 2008	**121**	**410**	**866**	**1 358**	**211**	**1 477**	**– 20**	**4 423**
Deferred tax liabilities at December 31, 2008	**– 850**	**– 2 098**	**– 104**	**– 306**		**– 786**		**– 4 144**
Net deferred tax balance at December 31, 2008	**– 729**	**– 1 688**	**762**	**1 052**	**211**	**691**	**– 20**	**279**
At January 1, 2009	**– 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
Net deferred tax balance at December 31, 2009	**– 757**	**– 1 743**	**405**	**1 154**	**232**	**934**	**– 17**	**208**
Deferred tax assets at December 31, 2009	**72**	**281**	**931**	**1 429**	**232**	**1 687**	**– 17**	**4 615**
Deferred tax liabilities at December 31, 2009	**– 829**	**– 2 024**	**– 526**	**– 275**		**– 753**		**– 4 407**
Net deferred tax balance at December 31, 2009	**– 757**	**– 1 743**	**405**	**1 154**	**232**	**934**	**– 17**	**208**

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 USD 1.8 billion (2008: USD 1.9 billion) and deferred tax liabilities of USD 3.5 billion (2008: USD 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 USD 38 billion (2008: USD 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.

	2009 USD millions	2008 USD millions
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 carry-forwards that have, or have not, been capitalized as deferred tax assets, with their expiry dates is as follows:

	Not capitalized USD millions	Capitalized USD millions	2009 total USD millions
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
Total	**874**	**763**	**1 637**

	Not capitalized USD millions	Capitalized USD millions	2008 total USD 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
Total	**1 225**	**731**	**1 956**

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 USD 19 million (2008: USD 6 million) of unused tax-loss carryforwards expired.

13. FINANCIAL ASSETS

	2009 USD millions	2008 USD millions
Financial investments and long-term loans	1 047	890
Loans to associated companies	3	
Prepaid post-employment benefit plans	1 585	182
Total financial assets	**2 635**	**1 072**

Financial investments at December 31, 2009, totaling USD 891 million (2008: USD 766 million) are valued at market value, while long-term loans and other investments of USD 156 million (2008: USD 124 million) are valued at amortized cost or at cost, whose fair values approximate the carrying amount.

During 2009, a total of USD 51 million (2008: USD 84 million) of unrealized losses on available-for-sale investments and no amounts (2008: USD 6 million) on other investments were recognized as impairments. Also in 2009 a reversal of an USD 11 million impairment loss has occurred. These amounts were recorded in the income statement under Other Expense or Other Income, respectively.

14. INVENTORIES

	2009 USD millions	2008 USD millions
Raw material, consumables	953	979
Finished products	4 877	4 813
Total inventories	**5 830**	**5 792**

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 USD millions	2008 USD millions
January 1	**– 637**	**– 680**
Inventory write-downs charged to income statement	– 506	– 738
Utilization of inventory provisions	298	301
Reversal of inventory provisions	230	444
Additions due to acquisitions	– 3	
Currency translation effects	– 35	36
December 31	**– 653**	**– 637**

15. TRADE RECEIVABLES

	2009 USD millions	2008 USD millions
Total gross trade receivables	8 453	7 208
Provisions for doubtful trade receivables	– 143	– 182
Total trade receivables, net	**8 310**	**7 026**

Provisions for chargebacks and discounts are adjusted based upon actual experience. These adjustments to historic estimates have not been material.

The following table summarizes the movement in the provision for doubtful trade receivables:

	2009 USD millions	2008 USD millions
January 1	**– 182**	**– 169**
Additions due to acquisitions	– 3	
Provisions for doubtful trade receivables charged to income statement	– 63	– 158
Utilization or reversal of provisions for doubtful trade receivables	111	140
Currency translation effects	– 6	5
December 31	**– 143**	**– 182**

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 USD millions	2008 USD millions
Total	**8 453**	**7 208**
Provisions for doubtful trade receivables	– 143	– 182
Total trade receivables, net	**8 310**	**7 026**
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
Provisions for doubtful trade receivables	– 143	– 182
Total trade receivables, net	**8 310**	**7 026**

15. TRADE RECEIVABLES (CONTINUED)

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 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 USD 30 million as collateral for certain trade receivables.

Trade receivables include amounts denominated in the following major currencies:

Currency	2009 USD millions	2008 USD millions
CHF	163	172
EUR	2 259	1 878
GBP	153	129
JPY	1 289	1 246
USD	2 577	2 027
Other	1 869	1 574
Total trade receivables, net	**8 310**	**7 026**

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.

DERIVATIVE FINANCIAL INSTRUMENTS

	Contract or underlying principal amount		Positive fair values		Negative fair values	
	2009 USD millions	2008 USD millions	2009 USD millions	2008 USD millions	2009 USD millions	2008 USD millions
Currency related instruments						
Forward foreign exchange rate contracts	4 735	7 182	52	236	– 64	– 292
Over-the-Counter currency options	139	282		12	– 1	– 12
Total of currency related instruments	**4 874**	**7 464**	**52**	**248**	**– 65**	**– 304**
Interest rate related instruments						
Interest rate swaps	1 000		13			
Total of interest rate related instruments	**1 000**		**13**			
Options on equity securities	**15**	**25**	**23**	**24**	**– 15**	**– 25**
Total derivative financial instruments included in marketable securities and in current financial debts	**5 889**	**7 489**	**88**	**272**	**– 80**	**– 329**

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 USD millions	USD USD millions	JPY USD millions	Other USD millions	Total USD millions
Currency related instruments					
Forward foreign exchange rate contracts	1 179	2 719	107	730	4 735
Over-the-Counter currency options	139				139
Total of currency related instruments	**1 318**	**2 719**	**107**	**730**	**4 874**
Interest rate related instruments					
Interest rate swaps		1 000			1 000
Total of interest rate related instruments		**1 000**			**1 000**
Options on equity securities	**15**				**15**
Total derivative financial instruments	**1 333**	**3 719**	**107**	**730**	**5 889**

December 31, 2008	EUR USD millions	USD USD millions	JPY USD millions	Other USD millions	Total USD millions
Currency related instruments					
Forward foreign exchange rate contracts	3 775	2 460	332	615	7 182
Over-the-Counter currency options	282				282
Total of currency related instruments	**4 057**	**2 460**	**332**	**615**	**7 464**
Options on equity securities	**25**				**25**
Total derivative financial instruments	**4 082**	**2 460**	**332**	**615**	**7 489**

DERIVATIVE FINANCIAL INSTRUMENTS EFFECTIVE FOR HEDGE ACCOUNTING PURPOSES

	Contract amount 2008 USD millions	Fair value 2008 USD millions
Anticipated transaction hedges		
Forward foreign exchange rate contracts	423	29
Total of derivative financial instruments effective for hedge accounting purposes included in marketable securities and current financial debts	**423**	**29**

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.

MARKETABLE SECURITIES, TIME DEPOSITS AND DERIVATIVE FINANCIAL INSTRUMENTS

	2009 USD millions	2008 USD millions
Available-for-sale marketable securities		
Debt securities	7 240	1 048
Equity securities	169	270
Fund investments	107	382
Total available-for-sale marketable securities	**7 516**	**1 700**
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
Total marketable securities, time deposits and derivative financial instruments	**14 555**	**4 079**

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.

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 USD millions	Level 2 USD millions	Level 3 USD millions	Total USD millions
Available-for-sale marketable securities				
Debt securities	7 209	31		7 240
Equity securities	114		55	169
Fund investments			107	107
Total available-for-sale marketable securities	**7 323**	**31**	**162**	**7 516**
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
Total marketable securities, time deposits and derivative financial instruments	**7 323**	**7 070**	**162**	**14 555**
Financial investments and long-term loans				
Available-for-sale financial investments	544		347	891
Loans to associated companies		3		3
Long-term loans, advances, security deposits		156		156
Total financial investments and long-term loans	**544**	**159**	**347**	**1 050**
Financial liabilities				
Derivative financial instruments		– 80		– 80
Total financial liabilities at fair value		**– 80**		**– 80**

The analysis above includes all financial instruments including those measured at amortized cost or at cost.

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 USD millions	Fund investments USD millions	Available-for-sale financial investments USD millions	Total USD millions
January 1	**47**	**383**	**273**	**703**
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
December 31	**55**	**107**	**347**	**509**
Total of gains or losses and impairments, 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 USD 8 million or USD 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 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 CURRENCY EXCHANGE RATE RISK

The Group uses the USD 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.

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%, respectively, of net sales in 2009. No other customer accounts for 2% or more of the net sales. The highest amounts of trade receivables are the ones for the largest customers and are approximately 9% and twice 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).

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 USD millions	Due later than one month but less than three months USD millions	Due later than three months but less than one year USD millions	Due later than one year but less than five years USD millions	Due after five years USD millions	Total USD millions
Current assets						
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
Total current assets	**2 820**	**8 732**	**4 390**	**814**	**693**	**17 449**
Non-current liabilities						
Financial debts				2 775	5 900	8 675
Total non-current liabilities				**2 775**	**5 900**	**8 675**
Current liabilities						
Financial debts	3 573	705	955			5 233
Derivative financial instruments	25	36	4	15		80
Total current liabilities	**3 598**	**741**	**959**	**15**		**5 313**
Net liquidity	**– 778**	**7 991**	**3 431**	**– 1 976**	**– 5 207**	**3 461**

December 31, 2008	Due or due within one month USD millions	Due later than one month but less than three months USD millions	Due later than three months but less than one year USD millions	Due later than one year but less than five years USD millions	Due after five years USD millions	Total USD millions
Current assets						
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
Total current assets	**2 208**	**2 184**	**15**	**688**	**1 022**	**6 117**
Non-current liabilities						
Financial debts				1 325	853	2 178
Total non-current liabilities				**1 325**	**853**	**2 178**
Current liabilities						
Financial debts	2 876	1 433	548			4 857
Derivative financial instruments	231	73		17	8	329
Total current liabilities	**3 107**	**1 506**	**548**	**17**	**8**	**5 186**
Net debt	**– 899**	**678**	**– 533**	**– 654**	**161**	**– 1 247**

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.

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 USD millions[1]	Due later than one month but less than three months USD millions	Due later than three months but less than one year USD millions	Due later than one year but less than five years USD millions	Total USD millions
Derivative financial instruments and accrued interest on derivative financial instruments					
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 USD millions	Due later than one month but less than three months USD millions	Due later than three months but less than one year USD millions	Due later than one year but less than five years USD millions[1]	Total USD millions
Derivative financial instruments and accrued interest on derivative financial instruments					
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.

Other contractual liabilities, which are not part of management's monitoring of the net liquidity consist of the following items:

December 31, 2009	Due or due within one month USD millions	Due later than one month but less than three months USD millions	Due later than three months but less than one year USD millions	Due later than one year but less than five years USD millions	Due after five years USD millions	Total USD millions
Contractual interest on non-current liabilities		– 236	– 96	– 1 286	– 843	– 2 461
Trade payables		– 4 012				– 4 012

December 31, 2008	Due or due within one month USD millions	Due later than one month but less than three months USD millions	Due later than three months but less than one year USD millions	Due later than one year but less than five years USD millions	Due after five years USD millions	Total USD millions
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.

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:

	Dec 31, 2009 USD millions	Dec 31, 2008 USD millions
All financial instruments	183	318
Analyzed by components:		
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:

2009	Average USD millions	High USD millions	Low USD millions
All financial instruments	202	309	152
Analyzed by components:			
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

2008	Average USD millions	High USD millions	Low USD millions
All financial instruments	196	318	135
Analyzed by components:			
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 USD millions	Dec 31, 2008 USD millions
All financial instruments	265	300
Analyzed by components:		
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.

17. OTHER CURRENT ASSETS

	2009 USD millions	2008 USD 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
Total other current assets	**2 102**	**1 946**

18. DETAILS OF SHARES AND SHARE CAPITAL MOVEMENTS

	Number of shares[1]				
	Dec 31, 2007	Movement in year	Dec 31, 2008	Movement in year	Dec 31, 2009
Total Novartis shares	**2 728 971 000**	**– 85 348 000**	**2 643 623 000**	**– 6 000 000**	**2 637 623 000**
Treasury shares					
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
Total treasury shares	**464 517 668**	**– 85 747 510**	**378 770 158**	**– 15 500 509**	**363 269 649**
Total outstanding shares	**2 264 453 332**	**399 510**	**2 264 852 842**	**9 500 509**	**2 274 353 351**
	USD millions	**USD millions**	**USD millions**	**USD millions**	**USD millions**
Share capital	990	– 31	959	– 2	957
Treasury shares	– 175	36	– 139	7	– 132
Outstanding share capital	**815**	**5**	**820**	**5**	**825**

[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.

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 USD 42.51 and they have contractual lives of up to 10 years.

19. NON-CURRENT FINANCIAL DEBTS

	2009 USD millions	2008 USD millions
Straight bonds	8 556	1 409
Liabilities to banks and other financial institutions [1]	144	781
Finance lease obligations	4	5
Total (including current portion of non-current financial debt)	**8 704**	**2 195**
Less current portion of non-current financial debt	– 29	– 17
Total non-current financial debts	**8 675**	**2 178**

Straight bonds		
3.625% CHF 800 million bond 2008/2015 of Novartis AG, Basel, Switzerland, 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% USD 3 000 million bond 2009/2019 of Novartis Securities Investment Ltd., Hamilton, Bermuda, issued at 99.822%	2 983	
4.125% USD 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	
Total straight bonds	**8 556**	**1 409**

[1] Average interest rate 2.1% (2008: 2.1%)

		2009 USD millions	2008 USD 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
Total		**8 704**	**2 195**

		2009 USD millions	2008 USD millions
Breakdown by currency	USD	4 979	2
	EUR	2 262	96
	JPY		664
	CHF	1 436	1 409
	Others	27	24
Total		**8 704**	**2 195**

Fair value comparison	2009 Balance sheet USD millions	2009 Fair values USD millions	2008 Balance sheet USD millions	2008 Fair values USD millions
Straight bonds	8 556	9 051	1 409	1 512
Others	148	148	786	786
Total	**8 704**	**9 199**	**2 195**	**2 298**

Collateralized non-current financial debt and pledged assets	2009 USD millions	2008 USD 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.

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%).

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 USD 21 million (2008: USD 19 million) income and USD 23 million expense (2008: USD 21 million), respectively.

	2009 USD millions	2008 USD millions
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
Provisions for product liabilities and other legal matters	671	682
Other non-current liabilities	623	526
Total	**5 491**	**5 036**

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 surveillance at sites where the environmental exposure is less significant. The provision recorded at December 31, 2009 totals USD 1010 million (2008: USD 966 million) of which USD 58 million (2008: USD 42 million) is included in current liabilities and consists of USD 812 million (2008: USD 798 million) provided for remediation at third party sites and USD 198 million (2008: USD 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.

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 provision.

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 con-

dition but could be material to the results of operations or cash flows in a given period.

The following table shows the movements in the environmental liability provisions during 2009 and 2008:

	2009 USD millions	2008 USD millions
January 1	**966**	**874**
Cash payments	– 11	– 19
Releases	– 53	– 2
Interest expense arising from discounting provisions	66	38
Additions	23	18
Currency translation effects	19	57
December 31	**1 010**	**966**
Less current liability	– 58	– 42
Non-current environmental liability provisions at December 31	**952**	**924**

The expected timing of the related cash outflows as of December 31, 2009 is currently projected as follows:

	Expected cash outflows USD millions
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
Total environmental liability provisions	**1 010**

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.

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 USD 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 USD 318 million. Total provisions at the end of 2009 relating to the EDPA's civil and criminal *Trileptal* investigations were USD 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 USD 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 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

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.

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

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 USD 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 USD 28 million and punitive damages of USD 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 USD 16 million of compensatory damages and USD 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 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

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 and 2008:

	2009 USD millions	2008 USD millions
January 1	**1 142**	**1 026**
Cash payments	– 285	– 265
Releases of provisions	– 152	– 66
Additions to provisions	833	428
Currency translation effects	4	19
December 31	**1 542**	**1 142**
Less current liability	– 871	– 460
Non-current legal and product liability provisions at December 31	**671**	**682**

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.

21. CURRENT FINANCIAL DEBT

	2009 USD millions	2008 USD 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
Total current financial debt	**5 313**	**5 186**

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 USD millions	2008 USD 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
Total provisions and other current liabilities	**8 329**	**6 547**

Provisions are based upon management's best estimate and adjusted for actual experience. Such adjustments to the historic estimates have not been material.

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 USD millions	2008 USD millions
January 1	**1 665**	**1 512**
Additions	6 245	5 291
Payments/utilizations	– 5 582	– 5 186
Changes in offset against gross trade receivables	– 321	103
Currency translation effects	87	– 55
December 31	**2 094**	**1 665**

RESTRUCTURING PROVISIONS

In 2009, additions to provisions of USD 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 USD 37 million and other third party costs of USD 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 USD 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 USD 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 USD 19 million were incurred in conjunction with a change in the marketing and sales organization within the Pharmaceuticals Division in the United States. The charges comprised termination costs of associates of USD 18 million and other third party costs of USD 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 USD 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 USD 20 million and other third party costs of USD 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.

The releases to income in 2009 and 2008 of USD 42 million and USD 108 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.

Other third party costs are mainly associated with lease and other obligations due to the abandonment of certain facilities.

	Termination costs of associates USD millions	Other third party costs USD millions	Total USD millions
January 1, 2008	**366**	**92**	**458**
Additions	126	5	131
Cash payments	– 232	– 39	– 271
Releases	– 99	– 9	– 108
Currency translation effects	– 4	– 2	– 6
December 31, 2008	**157**	**47**	**204**
Additions	56	3	59
Cash payments	– 114	– 12	– 126
Releases	– 10	– 32	– 42
Currency translation effects	2		2
December 31, 2009	**91**	**6**	**97**

23. DETAILS TO THE CONSOLIDATED CASH FLOW STATEMENTS

23.1) REVERSAL OF NON-CASH ITEMS

	2009 USD millions	2008 USD millions
Taxes	1 468	1 336
Depreciation, amortization and impairments on		
Property, plant & equipment	1 250	1 231
Intangible assets	1 051	1 439
Financial assets	40	90
Income from associated companies	– 293	– 441
Gains on disposal of property, plant & equipment, intangible, financial and other non-current assets, net	– 94	– 176
Equity-based and settled compensation expense	642	567
Change in provisions and other non-current liabilities	1 031	562
Net financial income	353	– 94
Total reversal of non-cash items	**5 448**	**4 514**

23.2) CASH FLOWS FROM CONTINUING OPERATIONS ARISING FROM CHANGES IN WORKING CAPITAL AND OTHER OPERATING ITEMS INCLUDED IN OPERATING CASH FLOW

	2009 USD millions	2008 USD millions
Change in inventories	237	– 571
Change in trade receivables	– 934	– 431
Change in trade payables	512	246
Change in other net current assets and other operating cash flow items	873	126
Total	**688**	**– 630**

23.3) CASH FLOW ARISING FROM ACQUISITIONS AND DIVESTMENTS OF BUSINESSES

The following is a summary of the cash flow impact of acquisitions and divestments of businesses:

	2009 Acquisitions USD millions	2009 Divestments USD millions	2008 Acquisitions USD millions	2008 Divestments USD millions
Property, plant & equipment	– 64		– 44	
Trademarks, product & marketing rights	– 241		– 486	
Acquired research & development	– 161		– 250	
Core technologies	– 427		– 46	
Financial assets including deferred tax assets	– 58		– 70	
Inventories	– 80			
Trade receivables and other current assets	– 122		– 19	
Marketable securities and cash	– 55		– 81	
Long-term and short-term financial debts	47		54	
Trade payables and other liabilities including deferred tax liabilities	467		283	
Identifiable net assets acquired or divested	**– 694**		**– 659**	
Currency translation effects			29	
Fair value of acquired identifiable net assets of existing non-controlling interest			46	
Acquired liquidity	55		26	
Sub-total	**– 639**		**– 558**	
Goodwill	– 548		– 523	
Deferred portion of sales price	325		2	132
Reduction in cash due to change to equity method for Idenix		– 63		
Net cash flow	**– 862**	**– 63**	**– 1 079**	**132**
Of which:				
Net cash flow from discontinued operations				132
Net cash flow from continuing operations	– 862	– 63	– 1 079	

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:

	2008 USD millions
Cash flow from operating activities	**– 237**
Divestments of businesses	132
Cash flow from investing activities	**132**
Total cash flow from discontinued operations	**– 105**

24. ACQUISITIONS OF BUSINESSES

ASSETS AND LIABILITIES ARISING FROM ACQUISITIONS

2009	Fair value USD millions	Revaluation due to purchase accounting USD millions	Acquiree's carrying amount USD 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
Net identifiable assets acquired	**694**	**648**	**46**
Acquired liquidity	– 55		
Goodwill	548		
Net assets recognized as a result of business combinations	**1 187**		

2008	Fair value USD millions	Revaluation due to purchase accounting USD millions	Acquiree's carrying amount USD 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
Net identifiable assets acquired	**659**	**526**	**133**
Acquired liquidity	– 26		
Goodwill	523		
Currency translation difference	– 29		
Fair value of acquired identifiable net assets of existing non-controlling interests	– 46		
Net assets recognized as a result of business combinations	**1 081**		

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 USD 1 679 million (2008: loss of USD 2 163 million). The defined benefit obligation of unfunded pension plans was USD 279 million at December 31, 2009 (2008: USD 246 million).

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 USD millions	2008 USD millions	2009 USD millions	2008 USD millions
Benefit obligation at January 1	**17 643**	**17 105**	**789**	**784**
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	
Benefit obligation at December 31	**18 009**	**17 643**	**817**	**789**
Fair value of plan assets at January 1	**16 065**	**18 355**	**5**	**17**
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		
Fair value of plan assets at December 31	**17 611**	**16 065**	**8**	**5**
Funded status	**– 398**	**– 1 578**	**– 809**	**– 784**
Unrecognized past service cost	5	6	– 43	– 18
Limitation on recognition of fund surplus	– 35			
Net liability in the balance sheet at December 31	**– 428**	**– 1 572**	**– 852**	**– 802**

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 USD millions	2008 USD millions	2009 USD millions	2008 USD millions
Movement in net asset/(liability)				
Net asset/(liability) in the balance sheet at January 1	**– 1 572**	**1 201**	**– 802**	**– 788**
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 gains/(losses)	1 291	– 2 879	– 19	27
Currency translation effects	44	134	– 7	9
Impact of limitation on recognition of fund surplus	– 35	52		
Net liability in the balance sheet at December 31	**– 428**	**– 1 572**	**– 852**	**– 802**
Amounts recognized in the balance sheet				
Prepaid benefit cost	1 585	182		
Accrued benefit liability	– 2 013	– 1 754	– 852	– 802
Net liability in the balance sheet at December 31	**– 428**	**– 1 572**	**– 852**	**– 802**

The net periodic benefit cost recorded in the income statement consists of the following components:

	Pension plans		Other post-employment benefit plans	
	2009 USD millions	2008 USD millions	2009 USD millions	2008 USD millions
Components of net periodic benefit cost				
Service cost	411	415	48	48
Interest cost	705	694	41	41
Expected return on plan assets	– 698	– 843		
Recognized past service cost		– 2	– 3	– 3
Curtailment and settlement losses/(gains)	– 1	6	– 19	
Net periodic benefit cost	**417**	**270**	**67**	**86**

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 %	2009 %	2008 %
Weighted average assumptions used to determine benefit obligations at December 31				
Discount rate	3.9%	4.1%	5.7%	6.3%
Expected rate of salary increase	3.6%	3.7%		
Current average life expectancy for a 65-year-old male/female	19/22 years	19/22 years	18/20 years	19/21 years
Weighted average assumptions used to determine net periodic pension cost for the year				
Discount rate	4.1%	4.1%	6.3%	5.8%
Expected return on plan assets	4.6%	4.7%		
Expected rate of salary increase	3.7%	3.7%		
Current average life expectancy for a 65-year-old male/female	19/22 years	19/22 years	19/21 years	18/21 years

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 USD millions	2008 USD millions	2007 USD millions	2006 USD millions	2005 USD 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
(Deficit)/Surplus	**– 398**	**– 1 578**	**1 250**	**748**	**427**
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
Total		**100**	**100**

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.

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:

	Pension plans USD millions	Other post-employment benefit plans USD millions
Novartis Group contributions		
2010 (estimated)	114	46
Expected future benefit payments		
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:

Healthcare cost trend rate assumptions used	2009	2008
Healthcare cost trend rate assumed for next year	8.5%	8.5%
Rate to which the cost trend rate is assumed to decline	5.0%	5.0%
Year that the rate reaches the ultimate trend rate	2020	2020

A one percentage point change in the assumed healthcare cost trend rates compared to those used for 2009 would have had the following effects:

	1% point increase USD millions	1% point decrease USD millions
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 USD 1.3 billion (2008: 21.6 million shares with a market value of USD 1.1 billion). These funds sold no Novartis shares during the years ended December 31, 2009 and 2008. The amount of dividends received on Novartis shares held as plan assets by these funds was USD 43 million for the year ended December 31, 2009 (2008: USD 32 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 USD 380 million (2008: USD 348 million) at December 31, 2009. Contributions charged to the consolidated income statement for the defined contribution plans were USD 162 million (2008: USD 160 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 related to all Novartis equity plans in the 2009 income statement was USD 777 million (2008: USD 746 million) resulting in a total carrying amount for liabilities arising from share-based payment transactions of USD 129 million (2008: USD 185 million). The amount of related income tax benefit recognized in the income statement was USD 185 million (2008: USD 190 million). The total amount of cash used to settle awards in 2009 was USD 148 million (2008: USD 117 million). As of December 31, 2009, there was USD 533 million (2008: USD 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).

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.

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 the 2009 income statement relating to both shares and options under this plan amounted to USD 151 million (2008: USD 135 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:

	Novartis Equity Plan "Select" outside North America	
	2009	2008
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

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 USD 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 (millions)	Weighted average exercise price (USD)	Options (millions)	Weighted average exercise price (USD)
Options outstanding at January 1	**25.5**	**53.2**	**20.4**	**51.0**
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
Outstanding at December 31	**32.9**	**51.6**	**25.5**	**53.2**
Exercisable at December 31	**17.5**	**51.3**	**11.5**	**46.9**

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 USD 8.5. The weighted average exercise price during the period the options were sold in 2009 was USD 48.6. The total value of payments made to associates was USD 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 USD 32.8 million and USD 9.0 million for options exercisable.

The following table summarizes information about options outstanding at December 31, 2009:

	Options outstanding			Options exercisable	
Range of exercice prices (USD)	Number outstanding (millions)	Average remaining contractual life (years)	Weighted average exercise price (USD)	Number exercisable (millions)	Weighted average exercise price (USD)
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
Total	**32.9**	**6.9**	**51.6**	**17.5**	**51.3**

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 USD 237 million (2008: USD 222 million). Participants in this plan were granted a total of 2 950 145 ADS units at USD 46.42 (2008: 2 029 205 ADS at USD 57.96).

The following table shows the assumptions on which the valuation of options granted during the period was based:

	Novartis Equity Plan "Select" for North America	
	2009	2008
Valuation date	January 20, 2009	January 11, 2008
Expiration date	January 18, 2019	January 10, 2018
Closing ADS price on grant date	USD 46.42	USD 57.96
Exercise price	USD 46.42	USD 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	USD 7.08	USD 11.25

The following table shows the activity associated with the options during the period:

	2009		2008	
	ADS options (millions)	Weighted average exercise price (USD)	ADS options (millions)	Weighted average exercise price (USD)
Options outstanding at January 1	**45.1**	**51.7**	**42.9**	**48.7**
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
Outstanding at December 31	**59.3**	**50.2**	**45.1**	**51.7**
Exercisable at December 31	**20.9**	**46.2**	**18.4**	**43.3**

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 USD 8.0. The weighted average exercise price during the period the options were sold or exercised in 2009 was USD 45.1. The total value of payments made to associates was USD 146.6 million based on market value (intrinsic value of USD 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 USD 338.0 million and USD 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 USD 111.3 million.

The following table summarizes information about ADS options outstanding at December 31, 2009:

	ADS options outstanding			ADS options exercisable	
Range of exercice prices (USD)	Number outstanding (millions)	Average remaining contractual life (years)	Weighted average exercise price (USD)	Number exercisable (millions)	Weighted average exercise price (USD)
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
Total	**59.3**	**6.9**	**50.2**	**20.9**	**46.2**

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 USD 1 million (2008: USD 5 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 the 2009 income statement related to this plan amounted to USD 35 million (2008: USD 12 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.

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 for such special share awards in the 2009 income statement amounted to USD 18 million (2008: USD 17 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.

26. EQUITY-BASED PARTICIPATION PLANS OF ASSOCIATES (CONTINUED)

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 the 2009 income statement related to these plans amounted to USD 335 million (2008: USD 365 million). During 2009, a total of 6 147 077 shares (2008: 4 151 698 shares) were granted to participants of these plans.

SUMMARY OF NON-VESTED SHARE MOVEMENTS

The table below provides a summary of non-vested share movements for all plans:

	2009		2008	
	Number of shares in millions	Fair value in USD millions	Number of shares in millions	Fair value in USD millions
Non-vested shares at January 1	**13.6**	**886.9**	**14.6**	**848.9**
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
Non-vested shares at December 31	**15.7**	**938.7**	**13.6**	**886.9**

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 USD 1 232 million (2008: USD 886 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. 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 of *Xolair* of USD 338 million (2008: USD 211 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 USD 200 million (2008: USD 85 million).

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 USD 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 USD 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).

The total compensation for members of the Executive Committee and the 11 Non-Executive Directors (12 in 2008) using IFRS 2 rules for accounting for equity-based compensation was as follows:

	Executive Officers		Non-Executive Directors		Total	
	2009 USD millions	2008 USD millions	2009 USD millions	2008 USD millions	2009 USD millions	2008 USD millions
Short-term benefits	12.6	12.0	6.0	6.4	18.6	18.4
Post-employment benefits	1.4	7.8			1.4	7.8
Termination benefits		1.3				1.3
Equity-based compensation	86.4	75.4			86.4	75.4
Total	**100.4**	**96.5**	**6.0**	**6.4**	**106.4**	**102.9**

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.

The disclosures required by the Swiss Code of Obligations on Board and Executive compensation are shown in note 11 to the Novartis AG financial statements.

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:

	2009 USD millions
2010	306
2011	226
2012	152
2013	113
2014	105
Thereafter	1 128
Total	**2 030**
Expense of current year	**338**

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:

	Unconditional commitments 2009 USD millions	Potential milestone payments 2009 USD millions	Total 2009 USD millions
2010	125	335	460
2011	48	294	342
2012	37	575	612
2013	35	577	612
2014	34	289	323
Thereafter	65	692	757
Total	**344**	**2 762**	**3 106**

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

			2009 USD	2008 USD
Year-end exchange rates used for consolidated balance sheets:	1	CHF	0.965	0.948
	1	EUR	1.436	1.411
	1	GBP	1.591	1.450
	100	JPY	1.086	1.107

			2009 USD	2008 USD
Average of monthly exchange rates during the year used for consolidated income and cash flow statements:	1	CHF	0.923	0.925
	1	EUR	1.393	1.470
	1	GBP	1.564	1.853
	100	JPY	1.070	0.970

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 USD 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 Nestle's 77% stake in Alcon Inc. for up to USD 38.5 billion, or an average price of USD 168 per share. Under the terms of the agreement, Novartis acquired a 25% Alcon stake from Nestlé in 2008 for USD 10.4 billion, or USD 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 USD 28.1 billion which (contains the 17% control premium for the 77% stake over Alcon's share price of USD 143 at the time of the April 2008 announcement), or USD 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 = USD 1.00, this proposal represents an implied price of USD 153 per Alcon share and a 12% premium to Alcon's unaffected publicly traded share price as determined by Novartis of USD 137 per share. Alcon's closing share price was USD 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.

31. PRINCIPAL GROUP SUBSIDIARIES AND ASSOCIATED COMPANIES

As at December 31, 2009	Share/paid-in capital[1]	Equity interest %	Activities
Argentina			
Novartis Argentina S.A., Buenos Aires	ARS 61.3 m	100	◆▲
Sandoz S.A., Buenos Aires	ARS 11.8 m	100	◆▼
Australia			
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	◆▲
Austria			
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	◆
Bangladesh			
Novartis (Bangladesh) Limited, Dhaka	BDT 162.5 m	60	◆▼
Belgium			
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	◆
Bermuda			
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	■◆▼▲
Brazil			
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	◆▼
Canada			
Novartis Pharmaceuticals Canada Inc., Dorval/ Montreal	CAD 0[2]	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	◆▲
Chile			
Novartis Chile S.A., Santiago de Chile	CLP 2.0 bn	100	◆
China			
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	◆
Colombia			
Novartis de Colombia S.A., Santafé de Bogotá	COP 7.9 bn	100	◆▼
Croatia			
Lek Zagreb d.o.o., Zagreb	HRK 25.6 m	100	◆
Czech Republic			
Novartis s.r.o., Prague	CZK 51.5 m	100	◆
Sandoz s.r.o., Prague	CZK 44.7 m	100	◆
Denmark			
Novartis Healthcare A/S, Copenhagen	DKK 14.0 m	100	◆
Sandoz A/S, Copenhagen	DKK 8.0 m	100	◆
Ecuador			
Novartis Ecuador S.A., Quito	USD 4.0 m	100	◆
Egypt			
Novartis Pharma S.A.E., Cairo	EGP 33.8 m	99	▼
Novartis Egypt (Healthcare) S.A.E., Cairo	EGP 250 000	96	◆
Finland			
Novartis Finland Oy, Espoo	EUR 459 000	100	◆

As at December 31, 2009	Share/paid-in capital[1]	Equity interest %	Activities
France			
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	◆
Germany			
Novartis Deutschland GmbH, Wehr	EUR 155.5 m	100	■
Novartis Pharma GmbH, Nuremberg	EUR 25.6 m	100	◆▲
Novartis Pharma Produktions GmbH, Wehr	EUR 2.0 m	100	▼
Novartis Vaccines and Diagnostics GmbH, Marburg	EUR 5.0 m	100	◆▼▲
Jenahexal Pharma GmbH, Jena	EUR 260 000	100	◆▼▲
Sandoz International GmbH, Holzkirchen	EUR 100 000	100	■
Sandoz Pharmaceuticals GmbH, Holzkirchen	EUR 5.1 m	100	◆
Sandoz Industrial Products GmbH, Frankfurt a. M.	EUR 2.6 m	100	◆▼
Hexal AG, Holzkirchen	EUR 93.7 m	100	■◆▼▲
Salutas Pharma GmbH, Barleben	EUR 42.1 m	100	◆▼
1 A Pharma GmbH, Oberhaching	EUR 26 000	100	◆
Novartis Consumer Health GmbH, Munich	EUR 14.6 m	100	◆▼▲
Novartis Tiergesundheit GmbH, Munich	EUR 256 000	100	◆
CIBA Vision Vertriebs GmbH, Grossostheim	EUR 2.6 m	100	◆
CIBA Vision GmbH, Grosswallstadt	EUR 15.4 m	100	◆▼▲
Gibraltar			
Novista Insurance Limited, Gibraltar	CHF 130.0 m	100	■
Great Britain			
Novartis UK Limited, Frimley/Camberley	GBP 25.5 m	100	■
Novartis Pharmaceuticals UK Limited, Frimley/ Camberley	GBP 5.4 m	100	◆▼▲
Novartis Vaccines and Diagnostics Limited, Frimley/Camberley	GBP 100	100	▼
Novartis Grimsby Limited, Frimley/Camberley	GBP 230 m	100	▼
Sandoz Limited, Bordon	GBP 2.0 m	100	◆
Novartis Consumer Health UK Limited, Horsham	GBP 25 000	100	◆▼
Novartis Animal Health UK Limited, Frimley/ Camberley	GBP 100 000	100	◆▲
CIBA Vision (UK) Limited, Southampton	GBP 550 000	100	◆
Greece			
Novartis (Hellas) S.A.C.I., Metamorphosis/Athens	EUR 14.6 m	100	◆
Hungary			
Novartis Hungary Healthcare Limited Liability Company, Budapest	HUF 545.6 m	100	◆
Sandoz Hungary Limited Liability Company, Budapest	HUF 4.0 m	100	◆
India			
Novartis India Limited, Mumbai	INR 159.8 m	76	◆▼
Sandoz Private Limited, Mumbai	INR 32.0 m	100	◆▼
Indonesia			
PT Novartis Indonesia, Jakarta	IDR 7.7 bn	100	◆▼
PT CIBA Vision Batam, Batam	IDR 11.9 bn	100	▼
Ireland			
Novartis Ireland Limited, Dublin	EUR 25 000	100	◆
Novartis Ringaskiddy Limited, Ringaskiddy, County Cork	EUR 2.0 m	100	▼
Chiron Healthcare Ireland Limited, Ringaskiddy, County Cork	EUR 2	100	◆
Italy			
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	◆
Japan			
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	◆
Luxembourg			
Novartis Investments S.à r.l., Luxembourg	USD 2.6 bn	100	■
Novartis Finance S.A., Luxembourg	USD 100 000	100	■

As at December 31, 2009	Share/paid-in capital[1]	Equity interest %	Activities
Malaysia			
Novartis Corporation (Malaysia) Sdn. Bhd., Kuala Lumpur	MYR 3.3 m	100	◆
CIBA Vision Johor Sdn. Bhd., Gelang Patah	MYR 5.0 m	100	▼
Mexico			
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	◆▼
Netherlands			
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	◆▼
New Zealand			
Novartis New Zealand Ltd., Auckland	NZD 820 000	100	◆
Norway			
Novartis Norge AS, Oslo	NOK 1.5 m	100	◆
Pakistan			
Novartis Pharma (Pakistan) Limited, Karachi	PKR 24.8 m	98	◆▼
Panama			
Novartis Pharma (Logistics), Inc., Panama	USD 10 000	100	◆
Philippines			
Novartis Healthcare Philippines, Inc., Makati/Manila	PHP 298.8 m	100	◆
Poland			
Novartis Poland Sp. z o.o., Warsaw	PLN 44.2 m	100	◆
Lek S.A., Strykow	PLN 5.7 m	100	◆▼
Portugal			
Novartis Portugal SGPS Lda., Sintra	EUR 500 000	100	■
Novartis Farma – Produtos Farmacêuticos S.A., Sintra	EUR 2.4 m	100	◆
Novartis Consumer Health – Produtos Farmacêuticos e Nutrição Lda., Lisbon	EUR 100 000	100	◆
Puerto Rico			
Ex-Lax, Inc., Humacao	USD 10 000	100	▼
CIBA Vision Puerto Rico, Inc., Cidra	USD 1 000	100	▼
Romania			
Sandoz S.R.L., Targu-Mures	RON 35.2 m	100	◆▼
Russian Federation			
Novartis Pharma LLC, Moscow	RUR 20.0 m	100	◆
ZAO Sandoz, Moscow	RUR 57.4 m	100	◆
Novartis Consumer Health LLC, Moscow	RUR 60.0 m	100	◆
Singapore			
Novartis Singapore Pharmaceutical Manufacturing Pte Ltd., Singapore	SGD 45.0 m	100	▼
Novartis Asia Pacific Pharmaceuticals Pte Ltd., Singapore	SGD 1.0 m	100	◆
Novartis Institute for Tropical Diseases Pte Ltd., Singapore	SGD 2 004	100	▲
Slovakia			
Novartis Slovakia s.r.o., Bratislava	EUR 2.0 m	100	◆
Slovenia			
Lek Pharmaceuticals d.d., Ljubljana	EUR 73.6 m	100	■◆▼▲
Sandoz Pharmaceuticals d.d., Ljubljana	EUR 1.5 m	100	◆
South Africa			
Novartis South Africa (Pty) Ltd., Kempton Park	ZAR 86.4 m	100	◆
Sandoz South Africa (Pty) Ltd, Kempton Park	ZAR 3.0 m	100	◆▼
South Korea			
Novartis Korea Ltd., Seoul	KRW 24.5 bn	99	◆
Spain			
Novartis Farmacéutica, S.A., Barcelona	EUR 63.0 m	100	■◆▼
Sandoz Farmacéutica, S.A., Barcelona	EUR 270 450	100	◆
Bexal Farmacéutica, S.A., Madrid	EUR 1.0 m	100	◆
Novartis Vaccines and Diagnostics, S.L., Barcelona	EUR 675 450	100	◆
Sandoz Industrial Products, S.A., Les Franqueses del Vallés/Barcelona	EUR 9.3 m	100	◆▼▲
Novartis Consumer Health, S.A., Barcelona	EUR 876 919	100	◆
CIBA Vision, S.A., Barcelona	EUR 1.4 m	100	◆
Sweden			
Novartis Sverige Participations AB, Täby/Stockholm	SEK 1.0 m	100	■
Novartis Sverige AB, Täby/Stockholm	SEK 5.0 m	100	◆
CIBA Vision Nordic AB, Askim/Göteborg	SEK 2.5 m	100	◆

As at December 31, 2009	Share/paid-in capital[1]	Equity interest %	Activities
Switzerland			
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[3]	■◆▼▲
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	■◆
Taiwan			
Novartis (Taiwan) Co., Ltd., Taipei	TWD 170.0 m	100	◆▼
Thailand			
Novartis (Thailand) Limited, Bangkok	THB 230.0 m	100	◆
Turkey			
Novartis Saglik, Gida ve Tarim Ürünleri Sanayi ve Ticaret A.S., Istanbul	TRY 98.0 m	100	◆▼
Sandoz Ilaç Sanayi ve Ticaret A.S., Kadiköy-Istanbul	TRY 31.7 m	100	◆▼
USA			
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[2]	100	◆▼▲
Novartis Animal Health US, Inc., Greensboro, NC	USD 100	100	◆▼▲
CIBA Vision Corporation, Duluth, GA	USD 301.3 m	100	■◆▼▲
Venezuela			
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

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.

32. RISK ASSESSMENT DISCLOSURES REQUIRED BY SWISS LAW

The Risk Committee of the Board ensures the Group has implemented an appropriate and effective risk management system and process. It reviews with management and internal audit 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. The Risk Committee informs the Board of Directors on a periodic basis.

The Corporate Risk Management function coordinates and aligns the risk management processes, and reports to the Risk Committee on a regular basis on risk assessment and risk management. Organizational and process measures have been designed to identify and mitigate risks at an early stage. Organizationally, the responsibility for risk assessment and management is allocated to the Divisions, with specialized Corporate Functions such as Financial Reporting & Accounting, Treasury, Group Quality Operations, Corporate Health, Safety and Environment, and Business Continuity providing support and controlling the effectiveness of the risk management by the Divisions.

Financial risk management is described in more detail in Note 16 to the Group's consolidated financial statements.

REPORT OF NOVARTIS MANAGEMENT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

The 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 its assessment, management has concluded that, as of December 31, 2009, the Novartis Group's internal control over financial reporting was effective based on those criteria.

PricewaterhouseCoopers AG, Switzerland, 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 in this financial report on the following pages 246 and 247.

Daniel Vasella, M. D.
Chairman & Chief Executive Officer

Raymund Breu, Ph. D.
Chief Financial Officer

Basel, January 25, 2010

REPORT OF THE STATUTORY AUDITOR ON THE CONSOLIDATED FINANCIAL STATEMENTS OF NOVARTIS AG AND INTERNAL CONTROL OVER FINANCIAL REPORTING

TO THE GENERAL MEETING OF NOVARTIS AG, BASEL

REPORT OF THE STATUTORY AUDITOR ON THE CONSOLIDATED FINANCIAL STATEMENTS OF NOVARTIS AG

As statutory auditor, we have audited the consolidated financial statements of Novartis AG, which comprise the consolidated income statements, consolidated statements of comprehensive income, consolidated statements of changes in equity, consolidated balance sheets, consolidated cash flow statements and notes (pages 182 to 244) for the year ended December 31, 2009.

Board of Directors' Responsibility

The Board of Directors is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with International Financial Reporting Standards (IFRS) and the requirements of Swiss law. This responsibility includes designing, implementing and maintaining an internal control system relevant to the preparation and fair presentation of consolidated financial statements that are free from material misstatement, whether due to fraud or error. The Board of Directors is further responsible for selecting and applying appropriate accounting policies and making accounting estimates that are reasonable in the circumstances.

Auditor's Responsibility

Our responsibility is to express an opinion on these consolidated financial statements based on our audit. We conducted our audit in accordance with Swiss law, 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 whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers the internal control system relevant to the entity's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances. An audit also includes evaluating the appropriateness of the accounting policies used and the reasonableness of accounting estimates made, as well as evaluating the overall presentation of the consolidated financial statements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the consolidated financial statements for the year ended December 31, 2009 present fairly, in all material respects, the financial position, the results of operations and the cash flows in accordance with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board and comply with Swiss law.

REPORT ON OTHER LEGAL REQUIREMENTS

We confirm that we meet the legal requirements on licensing according to the Auditor Oversight Act (AOA) and independence (article 728 CO and article 11 AOA) and that there are no circumstances incompatible with our independence.

In accordance with article 728a paragraph 1 item 3 CO and Swiss Auditing Standard 890, we confirm that an internal control system exists which has been designed for the preparation of the consolidated financial statements according to the instructions of the Board of Directors.

We recommend that the consolidated financial statements submitted to you be approved.

REPORT ON THE EFFECTIVENESS OF INTERNAL CONTROL OVER FINANCIAL REPORTING

We have also audited the effectiveness of Novartis Group 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 Novartis 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* in this financial report on page 245. Our responsibility is to express an opinion on the effectiveness of Novartis Group's internal control over financial reporting based on our integrated audit.

We conducted our audit of internal control over financial reporting 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 and 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 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, 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

Michael P. Nelligan
Global Engagement Partner

Peter M. Kartscher
Audit expert
Auditor in charge

Basel, January 25, 2010

INCOME STATEMENTS

(For the years ended December 31, 2009 and 2008)

	2009 CHF millions	2008 CHF millions
Income		
Income from financial assets	12 720	13 718
Income from cash and short-term deposits		12
Gain from disposal of intangible assets	111	270
License fees	1 141	946
Other income	4	6
Total income	**13 976**	**14 952**
Expenses		
Financial expense	– 318	– 444
Administrative expense	– 20	– 23
Amortization of intangible assets	– 17	– 10
Other expense	– 6	– 4
Taxes	– 135	– 189
Total expenses	**– 496**	**– 670**
Net income	**13 480**	**14 282**

PROPOSAL FOR THE APPROPRIATION OF AVAILABLE EARNINGS

	2009 CHF	2008 CHF
Available unappropriated earnings		
Balance brought forward	–	–
Net income of the year	13 480 188 062	14 282 215 571
Total available earnings	13 480 188 062	**14 282 215 571**
Appropriation		
Payment of a dividend of CHF 2.10 (2008: CHF 2.00) gross on 2 469 932 082 (2008: 2 453 105 015) dividend bearing shares with a nominal value of CHF 0.50 each	– 5 186 857 372	– 4 906 210 030
Transfer to free reserves	– 8 293 330 690	– 9 376 005 541
Balance to be carried forward	**–**	**–**

BALANCE SHEETS (PRIOR TO PROFIT APPROPRIATION)
(At December 31, 2009 and 2008)

	Note	2009 CHF millions	2008 CHF millions
Assets			
Non-current assets			
Intangible assets		191	208
Financial assets	3		
– subsidiaries		24 729	25 066
– others		24	
Total non-current assets		**24 944**	**25 274**
Current assets			
Receivables			
– subsidiaries		26 674	18 103
– others		74	48
Marketable securities	4	68	353
Total current assets		**26 816**	**18 504**
Total assets		**51 760**	**43 778**
Equity and liabilities			
Equity			
Total share capital	5	**1 319**	**1 322**
Reserves			
Legal reserves	6		
– General reserve		320	320
– Reserve for treasury shares		3 872	5 062
Free reserves	7	31 274	21 001
Total reserves		**35 466**	**26 383**
Unappropriated earnings			
Net income of the year		13 480	14 282
Total unappropriated earnings		**13 480**	**14 282**
Total equity		**50 265**	**41 987**
Liabilities			
Bonds	8	790	789
Provisions		542	552
Accounts payable and accrued liabilities			
– subsidiaries		5	242
– others		158	208
Total liabilities		**1 495**	**1 791**
Total equity and liabilities		**51 760**	**43 778**

The notes form an integral part of these unconsolidated financial statements.

1. INTRODUCTION

The financial statements of Novartis AG comply with the requirements of the Swiss law for companies, the Code of Obligations (SCO).

2. ACCOUNTING POLICIES

EXCHANGE RATE DIFFERENCES

Current assets and current liabilities denominated in foreign currencies are converted at year end exchange rates. Realized exchange gains and losses as well as all unrealized exchange losses arising from these as well as those from business transactions are recorded in the income statement.

INTANGIBLE ASSETS

These are capitalized and amortized over a period of between five and twenty years. Intangible assets are reviewed for impairment on a yearly basis. If necessary an impairment loss is recognized.

FINANCIAL ASSETS

These are valued at acquisition cost less adjustments for foreign currency losses and other impairment of value.

MARKETABLE SECURITIES

These are valued at the lower of cost and market value.

BONDS

These are valued on an amortized cost basis such that additional interest is accrued over the duration of the bonds so that at maturity the balance sheet amount will equal the amount that is due to be paid.

PROVISIONS

Provisions are made to cover general business risks of the Group.

3. FINANCIAL ASSETS

Included in financial assets are CHF 21 345 million (2008: CHF 21 259 million) of investments in subsidiaries and associated companies, CHF 3 384 million (2008: CHF 3 807 million) of loans to subsidiaries and CHF 24 million of long-term receivables from third parties.

The principal direct and indirect subsidiaries and other holdings of Novartis AG are shown in note 31 to the Group's consolidated financial statements.

4. MARKETABLE SECURITIES

Included in marketable securities are treasury shares with a net book value of CHF 54 million (2008: CHF 350 million) (see notes 5 and 6 below).

5. SHARE CAPITAL

	Number of shares				
	Dec 31, 2007	Movement in year	Dec 31, 2008	Movement in year	Dec 31, 2009
Total Novartis AG shares	**2 728 971 000**	**– 85 348 000**	**2 643 623 000**	**– 6 000 000**	**2 637 623 000**
Treasury shares					
Treasury shares held by Novartis AG	193 336 000	– 79 348 000	113 988 000	– 6 000 000	107 988 000
Treasury shares held by subsidiaries	98 179 138	– 14 588 395	83 590 743	– 16 216 584	67 374 159
Total treasury shares	**291 515 138**	**– 93 936 395**	**197 578 743**	**– 22 216 584**	**175 362 159**

The Novartis AG share capital consists of registered shares with a nominal value of CHF 0.50 each.

The total share capital decreased from CHF 1 321.8 million at December 31, 2008 to CHF 1 318.8 million at December 31, 2009 due to a share capital reduction as a result of the cancellation of 6 million shares with a nominal value of CHF 3 million that were previously repurchased. The cancellation was approved at the Annual General Meeting of February 24, 2009 and became effective on May 18, 2009.

Treasury share purchases totaled nil (2008: 48.4 million with an average purchase price per share of CHF 53), treasury share sales totaled 13.0 million (2008: 54.2 million) with an average sale price of CHF 49 (2008: CHF 53) and net share-based compensation transactions totaled 3.2 million shares (2008: 2.8 million shares) respectively.

The number of treasury shares held by the Company and subsidiaries meet the definitions and requirements of Art. 659b SCO. Out of the 175 362 159 treasury shares held at December 31, 2009, 167 690 918 are non-dividend bearing with the balance held for share-based compensation and being dividend bearing. It should be noted that the Novartis Group's consolidated financial statements comply with IFRS SIC Interpretation No. 12. This requires consolidation of entities which do not qualify as subsidiaries in the sense of Article 659b SCO.

6. LEGAL RESERVES

GENERAL RESERVE

	2009 CHF millions	2008 CHF millions
January 1 and December 31	**320**	**320**

RESERVE FOR TREASURY SHARES HELD BY THE GROUP

	2009 CHF millions	2008 CHF millions
January 1	**5 062**	**11 669**
Reduction due to cancellation of treasury shares (CHF 296 million of repurchased shares less their nominal value of CHF 3 million, 2008: CHF 5 531 million and CHF 43 million, respectively)	– 293	– 5 488
Transfer to free reserves	– 897	– 1 119
December 31	**3 872**	**5 062**

The general reserve must be at least 20% of the share capital of Novartis AG in order to comply with the SCO.

Novartis AG has met the legal requirements for legal reserves under Articles 659 et. seq. and 663b.10 SCO for the treasury shares detailed in note 5.

7. FREE RESERVES

	2009 CHF millions	2008 CHF millions
January 1	**21 001**	**14 232**
Transfer from unappropriated earnings	9 376	5 418
Reversal of write-down on own shares after cancellation of treasury shares		232
Transfer from reserve for treasury shares	897	1 119
December 31	**31 274**	**21 001**

8. CHF 800 MILLION BONDS 3.625% 2008/2015

On June 26, 2008 Novartis AG issued CHF 800 million of bonds bearing interest at 3.625% per annum and due on June 26, 2015. The bonds were issued at 100.35% and proceeds received after deducting related costs amounted to CHF 787.9 million. The bonds are valued on an amortized cost basis.

9. CONTINGENT LIABILITIES

	Outstanding liabilities Dec 31, 2009 CHF millions	Outstanding liabilities Dec 31, 2008 CHF millions
Guarantees in favor of group companies to cover capital and interest of bonds and commercial paper program – total maximum amount CHF 17 573 million (2008: CHF 7 767 million)	10 013	2 029
Guarantees in favor of group companies, associated companies and others – total maximum amount CHF 2 581 million (2008: CHF 2 384 million)	1 026	1 683
Total	**11 039**	**3 712**

10. REGISTRATION, VOTING RESTRICTIONS AND MAJOR SHAREHOLDERS

The Company's Articles of Incorporation state that no person or entity shall be registered with the right to vote for more than 2% of the share capital as set forth in the Commercial Register. In particular cases the Board of Directors may allow exemptions from the limitation for registration in the share register.

According to the share register, shareholders owning 2% or more of the Company's capital at December 31, excluding Novartis AG together with Novartis subsidiaries holding treasury shares, are as follows:

	% holding of share capital December 31, 2009	% holding of share capital December 31, 2008
Novartis Foundation for Employee Participation, Basel, Switzerland	4.6	4.2
Emasan AG, Basel, Switzerland	3.3	3.3

In addition:
Shareholders registered as nominees:
– JPMorgan Chase Bank, New York, US, holds 10.2% (2008: 8.9%), Mellon Bank, Everett, Massachusetts, US, holds 2.9% (2008: 2.6%) and Nortrust Nominees, London, GB, holds 2.5% (2008: 2.3%)

Shareholder acting as American Depositary Share (ADS) depositary:
– JPMorgan Chase Bank, New York, US, holding 10.5% (2008: 11.8%)

Notifications received from shareholders:
– On June 6, 2009, Capital Group Companies, Inc., Los Angeles, US, notified Novartis AG that it held 3.26% on behalf of various companies, clients and funds
– On December 17, 2009, BlackRock, Inc., New York, US, notified Novartis AG that it held 3.34% on behalf of various companies

11. BOARD AND EXECUTIVE COMPENSATION DISCLOSURES

Novartis AG's financial statements have been prepared in accordance with the requirements of the Swiss law for companies, the Swiss Code of Obligations (SCO). This note therefore differs in certain significant respects from compensation disclosures in note 27 to the Group's consolidated financial statements, which have been prepared in accordance with International Financial Reporting Standards (IFRS), mainly due to different valuation and expense recognition rules being applied.

11.1) NON-EXECUTIVE DIRECTOR COMPENSATION

GENERAL PRINCIPLES

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. They do not receive additional fees for attending meetings. The fee rates for Non-Executive Directors are the following:

NON-EXECUTIVE DIRECTORS ANNUAL FEE RATES

	Annual fee (CHF)
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 [1]	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.

COMPENSATION IN 2009 AND 2008

The following compensation tables disclose the compensation granted to Non-Executive Directors in 2009 with comparatives to 2008.

NON-EXECUTIVE DIRECTORS COMPENSATION IN 2009[1]

	Board directorship	Lead Director	Vice Chairman	Chairman's Committee	Audit and Compliance Committee	Risk Committee[2]	Compen-sation Committee	Corporate Governance and Nomination Committee	Delegated board directorship	Annual cash compensation (CHF)	Shares (number)	Total (CHF)[3]
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[4]	•									367 722	0	367 722
Pierre Landolt[5]	•							•		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[6]	•							•	•	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 under – Compensation 2009 – Compensation for Performance in 2009 – Valuation Principles.
[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).

NON-EXECUTIVE DIRECTORS COMPENSATION IN 2008[1]

	Board directorship	Lead Director	Vice Chairman	Chairman's Committee	Audit and Compliance Committee	Compen-sation Committee	Corporate Governance and Nomination Committee	Delegated board directorship	Annual cash compensation (CHF)	Shares (number)	Total (CHF)[2]
Ulrich Lehner	•	•	•	•	•	•	Chair		1 050 000	0	1 050 000
Hans-Joerg Rudloff	•		•	•	•	Chair			736 337	0	736 337
Peter Burckhardt	•				•				319 517	2 342	403 278
Srikant Datar	•				Chair	•			356 875	1 845	475 047
Ann Fudge	•						•		243 750	2 050	375 053
William W. George[3]	•			•		•	•		375 000	3 513	600 008
Alexandre F. Jetzer-Chung[4]	•								14 738	5 465	308 633
Pierre Landolt[5]	•						•		128 604	4 591	422 658
Andreas von Planta	•				•		•		426 578	1 562	501 338
Wendelin Wiedeking	•								112 694	4 017	369 983
Marjorie M.T. Yang	•					•			422 601	0	422 601
Rolf M. Zinkernagel[6]	•						•	•	685 898	0	685 898
Total									**4 872 592**	**25 385**	**6 350 834**

[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 at January 11, 2008, against the prevailing share price of CHF 64.05.
[2] A Non-Executive Director who is tax resident in Switzerland can voluntarily choose to block the shares. In 2008, Peter Burckhardt blocked his shares for ten years, Alexandre F. Jetzer-Chung for three years and Andreas von Planta for five years. The value of the shares reflected in this table have been calculated using the valuation methodology described under Compensation Report – Compensation 2009 – Compensation for Performance in 2009 – Valuation Principles.
[3] William W. George resigned from the Compensation Committee (Member) and the Corporate Governance and Nomination Committee (Chair) as of December 1, 2008.
[4] In addition, Alexandre F. Jetzer-Chung was paid CHF 350 004 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).

11.2) EXECUTIVE COMMITTEE COMPENSATION

GENERAL PRINCIPLES

The compensation policies, performance management process and incentive plans (see Compensation Report – Compensation Principles, Compensation Elements and Compensation 2009) apply equally to the members of the Executive Committee, including the Chairman and Chief Executive Officer.

Decisions concerning the compensation of the members of the Executive Committee are based on an evaluation of the individual performance of the member as well as on the performance of their respective business area or function. The Compensation Committee measures the performance of the Executive Committee member relative to predetermined objectives for short-term and long-term criteria, including net sales, operating income, free cash flow over sales, Economic Value Added, market share, innovation and ongoing efforts to optimize organizational effectiveness and productivity.

COMPENSATION FOR PERFORMANCE IN 2009 AND 2008

The following compensation tables disclose the compensation granted to the members of the Executive Committee, including the Chairman and Chief Executive Officer, for performance in 2009 with comparatives to 2008. The following paragraphs describe the principles underlying the data in the tables.

ALIGNMENT OF REPORTING AND PERFORMANCE

The compensation tables synchronize the reporting of annual compensation with the performance in the given year, i.e., all amounts awarded for performance in 2009 and 2008, including the future LSSP/ESOP match, are disclosed in full in the tables of 2009 and 2008.

DISCLOSURE STRUCTURE

The compensation tables show the compensation granted to each member of the Executive Committee for performance in 2009 and 2008.

The column "Future LSSP/ESOP match" reflects shares to be awarded in the future if the Executive Committee member remains with Novartis for at least five or three years. The members of the Executive Committee were invited to invest their annual incentive awards for 2009 and 2008 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 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[1] period. In addition, associates in Switzerland, including the members of the Executive Committee, may block[2] 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 years 2009 and 2008 are explained in footnote 9 to the following Executive Committee Compensation tables and applies to all members of the Executive Committee.

See note 27 to the Group's consolidated financial statements for information on executive officer and Director compensation as reported 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.

EXECUTIVE COMMITTEE COMPENSATION FOR PERFORMANCE IN 2009[1]

		Base compensation	Variable compensation						Benefits		Total		Total
			Short-term incentive plans		Long-term incentive plans								
					Equity Plan "Select"		Long-Term Performance Plan	Special share awards	Pension benefits	Other benefits		Future LSSP/ESOP match[10]	Including future LSSP/ESOP match[11,12]
	Currency	Cash (Amount)	Cash (Amount)	Shares (Number)[2]	Shares (Number)[3]	Options (Number)[4]	Shares (Number)[5]	Shares (Number)[6]	(Amount)[7]	(Amount)[8]	(Amount)[9]	Shares (Number)	(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	CHF	1 125 504	0	18 210	0	736 957	13 963	11 639	106 109	0	3 275 938	506	3 289 187
Juergen Brokatzky-Geiger	CHF	663 924	0	11 997	28 792	0	8 279	0	163 128	30 006	3 251 278	11 997	3 751 966
Mark C. Fishman	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
Joe Jimenez	CHF	991 674	1 200 000	0	82 364	0	12 356	0	235 764	83 385	7 294 932	0	7 294 932
Joerg Reinhardt	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
Andreas Rummelt	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 Wellauer	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[13]	**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**

[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.

EXECUTIVE COMMITTEE COMPENSATION FOR PERFORMANCE IN 2008[1]

		Base compensation	Variable compensation						Benefits		Total		Total
			Short-term incentive plans		Long-term incentive plans								
					Equity Plan "Select"		Long-Term Performance Plan	Special share awards	Pension benefits	Other benefits		Future LSSP/ESOP match[10]	Including future LSSP/ESOP match[11,12]
	Currency	Cash (Amount)	Cash (Amount)	Shares (Number)[2]	Shares (Number)[3]	Options (Number)[4]	Shares (Number)[5]	Shares (Number)[6]	(Amount)[7]	(Amount)[8]	(Amount)[9]	Shares (Number)	(Amount)
Daniel Vasella (Chairman and Chief Executive Officer)	CHF	3 000 000	0	115 768	167 754	1 132 076	79 945	31 226	140 293	175 485	17 075 898	115 768	20 544 032
Raymund Breu	CHF	1 103 004	0	21 589	0	582 717	14 699	0	110 689	0	3 204 007	21 589	3 687 310
Juergen Brokatzky-Geiger	CHF	633 504	0	11 220	11 219	75 705	8 442	0	162 919	42 022	2 394 207	11 220	2 844 022
Thomas Ebeling[13] (until December 1, 2008)	CHF	1 035 837	634 554	0	59 138	0	14 785	0	127 976	502 708	6 267 044	0	6 267 044
Mark C. Fishman	USD	938 333	11 586	16 963	86 063	0	16 327	0	169 920	104 366	5 924 833	16 963	6 513 242
Joe Jimenez	CHF	941 670	1 197 000	0	0	552 076	12 662	0	227 009	202 152	3 993 916	0	3 993 916
Joerg Reinhardt	CHF	943 337	0	20 045	33 409	225 453	12 261	0	153 563	8 687	4 089 586	20 045	4 764 312
Andreas Rummelt	CHF	918 338	0	4 631	15 436	0	12 261	0	160 430	31 441	2 585 218	4 631	2 723 952
Thomas Wellauer	CHF	636 674	0	8 947	21 473	0	8 530	0	147 663	9 632	2 355 494	8 947	2 714 184
Thomas Werlen[14] (as of October 16, 2008)	CHF	135 417	0	2 263	0	36 648	942	0	33 221	4 519	371 229	2 263	421 897
Total[15]	**CHF**	**10 364 480**	**1 844 108**	**201 426**	**394 492**	**2 604 675**	**180 854**	**31 226**	**1 447 874**	**1 089 728**	**48 756 250**	**201 426**	**55 017 871**

[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 incentives in the five-year Leveraged Share Savings Plan (LSSP) rather than to receive cash or to invest in the Swiss three-year Employee Share Ownership Plan (ESOP; if eligible). Daniel Vasella and Raymund Breu have voluntarily extended the five-year blocking period of these shares to ten years.

[3] Daniel Vasella has 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. Share options granted under the Novartis Equity Plan "Select" outside North America will expire on January 18, 2019, have a two-year vesting period in Switzerland (three years in other countries) and have an exercise price of CHF 53.65 per share (the closing price of Novartis shares on the grant date of January 20, 2009). Options on ADRs granted to participants in North America will expire on January 18, 2019, have a three-year vesting period and an exercise price of USD 46.42 per ADR (the closing price of Novartis ADRs on the grant date of January 20, 2009).

[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, 2008. Daniel Vasella and Raymund Breu have voluntarily blocked these shares for ten years, Joerg Reinhardt and Thomas Wellauer for five years, and Joe Jimenez and Andreas Rummelt for three years.

[6] Consists of an unrestricted share award to Daniel Vasella, granted at January 11, 2008, against the prevailing share price of CHF 64.05. Daniel Vasella has voluntarily blocked these shares for ten years.

[7] Service costs of pension and post-retirement healthcare benefits accumulated in 2008, and employer contributions to defined contribution pension plans in 2008.

[8] Includes perquisites and other compensation paid during the year; does not include cost allowances and tax-equalization payments regarding the international assignment of Joerg Reinhardt.

[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 20, 2009) was CHF 53.65 per Novartis share and USD 46.42 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 1.55 per option at grant.

[10] Reflects shares to be awarded in the future if the associate remains with the Group. The members of the Executive Committee were invited to invest their incentive awards for 2008 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 interest with those of the 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 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 will be awarded. Raymund Breu and Thomas Werlen have voluntarily blocked these matching share units for 15 years (including the five-year vesting period). Daniel Vasella and Andreas Rummelt have voluntarily blocked these matching share units for ten years (including the five-year vesting period). Joerg Reinhardt has voluntarily blocked these matching share units for eight years (including the five-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 a member of the Executive Committee 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 20, 2009) was CHF 53.65 per Novartis share and USD 46.42 per ADR.

[12] All amounts are gross amounts (i.e. before deduction of social security and personal income tax due by the associate). The employer's share of social security contributions is not included.

[13] Thomas Ebeling decided to leave Novartis by the end of February 2009. The base compensation, variable compensation and pension benefits in the table relate to the period during which he was a member of the Executive Committee. His share awards under the Equity Plan "Select" and the Long-Term Performance Plan were replaced by equivalent cash payments at the discretion of the Compensation Committee. The other compensation ("Other") includes the contractual salary payments from December 1, 2008, to the end of February 2009 and the pension benefit costs over this period.

[14] The base compensation reflects the salary over the period from October 16, 2008, to the end of the year 2008. The granted equity and other compensation reflect the compensation that is attributable to the period as an Executive Committee member. This means that for these compensation components 2.5/12 of the annual compensation is disclosed.

[15] Amounts in USD for Mark C. Fishman were converted at a rate of CHF 1.00 = USD 0.925, which is the same average exchange rate used in the Group's consolidated financial statements.

11.3) 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"[1] to them as of January 19, 2010, and January 20, 2009, is shown in the following tables.

As of January 19, 2010, and January 20, 2009, none of the Non-Executive Directors together with "persons closely linked"[1] to them owned 1% or more of the outstanding shares of Novartis, either directly or through share options.

[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.

SHARES OWNED BY NON-EXECUTIVE DIRECTORS

	Number of shares[1]	
	At January 19, 2010	At January 20, 2009
Ulrich Lehner	22 193	22 193
Hans-Joerg Rudloff	40 080	61 917
William Brody	2 447	NA
Peter Burckhardt	NA	19 754
Srikant Datar	15 545	13 797
Ann Fudge	3 322	2 203
William W. George	NA	128 555
Alexandre F. Jetzer-Chung	80 800	80 800
Pierre Landolt[2]	29 791	24 304
Andreas von Planta	107 664	105 800
Wendelin Wiedeking	27 930	23 135
Marjorie M.T. Yang	18 000	18 000
Rolf M. Zinkernagel	22 800	22 800
Total	**370 572**	**523 258**

NA – Not applicable.
[1] Includes holdings of "persons closely linked" to Non-Executive Directors (see definition under 11.3).
[2] According to Pierre Landolt, 29 580 shares (January 19, 2010) and 24 093 shares (January 20, 2009) respectively are held by the Sandoz Family Foundation.

SHARE OPTIONS OWNED BY NON-EXECUTIVE DIRECTORS

	Number of share options[1]			
	Granted by Novartis in 2002 or earlier[1]	Share options acquired in the market[2]	Total January 19, 2010	Total January 20, 2009
Ulrich Lehner	0	0	0	0
Hans-Joerg Rudloff	24 570	0	24 570	24 570
William Brody	0	0	0	NA
Peter Burckhardt	NA	NA	NA	0
Srikant Datar	10 000	0	10 000	10 000
Ann Fudge	0	0	0	0
William W. George	NA	NA	NA	44 835
Alexandre F. Jetzer-Chung	17 454	0	17 454	32 214
Pierre Landolt[3]	13 111	0	13 111	24 191
Andreas von Planta	0	0	0	0
Wendelin Wiedeking	0	0	0	0
Marjorie M.T. Yang	0	0	0	0
Rolf M. Zinkernagel	23 597	0	23 597	23 597
Total	**88 732**	**0**	**88 732**	**159 407**

NA – Not applicable.
[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 under 11.3).
[3] According to Pierre Landolt, the Sandoz Family Foundation is the economic beneficiary of all share options.

11.4) SHARES AND SHARE OPTIONS OWNED BY MEMBERS OF THE EXECUTIVE COMMITTEE

SHARES AND SHARE OPTIONS OWNED

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, and January 20, 2009.

As of January 19, 2010, and January 20, 2009, no member of the Executive Committee together with "persons closely linked" to them (see definition under 11.3) owned 1% or more of the outstanding shares of Novartis, either directly or through share options.

SHARES OWNED BY MEMBERS OF THE EXECUTIVE COMMITTEE

	Number of shares[1]	
	At January 19, 2010	**At January 20, 2009**
Daniel Vasella	2 924 114	2 504 724
Raymund Breu	509 501	445 845
Juergen Brokatzky-Geiger	141 296	110 369
Mark C. Fishman	350 752	286 167
Joe Jimenez	120 546	25 826
Joerg Reinhardt	522 751	389 541
Andreas Rummelt	246 962	232 210
Thomas Wellauer	112 076	72 202
Thomas Werlen	73 227	38 388
Total	**5 001 225**	**4 105 272**

[1] Includes holdings of "persons closely linked" to members of the Executive Committee (see definition under 11.3).

SHARE OPTIONS OWNED BY MEMBERS OF THE EXECUTIVE COMMITTEE

	Number of share options[1]							
	2010	**2009**	**2008**	**2007**	**2006**	**Other**	**Total outstanding at Jan 19, 2010**	**Total outstanding at Jan 20, 2009**
Daniel Vasella	1 630 435	1 132 076	1 290 631	802 855	0	887 790	5 743 787	4 113 352
Raymund Breu	736 957	582 717	421 798	479 929	416 667	820 937	3 459 005	2 722 048
Juergen Brokatzky-Geiger	0	75 705	109 016	55 130	47 620	43 686	331 157	331 157
Mark C. Fishman	0	0	184 870	142 724	124 876	519 339	971 809	971 809
Joe Jimenez	0	552 076	157 266	0	0	0	709 342	709 342
Joerg Reinhardt	0	225 453	0	158 787	0	154 620	538 860	872 860
Andreas Rummelt	0	0	0	0	0	0	0	0
Thomas Wellauer	0	0	106 693	0	0	0	106 693	106 693
Thomas Werlen	171 196	175 912	0	0	0	141 215	488 323	317 127
Total	**2 538 588**	**2 743 939**	**2 270 274**	**1 639 425**	**589 163**	**2 567 587**	**12 348 976**	**10 144 388**

[1] Share options disclosed for a specific year were granted 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 under 11.3) on the market.

TERMS OF SHARE OPTIONS GRANTED

The share options granted to the members of the Executive Committee under the variable compensation plans are exercisable for one share each (1:1). The terms of the share options granted since 2006 are shown in the table below.

TERMS OF SHARE OPTIONS

Grant year	Exercise price (CHF/USD)	Vesting (years) (CH/other countries)	Term (years)
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

11.5) 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 and 2008. No such loans were outstanding as of December 31, 2009, and December 31, 2008.

OTHER PAYMENTS TO NON-EXECUTIVE DIRECTORS OR MEMBERS OF THE EXECUTIVE COMMITTEE

During 2009 and 2008, no payments (or waivers of claims) other than those set out in the Non-Executive Directors Compensation and the Executive Committee Compensation tables were made to current Non-Executive Directors or members of the Executive Committee or to "persons closely linked" to them (see definition under 11.3).

PAYMENTS TO FORMER NON-EXECUTIVE DIRECTORS OR MEMBERS OF THE EXECUTIVE COMMITTEE

During 2009 and 2008, 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 under 11.3), except for an amount of CHF 62 298 (2008: CHF 62 298) that was paid to the Honorary Chairman.

12. RISK ASSESSMENT DISCLOSURES

Novartis AG, as the ultimate parent company of the Novartis Group, is fully integrated into the Group-wide internal risk assessment process and is fully integrated into the process described in note 32 to the Group's consolidated financial statements.

REPORT OF THE STATUTORY AUDITOR ON THE FINANCIAL STATEMENTS OF NOVARTIS AG

TO THE GENERAL MEETING OF NOVARTIS AG, BASEL

REPORT OF THE STATUTORY AUDITOR ON THE FINANCIAL STATEMENTS OF NOVARTIS AG

As statutory auditor, we have audited the financial statements of Novartis AG, which comprise the income statement, balance sheet and notes (pages 248 to 260), for the year ended December 31, 2009.

Board of Directors' Responsibility

The Board of Directors is responsible for the preparation of the financial statements in accordance with the requirements of Swiss law and the Company's articles of incorporation. This responsibility includes designing, implementing and maintaining an internal control system relevant to the preparation of financial statements that are free from material misstatement, whether due to fraud or error. The Board of Directors is further responsible for selecting and applying appropriate accounting policies and making accounting estimates that are reasonable in the circumstances.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with Swiss law and Swiss Auditing Standards. Those standards require that we plan and perform the audit to obtain reasonable assurance whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers the internal control system relevant to the entity's preparation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control system. An audit also includes evaluating the appropriateness of the accounting policies used and the reasonableness of accounting estimates made, as well as evaluating the overall presentation of the financial statements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements for the year ended December 31, 2009 comply with Swiss law and the Company's articles of incorporation.

REPORT ON OTHER LEGAL REQUIREMENTS

We confirm that we meet the legal requirements on licensing according to the Auditor Oversight Act (AOA) and independence (article 728 CO and article 11 AOA) and that there are no circumstances incompatible with our independence.

In accordance with article 728a paragraph 1 item 3 CO and Swiss Auditing Standard 890, we confirm that an internal control system exists which has been designed for the preparation of financial statements according to the instructions of the Board of Directors.

We further confirm that the proposed appropriation of available earnings complies with Swiss law and the Company's articles of incorporation. We recommend that the financial statements submitted to you be approved.

PricewaterhouseCoopers AG

Peter M. Kartscher
Audit expert
Auditor in charge

Gerd Tritschler
Audit expert

Basel, January 25, 2010

ANNUAL REPORT PHOTOGRAPHY

FRONT COVER
Fortis Hospital;
Jaipur, India

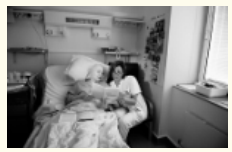
INSIDE FRONT COVER
Helsinki University Central Hospital, Children's Hospital;
Helsinki, Finland

2
Clicks Pharmacy,
Greenstone Mall;
Johannesburg, South Africa

6
GRAACC;
Sao Paulo, Brazil

13
Hospital for war veterans;
Yaroslavl, Russia

14
Fortis Hospital;
New Delhi, India



22
Helsinki University Central Hospital;
Helsinki, Finland

28
Novartis Vaccines and Diagnostics;
Emeryville, California, United States

34
Novartis Pharmaceuticals;
Basel, Switzerland

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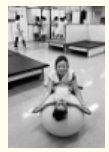
Patient's home;
San Diego, California, United States

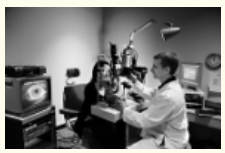
45
Ling Kwang Home for Senior Citizens;
Singapore

47
AACD;
Sao Paulo, Brazil

48
Shimizu Pharmaceuticals;
Tokyo, Japan



53
GRAACC;
Sao Paulo, Brazil



54
CIBA Vision;
Duluth, Georgia, United States

59
The Avenues Vet Clinic;
Edenvale, Johannesburg, South Africa

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Dr. C.O.M. Setsubi and Assoc Inc.;
Guguletu, Cape Town, South Africa

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Adam Sah Hospital;
Jaipur, India

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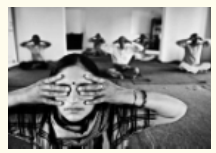
Casablanca Hospital;
Casablanca, Morocco



69
Yoga class;
Jaipur, India

75
Leprosy patient;
Jaipur, India

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Novartis Campus,
Associates in front of Dan Graham's "Curve and Straight Line";
Basel, Switzerland

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Rajasthan Go Seva Sangh;
Durgapura, Jaipur, India

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Practice of accupressure;
Jaipur, India

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Novartis Pharmaceuticals;
Basel, Switzerland

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Soloviev Emergency Hospital;
Yaroslavl, Russia

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Mfuleni Clinic;
Mfuleni, Cape Town, South Africa

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Novartis Campus,
Associates walking through Richard Serra's "Dirk's Pod";
Basel, Switzerland

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Sandoz;
Mumbai, India

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Yokohama OHBA Day Care Center;
Yokohama City, Japan

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Bhagwan Mahaveer Cancer Hospital;
Jaipur, India

INSIDE BACK COVER
Central district hospital;
Rostov, Russia

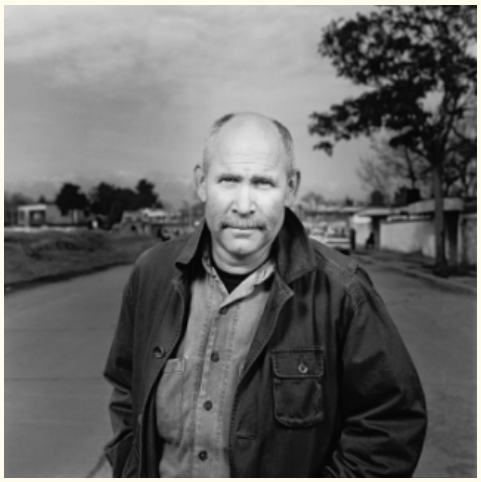
BACK COVER
AACD;
Sao Paulo, Brazil

We thank everyone who contributed to this Novartis Annual Report by sharing personal experiences and knowledge with us.

We are particularly grateful to Steve McCurry for the photographs in this Novartis Annual Report, which capture his unique perspectives of healthcare around the world.

Each year, Novartis commissions a photographer to provide her or his individual perspectives on healthcare in the Group's Annual Report. The photos mirror the diversity of patients, healthcare professionals and caregivers around the world. With the exception of Novartis associates, or other persons specifically identified in the photo captions, the people in these Annual Report photos have no actual or implied connection with Novartis or with the Group's products.

STEVE McCURRY



Best known for his evocative color photography, Steve McCurry works in the finest documentary tradition to capture the essence of human struggle and joy.

Born in Philadelphia, Pennsylvania, Mr. McCurry graduated cum laude from the College of Arts and Architecture, Pennsylvania State University. After working at a newspaper for two years, he left for India, where he learned to watch and wait on life. "If you wait," he says, "people will forget your camera and the soul will drift up into view."

Mr. McCurry has covered many areas of international and civil conflict. He focuses on the human consequences of war, not only showing what war impresses on the landscape, but also on the human face. His career was launched when, disguised in native garb, he crossed the Pakistan border into rebel-controlled Afghanistan just before the Russian invasion. When he emerged, he had rolls of film sewn into his clothes and images that would be published around the world that were among the first to show the extent of the conflict. His coverage won the Robert Capa Gold Medal for Best Photographic Reporting from Abroad, an award dedicated to photographers exhibiting exceptional courage and enterprise.

A member of Magnum Photos since 1986, Mr. McCurry is the recipient of numerous awards, including Magazine Photographer of the Year awarded by the National Press Photographers' Association. In 1986, he won an unprecedented four first prizes in the World Press Photo Contest. He has twice won the Olivier Rebbot Memorial Award and has published several books. His work has been featured in many major magazines around the world – frequently in "National Geographic" magazine.

KEY DATES FOR 2010

Anticipated key reporting dates

Annual General Meeting	February 26, 2010
First Quarter 2010 Results	April 20, 2010
Second Quarter and First Half 2010 Results	July 15, 2010
Third Quarter and First Nine Months 2010 Results	October 21, 2010
Full Year 2010	January 2011

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Novartis on the Internet
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www.novartis.com/annualreport2009

FORWARD-LOOKING STATEMENTS

These materials contain certain forward-looking statements relating to the Group's business, 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, 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; and other risks and factors referred to in Novartis AG's current Form 20-F on file with the US Securities and Exchange Commission. Should one or more of these risks or uncertainties materialize, or should underlying assumptions prove incorrect, actual results may vary materially from those described herein as anticipated, believed, estimated or expected. Novartis is providing the information in these materials as of this date and does not undertake any obligation to update any forward-looking statements as a result of new information, future events or otherwise.

The business policy of Novartis takes into account the OECD's Guidelines for Multinational Enterprises, with their recommendations on the disclosure of information.

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ANNUAL REPORT 2009