MANAGEMENT REPORT

OVERALL ECONOMIC SITUATION

Following a steep decline, global economic activity stabilized in the course of 2009. The pharmaceutical market still grew slightly yet the chemical industry sustained sharp losses. India and China remained growth markets.

Global economy in crisis

At the end of 2008 and the beginning of 2009, the global economy and global trade experienced the strongest collapses since World War II – perhaps even since the Great Depression. Globally, central banks lowered their interest rates and supplied banks with liquidity to a virtually unlimited extent in order to replace the interbank markets, which had dried up. In parallel, governments propped up the distressed banks by issuing guarantees and making capital injections, and they raised the level of guarantees for private bank account balances. In addition, governments around the world set up programs in order to support and boost their economies. Many countries increased their debt levels substantially for this purpose, which in the opinion of many economists represents a greater threat to the global economic system than the financial crisis.

Global economy shrinks – Growth in India and China

For 2009, experts assume a decline in average global economic output. Whereas growth resumed in many countries in the second quarter, and no later than the third, this did not compensate for the steep drop at the beginning of the year.

In January 2010, the International Monetary Fund (IMF) reported that the global economy declined by 0.8% in 2009. Gross domestic product (GDP) decreased by 2.5% in the United States and by 3.9% in the euro zone. However, according to IMF estimates, India achieved an increase of 5.6% and China even grew by 8.7%.

The Organization for Economic Cooperation and Development (OECD) assumes that GDP decreased by 3.5% for all of its 30 member countries. In terms of GDP, the U.S. economy contracted by 2.5%, the Japanese economy declined by 5.3% and the GDP of the EU OECD member countries decreased by 4%.

Pharmaceutical market hardly affected by the crisis

The market research firm IMS Health assumed that in 2009, the global pharmaceutical market achieved a volume of between US$ 775 billion and US$ 785 billion with growth ranging between 5.5% and 6.5%. This volume exceeded the expectations of April 2009 amounting to US$ 750 billion, but fell short of the optimistic forecasts made in October 2008 of more than US$ 820 billion. According to IMS calculations, the U.S. pharmaceutical market also grew more strongly than expected and achieved an increase of between 4.5% and 5.5%. In April 2009, IMS had assumed this market would decline by 1% to 2%.

In 2009, growth in countries in which medicines are reimbursed by government health care systems was less affected by the financial and economic crisis. This applied for instance to Germany, Japan and Spain. By contrast, in countries where patients largely finance their health care themselves, such as Russia, Mexico and South Korea, the pharmaceutical market grew at a slower pace.

In the consumer health care business with over-the-counter (OTC) pharmaceutical and health products, both China and Russia moved into the ranks of the top ten countries worldwide. In 2008, sales growth of the OTC market for the first time exceeded that of the prescription drugs market. Consequently, the consumer health care business could become attractive to big pharmaceutical companies again, especially since according to the market research firm Nicholas Hall, the consumer health care market grew by 3%.

Chemical sector suffers owing to economic downturn

According to calculations by the VCI (German Chemical Industry Association) global chemical output, including pharmaceutical substances, decreased by 3.1% in 2009. Japan and Germany were at the bottom of the ranking, sustaining declines of 9% and 10%, respectively. The EU recorded a decline of 4.9% and the United States a decline of 4.2%. India and China stood out positively with chemical output rising by 6.7% and 7.2%, respectively. The VCI reported that sales by the German chemical industry fell by 15%.

The CEFIC (European Chemical Industry Council) noted a 12% drop in European chemical output in 2009 as compared with a decline of 4.5% in 2008. These figures exclude the production of pharmaceutical substances.

According to CEFIC data, manufacturers of inorganic products suffered especially from the 20% collapse in output, followed by polymer producers, who experienced a drop of just under 20%. Manufacturers of consumer chemicals fared best, whose output declined by 6.5%, followed by that of specialty chemicals producers. The latter two are more or less the segments in which Merck is positioned with the Chemicals business sector.

FINANCIAL POSITION AND RESULTS OF OPERATIONS

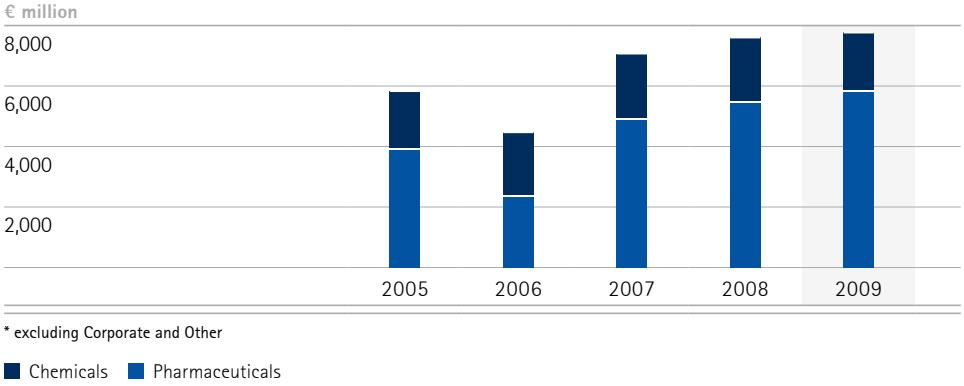
Thanks to its diversified portfolio of innovative pharmaceuticals and chemicals, Merck coped more successfully with the crisis than some other companies. Total revenues increased 2.1% and profit after tax remained virtually constant.

Stable business development

Total revenues increased by 2.1% to € 7,747 million in 2009. While both Pharmaceuticals divisions grew continually, the Chemicals divisions recovered from the economic crisis in the course of the year. Detailed information on the revenue and profit figures of the divisions, as well as developments by region and product, can be found in the chapters on the individual divisions starting on page 34.

Royalty and commission income declined by 4.8% to € 369 million. In 2009, we reclassified commission income from marketing and selling costs to total revenues (€ 24 million in 2009, € 32 million in 2008), since these now represent regular business revenues for Merck. The previous year's figures and key indicators have been adjusted accordingly.

Total revenues by business sector*



At € 5,718 million, gross margin rose only slightly, by 0.6%, over 2008 because the 6.5% increase in cost of sales exceeded the increase in sales. This was primarily the result of a high level of inventory write-downs and capacity underutilization in the Chemicals business sector. Marketing and selling expenses increased by 6.8% because the Merck Serono division launched new medicines and introduced existing products in new indications. The ratio of these expenses to total revenues increased slightly from 28% to 29%. Marketing and selling expenses also include royalty and commission expenses. These are incurred for sales of products which we either co-market with partners or for which we pay royalty fees in order to market. The sum of both items increased significantly over 2008 since sales of the relevant products developed well, consequently increasing marketing and selling expenses.

Royalty and commission income and expenses include the royalty and commission income reported in total revenues. They also include the expenses for marketing licenses, which are disclosed in marketing and selling expenses, as well as to a lesser extent expenses for production licenses, which are reported in cost of sales.

Royalty and commission income and expenses by division in 2009

€ million	Total	Merck Serono	Consumer Health Care	Liquid Crystals	Performance & Life Science Chemicals	Corporate and Other
Royalty expenses	–172	–151	–1	–16	–4	0
Royalty income	345	328	2	7	8	0
Total	**173**	**177**	**1**	**–9**	**4**	**0**
Commission expenses	–257	–253	0	0	–4	–
Commission income	24	23	0	0	1	–
Total	**–233**	**–230**	**0**	**0**	**–3**	**–**

Royalty and commission income and expenses by division in 2008

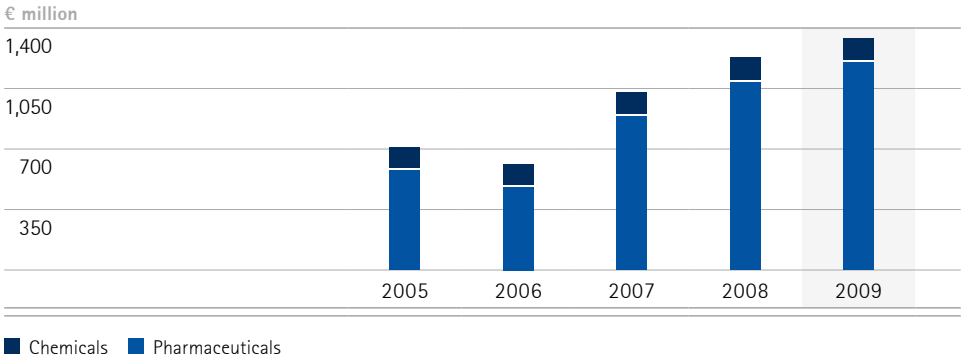
€ million	Total	Merck Serono	Consumer Health Care	Liquid Crystals	Performance & Life Science Chemicals	Corporate and Other
Royalty expenses	–199	–180	–2	–13	–4	0
Royalty income	356	337	2	12	5	0
Total	**157**	**157**	**0**	**–1**	**1**	**0**
Commission expenses	–165	–157	0	0	–7	–1
Commission income	32	27	0	1	4	–
Total	**–133**	**–130**	**0**	**1**	**–3**	**–1**

Administration expenses decreased by 4.8% to € 425 million in 2009. The line item "other operating income and expenses" increased sharply from € -170 million to € -373 million. This mainly reflects additions of € 167 million to provisions for litigation relating primarily to the Merck Serono division. Furthermore, we recorded € 38 million in impairments of mainly intangible assets since research projects had to be discontinued. We also recorded write-downs of € 28 million for trade accounts receivable. Expenses amounting to € 68 million were recorded for currency risks in Venezuela. Of this amount, € 59 million was attributable to the Merck Serono division, € 7 million to Consumer HealthCare, and € 2 million to Performance & Life Science Chemicals. This is in contrast to the exchange-rate gains from currency hedging transactions for the Merck Serono and Liquid Crystals divisions.

R&D spending increased sharply – especially owing to late-stage clinical trials.

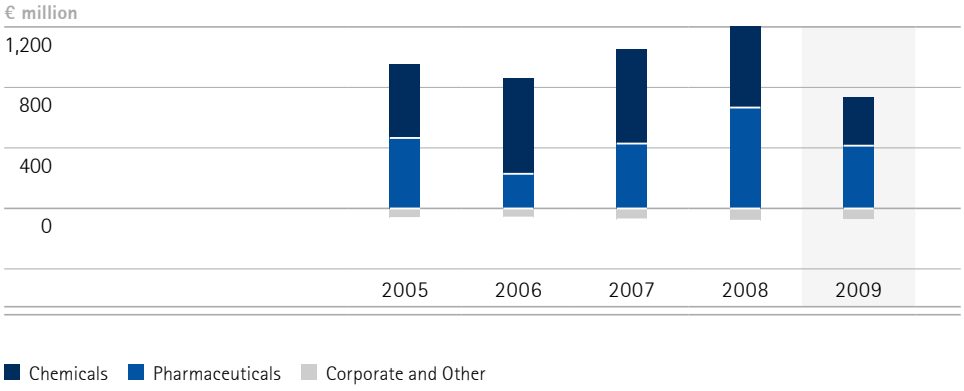
We increased our research and development (R&D) spending because, for the first time in its history, Merck is conducting studies on ten projects in the final phase of clinical testing prior to a potential market launch. At € 1,345 million, we spent 8.9% more on R&D than in 2008. Thus, the ratio of R&D expenses to total revenues was 17%.

Research and development by business sector



Amortization of intangible assets, which for the most part includes ongoing amortization from the Serono purchase price allocation, was also affected by one-time expenses in 2009. As a result of altered estimates of the future amount of royalty income for the products Enbrel® (Amgen) and Puregon® (Merck & Co.), the corresponding license rights were partly written down by € 72 million. Both license rights were capitalized in 2007 within the scope of the Serono purchase price allocation. This is reported under amortization of intangible assets. As a result, expenses increased by a total of 15% to € 658 million. Overall, Merck generated an operating result of € 649 million, corresponding to a decline of 43% compared with 2008.

Operating result by business sector



Exceptional items

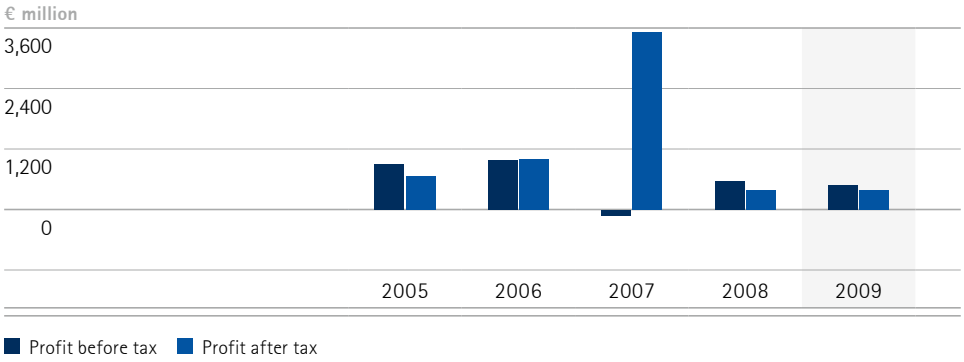
In 2009, Merck recorded exceptional items totaling € –28 million. These include costs of € 40 million for withdrawing the psoriasis drug Raptiva® from the market after the suspension of the product's marketing authorization. In addition, we recognized income of € 11 million from the divestment of the business with natural substances in Brazil (Performance & Life Science Chemicals division). Moreover, an adjustment in connection with an earlier exceptional item amounting to € 1 million was made.

The adjusted tax rate declined by four percentage points.

Financial result improves and profit after tax maintained

Merck's financial result improved in 2009 by € 22 million or 14% year-on-year to € –134 million. The tax rate adjusted for exceptional items developed favorably. It amounted to 21.6%, compared to 25.8% in 2008. Further details can be found under Corporate and Other starting on page 68. At € 377 million, profit after tax in 2009 nearly reached the previous-year amount of € 379 million.

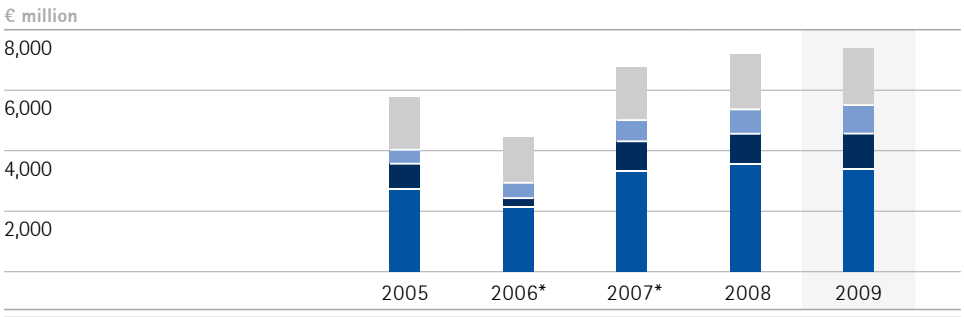
Profit before and after tax



Regional market developments – Good growth in the United States

With sales of € 3,374 million in 2009, or 4.2% less than in 2008, Europe remained our largest region. Despite a 1.9% decline in sales, Germany superseded France as the leading European country of the Merck Group in terms of sales. The Pharmaceuticals business sector generated the majority of its sales in Germany, which amounted to € 708 million. Nearly 20% of sales were attributable to the Chemicals business sector. Sales in France totaled € 685 million, where the Pharmaceuticals business sector accounted for the lion's share. We recorded an overall decline of 12% in France, which was due not only to generic competition faced by Merck Serono, but also to Chemicals, mainly the Pigments business. Consumer Health Care was the only division that grew.

Merck Group | Sales by region



In the United States, our sales surpassed the € 1 billion mark.

In 2009, we increased our sales in the U.S. market by 18% to € 1,075 million. The Pharmaceuticals business sector, which grew 23%, accounted for the bulk of sales. The Chemicals business sector, which accounted for around one-fifth of sales, remained stable, a good outcome for a crisis year.

In Latin America, we recorded a 17% increase in sales to € 942 million in 2009. Our key market in this region is Brazil. Sales increased in this country by 6.0%, with the Chemicals business sector remaining steady and the Pharmaceuticals business sector posting an increase of 7.0%. We also grew considerably in Colombia, Ecuador and Argentina.

In Asia, Africa and Australasia, we increased our sales by 1.8%. With sales of € 347 million, South Korea remains our largest market in this region. The majority of our sales are generated by the Chemicals business sector, primarily the Liquid Crystals business. The Pharmaceuticals business sector accounted for just under 10% of sales, which are developing positively. By contrast, the Chemicals business sector recorded a 15% decline in sales. In Taiwan, our second-largest market in this region, sales increased by 1.7% to € 337 million in 2009, difficult year for the Chemicals business sector. The Pharmaceuticals business sector grew by 9.9%, whereas the Chemicals business sector, which accounts for around 90% of sales in Taiwan, grew by 0.9%.

In Japan, where for many years Merck only operated in Chemicals, the Pharmaceuticals business sector accounted for nearly 43% of sales, which quadrupled. This development was due mainly to the market success of the oncology drug Erbitux®. This enabled us to offset the negative developments in the Chemicals business sector. Overall, sales in Japan increased by 8.2% to € 297 million.

Sales by the Chemicals business sector decreased in China by 15%, while sales by the Pharmaceuticals business sector increased by 11%. Sales in China totaled € 190 million, approximately two-thirds of which were attributable to the Pharmaceuticals business sector and one-third to the Chemicals business sector. In India, both business sectors grew, increasing sales by 7.1% to € 113 million. Chemicals and Pharmaceuticals each account for around half of sales.

Total revenues by quarter

€ million	1st quarter	2nd quarter	3rd quarter	4th quarter	2009	2008
Total	**1,858**	**1,910**	**1,950**	**2,029**	**7,747**	**7,590**
Pharmaceuticals	1,422	1,423	1,442	1,525	5,812	5,456
Chemicals	436	487	508	504	1,935	2,127
Corporate and Other	–	0	0	–	0	7

Components of growth in total revenues by quarter

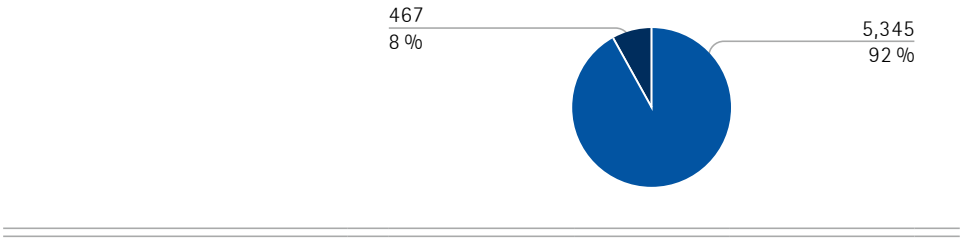
in %	1st quarter	2nd quarter	3rd quarter	4th quarter	2009	2008
Organic growth	–0.8	–1.2	2.2	8.7	2.2	11.4
Pharmaceuticals	8.5	4.4	6.8	8.2	7.0	14.9
Chemicals	–21.1	–14.6	–9.4	10.3	–9.5	4.8
Currency effects	0.3	1.0	0.4	–2.4	–0.2	–4.2
Acquisitions/divestments	0.1	0.1	0.2	–0.3	0.0	–0.1
Total	**–0.4**	**0.0**	**2.7**	**5.9**	**2.1**	**7.2**

Pharmaceuticals business sector shows solid growth

The Pharmaceuticals business sector, comprising the two divisions Merck Serono and Consumer Health Care, increased total revenues by 6.5% to € 5,812 million in 2009. Royalty and commission income declined by 3.5% to € 353 million.

Pharmaceuticals | Total revenues by division

€ million

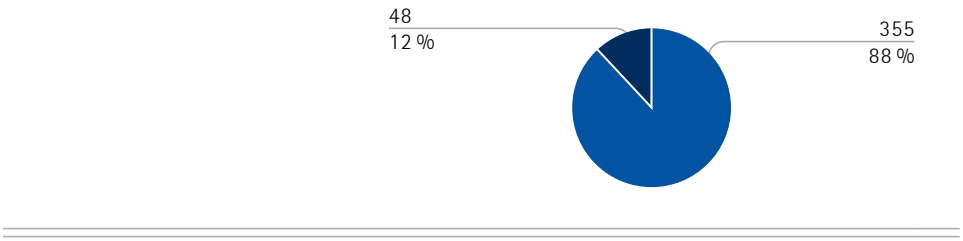


High R&D costs, marketing and selling expenses and one-time expenses lower theoperating result.

The operating result fell by 39% to € 403 million. Apart from high marketing and selling expenses as well as R&D costs, high one-time expenses had an impact here. These were recorded primarily in connection with additions to provisions for litigation and write-downs of intangible assets. The Pharmaceuticals business sector generated 55% of the Group operating result (excluding Corporate and Other). Return on sales declined to 6.9% compared to 12.0% in 2008.

Pharmaceuticals | Operating result by division

€ million



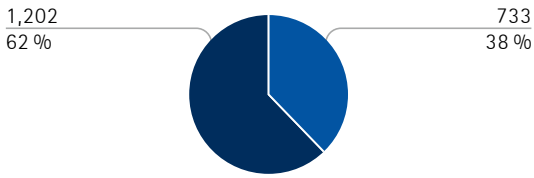
Chemicals business sector suffers owing to the economic downturn

The Chemicals business sector, which consists of the Performance & Life Sciences Chemicals as well as Liquid Crystals divisions, was hit hard by the economic crisis. Our Performance & Life Science Chemicals division supplies high-quality pigments to customers in a wide variety of sectors, including for instance the automotive and cosmetics industries. The global weakness in the automotive sector forced us to temporarily introduce reduced working hours in Pigments production. The Liquid Crystals division also experienced bitter blows to sales, especially at the beginning of the year. However, in the course of the year, it increasingly recovered and returned to a path of healthy growth.

Total revenues of the Chemicals business sector fell by 9.0% to € 1,935 million. Both divisions suffered owing to the underutilization of their capacities, with inventory reductions taking precedence over new production. Apart from write-downs of inventories, the Liquid Crystals division also was adversely affected by increased pressure on prices.

Chemicals | Total revenues by division

€ million

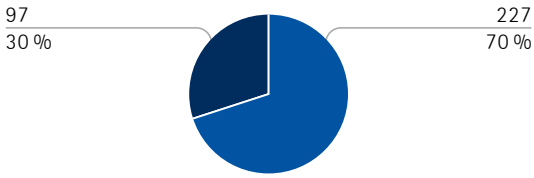


Liquid Crystals Performance & Life Science Chemicals

The operating result of the Chemicals business sector declined by 42% to € 324 million, thus accounting for 45% of the total Group operating result (excluding Corporate and Other). At 16.8%, return on sales for the Chemicals business was considerably below the 2008 level of 26.2%.

Chemicals | Operating result by division

€ million



Liquid Crystals Performance & Life Science Chemicals

Acquisitions strengthen business in Asia and eastern Europe

Merck is strengthening its presence in the growth markets of China and India.

In the third quarter of 2009, Merck acquired Suzhou Taizhu Technology Development, a leading supplier of effect pigments headquartered in Taicang, near Shanghai, in China. The total value of the transaction was € 26 million. In October, Merck acquired Bangalore Genei of≈India for € 4.6 million to become a leading supplier of bioscience products in India. In Bulgaria, we strengthened our business by acquiring the sales company Aquacomp for € 2.8 million in the third quarter. The company, which posts annual sales of around € 10 million, has been our marketing partner for the past 17 years.

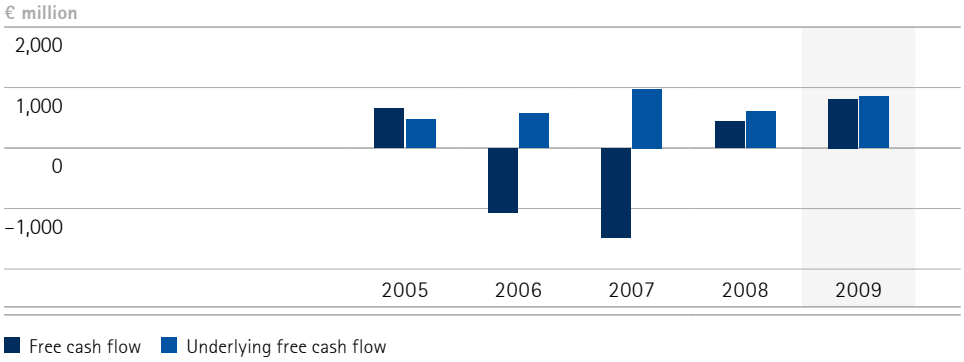
Dividend proposal

The objective of our dividend policy is to distribute, on a long-term average, a total dividend equivalent to 30%–40% of Group profit after tax. We will propose to the Annual Meeting on April 9, 2010 the payment of a dividend of € 1.00 per share.

Improvement in free cash flow

In 2009, the free cash flow of the Merck Group nearly doubled to € 812 million compared with € 438 million in 2008. Underlying free cash flow (adjusted for acquisitions and divestments) increased by 42% to € 852 million. The Pharmaceuticals business sector contributed € 916 million and the Chemicals business sector € 432 million. The Corporate and Other segment mainly reflects cash outflows for interest and taxes. Underlying free cash flow of this segment was € –496 million. The increase in underlying free cash flow for the Group compared to 2008 is based on the good development of working capital, which we intentionally lowered in 2009.

Free cash flow and underlying free cash flow



Key financial performance indicators of the Merck Group

Return on sales (ROS or the ratio of operating result to total revenues) and underlying free cash flow on revenues (FCR) are our two leading financial indicators. The divisions use them to steer their business and we also use them for short- and long-term internally agreed targets. In 2009, ROS declined from 14.9% to 8.4%. Total revenues remained stable; however, the operating result was considerably lower than in 2008. This was due not only to higher operating expenses, especially in the areas of marketing and research, but also to one-time expenses in connection with write-downs, provisions for litigation, and currency risks in Venezuela. These factors adversely affected ROS.

High underlying free cash flow led to an improvement in FCR.

By contrast, FCR developed favorably in the fourth quarter. This key performance indicator increased from 7.9% to 11.0% in 2009.

We refer to the average of the two indicators ROS and FCR as the "Merck Business Target" (MBT). It is used for performance-based short- and long-term compensation systems and amounted to 9.7% as compared with 11.4% in 2008. Both indicators, ROS and FCR, are presented by division in the Segment Reporting, which can be found in the Notes to the Consolidated Financial Statements starting on page 98.

For EBITDA, as per the definition, depreciation and amortization of non-current assets are added back to profit before taxes. For Merck, EBITDA is also an important financial indicator. Since the acquisition of Serono, amortization of intangible assets has been lowering the operating result by around € 550 million every year.

When high impairment losses are additionally incurred, EBIT or the operating result alone does not reflect the actual earning power of the business. In 2009, EBITDA declined from € 1,947 million to € 1,625 million.

Key figures of the Merck Group

	EBITDA € million	Underlying free cash flow € million	FCR %	ROS %
Pharmaceuticals	1,221	916	15.8	6.9
Chemicals	479	432	22.3	16.8
Corporate and Other	–75	–496	–	–
Total	**1,625**	**852**	**11.0**	**8.4**

EBITDA = EBIT before depreciation and amortization
Underlying free cash flow = Free cash flow adjusted for acquisitions and divestments
FCR = Underlying free cash flow on revenues
ROS = Operating result/total revenues

Balance sheet remains solid

As of December 31, 2009, total assets of the Merck Group were € 16,713 million. This corresponds to an increase of € 1,068 million, or 6.8%, over 2008. This increase is due mainly to cash inflows of € 750 million from a bond that was issued in the first quarter of 2009 with a maturity of 4.5 years. A further € 230 million is due to private placements made during 2009. The equity ratio decreased from 61.1% at the beginning of the year to 56.9% on December 31, 2009.

Significant decrease in net debt.

Net debt decreased to € 263 million compared with € 477 million at the end of 2008. Merck has an A3 rating ("stable outlook") from Moody's and an A– rating ("stable outlook") from Standard & Poor's. One of the objectives of Merck's financial strategy is to maintain an investment-grade rating and a strong balance sheet.

During 2009, we began covering the pension provisions of Merck KGaA with appropriated financial assets on a long-term basis. Covering pension provisions with underlying financial assets will be expanded continuously. As of December 31, 2009, € 210 million were disclosed separately as a long-term investment.

Sharp increase in capital spending

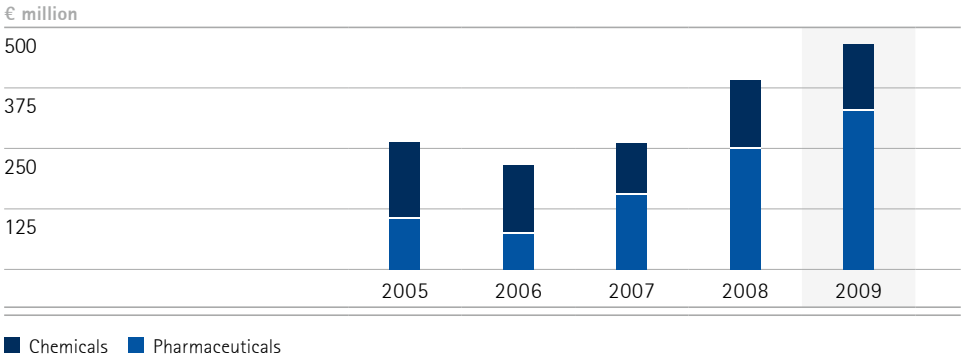
In 2009, Merck invested a total of € 467 million in property, plant and equipment. This was € 73 million or 18% more than in 2008. As a result, the ratio of capital spending to total revenues increased to 6.0% in 2009 compared with 5.2% in 2008.

Individual investment projects, each with a value of more than € 1 million, accounted for around two-thirds of capital spending. In regional terms, Europe accounted for 85% of the total, with the focus on Germany and Switzerland. In Germany, Merck invested € 153 million in both new and expanded production capacities as well as in research and development facilities in Darmstadt and Gernsheim in particular, our two largest production sites. In Switzerland, capital spending totaled € 198 million and mainly focused on the expansion of our biopharmaceutical production facilities.

Capital spending strengthens R&D and production.

In North America, we invested € 32 million – the majority of which went toward the expansion of pharmaceutical research in Boston. Capital spending in Latin America totaled € 15 milion. Our subsidiaries in Asia accounted for a total capital spending volume of € 23 million, with the focus on South Korea, Japan and China, particularly for the Chemicals business sector. Capital spending by the Pharmaceuticals business sector totaled € 327 million, with the Merck Serono division accounting for the majority of this amount. The main focus of the investments was on the expansion of our biotech production capacities in Corsier-sur-Vevey, Switzerland, which again in 2009 represented the single largest investment project of the Merck Group. Around 15% of capital spending in this business sector related to headquarters in Darmstadt.

Capital spending on property, plant and equipment



Capital spending on property, plant and equipment in the Chemicals business sector amounted to € 140 million, with the Liquid Crystals division accounting for € 64 million and the Performance & Life Science Chemicals division for € 75 million. Both divisions invested chiefly at the Darmstadt and Gernsheim sites, our main locations, in order to expand and modernize existing production facilities, to improve infrastructure and to construct new research buildings.

Value added

Value added is a measure of the economic strength of a company and indicates how the corporate result is achieved and for what it is used.

Our corporate result, meaning the sum of total revenues, other income and financial income, amounted to € 7,918 million. After deducting the costs of materials as well as other purchased services and expenses, gross value added amounted to € 3,791 million. Following the deduction of depreciation and amortization, net value added was € 2,787 million.

With a share of 76%, the majority amounting to € 2,129 million benefited employees in the form of personnel expenses. Financial expenses declined to € 171 million in comparison with 2008. Taxes on income decreased markedly to € 110 million, not only as a result of the lower level of profit before tax. At € 377 million, profit after tax remained at the level of 2008.

Net value added statement

€ million	2009	2008
Total revenues	7,747	7,590
Other income	135	142
Financial income	36	37
Corporate result	**7,918**	**7,769**
Cost of materials	–1,182	–1,089
Other purchased services/expenses	–2,945	–2,681
Gross value added	**3,791**	**3,999**
Depreciation and amortization	–1,004	–1,215
Net value added	**2,787**	**2,784**

Distribution of net value added

€ million	2009	2008
Personnel expenses	2,129	2,015
Financial expenses	171	194
Taxes on income	110	196
Profit after tax	377	379
Net value added	**2,787**	**2,784**

Summary assessment

Balance sheet ratios and key performance indicators remain solid.

In summary, Merck's overall business development in 2009 was again satisfactory following the unexpected steep decline at the end of 2008 and the beginning of 2009. The Pharmaceuticals business sector continued to develop well; however, one-time expenses adversely affected the fourth quarter in particular. The Chemicals business sector recovered in the course of the year. The balance sheet ratios and key performance indicators of Merck remain very solid and an expression of our financial strategy of ensuring Merck's liquidity at all times. Merck's bank debts are low. In addition, we have issued bonds for refinancing purposes and have secure investment deposits as well as open credit lines.

RESPONSIBILITY

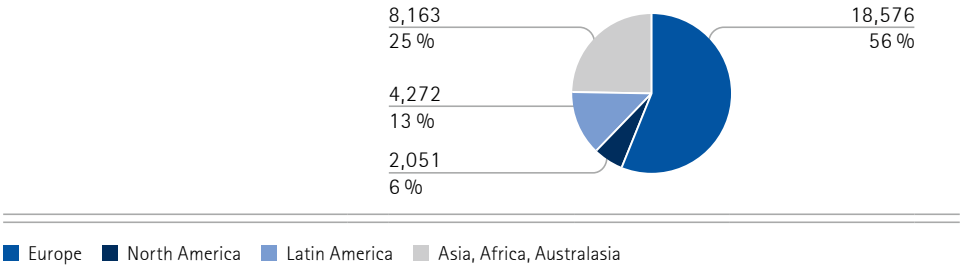
Merck lives up to its responsibility to employees, customers and the environment. In 2009, we reached important milestones in implementing EU regulations and exceeded our objectives for climate protection and safety.

www.merck.de/responsibility

Number of employees nearly unchanged

As of December 31, 2009, our company had 33,062 employees. The number of employees in 2009 hardly changed in comparison with 2008. Merck was represented in 61 countries by 176 companies and had 54 production sites located in 26 countries.
In several countries, there were significant changes in the number of employees. In China, the workforce increased by 455 employees owing to the expansion of the pharmaceutical business and the acquisition of the pigment producer Suzhou Taizhu Technology Development. In India, the number of employees rose by 388, mainly owing to the expansion of the Merck Serono business and the acquisition of the bioscience firm Bangalore Genei. In France, the number of employees declined by 306. This is attributable to both the transfer of the primary care field force to the Japanese pharmaceutical company Daiichi Sankyo in January, and to the closure of the Chilly-Mazarin site in March. In Italy, the number of employees fell by 108 since employees here were also transferred to Daiichi Sankyo and research activities were relocated. In the United States, the site in Madison, Wisconsin was closed, reducing the headcount by 243. In Brazil, the headcount declined by 117 owing to the disposal of two locations, São Luís and Barra do Corda.

Number of employees as of December 31, 2009



Because of a drop in demand in several businesses, employees in Pigments and Patinal production at the Gernsheim site in Germany began working reduced hours in May. In September, similar measures were also introduced at the organic synthesis plant located at that site. We terminated reduced working hours as of December 31, 2009. Similar measures to scale back production were taken at the Pigments production sites in Japan and the United States. Likewise, in response to the economic crisis, in December 2008 Merck adopted a very restrictive hiring policy which applies Group-wide and remains in place until further notice.
In 2009, 22% of our employees worked in production, 33% in marketing and sales, 11% in research and development, and 5% in logistics. The remaining employees worked in areas such as Engineering, Environment, IT, Finance, and Human Resources. In 2009, more than

519 young people were enrolled in vocational training programs in 19 different occupations at the Darmstadt site, the largest of the Merck Group. We are thus keeping the number of apprentices at a consistently high level. Measures releating to personnel marketing and development are presented in the Risk Report starting on page 73.

ISO 14001 environmental management system: Group certificate obtained

Our spending on environmental protection, health and safety totaled € 131 million in 2009. That amount includes depreciation charges on capital investments and ongoing costs. Merck decided to seek certification of all production sites in accordance with the ISO 14001 international environmental management system. According to this standard, activities in environmental protection are continuously recorded and optimized as part of an improvement process. Here, an internationally valid group certificate applicable to all sites will supersede the previous individual certificates. This requires particularly responsible collaboration among the sites since the certificate will only be granted if all sites in an audit sampling fulfill the certification criteria. A total of 40 production sites worldwide were certified by the end of 2009. We thus successfully introduced the group certificate for the production sites and will in future incorporate additional sites in accordance with developments of the Merck Group.

Ambitious climate targets

CO_2 emissions are to be reduced by a further 20% by 2020.

Climate protection is an issue that received even more global attention in 2009, not least due to the climate summit in Copenhagen. Merck is also concerned with this topic and is dedicating itself to resource conservation. Our goal is to reduce our entire CO_2 emissions – direct and indirect – by 20% by 2020, compared to the 2006 levels. In order to accomplish this, we are focusing on 15 sites, which together account for more than 80% of our total global emissions. We reached our previous goal, which was to lower direct emissions by 10% by 2010, compared to 2002 levels, ahead of schedule.

European chemicals law: REACH implementation underway

In implementing the EU regulation REACH (Registration, Evaluation, Authorisation and Restriction of Chemical substances), which comes with great challenges, Merck is playing a pioneering role in important areas. In 2009, we already submitted a large number of registration dossiers to the new European Chemicals Agency in Helsinki. In addition, various sites underwent inspections by authorities, in which we demonstrated exemplary REACH implementation. Furthermore, Merck is engaged in projects of the German Chemical Industry Association (VCI) for a more workable implementation of REACH.

Competitive edge: Expertise in regulatory matters

The Globally Harmonised System of Classification and Labelling of Chemicals (GHS), an EU regulation based on a UN agreement, took effect on January 20, 2009. The new elements of the GHS hazard communication, such as hazard pictograms and signal words, are replacing the previous hazard symbols and phrases. Our labels and safety data sheets are being updated step by step. By the middle of February 2009, Merck had already shipped out the first goods labeled according to GHS. Another important activity was the global training program to acquaint our customers with GHS. In addition to training sessions with regulatory specialists, advanced e-learning courses were also held and customers were given detailed information material.

We want to go beyond fulfilling the requirements of REACH and GHS; here we also see a competitive advantage. We can use our expertise in regulatory affairs and in product documentation to provide our customers with support. In addition, we have checked with our suppliers as to whether their chemicals also meet the requirements of REACH, thus establishing legal certainty for both Merck and its customers.

Further improvements in occupational health and safety

In terms of accident prevention and occupational safety, we once more managed to lower the most important indicator, the lost time injury rate (LTR). This rate consists of the number of workplace accidents with one or more missed days of work relative to the number of hours worked. At Merck, the global value is less than four, which means that we exceeded our own targets. To continue to improve, we have set ourselves a new goal: an LTIR of 2.5 by 2015.

Social standards in the supply chain

In 2009, Merck was one of the first companies to join the internationally valid Compliance Initiative of the German Federal Association for Materials Management, Purchasing and Logistics (Bundesverband Materialwirtschaft, Einkauf und Logistik – BME). Its goal is to promote legally compliant behavior and social standards along the supply chain. We collaborated extensively on a supplier code of conduct. This code has created an international minimum standard that applies across different industries. It covers rules to fight corruption and child labor as well as minimum requirements regarding antitrust rulings and environmental protection by suppliers.

Fight against counterfeit medicines

www.gphf.org

We are continuing our work worldwide with the Global Pharma Health Fund (GPHF) in the fight against counterfeit medicines. The GPHF-Minilab®, a non-profit initiative supported by Merck, is a unique mobile compact laboratory used to reliably and rapidly test over 40 active pharmaceutical ingredients. Through this initiative, pharmaceuticals such as antimalaria medicines or antibiotics can be tested quickly, thus closing gaps in monitoring. To date, over 330 Minilabs are being used in 70 countries around the world to check the quality of medicines thanks to GPHF and its collaboration with international partners.

Children's aid program to fight a serious tropical disease

Merck donated 200 million tablets containing the active ingredient praziquantel.

The fight against the tropical disease schistosomiasis, an insidious life-threatening worm disease, is showing results. Together with the World Health Organization WHO, we have established in Africa the preconditions for the widespread treatment of infected school children. We have expanded our aid program to Nigeria, Malawi, Mauritania, Tanzania, Mozambique, Zambia, the Central African Republic, Angola, Senegal, Benin, and Cameroon. In 2009, 25 million tablets of Cesol® 600 were shipped to these countries, thus nearly doubling the amount shipped in 2008. More than 3.3 million children were treated for schistosomiasis. Worldwide, around 200 million people suffer from schistosomiasis, 200,000 of whom die each year. In total, Merck donated 200 million tablets of Cesol® 600, which contains the active ingredient praziquantel. This will enable around 27 million children to receive treatment by 2017.

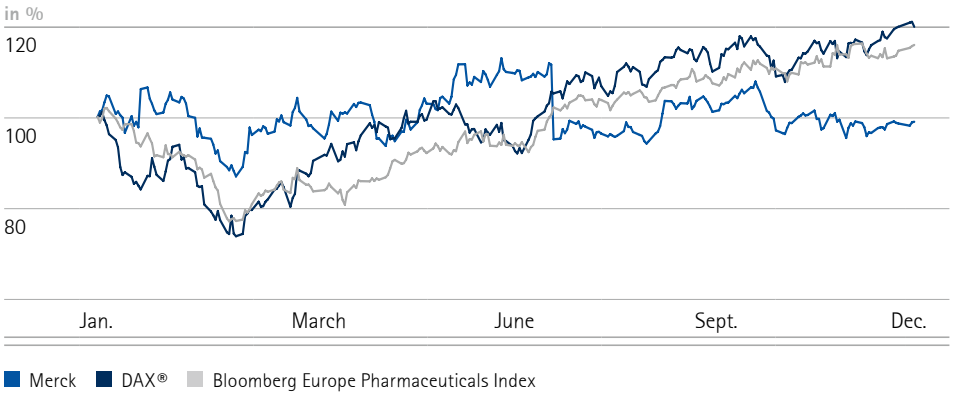
MERCK SHARES

Merck shares finished 2009 nearly at the previous year's level but underperformed the DAX®. This was due primarily to the negative news on drug regulatory submissions.

Improvement in the capital market arena

The year 2009 was marked by very dynamic developments in the international capital markets. Following a tailspin that lasted until around the end of the first quarter, the sentiment improved considerably as of April. The German share indices – first and foremost the DAX® blue chip index – climbed to unexpected highs up until the end of the year. The DAX®, which comprises the 30 largest publicly traded German companies by trading volume and market capitalization, closed on December 30 at 5,957 points, which represented an increase of 24% over the end of 2008. The index of European pharmaceutical companies represented by the Bloomberg Europe Pharmaceuticals Index (BEUPHRM) also increased significantly – but remained weaker than the DAX® for most of the year.

The performance of Merck shares vs. the DAX®/Bloomberg Europe Pharmaceuticals Index in 2009



Merck shares remain a stable investment

www.merck.de/share

During 2009, our shares moved in a range from € 57 to € 74. Following a good start to the year, negative news weighed on the share price several times. From a full-year perspective, Merck shares represented a stable investment in a highly dynamic market environment in 2009. The risk-balanced business model consisting of Pharmaceuticals and Chemicals modulated the fluctuations.

Our share price proved to be considerably more robust than the benchmark indices in the crisis-ridden first quarter. On January 23, 2009, the Merck share price jumped by 8.6% to € 69.89 when we announced the good results of the CLARITY study. The news that cladribine tablets could represent the first marketed oral treatment for multiple sclerosis supported the share price. Like the German indices, the Merck share price declined in the course of the first quarter and marked its low on March 6, 2009, closing at € 57.24.

Developments in the pharmaceutical business impact the share price

From May until the end of July, our shares developed on a par with or better than the DAX®, and they significantly outperformed the BEUPHRM. They reached € 74.37, the high for the year, on July 1, 2009.

On July 24, Merck shares tumbled in a one-day slide of nearly 15%. This was attributable to a letter from the scientific committee of the European Medicines Agency issuing a negative opinion on the use of our oncology drug Erbitux® in the treatment of lung cancer. The share price fell on one day from € 73.43 to € 62.62. Merck shares recovered only slowly from their decline in late July, developing stably thereafter but at a significantly lower level than the DAX® and BEUPHRM.

In September and October, Merck shares caught up with the indices and rose to € 70.99 on October 21. In November they fell again. In response to Merck's request for re-examination of the negative opinion on the use of Erbitux® in lung cancer, a negative opinion was again issued on November 19, 2009. Consequently, the share price decreased moderately by 2.4%. Lastly, on November 30, 2009 the refuse to file letter from the U.S. Food and Drug Administration on the new drug application for cladribine tablets led to a 4.0% decline in the share price to € 62.81 at the close of trading. Merck is working intensively to resubmit the application in the world's largest pharmaceutical market.

The recovery of the Liquid Crystals division supported the share price.

Nevertheless, at € 65.16, Merck shares ended the year just slightly above the comparable year-earlier level as a result of developments in the Chemicals business sector that had a counteractive effect on the share price. For instance, the Liquid Crystals business recovered significantly in the course of the year, a development that was viewed positively by financial analysts.

Share data[1]

	2009	2008
Earnings per share after tax and minonrity interest in €	1.68	1.69
Dividend in €	1.00	1.50
Share price high in € (July 1, 2009/January 9, 2008)	74.37	93.79
Share price low in € (March 6, 2009/November 21, 2008)	57.24	57.67
Year-end share price in €	65.16	64.51
Actual number of shares in millions (as of year-end)	64.6	64.6
Theoretical total number[2] of shares in millions (as of year-end)	217.4	217.4
Market capitalization[3] in € million (as of year-end)	14,165	14,024

[1] Share-price relevant figures relate to the closing price in Xetra ® trading on the Frankfurt Stock Exchange.

[2] The calculation of the theoretical number of shares in based on the fact that the general partner's equity capital is not represented by shares. As the share capital of € 168.0 million as of December 31, 2009 was divided into 64.6 million shares, the corresponding calculation for the general partner's capital of € 397.2 million resulted in 152.8 million theoretical shares.

[3] Based on the theoretical number of shares on December 31, 2009.

Focus on liquidity

On average, around 500,000 shares were traded daily in 2009, which compares with a daily trading volume of around 750,000 shares in 2008. On July 24, the first trading day after the negative opinion on Erbitux® in the lung cancer indication in Europe, nearly 4.5 million Merck shares changed hands. High liquidity is very important to us. We want to ensure at all times that our shares are freely tradable on the stock exchanges. With a market capitalization of € 14,165 million, Merck held 29th place in the DAX® ranking as compared with 24th place in 2008. In terms of average daily trading volumes, we moved up from 30th to 27th place.

Analysts' estimates

A total of 31 banks and equity analysts reported regularly on and assessed Merck shares in 2009. As of the end of 2009, Merck shares were given buy recommendations by more than half of the 31 analysts who cover us.
Details of the individual analysts and their estimates can be found on our website at www.merck.de/investors.

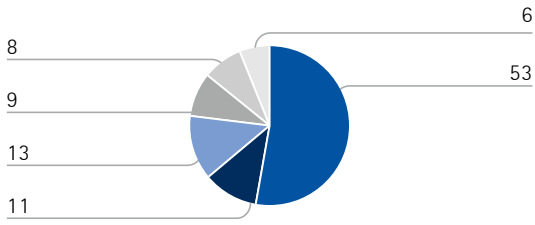
Transparency and proximity to shareholders

www.merck.de/investors

Maintaining a timely and continuous dialog with shareholders is very important to Merck. We therefore reported not only on our quarterly and annual financial results, but also on the latest developments in the company.
In 2009, the Executive Board and the Investor Relations team held road shows for existing and potential institutional investors at the major financial centers in Europe, North America and Asia, and reported on the latest company developments. In addition, Merck held presentations at ten investor conferences in Frankfurt, London, Luxembourg, Munich, New York, and Paris.
At our Investor Relations stand at the 2009 Annual General Meeting, we addressed questions, most of which were posed by private investors. At 59%, the share capital represented at this Annual General Meeting was the highest recorded to date.

Identified investors by region

in %



Source: Thomson Reuters (status as of September 2009)

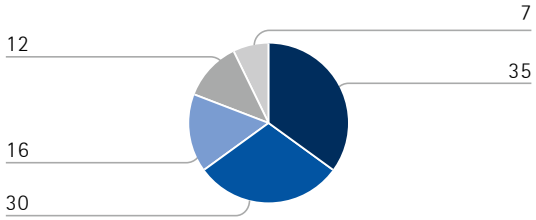
United States United Kingdom Rest of Europe Germany France Rest of the world

Increase in the number of investors based in the United States

Within the scope of the shareholder identification survey conducted in September 2009, we identified around 87% of the bearer shares in free float held by institutional investors. The survey provides information about the regional distribution of the institutional investors as well as the classification of the respective institutional investor types. As in 2008, U.S. institutional investors hold the majority of Merck shares in free float. The share of U.S. investors increased from 45% in 2008 to 53% in 2009. Thus, the United States still ranks well ahead of the United Kingdom and Germany, where 11% and 9% of our shares are held, respectively. In the breakdown by investor type, the share of value investors grew from 23% in 2008 to 30%.

Identified investors by type

in %



Source: Thomson Reuters (status as of September 2009)

Growth Value GARP (Growth at reasonable price) Index Other

As of December 31, 2009, the following shareholders reported their holdings in Merck shares to the company in accordance with the German Securities Trading Act:

10 – 15% Sun Life Financial Inc., Toronto (Canada)
5 – 10% Capital Group Companies Inc., Los Angeles (United States)
5 – 10% Barclays PLC, London (United Kingdom)
5 – 10% BlackRock Inc., New York (United States)
3 – 5% Capital World Growth and Income Fund Inc., Los Angeles (United States)
3 – 5% Fidelity International Ltd., Hamilton (Bermuda)
3 – 5% Templeton Global Advisors Ltd., Nassau (Bahamas)

A sustainable investment

We understand sustainability as ethical actions taken in line with the economic, ecological and social interests of all Merck stakeholders, such as our customers, suppliers, employees, and owners. Our efforts in these areas are continually analyzed and assessed by independent capital market institutes. Since 2008, Merck shares have been in the FTSE4Good Index, which comprises companies with highly sustainable business practices. Additionally, Merck shares are included in the DAX Global Sarasin Sustainability Germany Index.

Information on capital and shares

As of the balance sheet date, the company's subscribed capital is divided into 64,621,125 no par value bearer shares plus one registered share. The holder of the registered share is E. Merck Beteiligungen KG and is entitled and obliged to appoint one-third of the members of the Supervisory Board representing the limited liability shareholders. If the holder of the registered share is a general partner, he or she has no such right of appointment. The transfer of the registered share requires the company's approval. The approval is granted at the sole discretion of the personally liable general partner with an equity interest, namely E. Merck KG. As of December 31, 2009, one holding in the company's share capital (Sun Life Financial Inc., Toronto, Canada) exceeded 10% of the voting rights.

According to the Articles of Association of the company, the general partners not holding an equity interest, who form the Executive Board, are admitted by E. Merck KG with the consent of a simply majority of the other general partners. A person may only be a general partner not holding an equity interest if he or she is also a general partner of E. Merck KG. In addition, at the proposal of E. Merck KG and with the approval of all general partners not holding an equity interest, further persons may be appointed to the Executive Board who are not general partners not holding an equity interest.

The Articles of Association of the company can be amended by a resolution by the General Meeting that requires the approval of the general partners. The resolutions of the General Meeting are, notwithstanding any statutory provisions to the contrary, adopted by a simple majority of the votes cast. Where the law requires a capital majority in addition to the voting majority, resolutions are adopted by a simple majority of the share capital represented in the vote.

The Articles of Association of the company specify the share capital. The Executive Board is authorized, with the approval of the Supervisory Board and of E. Merck KG, to increase the share capital on one or several occasions until April 3, 2014 by up to a total of € 56,521,124.19 by issuing new shares against cash or contributions in kind. The company is not authorized to acquire its own shares.

The company has not entered into any material agreements subject to a change of control pursuant to a takeover offer nor has it concluded any compensation agreements with the members of the Executive Board or employees in the event of a takeover offer.

PHARMACEUTICALS | MERCK SERONO

Merck Serono is the largest division of Merck. It markets innovative prescription drugs of chemical and biotechnological origin, including monoclonal antibodies and other therapeutic proteins, and offers its leading brands in around 150 countries.
With annual R&D spending of more than € 1 billion, Merck Serono focuses on highly specialized therapeutic areas such as Neurodegenerative Diseases, Oncology, Fertility, Endocrinology as well as Autoimmune and Inflammatory Diseases.

KEY PRODUCTS BY THERAPEUTIC AREA

- Oncology: Erbitux® (solid tumors)
- Neurodegenerative Diseases: Rebif® (multiple sclerosis)
- Fertility: Gonal-f®, Pergoveris™, Luveris®, Ovitrelle®, Crinone®, Cetrotide® (infertility treatment)
- Endocrinology: Saizen® (growth hormone disorders), Serostim® (HIV-associated wasting), Kuvan® (metabolic disorder hyperphenylalaninemia)
- CardioMetabolic Care: Glucophage® family (type 2 diabetes), Concor® family (cardiovascular diseases), Euthyrox® (thyroid diseases)

KEY DEVELOPMENTS IN 2009

- Sales of Erbitux increase by 23% to € 697 million; Rebif® sales rise 15% to € 1,537 million
- NICE of the United Kingdom recommends Erbitux® as a first-line treatment for patients with metastatic colorectal cancer (KRAS wild-type tumors) and metastases only in the liver
- The Committee for Medicinal Products for Human Use (CHMP) of the European Medicines Agency issues a negative opinion on Erbitux® for the treatment of patients with non-small-cell lung cancer (NSCLC)
- Market launch of Rebismart™, the first electronic injection device for the administration of Rebif®, a medicine for the treatment of multiple sclerosis (MS)
- Marketing authorization application for cladribine tablets, an oral treatment option for multiple sclerosis, successfully filed in the EU. In the United States, the FDA issued a refuse to file letter. We are working on a resubmission.
- Market launch of Kuvan® in the EU for the treatment of hyperphenylalaninemia

Erbitux®
The targeted cancer therapy is also marketed in China.

Rebismart®
The first electronic injection device for MS facilitates treatment.

Kuvan®
A rare metabolic disorder can now be better treated.

GROWTH THROUGH BIOTECH MEDICINES

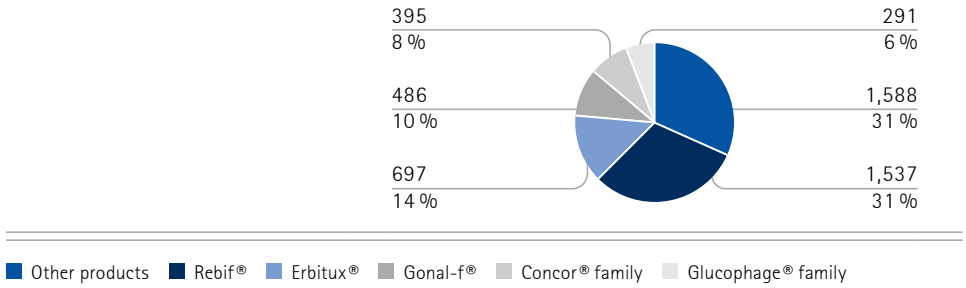
Total revenues of the Merck Serono division grew in line with the forecasted average for the pharmaceutical industry. This growth was mainly driven by our two top-selling medicines, the biopharmaceuticals Rebif® and Erbitux®.

www.merckserono.com

In 2009, the Merck Serono division increased total revenues by 6.6% to € 5,345 million. This growth was mainly attributable to the good performance of biopharmaceuticals such as Rebif® and Erbitux® as well as classic products such as the medicines of the Glucophage® family. We generated 60% of our sales, or € 2,980 million, with our five top-selling biopharmaceuticals. Rebif®, a treatment for relapsing-remitting multiple sclerosis, was once again the top-selling product. Global sales of this product increased in 2009 to € 1,537 million, representing growth of 15%. The targeted cancer therapy Erbitux® again saw double-digit growth in 2009, with sales increasing by 23% to € 697 million. Our recombinant hormone Gonal-f® was approved for the treatment of infertile women in the key Japanese market in July.

Top five medicines by sales in 2009

€ million



Royalty and commission income declined by 3.5% to € 351 million. Gross margin rose to € 4,485 million, 6.3% more than in 2008. Marketing and selling expenses increased by 7.5% owing to product launches and significantly higher commission expenses. Research and development spending rose by 10% to € 1,184 million owing to the high costs of many trials in the final stage of clinical development. The operating result was also affected by high one-time expenses. We increased provisions for litigation by € 163 million. Moreover, impairment losses of € 28 million relating mainly to intangible assets were recorded for the termination of research projects. As a result of altered estimates of the future amount of royalty income for certain partner products, we partly wrote down the corresponding rights by € 72 million. Owing to the growing and clearly emerging currency risk in Venezuela, we recorded currency losses of € 59 million in the operating result of the Merck Serono division. These were partly offset by exchange rate gains from currency hedging transactions. Overall, the operating result declined by 40% to € 355 million. Return on sales (ROS) decreased in 2009 to 6.6%. At € 867 million, underlying free cash flow was 55% higher than in 2008.

Merck Serono | Key figures

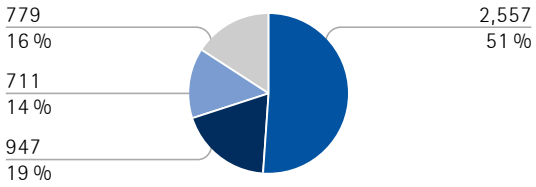
€ million	2009	2008	Δ in %
Total revenues	5,345	5,014	6.6
Gross margin	4,485	4,218	6.3
R&D	1,184	1,074	10
Operating result	355	594	–40
Exceptional items	–40	–354	–
Free cash flow	864	554	56
Underlying free cash flow	867	559	55
ROS in %	6.6	11.8	

Strong growth outside of Europe

In 2009, Europe was again the division's strongest region in terms of sales, which declined by 3.6% to € 2,557 million, mainly as a result of the market withdrawal of the psoriasis drug Raptiva®. With sales of € 533 million, France was our biggest market in Europe. Sales there fell by 15%, due in part to generic competition faced by our CardioMetabolic Care products. Despite a restrictive health care policy, sales in Germany grew by 2.7% to € 497 million. In Italy and Spain, sales declined by 3.1% and 2.4%, respectively, to € 287 million and € 288 million, putting them nearly on par with each other. With growth rates of 15% and 9.9%, respectively, Poland and Russia were two examples of smaller markets that experienced strong growth.

Merck Serono | Sales by region

€ million



Europe North America Latin America Asia, Africa, Australasia

In North America, we expanded our market position, with a 21% increase in sales to € 947 million, primarily attributable to the strong growth of Rebif®. Sales in Latin America rose by 21% to € 711 million. Our largest market in this region, Brazil, posted sales growth of 7.1% to € 210 million. Argentina and Colombia performed well, with sales growth of 21% and 36%, respectively, while sales in Mexico declined by 2.9% because of strong currency effects.

Focusing on the markets of Asia: We achieved good growth rates in Japan, China and India.

In Asia, Africa and Australasia, sales increased sharply by 24%, rising to € 779 million. Thanks to the success of Erbitux®, we more than quadrupled our sales in Japan to € 127 million. At € 56 million, India achieved growth of 7.1%, while China increased sales by 7.8% to € 123 million. We intend to strengthen our presence in this important market. Over the next four years, we plan to invest € 150 million in the establishment of a global center for research and development in Beijing.

Therapeutic areas

	Research	Development	Marketing
Oncology	■	■	■
Neurodegenerative Diseases	■	■	■
Autoimmune and Inflammatory Diseases	■	■	
Fertility	■	■	■
Endocrinology		■	■
CardioMetabolic Care and other products			■

ONCOLOGY

Our targeted oncology drug Erbitux® (cetuximab) is approved in combination with chemotherapy for all lines of therapy or as a monotherapy for pretreated patients in epidermal growth factor receptor (EGFR)-expressing, KRAS wild-type metastatic colorectal cancer (mCRC). In addition, the monoclonal antibody is used to treat recurrent and/or metastatic squamous cell carcinoma of the head and neck (SCCHN) in combination with platinum-based chemotherapy, as well as in combination with radiotherapy for locally advanced head and neck cancer. Erbitux® is currently approved for use in colorectal cancer in 78 countries and in head and neck cancer in 73 countries. We are exploring further indications in additional studies.
In 2009, sales of Erbitux® continued on a growth course, increasing by 23% to € 697 million. This reflects a considerable improvement over the last two quarters of 2008. Over the past two years, the testing of the KRAS status of mCRC tumors has been successfully established as a standard diagnostic tool and is now widely available. This development underscores our strong position in the field of personalized medicine.
In the United Kingdom, the National Institute for Health and Clinical Excellence (NICE) recommended in June the use of Erbitux® in combination with chemotherapy as a first-line treatment for patients with metastatic colorectal cancer who have met specific additional criteria – improving the possibility of potentially curative surgery. Erbitux® is the only targeted therapy endorsed by NICE for the first-line treatment of the disease. A recommendation of this kind is a prerequisite in the United Kingdom for funding of a medical treatment by the National Health Service.

Breakthrough in head and neck cancer

Market launch in the EU: Erbitux® available in a new indication.

Subsequent to receiving approval in November 2008, we launched Erbitux® in January 2009 in the EU for the first-line treatment of recurrent or metastatic squamous cell carcinoma of the head and neck in combination with platinum-based standard chemotherapy. Approval of this new indication was based on the results of the EXTREME study, which was the first trial in 30 years to demonstrate a significant overall survival benefit in the first-line setting. The 2009 guidelines of the European Society for Medical Oncology (ESMO), which recommend Erbitux® as the most suitable treatment in recurrent and/or metastatic and locally advanced head and neck cancer, represent a further milestone.

Negative opinion on Erbitux® in non-small-cell lung cancer
In November, the Committee for Medicinal Products for Human Use (CHMP) adopted a negative opinion for the use of Erbitux® in combination with platinum-based chemotherapy for the treatment of patients with epidermal growth factor receptor (EGFR)-expressing, advanced or metastatic non-small-cell lung cancer (NSCLC). This followed an initial negative opinion issued by this scientific committee of the European Medicines Agency EMA (previously: EMEA) in July. Merck requested reexamination of this opinion because the Phase III FLEX study had shown that in first-line treatment, Erbitux® significantly increased overall survival in patients with non-small-cell lung cancer across all histologies. We respect the decision of the CHMP; nevertheless, we remain committed to our clinical development program designed to tap the potential of Erbitux® in the treatment of various cancer types, including gastric cancers.

NEURODEGENERATIVE DISEASES

Sales in the Neurodegenerative Diseases therapeutic area are attributable almost exclusively to Rebif® (interferon beta-1a), a drug to treat relapsing-remitting forms of multiple sclerosis (MS). According to estimates, around 1.6 million people suffer from MS worldwide. Owing to its proven efficacy and favorable risk-benefit profile, Rebif® is a basic treatment for MS and is approved in more than 80 countries. In 2009, Rebif® recorded double-digit growth of 15%, with sales increasing to € 1,537 million. The recombinant protein was thus once again the top-selling product of the Merck Serono division and remained the leading MS treatment outside of the United States. With solid growth of 6.8%, Europe accounted for € 708 million, or nearly half of Rebif® sales. The new formulation, which offers improved injection tolerability, has meanwhile been introduced in all countries of the European Union and in Switzerland. Germany and the United Kingdom, two important markets, registered strong above-average growth of 7.9% and 13%, respectively. With sales of € 676 million, North America is our second-largest market for Rebif®. Sales grew sharply by 28% thanks to a strong increase in the United States. Discussions with the U.S. Food and Drug Administration concerning the approval of the new formulation of Rebif® continue. While sales in Latin America increased by 13%, mainly because of strong growth in Argentina, we recorded an increase of 5.8% in the region Asia, Africa, Australasia.

Electronic injection device Rebismart™ to improve patient compliance

Rebismart™ for the self-administration of Rebif® is easy and convenient to use.

In June, we launched Rebismart™, an electronic injection device for the self-administration of Rebif®. It is the first injection device of its kind for MS and has been specifically designed to improve ease of handling and usage. It is intended to increase compliance so that patients can fully benefit from their treatment. A Rebismart™ user trial showed broad patient acceptance. The majority of patients found the injection device "suitable" or "very suitable" for self-injection and rated the device function as "easy" or "very easy" to use. So far, Rebismart™ is available in Canada and seven EU countries.

AUTOIMMUNE AND INFLAMMATORY DISEASES

From October 2008 to February 2009, Merck Serono reported to the European Medicines Agency (EMA) three virologically confirmed fatal cases of progressive multifocal leukoencephalopathy (PML). They were observed as adverse events in patients treated with Raptiva®, our drug for the treatment of moderate-to-severe psoriasis. In February, the EMA recommended the suspension of the marketing authorization for Raptiva®. Subsequent to the EMA recommendation, we worked closely with the drug regulatory agencies not only in Europe, but also in all our other markets to terminate the supply of Raptiva® and withdraw the product from the market around the world.
As a result of the sales termination and product recalls, sales of Raptiva® dropped from € 93 million in 2008 to € 4.7 million. We recorded an exceptional item of € 40 million for all costs associated with the suspension of the marketing authorization. Merck Serono intends to continue to focus on Autoimmune and Inflammatory Diseases, a commitment that is underscored by the development projects in our pipeline in conditions as diverse as systemic lupus erythematosus and osteoarthritis.

FERTILITY

The Merck Serono division is a global leader with its portfolio of drugs to treat infertility. We are the only company that offers physicians and patients recombinant versions of the three main reproductive hormones that are important for the treatment of infertility. In 2009, sales by the Fertility therapeutic area increased by 9.0% to € 616 million, whereas the volume of all gonadotropins sold worldwide grew by only around 3%. Europe remained our most important market. In 2009, we generated half of our sales, which were slightly higher than in 2008, in this region. In our three other regions, sales developed well, particularly in Asia, Africa, Australasia, which posted an increase of 27%.

Stable growth of Gonal-f®

Gonal-f® is approved in 100 countries and is the world's leading female fertility drug.

Gonal-f® (follitropin alfa for injection) is a recombinant form of natural follicle-stimulating hormone. It is approved in 100 countries and is the world's leading female fertility drug. The improved version of the Gonal-f® pen, our injection device which we introduced in 2007, has meanwhile been approved in more than 70 countries. Sales of Gonal-f® grew by 5.8% to € 486 million, primarily as a result of strong growth in Asia, Africa, Australasia, North America, and Latin America. In Japan, sales increased by more than 50%. Previously, Gonal-f® had been approved in this market only to treat male infertility. In July, we additionally received approval for the treatment of infertile women with irregular or absent ovulation. In the United States, sales of Gonal-f® grew 8.9% in an otherwise stagnating market. In Europe, where we generated nearly one-half of Gonal-f® sales, we sustained a 5.1% decline in sales. Business in Spain was adversely affected by the economic crisis since private payers dominate the market, which is strongly influenced by economic fluctuations. Gonal-f® sales in Turkey also suffered considerably owing to a change in the reimbursement policy of health care payers. By contrast, sales in the United Kingdom rose significantly thanks to increased cost coverage by medical insurance companies and an adaptation of the market strategy.
Our recombinant combination treatment Pergoveris™ is used to stimulate follicular development in infertile women with severe follicle-stimulating hormone and luteinizing hormone

deficiency. Available in Europe since 2007, it is the first drug to allow the simultaneous administration of the two key hormones for ovarian stimulation in a single subcutaneous injection. Compared with 2008, sales more than doubled, increasing to € 29 million. Ovidrel®/Ovitrelle® is a recombinant version of the naturally occurring hormone hCG and is used for triggering follicle maturation and ovulation. Sales of this product increased by 9.5% to € 37 million, mainly as a result of good growth in Europe and North America.

Advanced training and education for fertility treatment specialists

www.GlobalFertilityAcademy.org

In July, Merck Serono launched the "Global Fertility Academy" to enhance clinical standards and maximize treatment success. This educational program was developed specifically for physicians specializing in infertility treatment and consists of a web-based learning platform and a practical training module. With the "Grant for Fertility Innovation", which we launched in June, we want to promote initiatives in translational research aimed at increased pregnancy rates in assisted reproductive techniques.

ENDOCRINOLOGY

The continued success of Saizen® was favorably impacted by the high acceptance of our electronic injection device Easypod®.

By offering specialized therapies and user-friendly injection devices, the Merck Serono division aims to improve the lives of patients with endocrine and metabolic disorders. Sales by the Endocrinology therapeutic area increased by 14% over the previous year to € 262 million thanks to double-digit growth in all regions.

Our largest product is Saizen®, a recombinant human growth hormone. It is approved in 78 countries for indications including the treatment of pediatric and adult growth hormone deficiency, Turner Syndrome, growth failure associated with chronic renal failure, as well as to treat children born small for gestational age (SGA). According to estimates, growth hormone deficiency affects 100,000 children globally and 50,000 adults in Europe. Sales of Saizen® totaled € 191 million, an increase of 11%. Europe was our top-selling market for the growth hormone. Latin America showed the strongest growth with sales rising by 30%. As in the previous year, the continued success of Saizen® was favorably impacted by the high acceptance of our electronic injection device Easypod®, which has meanwhile been approved in 39 countries. As the first automatic delivery device for growth hormone, it makes once-daily administration easier for patients and medical professionals and its simple operation supports compliance. Easypod® was launched in the United States in early 2009. In September, we received marketing authorization in Japan and launched the product there as well.

Our drug Serostim® is used in the United States to treat patients suffering from HIV-associated wasting, which is estimated to affect up to 8% of HIV-infected individuals. Sales of Serostim® rose 17% to € 65 million.

Successful market launch of Kuvan® in Europe

With Kuvan® for the treatment of hyperphenylalaninemia, caused by either phenylketonuria (PKU), a congenital metabolic disorder, or a lack of the important co-enzyme tetrahydrobiopterin, we offer the first drug for this orphan disease in Europe. According to estimates, around 50,000 people are affected in Europe; 20% to 50% of PKU patients could benefit from treatment with Kuvan®. Subsequent to receiving marketing approval at the end of 2008, we began launching Kuvan® in April 2009. It is already available in ten EU countries and generated sales of € 5.6 million, exceeding our expectations.

In order to collect additional information on the benefits and safety of long-term therapy with Kuvan®, Merck Serono set up the KAMPER patient registry in December. This observational study aims to follow more than 600 patients in 11 European countries over a period of 15 years.

To support PKU patients and their families, we collaborated with physicians and dieticians to develop a new website which offers detailed information on PKU and possibilities for treatment.

www.pku.com/en

CARDIOMETABOLIC CARE AND OTHER PRODUCTS

We are continually working to improve well-established products, for example by developing new dosage forms and strengths.

The CardioMetabolic Care therapeutic area comprises our drugs for treating diabetes, cardiovascular diseases and thyroid disorders. The interrelationships that exist between these chronic cardiovascular and metabolic diseases are the causes of many complex clinical pictures that call for integrated therapeutic approaches. We are continually working to improve well-established products, for example by developing new dosage forms and strengths. In this way, we want to help improve patient compliance, which is often crucial to treatment success.

At € 916 million, sales by the CardioMetabolic Care therapeutic area remained at the previous year's level owing to adverse currency effects. Organically, however, we posted a slight increase. A decline in sales of beta-blockers was offset by higher sales of diabetes and thyroid medicines.

Our other products, some of which are only sold in certain regions, generated sales of € 927 million.

Difficult environment for Concor® in Europe – strong sales internationally

Sales of branded Concor® products containing the active ingredient bisoprolol amounted to € 395 million, making this the top-selling franchise within CardioMetabolic Care. In comparison with 2008, sales decreased by 5.4%, primarily as a result of a 12% decline in Europe, our largest market, where bisoprolol remains the leading beta-blocker in products such as Lodoz® and Concor®COR. The introduction of generic versions of Lodoz® in late 2008 and Concor®COR in mid-2009 in France, our largest market within Europe, the transfer of several products to Daiichi Sankyo in Italy, as well as negative currency effects, especially in Poland and the United Kingdom, were responsible for lower sales in Europe. In Asia, Africa, Australasia and especially in Latin America, however, the Concor® family recorded an increase in sales.

Successful development of the Glucophage® franchise

According to estimates, around 220 million people have type 2 diabetes and the number is rising. The active ingredient metformin, which is contained in our product Glucophage®, is the drug of choice for first-line treatment of this condition and is recommended by international diabetes associations. More than six million patients around the world benefit from our oral metformin antidiabetic agents.

With Glucophage® Powder, which dissolves immediately, in Europe we introduced an alternative to tablets in May 2009.

The branded products from the Glucophage® family generated sales of € 291 million, despite generic competition and currency effects. The 8.5% increase in sales was due mainly to successes in Latin America and many Asian countries as well as the good development of more recent product line extensions. In particular, sales of Glucophage XR® – a once-daily formulation that we launched in a 1000 mg dosage strength in 2009 – increased sharply. With Glucophage® Powder, which we introduced in May 2009 in Europe, we now offer a dosage form that is immediately soluble and represents an alternative to tablets. It is especially convenient for patients who need to take numerous medications.

Stable business with thyroid products

Merck Serono is the world's second largest supplier of drugs to treat thyroid disorders as well as to prevent iodine deficiency diseases. In Europe, Latin America and China, we are the market leader. Thyroid disorders are one of the most prevalent diseases. More than 300 million people around the world suffer from hypothyroidism; not even 20% of them are treated. We want to educate patients about these disorders and promote optimum treatment. In May, we launched an awareness campaign together with the International Thyroid Federation. In China, we are working with the Chinese Ministry of Health in order to inform the public about thyroid disorders.

Sales of our products to treat thyroid disorders grew by 5.3% over the previous year to € 158 million. We achieved far more than half of sales in Europe. Sales of the thyroid hormone Euthyrox® increased by 6.5% to € 137 million. Approximately 14 million patients in about 90 countries around the world are treated with Euthyrox®.

RESEARCH & DEVELOPMENT

Research and development spending increased by 10% to € 1,184 million in 2009. This is equivalent to 22% of the total revenues of the Merck Serono division. Our research and development activities have three main areas of focus: Oncology, where we are seeking new therapeutic options for tumors such as colorectal cancer, lung cancer, head and neck cancer, breast cancer and gastric cancer; Neurodegenerative Diseases, where we are working on new therapies for multiple sclerosis and Parkinson's disease; Autoimmune and Inflammatory Diseases, where we are focusing on rheumatological indications. We also continue to conduct research and development work in the field of Fertility. As of December 31, 2009, the division had around 2,800 employees working in research and development.

Our research pipeline comprises ten projects in Phase III, eight in Phase II and five in Phase I. The large share of projects in the later and more costly stages of clinical development is the reason for the marked increase in our R&D spending.

We continue to position ourselves as a company with research and development expertise relevant to both small molecules as well as biopharmaceuticals. This strategy gives us the flexibility to select the most suitable approach for each medically relevant molecular target. Since our pipeline includes many promising candidates, we will continue to prioritize our projects in order to maximize opportunities and to manage risks. We also assign priority to partnerships with other companies. Our key hubs are our three R&D centers in Darmstadt, Geneva as well as Boston. In addition, we plan to establish an R&D center in Beijing in order to better address the Asian region and to facilitate local clinical trials. From 2010 to 2013, we will invest € 150 million and create 200 highly qualified positions there. The expansion work is proceeding as scheduled at our site in Boston, where we are investing a total of US$ 65 million. The new research center is expected to be completed by the end of 2010 and will accommodate around 200 scientists.

A strong network and alliance partner

Cooperating with partners and forming strategic alliances are essential elements of our strategy. We again set up promising new partnerships in 2009. In the United States, our subsidiary EMD Serono entered into an alliance with the University of Texas M. D. Anderson Cancer Center. The aim is to provide early insight into potential cancer treatments and to accelerate early clinical research.

In the field of Neurodegenerative Diseases, we formed an exclusive partnership with Fast Forward – a subsidiary of the American National Multiple Sclerosis Society. Within the scope of this partnership, we will evaluate and fund multiple sclerosis research projects. Merck will provide up to US$ 19 million in order to support early-stage clinical development projects with biotech companies and projects with individual researchers or academic institutions. In addition, Merck Serono set up a strategic collaboration with Brigham and Women's Hospital in Boston. The aim is to advance basic and clinical research in multiple sclerosis.

Merck Serono Ventures is the name of the strategic corporate venture capital fund that we launched in March. It will invest in biotech start-up companies that have the potential to provide innovative products in Merck Serono's core therapeutic areas. The focus is on Neurodegenerative Diseases, Oncology as well as Autoimmune and Inflammatory Diseases. The fund will invest up to € 40 million over the first five years.

Erbitux®: Expanding the prospects for personalized cancer treatment

Merck is active in biomarker research in order to personalize therapies and predict clinical outcomes.

Merck is a leader in personalizing cancer care and remains committed to offering patients therapies tailored to their cancer. We are not only developing new, targeted therapies, but are also making an important contribution to the increasingly important field of biomarker research. Findings in this area will help to further personalize therapies and predict the clinical response of patients to treatments – as is possible, for example, with our targeted oncology drug Erbitux® and the KRAS wild-type status of tumors in patients with metastatic colorectal cancer (mCRC). In this way, we want to enhance efficacy, patient benefit and health economic performance.

Status of our innovative compounds

Therapeutic area	Compound	Indications	Status
Oncology	Erbitux ® (cetuximab, monoclonal anti-EGFR antibody)[1]	Adjuvant colorectal cancer	Phase III
		Gastric cancer	Phase III
	Cilengitide (integrin inhibitor)	Glioblastoma (brain tumor)	Phase III
	Stimuvax ® (therapeutic cancer vaccine)[2]	Non-small-cell lung cancer (NSCLC)	Phase III
		Breast cancer	Phase III
	Erbitux ®[1]	Breast cancer	Phase II
	Tucotuzumab celmoleukin (immunocytokine)	Small-cell lung cancer (SCLC)	Phase II
	Cilengitide	Head and neck cancer (SCCHN)	Phase II
		Non-small-cell lung cancer (NSCLC)	Phase II
	Adecatumumab (monoclonal anti-EpCAM antibody)[3]	Colorectal cancer	Phase II
	Monoclonal anti-integrin antibody (DI17E6)	Colorectal cancer	Phase II
	TLR9 immunomodulator (IMO-2055)[4]	Head and neck cancer (SCCHN)	Phase II
	Aurorakinase inhibitor (AS703569)[5]	Solid tumors and hematological diseases	Phase I
	MEK inhibitor (AS703026)[6]	Solid tumors and hematological diseases	Phase I
	Sonepcizumab (monoclonal anti-S1P antibody)[7]	Solid tumors	Phase I
	c-Met kinase inhibitor (EMD1214063)[8]	Solid tumors	Phase I
Neurodegenerative Diseases	New formulation of Rebif ®	Relapsing-remitting forms of multiple sclerosis (MS); EMA: approved, FDA: filed	Approved/ Filed
		Clinically isolated syndrome	Phase III
	Cladribine tablets	Relapsing-remitting forms of MS; EMA: filed, FDA: resubmission in preparation	Filed
		Clinically isolated syndrome	Phase III
	Safinamide[9]	Early-stage Parkinson's disease	Phase III
		Mid- to late-stage Parkinson's disease	Phase III
Autoimmune & Inflammatory Diseases	Atacicept (anti-BLyS/anti-APRIL fusion protein)[10]	Systemic lupus erythematosus	Phase III
	Fibroblast growth factor 18[10]	Osteoarthritis	Phase I
Endocrinology	Tesamorelin[11]	Lipodystrophy in HIV patients (only U.S.)	Filed
	ARX 201 (long-acting growth hormone)[12]	Growth hormone deficiency	Phase II

[1] Developed in cooperation with ImClone: Erbitux ® is a trademark of ImClone Systems, a wholly owned subsidiary of Eli Lilly & Co.
[2] Exclusive worldwide licensing rights acquired from Oncothyreon Inc.
[3] Collaboration with Micromet AG
[4] Inlicensed from Idera Pharmaceuticals Inc.
[5] Collaboration with Rigel Pharmaceuticals Inc.
[6] All rights acquired from Santhera Pharmaceuticals AG
[7] Collaboration with LPath, Inc.
[8] Collaboration with M. D. Anderson Cancer Center
[9] Collaboration with Newron Pharmaceuticals S.p.A.
[10] Inlicensed from ZymoGenetics Inc.
[11] Collaboration with Theratechnologies
[12] Collaboration with Ambrx, Inc.

SCCHN: Squamous cell carcinoma of the head and neck
NSCLC: Non-small-cell lung cancer
SCLC: Small-cell lung cancer

In September, the latest results of the CRYSTAL study showed how successful this approach is. They demonstrate that the addition of Erbitux® to the standard first-line chemotherapy regimen FOLFIRI significantly improved overall survival in metastatic colorectal cancer patients with KRAS wild-type tumors. In patients with KRAS wild-type tumors who received Erbitux® in addition to FOLFIRI, median overall survival was extended by 3.5 months compared to patients receiving chemotherapy alone. This was the first time an overall survival benefit had been demonstrated with a targeted therapy in combination with FOLFIRI in this disease setting. The risk of disease progression was reduced by 30% while the likelihood of achieving a tumor response doubled overall to 57%.

Focusing on new indications for Erbitux®

Merck is supporting PETACC-8, an independent colorectal cancer trial that is being coordinated by the Fédération Francophone de Cancérologie Digestive (FFCD). This Phase III clinical trial is investigating the efficacy of Erbitux® plus standard chemotherapy in the adjuvant setting, meaning after complete surgical removal of the primary tumor, in patients with stage III colorectal cancer whose tumors were KRAS wild-type. The aim of the study is to determine whether the addition of Erbitux® to a standard chemotherapy regimen can lower the recurrence rate and prolong disease-free survival. The recruitment of 2,566 patients for the PETACC-8 study was completed in 2009.

In addition, Merck is investigating the efficacy of Erbitux® in gastric cancer in the pivotal Phase III EXPAND trial. This trial is investigating the benefit of Erbitux® in combination with standard chemotherapy in first-line treatment of patients with advanced and metastatic gastric cancer.

Cancer vaccine Stimuvax® being studied in breast and lung cancer

Our therapeutic cancer vaccine Stimuvax® is being studied in breast and lung cancer in Phase III clinical trials.

The therapeutic cancer vaccine Stimuvax® (liposomal vaccine BLP25) is currently being studied in two indications in three Phase III clinical trials. It is designed to induce an immune response to cancer cells that express MUC1 protein, an antigen that is over-expressed on the surface of tumor cells for example in advanced breast cancer and non-small-cell lung cancer (NSCLC) – the indications we are investigating.

We are currently conducting START, a Phase III trial to evaluate the efficacy and safety of treatment with Stimuvax® in patients with inoperable stage III non-small-cell lung cancer. The primary endpoint of the START trial, which began in 2007, is overall survival. The decision to initiate this trial was based on the results of a randomized Phase IIb study, in which Stimuvax® showed an increase in the survival time of a subset of patients with locoregional stage IIIb NSCLC from 13.3 months in the control group to 30.6 months in the treatment group. In December we initiated INSPIRE, a Phase III trial in NSCLC, in five Asian regions.

In addition, we started STRIDE, our first global Phase III clinical study of Stimuvax® in patients with advanced, inoperable breast cancer, in June 2009. The study will determine if Stimuvax® can extend progression-free survival in patients treated with hormonal therapy who have hormone receptor-positive, locally advanced, recurrent or metastatic breast cancer. Overall survival, quality of life, tumor response and safety will also be assessed in this study. STRIDE will enroll more than 900 patients with advanced breast cancer at an estimated 180 centers in over 30 countries – within North America, Europe, Asia and Australia.

Further oncology projects in the development pipeline

With the development of cilengitide, Merck is focusing on a new class of experimental cancer drugs. Cilengitide is the first integrin inihibitor to have entered Phase III clinical development (CENTRIC) in glioblastoma multiforme (GMB) – the most aggressive form of brain tumor. Integrin inhibitors are thought to work by targeting tumor cells and the vascular network required to nourish the tumor and promote cancer cell growth. Data from an independent and randomized Phase II study published in May show that in combination with chemoradiotherapy, cilengitide can extend survival in patients with newly diagnosed glioblastoma. Apart from the GMB indication, we are investigating the efficacy of cilengitide in lung cancer as well as in head and neck tumors in two separate Phase II clinical trials.
In addition, we began studying the efficacy of the monoclonal anti-integrin antibody DI17E6 in colorectal cancer in a Phase II clinical trial in 2009. In December the immunomodulator IMO-2055 for the treatment of head and neck cancer entered Phase II clinical development.

Rebif® being studied in a new indication

Multiple sclerosis (MS) and Parkinson's disease involve serious unmet medical needs. Within our Neurodegenerative Diseases therapeutic area, we are conducting research to discover new therapeutic options.
REFLEX is the name of the most important ongoing clinical trial focused on the further development of Rebif®, our successful MS treatment. The two-year pivotal Phase III study is evaluating the efficacy of the new formulation of Rebif® in more than 500 patients with clinically isolated syndrome. Study participants with this clinical picture have so far experienced a single MS-like symptom, such as optical or sensory disturbances, and are at risk of developing MS but have not yet been given a clinically definite diagnosis of MS. The trial is designed to evaluate whether treatment with Rebif® in the early stages of the disease can delay the progression to clinically definite MS.

In the IMPROVE trial, the positive effect of treatment with Rebif® was detected in just four weeks after treatment began.

The results of the completed 40-week Phase IIIb IMPROVE study confirm the therapeutic effect of the new formulation of Rebif® in patients with relapsing-remitting MS. After 16 weeks of treatment, the number of combined unique brain MRI lesions in patients treated with Rebif® was significantly lower compared to placebo. This positive effect could be detected as early as four weeks after treatment initiation and was sustained over the 40-week trial period. The results after 16 weeks also showed a significant reduction in the relapse rate versus placebo and an improvement in injection site reactions.

Cladribine tablets for the oral treatment of MS submitted for regulatory approval

With cladribine tablets, the Merck Serono division is developing a drug for the oral treatment of relapsing-remitting forms of MS. Treatment would become considerably more convenient for patients and compliance could improve since a single daily tablet would only need to be taken a few times a year for four to five days. We submitted marketing authorization applications for cladribine tablets with the EMA in Europe in July and with the FDA in the United States in September. The submissions are largely supported by results of the CLARITY study, a two-year randomized, double-blind, placebo-controlled Phase III trial of cladribine tablets as a monotherapy in 1,300 patients with relapsing-remitting MS. A significant relative reduction in annualized relapse rates was seen in patients treated with cladribine tablets compared to placebo. Data from a post-hoc analysis of the CLARITY study show that short-course treatment with cladribine tablets significantly increased the proportion of patients with absence of disease activity compared to placebo. At the end of November, the FDA issued a refuse to file letter.

Merck Serono will work closely with the FDA to successfully resubmit the application at the earliest possible point in time.
The two-year Phase III ORACLE-MS study is investigating cladribine tablets as a treatment for patients with an increased risk of developing MS. In the Phase II ONWARD study, we are evaluating the safety and tolerability of adding cladribine tablets to established treatment with interferon beta. Patient recruitment has been completed.
We discontinued the development of atacicept in multiple sclerosis after observing in one of three Phase II clinical trials increased MS disease activity in patients taking atacicept compared to placebo.

New study started with safinamide in late-stage Parkinson's disease

The first Phase III clinical trial with safinamide for the treatment of late-stage Parkinson's disease was successfully completed.

Together with our partner Newron, we are developing safinamide as an oral add-on therapy for patients with Parkinson's disease, which affects an estimated three million people in industrialized countries. We successfully completed the first Phase III clinical trial of safinamide administered as an adjunctive therapy to levodopa standard treatment in patients with advanced Parkinson's disease after a six-month treatment period. Motor functions and the ability to perform daily activities improved significantly in patients treated with safinamide compared to placebo. In May, we started SETTLE, our second Phase III clinical trial in this indication, which will involve more than 450 patients. We are evaluating safinamide as an add-on therapy to a dopamine agonist in early Parkinson's disease in a Phase III clinical trial.

Fertility research and development activities realigned

The objective of Merck Serono's research and development work in the therapeutic area of Fertility is to help infertile couples at every stage of the reproductive cycle – from follicular development to early pregnancy – to realize their dream of having a child. We want our innovative treatments and application devices to offer maximum convenience of use and increase the chances of pregnancy. Our well-established products for the treatment of infertility are already known for their safety and efficacy. Further improvements in the number of successful pregnancies are only possible by realigning our R&D activities in Fertility. By focusing on drugs, technologies and support services, we want to improve the success of in vitro fertilization treatments and thus increase the take-home baby rate.
In the course of this new strategy, we terminated the Phase II program for a long-acting recombinant follicle-stimulating hormone (hyperglycosylated FSH) for assisted reproduction therapy and to induce ovulation. The expected benefit for patients would have been too low. This would not have warranted the significant time and investment required for late-stage development and the subsequent submission of an application for marketing authorization.

Therapeutic target in systemic lupus erythematosus validated for atacicept

Our research and development work in Autoimmune and Inflammatory Diseases focuses on proteins that modulate key pathogenic mechanisms in these diseases. We are developing the recombinant protein atacicept for autoimmune diseases such as systemic lupus erythematosus (SLE). This innovative compound blocks the two immunomodulatory factors APRIL and BLyS. They are important for the survival and the proliferation of lymphocytes that trigger an abnormal immune reaction against the patient's own normal tissues.

SLE is a chronic, autoimmune disease that mainly affects women and is an area of great unmet medical need. We are currently enrolling patients into a Phase II/III clinical trial with atacicept in SLE. In the second half of 2009, a competitor published positive data from two Phase III trials in SLE involving a BLyS-targeted compound administered intravenously. These results are encouraging for us since atacicept targets not only BLyS but also APRIL, and is administered by subcutaneous injection, which is more convenient for patients than an infusion.

In 2008, we discontinued a Phase II/III study in lupus nephritis (LN), a particularly severe form of kidney failure, owing to infections that were probably the result of significant disease activity coupled with the concomitant use of several immunosuppressive medications. Having evaluated the trial data, we are now adjusting the clinical development plan for atacicept in lupus nephritis.

We analyzed the results of our Phase II trials with atacicept in rheumatoid arthritis (RA). Although we noted strong biological effects and indications of clinical benefit, the efficacy data did not correspond to our criteria for a move to Phase III.

Fibroblast growth factor 18 could be the first disease-modifying treatment for osteoarthritis.

Thanks to its novel mechanism of action, fibroblast growth factor 18 (FGF 18) could be the first disease-modifying treatment for osteoarthritis and the repair of cartilage damaged following injury. In the laboratory it has been shown to stimulate the regeneration of articular cartilage defects. FGF 18 may thus support the healing of degenerative joint disease instead of simply treating its symptoms. Patient enrollment was completed early for two Phase I clinical trials that are currently underway.

Development projects on growth disorders and metabolic diseases

Our development projects in the therapeutic area of Endocrinology derive from research work on growth disorders and metabolic diseases – two areas where the Merck Serono division can build on its long-standing experience. Tesamorelin is a growth hormone-releasing factor analog to which our U.S. subsidiary EMD Serono acquired the U.S. commercialization rights. This compound has therapeutic potential in a variety of indications. Following the successful conclusion of Phase III clinical trials, our development partner Theratechnologies submitted an application in the second quarter to the U.S. Food and Drug Administration for use in reducing excess abdominal fat in HIV patients with lipodystrophy. It is estimated that 30% to 50% of HIV patients suffer from this condition, for which there is currently no approved treatment available.

PHARMACEUTICALS | CONSUMER HEALTH CARE

Our Consumer Health Care division offers high-quality over-the-counter products for preventive health care and self-treatment of minor ailments. Its product range includes global, scientifically based branded products that customers trust. The Consumer Health Care division is represented in many countries of Europe, Latin America, Asia and Africa.

KEY PRODUCTS

- Mobility: Products to strengthen the joints and relieve pain, including the brands Seven Seas®, Seven Seas® JointCare, Flexagil® and Kytta®
- Everyday health protection: Probiotic multivitamin products Bion® and Multibionta®; vitamins and minerals sold under brand names such Cebion® and Diabion®
- Women's and children's health: Femibion®, products with folic acid and Metafolin® for pregnant and nursing women; Kidabion® (Haliborange®), a vitamin product for children
- Cough and cold: Cold remedy Nasivin® (Iliadin®); flu remedy Sedalmerck®

KEY DEVELOPMENTS IN 2009

- Growth course continues, with most countries clearly outperforming the market
- Strong recovery takes hold in the last two quarters following a weak start to 2009
- Power brands reinforced as the right strategy for the crisis
- Integration of the Belgian company Bio-Fyt
- Cooperation with the Chinese Medical Doctors Association (CMDA) to improve nutritional counseling in hospitals
- Cooperation strengthened with Bracco, a supplier of OTC pharmaceutical products in Italy
- Entry into the Canadian market with Multibionta®

Bion®
The probiotic vitamin is the second-leading OTC brand in France.

Kytta®
The plant-based range proves its strength in the German market.

Femibion®
The brand specifically designed for women boosts business in the United Kingdom.

CONTINUING ON A GROWTH COURSE

The Consumer Health Care division continued on a growth course in 2009. We consolidated our market position, underpinned by the success of our strategic brands and numerous new product launches.

www.merck.de/consumerhealthcare

Focus on four health themes

Consumer Health Care specializes in over-the-counter pharmaceutical products, focusing on four health themes: Mobility, Everyday Health Protection, Women's and Children's Health, and Cough and Cold. The main distribution channels for our products are pharmacies, as well as retail chains, drug stores and mail order in some countries and certain markets. We are building on the strength of our well-known brands and the long-standing trust consumers place in them with respect to their quality and efficacy.

Consumer Health Care | Key figures

€ million	2009	2008	Δ in %
Total revenues	467	442	5.7
Gross margin	319	294	8.7
R&D	19	17	16
Operating result	48	61	–21
Exceptional items	–	–	–
Free cash flow	49	5.6	–
Underlying free cash flow	49	38	28
ROS in %	10.3	13.9	

Strong brands and regional expansion

Total revenues grew organically by 8.6%.

Total revenues of the Consumer Health Care division rose by 5.7% to € 467 million in 2009. We thus met our objective of continuing on our growth course. Organic growth was 8.6%. Sales by wholesalers to end customers even saw double-digit growth due to increased destocking, as for instance mandated by law. Following a difficult first half, attributable also to destocking, business recovered markedly in the last two quarters, with sales significantly exceeding market growth in many countries. The cornerstones of our strategy are strong brands and regional expansion. With a few exceptions, our key markets developed well. However, in some markets, negative currency effects diminished organic growth and the successes achieved. This was primarily noticeable in the United Kingdom as well as in Poland and Mexico.

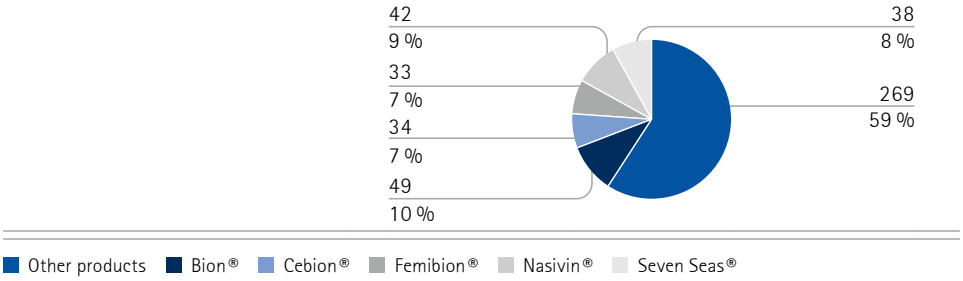
The operating result of the Consumer Health Care division declined by 21% to € 48 million; ROS was 10.3% versus 13.9% in 2008. In comparison with the previous year, it should be noted that exceptional items had a strong impact in 2008, primarily the sale of the biManán® brand in Spain for € 11 million. Additionally, the operating result was adversely affected by exchange rate losses, mainly with respect to Venezuela. Research and development spending rose by 16% to € 19 million. Underlying free cash flow increased by 28% to € 49 million in 2009.

Development of strategic brands

Global sales of most of our strategic brands developed well in 2009. Sales of Kytta® grew 33% to € 19 million, Bion®3 sales increased by 10% to € 49 million, and sales of Femibion® rose 29% to € 33 million. Owing to unfavorable exchange rate movements, sales by Seven Seas fell 9.5% to € 38 million. Nasivin® registered a decline of 9% to € 42 million, which was attributable to the weakness of the Russian market, among other things.

Top five brands by sales in 2009

€ million



Europe remains the most important region

In 2009, Europe remained our most important region with sales of € 319 million, an increase of 4.1% over 2008. The majority of these sales, or € 308 million, were achieved in EU countries.

Number one in the French OTC market

France remains the top-selling country for Consumer Health Care.

France remained our top-selling country, posting sales of € 99 million, or 5.4% more than in 2008. Our subsidiary Merck Médication Familiale moved to first place in the market for prescription-free medicines not reimbursed by sickness funds. At the same time, the company maintained second place in the market for nutritional supplements. The metafolin product Femibion® performed well. With Bion Restore®, a further probiotic multivitamin product was launched under the Bion® brand. This product helps people restore their health, such as after a cold or the flu. It contains probiotics, zinc, histidine and vitamin C. Bion® is now the second-leading brand in the French OTC market with sales of more than € 30 million.

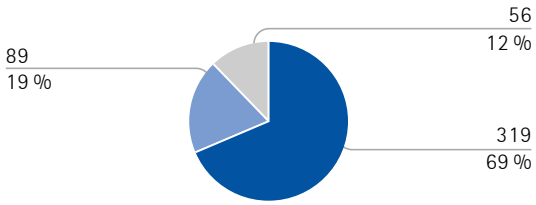
Currency effects in the United Kingdom

Femibion® with five new products in the United Kingdom.

In the United Kingdom, our second most important market, we faced strong competition from store brands of major retail and drug store chains. The weakness of the British pound again led to negative currency effects in 2009. Sales declined here by 16% to € 54 million. Adjusted for currency effects and sales of the Petcare business, which we divested in 2008, the decline amounted only to 2.9%. We want to regain market share in the United Kingdom, for example by launching Femibion®. The range comprises five products for women united under one umbrella brand: Femibion® Healthy Pregnancy for pregnant women, Femibion® Energetic Mum for young mothers, Femibion® Radiance for a healthy appearance and attractive skin, Femibion® Balance, which helps to maintain healthy nutrition balance throughout the monthly cycle, as well as Femibion® Healthy Bones, which helps protect the bones from losing minerals and strength during menopause.

Consumer Health Care | Sales by region

€ million



Europe Latin America Asia, Africa, Australasia

Kytta – a flagship product in Germany

Germany is our third largest market. Sales increased by 22% to € 56 million in 2009. The Kytta® products performed superbly. Above all, the plant-based Kytta® ointment for the relief of pain caused by contusions, strains and sprains delivered excellent results again and captured second place in this market segment. This was supported by an advertising campaign that included a television commercial that won numerous awards. With Femibion® we are the market leader in Germany. Particularly strong sales growth was achieved via online pharmacies, a distribution channel that appeals especially to the target group of young mothers.

Integration of Bio-Fyt in Belgium strengthens our position

In Belgium, the integration of Bio-Fyt, which we acquired at the end of 2008, was completed. The company focuses on products for mobility, women's health and everyday health protection. Bio-Fyt was officially renamed Merck Consumer Health Care Belgium in September. The integration proceeded rapidly. Logistics systems were aligned and activities were fully merged. The Consumer Health Care division now has a strong presence in the four key health themes, has a larger sales force, and is one of the leading players in the Belgian OTC market. Consequently, sales in Belgium increased by 53% to € 27 million.

In Spain, the business was restructured following the sale of the biManán® brand of diet products. For example, Femibion® was launched, supported by a major marketing campaign. Femibion® is the official sponsor of "Plenufar", a program that was initiated by the Spanish Federation of Pharmacists. This program promotes optimal nutrition for pregnant and nursing women and has a reach of 5,000 pharmacies.

Partnering with Bracco in Italy

Establishing our global strategic brands in Italy is the aim of an enhanced partnership with the Italian pharmaceutical company Bracco, which ranks among the top ten in the OTC market of Italy. Bracco has been a reliable partner to Merck for decades and enjoys a superb reputation among pharmacists, physicians and consumers. Cooperation is initially planned until 2014. Flexagil® was the first CH brand to be launched by Bracco. Two products from this range to treat joint problems were launched in April. Flexagil® Re-Generate2 helps to keep joints flexible and supple. Flexagil® Stop Friction supports mobility in people with osteoarthritis and other joint problems.
Within Europe, our businesses showed good growth in Austria, Portugal and Slovakia, among other countries.

A triple market launch in Mexico

In Latin America, we increased sales by 16% to € 89 million. Sales rose by 3.1% to € 6.9 million in Brazil. In Mexico, where sales totaled € 32 million, we launched three new products. These include Flexagil® Re-Generate3, a treatment for joint problems, and Sedalmerck® MAX, an analgesic containing the maximum concentration of paracetamol and caffeine permitted in an over-the-counter product sold in Mexico. We added a special cream to the Diabion® range of multivitamin products, which are specially formulated for people with diabetes, who often suffer from dry skin and other dermatological problems. Customers in Mexico have welcomed this new development. We entered the Canadian market with our first product, the probiotic multivitamin Multibionta®, also known as Bion®3 in other countries.

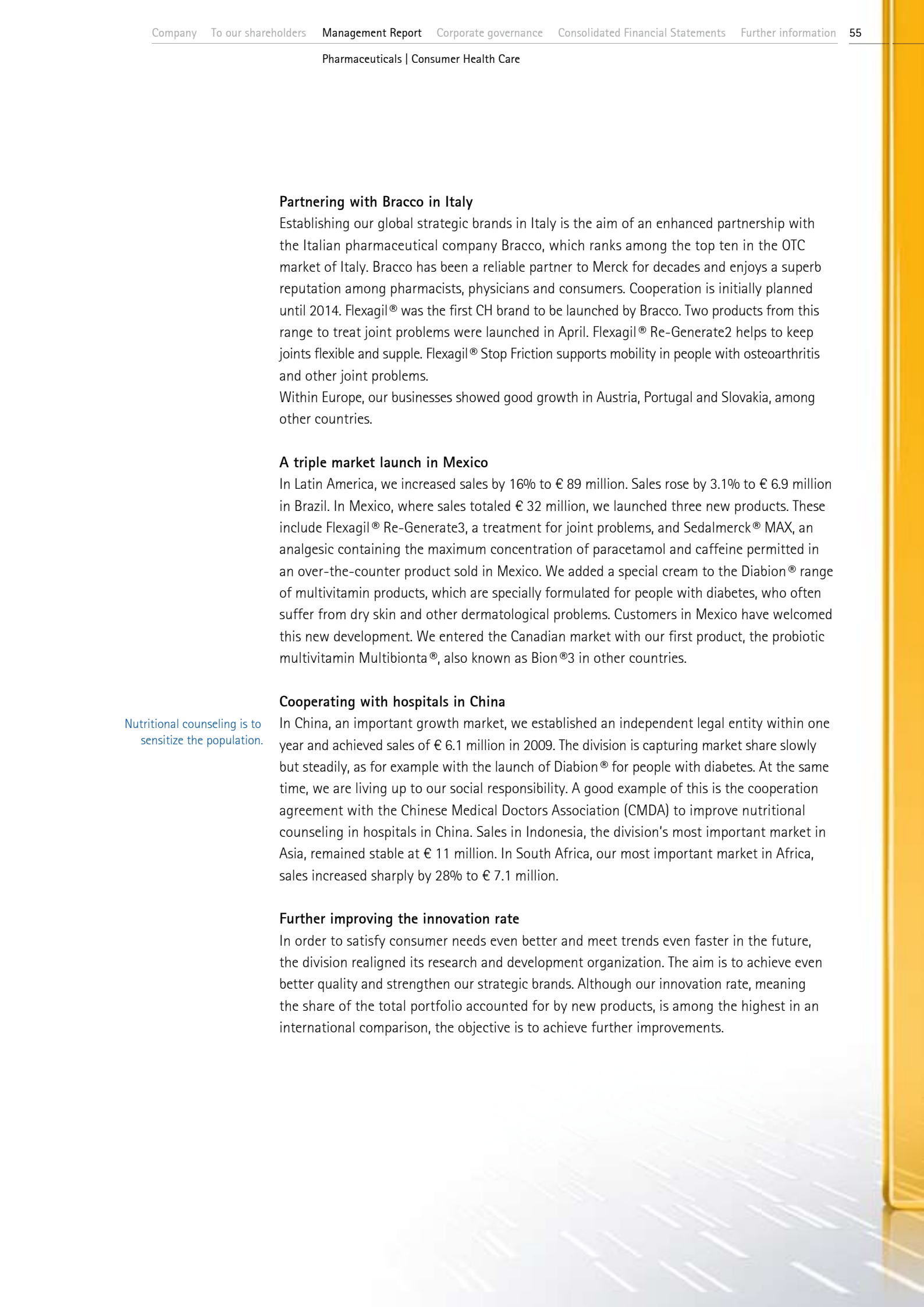
Cooperating with hospitals in China

Nutritional counseling is to sensitize the population.

In China, an important growth market, we established an independent legal entity within one year and achieved sales of € 6.1 million in 2009. The division is capturing market share slowly but steadily, as for example with the launch of Diabion® for people with diabetes. At the same time, we are living up to our social responsibility. A good example of this is the cooperation agreement with the Chinese Medical Doctors Association (CMDA) to improve nutritional counseling in hospitals in China. Sales in Indonesia, the division's most important market in Asia, remained stable at € 11 million. In South Africa, our most important market in Africa, sales increased sharply by 28% to € 7.1 million.

Further improving the innovation rate

In order to satisfy consumer needs even better and meet trends even faster in the future, the division realigned its research and development organization. The aim is to achieve even better quality and strengthen our strategic brands. Although our innovation rate, meaning the share of the total portfolio accounted for by new products, is among the highest in an international comparison, the objective is to achieve further improvements.



CHEMICALS | LIQUID CRYSTALS

Liquid crystal mixtures from Merck are used all over the world – for example, in most LCD (liquid crystal display) televisions, computer monitors, notebooks, digital cameras and mobile phones, as well as in many other high-quality displays. Merck is the global market leader in this field and, thanks to continuous investments in research and production, also the technology leader. We are also working on new lighting and display technologies such as OLEDs. In view of climate change and consistently high energy prices, in addition to our core business with display materials we are also active in growth markets. These include the use of solar energy and the development of innovative technologies for energy-saving LEDs.

KEY PRODUCT

– licristal® – Liquid crystal mixtures for displays

OTHER PRODUCT GROUPS

– livilux® – Materials for OLEDs (organic light-emitting diodes) in displays and for innovative lighting

– isishape® – Efficient and environmentally friendly materials for producing solar cells and touch screens

KEY DEVELOPMENTS IN 2009

– Market and technology leadership maintained

– Total revenues fall short of 2008, but resume steady growth after reaching their lowest point in the first quarter

– Fourth quarter sees year-on-year growth in total revenues of 20% to € 201 million

– Operating result impacted by the effects of the economic crisis and capacity underutilization

– Technological leadership with innovative liquid crystal mixtures for PS-VA (polymer-stabilized vertical alignment) applications

Smartphone Blackberry® Storm™ 9500 with touch screen
A high-quality display – for mobile communication too.

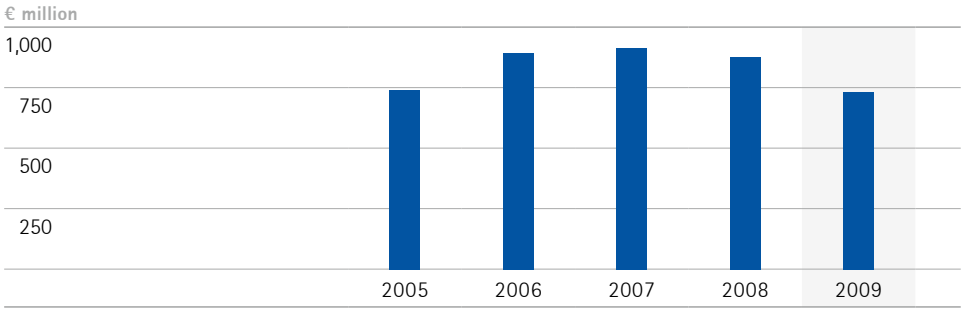
Ultrathin TV
Our new PS-VA technology provides better picture quality for rapidly moving images.

RECOVERY UNDERWAY

The global liquid crystal display (LCD) business is showing signs of an upturn. A recovery is clearly underway in the Liquid Crystals division, which is entering new fields of growth with innovative technologies.

Total revenues of the Liquid Crystals division resumed steady growth after reaching their low point in the first quarter. Despite the 17% decrease to € 733 million in 2009, for the first time in a year they exceeded the € 200 million mark again in the third quarter. This trend continued in the fourth quarter, when total revenues increased by 20% to € 201 million over the year-earlier period. The continuing upward trend is due to the overall recovery of the global liquid crystal display (LCD) business.

Liquid Crystals | Development of total revenues



www.merck-chemicals.com/lcd-emerging-technologies

In view of the rapidly increasing population and a growing middle class, market research institutes such as DisplaySearch assume that China will overtake the United States in the coming years as the world's largest market for televisions. Today, China is already one of the key investment markets for display manufacturers in Korea, Japan and Taiwan.
At € 356 million, the gross margin of the Liquid Crystals division was 34% lower in 2009 than in 2008. Because of increased price pressure as well as underutilization of production capacities and the associated costs, the operating result fell by 42% to € 227 million. Return on sales decreased to 31.0% in 2009 compared to 44.6% in 2008. At € 292 million, underlying free cash flow was 28% lower than in 2008.

Liquid Crystals | Key figures

in € million	2009	2008	Δ in %
Total revenues	733	878	–17
Gross margin	356	542	–34
R&D	87	85	3.2
Operating result	227	391	–42
Exceptional items	–	–	–
Free cash flow	292	402	–27
Underlying free cash flow	292	407	–28
ROS in %	31.0	44.6	

Market conditions recover

The major display manufacturers recovered well from the crisis of the first quarter. The high degree of underutilization seen at the beginning of 2009 was overcome in the course of the year. The Taiwanese display market presents a particularly positive picture. Manufacturers here are primarily suppliers to the electronics industry and were the first to be affected by the consequences of the economic downturn. However, this market quickly recovered in 2009. The major brand manufacturers in Japan and South Korea, who also manufacture displays themselves and mainly cover the higher-price market segment, also overcame the crisis in the second half of the year. The revival of demand from display manufacturers had a correspondingly positive effect on our quarterly results in the course of the year.
After cutting back liquid crystal production as a result of the global drop in demand, our plant capacity utilization has meanwhile returned to the levels before the economic crisis.

New display technologies continue to advance

www.merck-chemicals.com/display-materials

With our innovative liquid crystal mixtures for Polymer-Stabilized Vertical Alignment (PS-VA) applications, we further expanded our technology leadership. PS-VA is increasingly becoming the preferred technology for high-quality displays. It is successively replacing conventional Vertical Alignment (VA) technology, the dominant LCD-TV technology developed by Merck a number of years ago now facing unabated, strong competitive pressure. With VA technology, slits in the electrodes or microscopic three-dimensional protrusions, allow the liquid crystals to align in the correct direction when they are switched. With PS-VA, a polymer layer within the display allows the molecules to be pre-oriented in a certain direction. In the black state, the liquid crystals are not vertical, but slightly tilted: The tilt locally predefines the liquid crystal switching direction. This results in extremely rapid switching times, which are enormously important for displaying lifelike moving images. Besides improved moving picture quality, the technical advantages of PS-VA are faster switching times, higher contrast and better light transmittance. These features reduce the required backlight power, which is both one of the most expensive display components to produce and the biggest power consumer during operation.

PS-VA technology makes previously unattainable screen properties possible.

PS-VA technology opens up new possibilities for LCD producers to achieve previously unattained screen properties. In an LCD television incorporating PS-VA materials from Merck, the colors appear fuller, warmer, and more natural. In addition, the spatial depth of the display is greater, and movements are livelier. In Taiwan, Korea and Japan, this technology is already being used in mass production.
The term LED TVs is used to describe televisions in which only the backlight consists of LEDs (light-emitting diodes), thus achieving better picture contrast and brightness, and producing more lifelike images. Individual areas of the illuminated surface for displaying a deep black can be separately dimmed or switched off completely, thus enhancing the contrast. The advantages of LED and LCD are combined in this way. Further significant advantages include the low energy consumption and slim design of flat screens.

Higher spending on research and development

We continue to invest in research and development in order to maintain our leadership position in display materials. At € 87 million, R&D spending was 3.2% higher in 2009 than in 2008. A new chemical research center is currently being constructed at the Darmstadt site. Certain aspects of LC and OLED research will be conducted here. It is scheduled for commissioning in the third quarter of 2010. We expanded our site in South Korea in order to strengthen our research and development activities and further intensify our cooperation with customers. In addition, we are working on reactive mesogens, which are polymerizable liquid crystals that can be used, for example, as material for optical films. They help to enhance the display image quality. Aside from liquid crystal technology, our researchers are working on materials for innovative displays. Here the special focus of development is on OLED materials. They are already being used in mobile phones, MP3 players and digital picture frames.

OLED research in science and industry networks

www.merck-chemicals.com/oled

In our efforts to advance OLED technology, we are increasingly participating in research networks. The development of "new materials for OLEDs from solution" (NEMO) is the focus of a project that Merck has launched as the consortium leader together with partners from industry and science. The aim of this collaboration, which is funded by the German Federal Ministry of Education and Research, is to develop innovative, soluble materials for use in large-area OLED components for devices such as flat screens, electronic traffic signs or lighting systems.

OLEDs consume little energy and offer sharp images from nearly every viewing angle.

An OLED is a solid-state device composed of thin films of organic semiconductor molecules that create light when electrical current is applied. The main difference to inorganic light-emitting diodes (LEDs) is their lower current density and laminar light density and the fact that no crystalline materials are required. OLEDs are already being used in small-area displays, for instance in mobile phones and MP3 players. They consume little energy and offer sharp images from nearly every viewing angle. By using ultra-thin luminescent layers, OLED technology makes it possible to produce unique, large-area homogeneous lighting surfaces with a total layer thickness of just a few millimeters. Compared to the vacuum evaporation process used today, these new materials should significantly improve scalability and coating efficiency in particular. To this end, the NEMO project partners are focusing on soluble, phosphorescent materials for red, green and blue applications. In order to develop marketable solutions quickly, different injection, transport and electrode materials as well as adhesives are being researched, evaluated and tested in parallel for their performance. In addition, as the leading producer of high-performance OLED materials Merck is collaborating with Braunschweig Technical University and the U.S.-based company Applied Materials on a project called "Light InLine" to develop processes to reduce the production costs of OLED lighting. Produced on glass plates or flexible substrates, OLED tiles can emit white light that is more homogeneous and more energy-efficient than the light from conventional fluorescent lamps.

Alternatives to incandescent light bulbs

www.merck-chemicals.com/solid-state-lighting

Incandescent lights bulbs will be phased out in Europe by 2012. Possible alternatives are the subject of intense discussion. For some time now, our researchers have been working on innovative lighting materials – activities grouped together as "Solid State Lighting". These are aimed at developing lighting materials for white LEDs, which constitute an alternative to conventional light bulbs and energy-saving lamps. Our OLED materials can be used not only for this kind of spot lighting, but also for innovative area lighting, making it possible to generate large-area, energy-saving light. Here, prototypes have already been developed in cooperation with leading lighting manufacturers.

Photovoltaics – a key technology

www.merck-chemicals.com/photovoltaic-materials

Following the strong growth achieved in 2008, the photovoltaics market stagnated in 2009. The cutback in government subsidies was especially noticed by manufacturers in Asia and Europe. Nevertheless, photovoltaics is one of the key technologies of the future with respect to renewable energy sources. Therefore, the division is focusing on developing materials for the production of organic solar cells and for printing technologies. With the isishape® range, we already offer solar cell manufacturers printable etching pastes, which enable them to use the required production material in a more cost-efficient and eco-friendly way.
Within the scope of a development project sponsored by the German Ministry of Research, Merck is collaborating in the field of organic photovoltaics with other leading industrial companies on innovative materials for alternative energy sources. This project aims to increase the efficiency of organic solar cells and to use cost-effective printing processes to produce these highly efficient cells. Our Technical Centre in Chilworth, near Southampton, United Kingdom, which was expanded in 2009, is conducting work in this area.

Dye-sensitized solar cells

Dye-sensitized solar cells imitate nature with the aid of artificial photosynthesis.

In parallel, we are working on new technologies, for example dye-sensitized solar cells (DSSCs), which are used as a renewable energy source in photovoltaics. They imitate nature with the aid of artificial photosynthesis, an application of nanotechnology for energy generation. The electrolytes in the dye-sensitized solar cells are based on ionic liquids. Merck has a worldwide leading role in the development and manufacture of these.
In order to advance this technology, we started cooperating closely in 2009 with Dyesol of Australia, the leading specialist for materials and components for the production of dye-sensitized solar cells. In the Ionic Liquids business, we have a broad knowledge base and hold numerous patents for new formulations. The cooperation with Dyesol enables us to optimize the development of opportunities worldwide in the attractive market for dye-sensitized solar cells. The use of ionic liquids as a main component of electrolytes creates the possibility to produce both rigid and flexible solar cells. This special feature will enable us to develop many new fields of application in the future.

CHEMICALS | PERFORMANCE & LIFE SCIENCE CHEMICALS

Specialty chemicals from Merck are important components of the process chain from drug development to industrial production. They ensure reliable analysis in research and dependable production processes. People encounter our products in many technologically complex applications and day-to-day products such as automotive coatings, medicines or cosmetics. Expertise in chemistry and customer-centric innovations have made us a successful supplier to the pharmaceutical, cosmetics, food, plastics, coatings and printing industries. Our goal is to further expand our know-how in regulated markets. The division operates in three business areas: Laboratory Business, Life Science Solutions and Pigments.

KEY PRODUCT GROUPS

- Laboratory chemicals available in various specifications including the relevant certificates of analysis and safety data sheets, thus ensuring reliable and comparable results.
- Products and solutions using the latest technological expertise in chemical and biotechnological processes, and geared to customer needs in a variety of sectors, particularly the pharmaceutical industry.
- Innovative effect pigments for use in coatings, packaging and product design, which impart not only decorative but also security-relevant features, such as brand and anti-counterfeit protection.

KEY DEVELOPMENTS IN 2009

- Steep decline in sales of effect pigments impacts the division's performance
- Free cash flow doubled by reduction of inventories
- Life Science Solutions and Laboratory Business largely stable
- Leading role assumed in the Indian biosciences market through the acquisition of Bangalore Genei
- Acquisition of Taizhu, a leading Chinese supplier of effects pigments, offers new growth opportunities

Singlepath®
Dangerous coli bacteria can be detected within seconds.

Ectoin
This natural active ingredient helps regenerate damaged skin.

Ronaflair®
Pearl-luster pigments give lips ultimate gloss.

GLOBAL ECONOMIC TURMOIL IMPACTS PERFORMANCE

The division clearly felt the drop in demand, particularly in the automotive industry, which is a cyclical business. Sales of effect pigments fell sharply and resulted in underutilization of pigment production capacities in the course of the year.

The development of total revenues and operating result in the Performance & Life Science Chemicals division reflects the effects of the global economic crisis. In 2009, total revenues declined by 3.8% to € 1,202 million. While the Life Science Solutions and Laboratory businesses largely remained stable, the decline in effect pigments particularly impacted business performance. The division was especially affected by the global drop in demand in, for example, the automotive industry, which is a cyclical business. Performance was strongly influenced by, among other things, the underutilization of production capacities in the Pigments business. Gross margin decreased by 12% to € 556 million. The operating result fell to € 97 million, which corresponded to a decrease of 42% compared with 2008. At 8.0%, return on sales was significantly lower than in 2008. By contrast, underlying free cash flow rose significantly as a result of massive reduction of inventories, doubling to € 140 million.

Performance & Life Science Chemicals | Key figures

€ million	2009	2008	Δ in %
Total revenues	1,202	1,249	–3.8
Gross margin	556	633	–12
R&D	54	58	–7.8
Operating result	97	167	–42
Exceptional items	12	–46	–
Free cash flow	119	58	106
Underlying free cash flow	140	67	109
ROS in %	8.0	13.3	

www.merck-chemicals.com

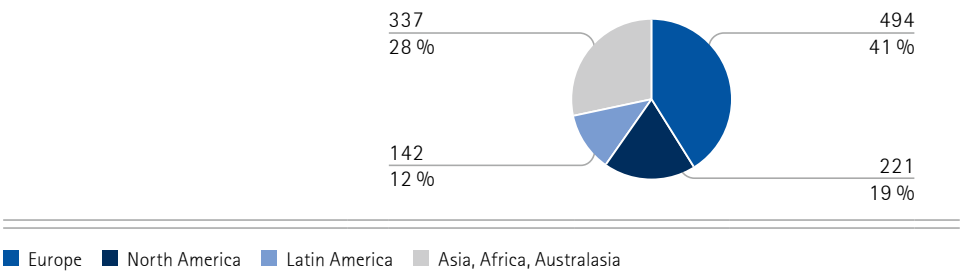
The division bolstered its business by resolutely managing costs and optimizing cash flow. Cutting pigment production in response to the downturn in demand proved to be an effective measure. Consequently, reduced working hours or similar measures were introduced at all pigment production sites. By consolidating our sites in the United States, a process which began in January 2009, we laid the foundation for the long-term profitable growth of our U.S. subsidiary EMD Chemicals. In parallel, we significantly increased the range of innovations we offer customers, optimized our delivery and supply chain, and expanded our web presence. We now have 50 country-specific websites in 20 different languages. The division also continued to invest above average in research and development, although more moderately than in 2008. R&D spending amounted to € 54 million in 2009, which corresponds to a decrease of 7.8%. A main focus of spending was on centers of application technology that support the sales departments. In addition, we have sustainably strengthened our businesses through acquisitions and cooperation agreements.

Differentiated growth in Asia

The division performed well in important markets of Asia. In India and Japan, sales increased to € 54 million and € 76 million, respectively, corresponding to year-on-year growth of 14% and 3.4%, respectively. Business was negatively impacted in otherwise strong markets such as Taiwan and China, which were particularly affected by the global economic crisis in the first half of 2009. Sales in Taiwan decreased by 3.8% to € 25 million and in China by 2.9% to € 34 million compared with 2008. In Latin America, our business remained stable. Our traditionally high market shares in this region helped us to solidly secure ourselves against further economic downturns.

Performance & Life Science Chemicals | Sales by region

€ million



The Pigments business clearly felt the effects of the global economic crisis.

The Pigments business, which at € 238 million accounted for around one-fifth of the division's total revenues, clearly felt the effects of the global economic crisis in 2009. The demand for automotive coatings fell substantially as a result of declining production in the automotive industry. By contrast, the Laboratory Business grew slightly and, at € 524 million, accounted for almost half the division's total revenues. Life Science Solutions, which is less dependent on economic cycles, also showed stable performance. At € 440 million, this business accounted for about one-third of the division's total revenues.

LABORATORY BUSINESS

Growth in Asia and Latin America

www.merck-chemicals.com/food-analytics

Despite the global economic crisis, total revenues of the Laboratory Business rose slightly by 0.6% in 2009. We achieved satisfactory growth of 5.5% in Asia, Africa and Australasia. Sales in this region amounted to € 164 million. Sales in Latin America slightly exceeded the 2008 level, totaling € 79 million. By contrast, sales in the European market declined by 3.7%, not least as a result of negative currency effects in eastern Europe. Sales in Europe amounted to € 186 million. In the North American market, sales increased by 2.1% to € 95 million.

Innovations in the microbiology business

The microbiology business was hardly affected by the global economic crisis and continued to perform very well, especially thanks to innovative solutions for microbiological tests designed for customers in the food, diagnostic and pharmaceutical industries. These include the foodproof® test kits for detecting bacterial DNA using state-of-the-art techniques, as well as antibody-based lateral flow tests from the Singlepath® and Duopath® product line.

Deliveries of acetonitrile maintained despite the crisis

The shortage of acetonitrile was the greatest obstacle faced by the global Laboratory business.

In 2009, the greatest obstacle faced by the global Laboratory business was the serious shortage of acetonitrile on the global market. This raw material, also used as a solvent in high-performance liquid chromatography (HPLC), is a by-product of acrylonitrile production. The demand for this substance dropped drastically as a result of the economic downturn, which led to the standstill of many acrylonitrile production plants. We were able to maintain deliveries of acetonitrile to our customers despite the shortage.

Stronger presence in the Indian market

In October, we acquired Bangalore Genei, an Indian company specializing in the development, production and sale of products for proteomic and genomic research. Combining the activities of Bangalore Genei with our existing biosciences business has made us the leading supplier of bioscience products in the growth market of India.

LIFE SCIENCE SOLUTIONS

Stable in a difficult market environment

Growth in the Crop BioScience business.

Against a backdrop of difficult economic conditions, total revenues of Life Science Solutions decreased in 2009 by 1.2% to € 440 million. In the important market of North America, sales declined by 4.2% to € 81 million and in Latin America by 1.1% to € 48 million. The proceeds from the divestment of our business with natural substances in Brazil amounted to € 11 million. Furthermore, we optimized our business with measures to improve cash flow and systematically reduce inventories. We achieved very strong growth with natural crop enhancement technologies developed by our Crop BioScience business, particularly in North and Latin America.

New products for biopharmaceuticals

In 2009, we further intensified our research and development of materials for biopharmaceutical production. In the pharmaceutical sector, the share of the market accounted for by new biological entities has grown significantly compared to that of new chemical entities. We are taking this development into account by supplying the materials and services needed for biotech production along the value chain.

Innovative cosmetic active ingredients

www.merck-chemicals.com/cosmetic-ingredients

In 2009, our cosmetic active ingredients business with some of our key global customers declined. However, we set new accents in the market with further developments of, for example, the self-tanning agent DHA Plus® and the successful brand Ronaflair®, functional fillers that feature special optical and sensory properties.

PIGMENTS

Slight recovery in demand at year-end

www.merck-chemicals.com/pigments

In 2009, the Pigments business was marked by weak global demand particularly in the automotive industry. With effect pigments for automotive coatings, Merck is an important supplier to the industry. Total revenues of effect pigments for the cosmetics industry also declined substantially. However, signs of recovery in the Pigments business and a return to higher production levels began to emerge in the third quarter – a development that continued in the fourth quarter. Owing to the decline in demand, Merck introduced reduced working hours in May for around 300 employees at the pigment production site in Gernsheim and transferred them internally to other production areas. We also significantly cut back pigment production at the plants in Savannah, Georgia in the United States, Onahama in Japan and Songjiang in China. As the order situation improved, we considerably scaled back the use of reduced working hours in the course of the year and completely discontinued it at year-end. Although total revenues declined overall by 10% to € 238 million and sales, particularly in Europe, fell by 20% to € 92 million in 2009, an increasing recovery in demand was noticeable as of the third quarter.

Weak demand for consumer goods and continuing consumer uncertainty also affected the business with pigments for plastics, print products and cosmetic products. Against this background, we continue to focus our innovation efforts on profitable pigments such as Candurin® pigments for coating foods and pharmaceuticals, and on the Pyrisma™ line of products, which covers a wide color range and offers intense effects.

Acquisition of one of the leading suppliers of effect pigments in China

Position in the fast-growing Chinese market further expanded.

We captured new growth opportunities by acquiring Suzhou Taizhu Technology Development, a leading supplier of effect pigments in China, with a growing, profitable business. As a result, we have further expanded our position in the fast-growing Chinese market. The extended range of products now enables us to more actively target the mid-range value-for-money price segment. This is a fast-growing segment between the premium-price segment, which we had already been addressing, and the low-price segment of the respective countries.

New cosmetic applications

In 2009, Merck significantly expanded its portfolio in both cosmetic functional fillers and in the core business of pearl luster pigments. We entered into a licensing agreement with the Australian company Antaria for the exclusive worldwide rights to the plate-like alumina technology. The technology is used by Antaria in Alusion®, a functional filler that gives cosmetics soft focus properties, among others.

Expansion of the functional pigments business

New impetus from acquiring the laser pigments business of DSM.

In order to expand our activities, we acquired the Micabs® laser pigments business from the Dutch chemical company DSM. This move gives us access to new technologies for the manufacture of laser marking products and complements our Lazerflair® pigments with the Micabs® brand.

CORPORATE AND OTHER

The segment Corporate and Other comprises Group administrative costs, the financial result, taxes as well as certain exceptional items not allocated to the individual divisions.

Group administrative costs relate primarily to Merck KGaA and consist of typical holding company functions. These include, for example, the corporate finance and accounting, tax, procurement, communications and human resources departments to the extent that their services cannot be allocated to the divisions. Corporate costs also include expenses for central, non-allocated IT functions and corporate IT projects in connection with the expansion and harmonization of IT systems within the Merck Group.
The operating result of the segment Corporate and Other totaled € –78 million in 2009 as compared with € –81 million in 2008. No exceptional items were allocated to the segment in 2009 since we recorded these in the operating divisions.
The financial result for 2009 improved to € –134 million from € –156 million in 2008. The change amounting to € 22 million results mainly from the lower interest component of currency hedging transactions. On the one hand, the varying currency-interest rate levels converged to a greater extent in 2009, while on the other hand the volume of currency hedging transactions was lower overall.

Decline in adjusted tax rate
Tax expenses consist of corporation and trade income taxes for the companies domiciled in Germany as well as comparable income taxes for companies domiciled abroad. This item contains not only effective taxes but also deferred taxes, which take into consideration the difference in the carrying values between the tax accounts of the Group companies and the consolidated balance sheet. The latter results primarily from amortization of intangible assets in the course of the purchase price allocation for Serono as well as from deferred taxes for additions to provisions in the Group. Moreover, in 2009 deferred tax assets were recognized for tax loss carryforwards. The tax rate adjusted for exceptional items decreased from 25.8% to 21.6%. On the one hand, this was affected by the utilization of tax loss carryforwards without deferred tax assets and on the other hand by the write-up of deferred tax assets for unrecognized tax loss carryforwards, which will be utilized in future periods.

Free cash flow was € –511 million in 2009. At € –496 million, underlying free cash flow adjusted for acquisitions and divestments was slightly lower than in 2008 at € –470 million. Apart from Group administrative costs, this figure mainly includes interest and tax payments. The impact of divestments on underlying free cash flow related in both 2009 and 2008 to subsequent payments for the Generics business, which was divested in 2007, as well as to subsequent tax payments and legal advisory fees.

Corporate and Other | Key figures

€ million	2009	2008	Δ in %
Total revenues	–	6.6	–
Gross margin	–	–2.7	–
R&D	–	–	–
Operating result	–78	–81	–
Exceptional items	–	–	–
Free cash flow	–511	–581	–
Underlying free cash flow	–496	–470	–

RISK REPORT

A targeted approach to handling opportunities and potentially negative developments is an integral component of value-based company management.

Risk and opportunity management

Every conscious business decision is based on weighing the associated risks and opportunities. Risk management in the Merck Group is supported by a uniform, corporate-wide system. Risk management activities are aimed at identifying risks at an early stage, and evaluating, controlling and managing them. In order to fulfill this task, we have defined and outlined corresponding roles and responsibilities throughout the Group in the form of binding guidelines. Within the scope of a standardized risk process, the current risk situation is reported to the Executive Board in six-month intervals or, in special cases, on an ad-hoc basis. The risk management system and compliance with the corresponding guidelines are reviewed regularly by the Internal Auditing department.

Division-specific opportunities are identified, analyzed and managed in the respective divisions by means of suitable processes. Information on these opportunities, and particularly with respect to R&D activities, is given in more detail starting on page 34. In agreement with the Executive Board, it is ensured that opportunities are seized actively and in line with the corporate strategy. We discuss risks and opportunities further in the Report on Expected Developments starting on page 75.

Internal control system for the consolidated accounting processs

The objective of the internal control system for accounting is to implement controls that will provide assurance that financial statements are prepared in compliance with the relevant accounting laws and standards.

As the parent company, Merck KGaA prepares the consolidated financial statements of the Merck Group. This process is preceded by financial reporting by the companies consolidated in the Group financial statements. Both processes are monitored via a stringent internal control system that ensures the accuracy of financial reporting as well as compliance with the relevant legal regulations.

The main features are as follows:

- Accounting guidelines at both Group level as well as in the individual Group companies
- Clearly defined segregation of duties and assignment of responsibilities to the units involved in the financial reporting process
- Involvement of external experts as needed, for example for the valuation of pension obligations
- Use of suitable and largely uniform finance systems and the application of detailed authorization concepts to limit user rights on a need-to-have basis, taking into account principles concerning the principle of segregation of duties

– System-based controls and further process controls for financial reporting in the companies, consolidation of the Group financial statements, and other relevant processes at Group and company level
– Consideration of risks recorded and assessed by the risk management system in the annual financial statements to the extent required by existing accounting rules

The respective heads of Finance of the Group companies are responsible for the implementation of these rules and utilization of the tools. The Group financial statements are the responsibility of the Chief Financial Officer and Member of the Executive Board of Merck KGaA. This responsibility is laid down in the rules of procedure of the Executive Board.
All of the structures and processes described are subject to constant review by Internal Auditing. The Executive Board determines the structures and processes that are to be audited in an annual audit plan. The results of these audits are dealt with regularly in meetings of the Executive Board, the Supervisory Board and the Finance Committee.

Business-related risks

Merck has integrated its risk management system into the ongoing business planning processes. Potential negative developments, for example changes in customer demand or new political framework conditions, are described and evaluated in the risk reports. We can, therefore, take countermeasures in good time, if any events should lead to deviations from the business plan. Risks in connection with investment decisions are minimized by the use of detailed guidelines.

Merck is adhering to its strategy of being an integrated pharmaceutical and chemical company.

As of December 31, 2009, the Merck Group operated 54 production sites in 26 different countries and took appropriate measures to minimize the risk of supply disruptions for important products. Total revenues and the operating result of the Merck Group depend on a large number of pharmaceutical and chemical products for various industry sectors. This diversification helps lower risk since the markets differ in terms of their structure and economic cycles. This is also an expression of the Merck strategy to remain an integrated pharmaceutical and chemical company.
By continually monitoring market developments in the divisions and acting with appropriate foresight, we try to prepare for the potential risks of a changing market environment, such as from the global economic crisis continuing, from further health care cost containment measures or from new products from competitors. Merck is addressing changes in demand due to the economic situation, particularly with respect to the Chemicals business sector, by temporarily adjusting production capacities.
The special risks of pharmaceutical development are constantly monitored by a portfolio and project management system introduced in the Merck Group. In the course of portfolio management, we regularly evaluate and, if necessary, refocus research areas and all R&D pipeline projects. As a research-based pharmaceutical company, Merck bears the risk of development projects having to be discontinued – in some cases after substantial investment – at a late phase of clinical development. Decisions – such as those relating to the transition to the next clinical phase – are made responsibly in order to minimize risk. Nevertheless, the danger still exists that undesirable side effects of a pharmaceutical product go undetected until after approval or registration, which could result in a restriction of approval or withdrawal from the market.

In many pharmaceutical markets, medications are subject to changing, increasingly restrictive requirements in terms of pricing, reimbursement and approval. These can negatively impact the profitability of our products and jeopardize the success of market launches and new approvals.

Financial risks

Merck uses derivative financial instruments to minimize currency risks and financing costs caused by exchange rate or interest rate fluctuations. Finance transactions in foreign currencies are generally hedged. In certain cases, the company also hedges anticipated sales and future costs for a period of up to three years. More details are available in the consolidated financial statements starting on page 149.

Merck's long-term liquidity is ensured.

Material financial transactions involving credit risk are only entered into with banks that have a good credit rating and a minimum rating of A- from Standard & Poor's. The rating of the commercial banks is constantly observed in order to quickly respond to deterioration. We have access to a € 2 billion syndicated multicurrency credit facility with 17 banks, which expires in 2014. The banks all have good credit ratings; however, a default risk of individual banks cannot be excluded. We have not arranged any financial covenants in our loan contracts, so the loans would still be available even if Merck's credit rating were to deteriorate. Our long-term liquidity is ensured by our positive operating cash flow, centralized liquidity management within the Group and the available credit facility. In addition, Merck set up a debt issuance program in 2009 with a volume of € 5 billion. It forms the contractual basis for the issue of bonds. Due to its broad customer base, Merck is only exposed to a comparably low credit risk in its sales markets.

The carrying values of individual items in the balance sheet are exposed to the risk of changing market and business circumstances and thus also to changes in fair values. The need for write-downs could significantly impact profit and lead to changes in balance sheet ratios. This applies in particular to the high level of intangible assets including goodwill, which have taken on increasing significance in the consolidated financial statements due to the acquisition of Serono in 2007 and the related purchase price allocation. For more information, see page 128.

Merck has obligations in connection with pension plans. The majority of these obligations is covered by the provisions disclosed in the balance sheet, while the smaller remainder is externally funded or covered by long-term monetary investments for this purpose and disclosed in the balance sheet. The latter, which began in 2009, amounted to € 210 million. The obligations are regularly evaluated by preparing annual actuarial valuations. Changes in the valuation parameters, for example in the interest rate, salary increase rate or death probabilities, can influence the value of pension obligations. As far as pension obligations are covered by plan assets consisting of interest-bearing securities, shares, real estate and other financial assets, decreasing or negative returns on these assets can adversely impact the value of the plan assets and thus result in further funding requirements.

Assessments by independent rating agencies

The capital market makes use the assessments published by rating agencies in order to assist lenders in evaluating the risks of a financial instrument. Merck is currently rated by the agencies Standard & Poor's and Moody's. In December 2009, Standard & Poor's gave Merck a long-term rating of A-, with a stable outlook. In December 2009, Moody's gave Merck a long-term rating of A3, with a stable outlook. Thus, both agencies confirm a stable investment grade rating for us.

Legal risks

Merck is involved in legal proceedings and government investigations, the outcome of which cannot currently be predicted. We also continue to bear the risks from certain proceedings against companies of the Generics group that we sold to Mylan in 2007. Thus Merck continues to be responsible for risks arising from cases concerning drug pricing in the United States. In addition, the Merck Serono division is involved in a licensing dispute in Israel as well as a dispute with a former sales partner in Italy. In the United States, our subsidiary EMD Serono is discussing a settlement of a civil claim by the U.S. Department of Justice in relation to sales of a product. In Germany, Merck is involved in antitrust proceedings concerning the exclusive distribution agreement with the laboratory wholesale distributor VWR International. Due to a preliminary decision by the Higher Regional Court of Düsseldorf, Merck is obliged to supply several of the products in its Laboratory Business to other laboratory wholesalers in Germany as well. The company has taken all possible measures to protect its own legal position. Should individual products of the Merck Group prove to be defective and/or display undesirable side effects, this could lead to possible claims for damages and legal proceedings owing to product liability.

As a research-based company, we actively protect our patents and brands.

As a research-based company, Merck has a valuable portfolio of industrial property rights, such as patents and brands. These can become the target of attacks and infringements. We have taken the necessary precautions to identify threats and defend our rights where necessary. Generally, Merck endeavors to prevent legal risks from arising.

A compliance program applies to our employees worldwide, which enjoins them to comply with laws and guidelines, and provides them with the relevant training and support. The core of the program is the Merck Code of Conduct, which defines ethical behavior guidelines. This is complemented by a training and testing program, a SpeakUp Line for reporting compliance violations, as well as a global network of compliance officers.

Insofar as possible and practical, the company limits liability and damage risks through insurance coverage, the type and scope of which is continually adjusted to current requirements.

Human resource risks

Merck's success is significantly influenced by the competence and commitment of its employees. Due to intensive competition, it is increasingly difficult to recruit and retain qualified specialists, particularly in the pharmaceutical sector.

Talented specialists and executives are identified early and developed.

We are meeting this challenge by continuously enhancing our wide range of international personnel marketing and development measures. Merck addresses specialists and executives by means of a Group-wide Talent & Succession Management, thereby minimizing turnover. This process helps to identify internal talent for management positions and facilitates the objective assessment and development of talent, thus enabling positions to be quickly filled with suitable employees as a result of targeted selection via a Merck-internal talent pool. We manage short-term vacancies by means of clearly defined, appropriate deputy regulations. Key factors for employee retention and satisfaction are identified and evaluated by means of regular, corporate-wide employee surveys. We derive measures from the results of these surveys and monitor their efficacy in follow-up surveys.
A performance management system applicable to the whole Merck Group was introduced to better measure employee contributions to the company's success. This is to facilitate a consistent assessment of the degree to which personal goals are achieved and the Merck Values are lived. On this basis, individual HR development measures are identified and implemented. This ensures that employees are prepared for new business challenges and are motivated to solve these challenges to the benefit of the company. The recently introduced Rewards Policy system complements this process by ensuring that performance-related payment components are handled consistently throughout the Group. The "Merck Long Term Incentive Plan" offers eligible executives and experts a long-term, profit-related compensation component. More information is available on page 138.

Information technology risks

Merck ensures the necessary availability of business-critical application systems and access to business-relevant data – even in the event that individual components fail – by means of redundant structures of technical components, networks and sites, as well as suitable, tested contingency measures.
Security guidelines are in place for the entire Merck Group. They include appropriate organizational, technical and software-related precautions for access control, access rights, virus protection and data protection. The adherence to and efficacy of these measures are continuously monitored. A dedicated IT risk management process ensures that IT risks are evaluated and appropriate measures taken. This has been confirmed by successful ISO 9001, ISO 20000 and ISO 27001 certifications.

Environmental and safety risks

Global adherence to high technical standards and rules of conduct prevents potential damage, minimizes the potential effects of such damage, and thus ensures the continuity of plant and equipment. Merck updates these preventive measures regularly. We systematically conduct health and environmental safety audits both in-house and at suppliers. Through inspections and consultation we minimize the risks to people and the environment.

Management's assessment of the overall risk situation

Currently no risks can be identified that could jeopardize the continued existence of the Merck Group. This is the finding of this risk report, which was prepared in accordance with German Accounting Standard 5.

REPORT ON EXPECTED DEVELOPMENTS

For 2010, Merck assumes that total revenues will grow between 3% and 7%. The operating result is expected to increase by 20% to 30%. For 2011, we expect further increases – in both total revenues and operating result.

In the Annual Report for 2008, Merck stated that the overall economic environment could not be assessed and refrained from providing an outlook, explaining the reasons for this decision in last year's Report on Expected Developments. The German Financial Reporting Enforcement Panel (Deutsche Prüfstelle für Rechnungslegung – DPR) expressed the opinion that our financial reporting was flawed since the Report on Expected Developments allegedly did not correspond to the requirements of the German Commercial Code. The German Federal Financial Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht – BaFin) concurred with the opinion of the Enforcement Panel. We are convinced, also in hindsight, that the paucity of attempts to provide an outlook at the beginning of 2009 justifies our decision. Merck has therefore appealed the decision of BaFin. The case has not yet been completed.
The situation has changed in the meantime. Yet the financial and economic crisis is far from over and many developments still lack continuity.
At the present time, it is exceptionally difficult but no longer impossible to make forecasts, as doing so involves a high degree of uncertainty.

Forecast on the development of the global economy

Different sources have issued varying forecasts of the economic environment in which Merck operates. Common to all forecasts is that they assume growth in 2010, yet the stability of the recovery, which is often referred to as fragile, is unclear. In order to provide an overview and to document the differences between the forecasts, we are presenting the GNP growth forecasts by various institutes in the form of a table. In its predictions, Merck orients toward the forecasts of the Organization for Economic Cooperation and Development (OECD).

Forecasts by leading international organizations for 2010 and 2011 in comparison

Development of GDP (in %)	Source	2010	2011
World	IMF	3.9	4.3
	OECD	1.9	2.5
	World Bank	2.7	3.2
United States	IMF	2.7	2.4
	OECD	2.5	2.8
	World Bank	2.5	2.7
Japan	IMF	1.7	2.2
	OECD	1.8	2.0
	World Bank	1.3	1.8
EU	IMF	1.0	1.6
	OECD	0.9	1.7
	World Bank	1.0	1.7

Forecasts by leading international organizations for 2010 and 2011 in comparison

Development of GDP (in %)	Source	2010	2011
Germany	IMF	1.5	1.9
	OECD	1.6	1.9
	Eurostat	1.2	1.7
China	IMF	10.0	9.7
	OECD	10.2	9.3
	World Bank	9.0	9.0
India	IMF	7.7	7.8
	OECD	7.3	7.6
	World Bank	7.5	8.0
Brazil	IMF	4.7	3.7
	OECD	4.5	4.5
	World Bank	3.6	3.9

For the OECD's 30 member countries, the OECD expects a global increase in gross domestic product (GDP) of 1.9% in 2010 and 2.5% in 2011. The U.S. economy is expected to grow by 2.5% in 2010 and by 2.8% in 2011.

Growth in 2010 weakest in the euro zone in international comparison.

According to the forecasts, the economy of the euro zone is expected to grow slightly by 0.9% in 2010 and somewhat more strongly by 1.7% in 2011. In Germany, the OECD expects GDP to increase by 1.6% in 2010 and by 1.9% in 2011.

For Japan, economists forecast GDP growth of 1.8% in 2010 and 2.0% in 2011. China remains the engine of the global upturn, owing to the fact that this country was affected by the financial crisis only to a limited extent and the government introduced a massive economic stimulus program.

Uncertainty also dominates the forecasts regarding the expected unemployment figures. The EU Commission assumes a strong increase in unemployment mainly in Germany, where the unemployment rate is predicted to rise to 9.2% in 2010. The OECD expects unemployment to reach its highest level in the United States in mid-2010, however not until early 2011 in the euro zone, and not even until mid-2011 in Germany.

Assumptions made by the Merck forecasts

Our forecasts for Merck take into account the company's weighing up of risks and opportunities in accordance with our medium-term outlook and operational plans. These assume a moderate development of energy and raw material prices, as well as increasing personnel costs. Since we produce specialty chemicals, we are largely independent of oil price developments. Overall, we expect our businesses to see stable prices or market-oriented price increases. We only see ourselves exposed to significant price pressure in the Liquid Crystals division. The following forecast is based on the assumption of constant exchange rates. Possible acquisitions, divestments and exceptional items are not included in the calculation.

Forecast for the Merck Group

Against the background of forecasts by leading economic research institutes and based on total revenues of € 7,747 million in 2009, Merck expects total revenues to increase in a range of 3% to 7%.

The operating result is expected to increase by 20% to 30% in 2010.

We assume that the Group operating result of € 649 million in 2009 will increase by between 20% and 30%. We also expect profit after tax (excluding exceptional items) to increase. For 2011, we expect total revenues and the operating result to increase further. Profit after tax excluding potential exceptional items will likewise improve in this period.

Merck had an equity ratio of 56.9% as well as low net debt of € 263 million in 2009. We expect to achieve similar capital ratios in the future. Following the very high level of € 852 million in 2009, underlying free cash flow is likely to be weaker in 2010, but will then return to a higher level. After a one-time high level in 2009, investments in property, plant and equipment will return to a more normal level for our company of between € 200 million and € 300 million during the period covered by this forecast. Merck will continue to increase research and development spending in 2010 and 2011, based on a level of € 1,345 million in 2009.

Merck forecast for 2010

in %	Growth in total revenues	Growth in operating result
Merck Group	3 to 7%	20 to 30%
Merck Serono	2 to 5%	30 to 40%
Consumer Health Care	5 to 10%	–10 to 0%
Liquid Crystals	5 to 10%	15 to 25%
Performance & Life Science Chemicals	3 to 8%	15 to 20%

Merck has an extensive risk and opportunity management system, which is described in the Risk Report. Relative to the forecast period of two years published in the Report on Expected Developments, we mainly see business-related opportunities and risks – also against the background of the economic crisis that has not yet ended. Owing to the diversification and Merck's broad product portfolio, a very different spectrum of important risks and opportunities result for each individual division.

Forecast for the pharmaceutical sector in general

The market research institute IMS Health expects global sales of pharmaceuticals to increase in 2010 by 4% to 6% to between US$ 820 billion and US$ 830 billion.

The U.S. market is expected to grow by the same rate in 2010 to a volume ranging between US$ 310 billion and US$ 320 billion. According to IMS Health, the five largest markets of Europe will grow in the range of 1% to 3% in 2010 and will achieve sales of between US$ 145 billion and US$ 155 billion. Market researchers expect developments in Japan to range from stagnation to a 2% decline, meaning that this market is likely to then have a volume of between US$ 86 billion and US$ 90 billion in 2010.

According to the forecasts, up to 2013, the global pharmaceutical market will grow at an annual average rate of between 4% and 7% to a volume of up to US$ 1,005 billion. Up to 2013, the U.S. market alone is expected to expand by an average of 2% to 5% per year, while the five largest markets of Europe and Japan are expected to grow by between 1% and 4% annually. IMS Health sees the highest growth rates in emerging countries, which are expected to show average market growth of 13% to 16% per year to between US$ 160 billion and

US$ 190 billion. These include the four BRIC countries (Brazil, Russia, India and China) as well as Turkey, South Korea and Mexico. These seven countries will account for a 12% to14% share of the global pharmaceutical market in 2010. China's pharmaceutical market is expected to grow more than 20% annually, accounting for a 21% share of global market volume by 2013. IMS Health expects China to supersede Germany as the world's third-largest pharmaceutical market in 2011. In 2013, the United States will rank first, followed by Japan, China, Germany and France.

Forecast for the Merck Serono division

For the Merck Serono division, we expect an increase in total revenues in a range of between 2% and 5% in 2010, based on € 5,345 million in 2009. Regarding the operating result, following the low level of € 355 million in 2009, we want to achieve an increase ranging between 30% and 40%. Likewise, we expect both total revenues and the operating result to increase in 2011.

Further growth in Merck Serono – also thanks to good market development of cancer therapies.

The multiple sclerosis and cancer therapy markets are very important to Merck. IMS Health expects the global market for oncology medicines to grow by 13% in 2010 and by 10% in 2011. The importance of the markets of Europe and Japan will rise as the dominance of the U.S. market declines. Evaluate Pharma, another market research institute, expects that the market for oncology medicines will grow by an annual average rate of 6% to a volume of US$ 70 billion by 2014. Consequently, oncology is and will remain the largest prescription drug market. Evaluate Pharma estimates that the multiple sclerosis therapy market will increase by 5% annually up to 2014.

With respect to research and development, as in 2009, for the Merck Serono division we will post a research ratio exceeding the target of 20%. This is attributable to the high number of clinical trials in Phase III, the final, most expensive stage of clinical testing prior to the submission of a marketing authorization application. Merck Serono currently has 23 projects in its development portfolio covering the therapeutic areas of Oncology, Neurodegenerative Diseases, Autoimmune and Inflammatory Diseases, and certain areas of Endocrinology.

We see important opportunities and risks for the Merck Serono division closely linked to the successful launch of new products. The focus in 2010 and 2011 will be on the market launch of cladribine. As an oral therapy for the treatment of relapsing-remitting multiple sclerosis, cladribine tablets have high market potential and therefore represent significant opportunities for the division and for Merck as a whole. Yet cladribine is exposed to risks that are not to be underestimated up until its successful launch in individual markets. This generally applies also to all other compounds in this very advanced stage of pharmaceutical development. However, at this point in time, a conclusive statement may not yet be derived from the refuse to file letter issued by the U.S. Food and Drug Administration (FDA) for cladribine in the fourth quarter. Importantly, the refuse to file cannot be equated with a final rejection of marketing approval since we are closely coordinating with the FDA on a successful resubmission of the application. Aside from commercializing products we have developed in-house, opportunities and risks also exist with respect to product rights that are in- and out-licensed, as is customary in the pharmaceutical industry.

Moreover, the existing business offers growth opportunities, particularly in markets such as Asia – especially China – Russia and Latin America, as well as in the further development of existing products (life cycle management), for example with new dosage forms.

Forecast for the Consumer Health Care division

Consumer purchasing restraint will continue to impact OTC product sales.

For the Consumer Health Care division, we assume that total revenues will increase by between 5% and 10% in 2010. Our expectations for the division thus clearly exceed standard estimates by external market researchers. They expect that consumer purchasing restraint will continue in 2010 since consumers first start to cut voluntary spending and do not save on purchases of prescription medicines. Nicholas Hall, a market researcher specializing in the over the counter (OTC) drug market, assumes that global sales of OTC medicines will increase by 3.2% in 2010, while sales in Europe is expected grow by 1.9%. At 6.1%, Asia is expected to show comparatively strong growth, followed by Latin America at 4.2%. According to these forecasts, the Japanese OTC market is stagnating.
Merck assumes that the operating result of the Consumer Health Care division will either remain unchanged or will decline by up to 10% in 2010. We are planning, in particular, to increase spending on research and marketing activities. Merck is optimistic that the division will increase total revenues and the operating result in 2011.
Besides the development outlined, opportunities will arise for the division if economic recovery proceeds more quickly and consumer purchasing restraint recedes. Opportunities will also offer themselves if the division succeeds in accelerating the market launch of new products or in penetrating new regional markets. Risks for the business relate to the fact that against the backdrop of the ongoing economic crisis, consumers will continue to save on OTC products. Moreover, a changed health care policy framework could have a negative impact on the business.

Forecast for the chemical industry in general

The German Chemical Industry Association (VCI) forecasts global chemical output will grow by 3.9% in 2010. This comprises growth of 4.3% in the European Union, 2.5% in the United States, and 3.9% in Japan. As in 2009, India and China will rank in the upper third, however with lower growth rates of 4.7% and 5.9%, respectively. For Brazil, the VCI forecasts growth in chemical output of 5.8%.
The American Chemistry Council (ACC) estimates that output of the global chemical industry will increase by 4.6% in 2010 and by 5% in 2011. In the next two years, growth will primarily be driven by the emerging markets of Asia, Africa, the Middle East, eastern Europe and Latin America.

Forecast for the Liquid Crystals division

Merck's Liquid Crystals division operates in the display technology market. 2008 marked the year in which more new televisions with LCD technology were sold than cathode-ray devices. According to the market research institute DisplaySearch, the dominance of LCD TVs is increasing further. They are expected to account for 79% of all televisions sold in 2010 and 84% in 2011. For 2010, DisplaySearch forecasts a growth rate of 18% for the LCD TV module market in terms of display area. An increase of 15% is estimated for all LC applications in 2010. On this basis, for the Liquid Crystals division we expect a rise in total revenues of between 5% and 10%. We anticipate, in particular, improved market penetration of our new technologies.The operating result is expected to increase by between 15% and 25%. Also in 2011, we expect growth in total revenues. For the division's operating result, Merck expects a stable development in 2011.

Growing market for LCD TVs improves the situation for total revenues and the operating result in Liquid Crystals.

Opportunities for the division beyond the outlined developments lie primarily in improved business of the display markets. As Merck is strongly positioned with its liquid crystals, a further upturn in business among display manufacturers will also quickly boost the division's business performance. Being able to penetrate the market with our innovative PS-VA materials ahead of plan gives rise to additional business opportunities for the Liquid Crystals division. The most important risks regarding the developments outlined in the Report on Expected Developments lie in growing price pressure in these market segments.

Forecast for the Performance & Life Science Chemicals division

Merck expects total revenues of the Performance & Life Science Chemicals division to grow by between 3% and 8%. The operating result is expected to increase by between 15% and 20%. For 2011, Merck also expects growth in both total revenues and operating result.
In the course of 2009, the performance of the Performance & Life Science Chemicals division was impacted by the economic crisis. In this division, the opportunities and risks regarding future developments continue to depend significantly on the extent of economic recovery in the chemical industry as a whole. We see opportunities for most of the product portfolio when the pharmaceutical and chemical industries further strengthen their research activities. Consequently, scaling up from research to production would additionally increase the demand for our products. By contrast, the opportunities and risks in the Pigments business are more strongly related to general consumer patterns. Therefore, developments in this business will be significantly influenced by demand from the automotive industry and its recovery from the economic crisis. However, other pigment applications in demand by, for example, the cosmetics industry are also highly dependent on consumer patterns.

Dividend development

Based on our earnings expectations, the family of owners and Merck shareholders can expect to receive an earnings-oriented dividend. There are no plans to change the long-term dividend policy.

Summary

For the Merck Group, we expect continuous growth in total revenues and operating result for the next two years – with continuing solid balance sheet ratios.

SUBSEQUENT EVENTS

There were no material events at Merck after the balance sheet date.