2008 Annual Report

Creating Differentiation through Innovation





GEG Mail Processing Section

APR 1 6 2009

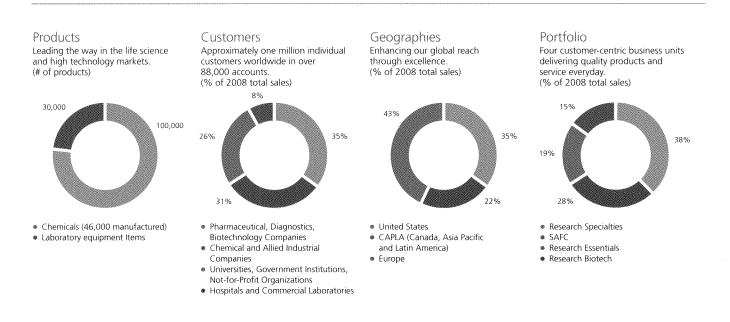
Washington, DC 105



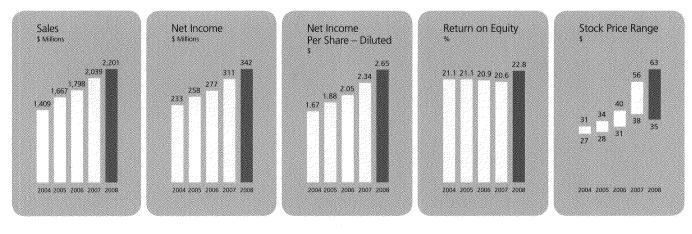
The Company

Creating Differentiation through Innovation

Through our strong foundation and proven track record of success, enhanced by innovation and the development of new technologies, Sigma-Aldrich[®] is committed to being the preferred partner for our customers' research and fine chemical needs.



2008



Research Biotech 2008 Sales: \$332 million Key Competitors: GE Healthcare, Life Technologies, Millipore, Qiagen, Techne Research Essentials 2008 Sales: \$421 million Key Competitors: EMerck, Life Technologies, Thermo-Fisher, VWR, Wako Research Specialties 2008 Sales: \$824 million Key Competitors: EMerck, GE Healthcare, Roche Biomolecular, Thermo-Fisher. Wako SAFC 2008 Sales: \$624 million Key Competitors: BASF, Covidien, DSM, Evonik Degussa, Lonza

About Sigma-Aldrich Sigma-Aldrich is a leading Life Science and High Technology company. Our chemical and biochemical products and kits are used in scientific research, including genomic and proteomic research, biotechnology, pharmaceutical development, the diagnosis of disease and as key components in pharmaceutical, diagnostic and other high technology manufacturing. Sigma-Aldrich operates in 37 countries and has 7,900 employees providing excellent service worldwide. Sigma-Aldrich is committed to Accelerating Customers' Success through Innovation and Leadership in Life Science, High Technology and Service.

We strive to Accelerate Customers' Success through Innovative Leadership in Life Science, High Technology and Service. Our focus is to create differentiation through innovation. To achieve our goals, we'll seek to build on our successes by initiating measures to enhance our offering in the years to come. Let us share our progress and our story...

To our Shareholders

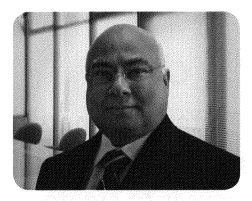
- Streamline the global supply chain
- Continue Research Biotech focus
- Build on success of SAFC Supply Solutions[®]
- Pursue opportunities in faster-growing geographies

- Further enable web strategies
- Refine selection and integration of new technologies

Create differentiation through innovation

- Create novel products, services, technologies and business models
- Increase market differentiation with breakthroughs in customer value creation
- Add a New Ventures Group

- Give back to our communities
- Support a healthy environment
- Promote fiscal integrity



JAI NAGARKATTI President and Chief Executive Officer

To our Shareholders

In 2008, Sigma-Aldrich turned in another strong performance, achieving record sales and earnings in a challenging economic climate. And the story for Sigma-Aldrich remains promising. Our financial strength, breadth of capabilities, and market and geographic diversity should help us successfully navigate through the current economic climate and position us for continued long-term growth. We set a new sales record with \$2.2 billion in sales, and our diluted earnings per share also reached a new high, increasing 13% to \$2.65. We fully intend to continue taking advantage of our strengths and add new initiatives to enhance our positions in the global life science and high technology markets.

Scientists worldwide depend upon Sigma-Aldrich's reputation to provide high quality products and unsurpassed service. The products and services we offer along with the commitment of our 7,900 employees help scientists in their quest to improve the quality of life. We provide products to support scientific research to understand and fight diseases. Our fine chemicals business helps customers accelerate the development and manufacture of new pharmaceuticals and products for a variety of high tech applications. With highly motivated employees, a diverse portfolio of 100,000 chemical and biochemical products and 30,000 laboratory equipment items, our approach is to continue creating differentiation through innovation to accelerate customer success, and thus our own success, and then share that with investors.

Financial Results

Sigma-Aldrich's strong performance continued in 2008, extending our record to 34 consecutive years of continuous growth in sales and earnings per share for our chemical business. Delivering improved returns for our shareholders is a fundamental objective, even in these financially turbulent times. Once again in 2008, each of our four customer-centric business units and all geographic regions contributed to sales growth. Sales increased by 7.9%, with Research Biotech leading the group with a reported gain of 10.0%, followed by Research Specialties at 9.4%, Research Essentials at 7.7% and SAFC at 5.2%. Each geographic region posted a sales gain, led by double digit growth in faster growing international markets. Sales in CAPLA (Canada, Asia Pacific and Latin America) countries grew at 11.9%, while Europe and the U.S posted growth rates of 8.6% and 5.4%, respectively.

Our return on equity of 22.8% exceeded our long-term goal of 20% for the sixth consecutive year. The Company's financial position remained strong, with a debt to capital ratio of 34.6% at December 31, 2008. Operating cash flow again exceeded \$400 million.

Capitalizing on Key Initiatives for Long-term Growth In 2008, we made further progress on all five initiatives of our 2005 strategic plan. Key accomplishments during the final year of that plan include:

BUILDING ON OUR CUSTOMER-CENTRIC APPROACH

Our account management efforts expanded to serve 8,000 new global customers in 2008. Increased contact enabled us to more efficiently serve customers' global research and development needs and commercial-scale requirements.

Awards and recognitions are good indicators of the effectiveness of our approach. In 2008, we received numerous honors that recognize our customer-centric approach. *The Scientist* magazine named Sigma-Aldrich one of the Best Places to Work in the

2008 Year in Review

January

Sigma-Aldrich signs agreement with Nanoco Technologies, Ltd. to distribute quantum dot nanocrystals

SAFC Pharma™ announces expansion at its Carlsbad, CA manufacturing site to increase viral product manufacturing capacity



Sigma-Aldrich opens NASDAQ market on February 20, with CEO Jai Nagarkatti presiding over the ceremony

February

Sigma-Aldrich announces new Prestige Antibodies[®] line for proteomics and cell biology researchers



March

separations

search tool

Supelco[®] introduces

Ascentis® Express HILIC

HPLC Columns for high-

Sigma-Aldrich partners

with Sunset Molecular

Favorite Gene" Internet

Discovery to expand "Your

speed and high-efficiency

Sigma® launches innovative ChIP Kit Technology for epigenetic research

April

SAFC Hitech™ expands capabilities at Sheboygan, WI facility with state-ofthe-art manufacturing cleanroom



Sigma-Aldrich joins phase 2 of The RNAi Consortium to validate shRNA libraries

May

BioInformatics, LLC ranks Sigma-Aldrich number one for usefulness and easy-to-use online and print catalogs



June

Sigma-Aldrich announces collaboration with University of California, San Francisco to develop monoclonal antibodies

industry. Our flagship chemistry journal, *The Aldrichimica Acta*, was again ranked first for its "impact factor" in research and scholarship against all organic chemistry publications and scientific journals. And BioInformatics, LLC, a leading market research company for the life science industry, ranked Sigma-Aldrich's online product catalog as the most useful and easiest to use in the industry.

EXPANDING OUR GLOBAL FOOTPRINT Sales in CAPLA markets reached 22% of total sales in 2008, putting us on track to achieve 25% of sales in this region by 2010. During the year, we established a presence in Vietnam and enhanced our selling and distribution infrastructure in Singapore to service growing demand in Southeast Asia. We continued growth in our target countries of Brazil, China and India, expanding our presence and stocking levels in these regions, achieving combined growth of 15% in these markets.

ENHANCING OUR WEB CAPABILITIES We expanded our Business-to-Business hook-ups with the number of customers reaching us through e-commerce channels growing again in 2008. With over a million unique visitors each month and 212,000 new registrations for the year, 42% of our research sales came through e-commerce channels. We enhanced our website's capabilities, increasing functionality and launching a new search application built on top of "Your Favorite Gene." This new capability, licensed from Ingenuity Systems[®], illustrates our commitment to providing high value contextual search applications to life science researchers.

LEVERAGING PROCESS IMPROVEMENT Process improvement continues to be embedded in our culture. 2008 marks the seventh straight year that these efforts yielded annual savings that exceeded \$15 million. In 2008, we continued to implement our Global Supply Chain initiatives to improve procurement, manage inventories and enhance customer service. We believe that this multi-year project is well on its way to provide in excess of \$15 million in pre-tax benefits in 2009. When fully implemented by 2012, the pre-tax benefit is expected to increase to \$35 - \$45 million per year.

INVESTING FOR LONG-TERM GROWTH Through partnerships, collaborations and licensing agreements, Sigma-Aldrich continued to enhance its unrivalled scientific knowledge to create differentiation in our markets by bringing added value to our customers. We added 70 new license agreements. We have a two-year research collaboration with D-Finitive Cell Technologies, Inc. to support the development and commercialization of reagents for regenerative medicine. Our exclusive partnership with Sangamo BioSciences, Inc. led to the launch of our CompoZr™ platform of Zinc Finger Nuclease reagents, a breakthrough gene editing technology recognized as one of the top 10 innovations of 2008 by The Scientist magazine. We significantly expanded our offering of validated antibodies by adding over 8,000 new listings. These additional antibodies include the "Prestige" line, a set of highly characterized and validated antibodies developed by the Human Proteome Resource and commercially available through an exclusive partnership with Atlas Antibodies. Our aim is to be the leading destination for researchers to find tools and solutions to help them understand the complexities of life.

Fostering Professional Growth

Key to our continued growth and success is a talented team of employees. In 2008, Mike Hogan, our CFO, retired after 10 years

July

August

Sigma-Aldrich and Atlas

highly-validated Prestige

release of 2,000 new,

Antibodies[®]

Aldrichimica Acta ranked first in Organic Chemistry by journal Impact Factor

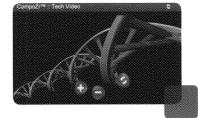
Sigma-Aldrich announces collaboration with Metahelix Life Sciences for expertise and applications to support plant biotechnology



Sigma-Aldrich launches Antibodies announce the breakthrough genomeediting tools

September

Sigma-Aldrich becomes first life science company to publish in peer-reviewed video journal JoVE



Sigma-Aldrich welcomes Memorial Sloan-Kettering Cancer Center to the RNAi Partnership Program

October

Sigma-Aldrich introduces methylated DNA quantification technology for epigenetic research

November

Sigma-Aldrich enters into research collaboration program with D-Finitive Cell Technologies, Inc., to develop research tools for regenerative medicine

Sigma-Aldrich introduces MISSION® In VIVO QUALITY and iScale Oligos™ siRNA

CompoZr™ technology for targeted genomic editing recognized by The Scientist magazine

December

Sigma-Aldrich signs agreement with SouthWest NanoTechnologies to distribute SWeNT® Single-Wall Carbon Nanotubes



of service. I thank Mike for his dedicated service and wish him the best in retirement. Rakesh Sachdev joined the management team in November 2008 as Chief Financial Officer. He brings years of executive experience in finance, international and operational functions. To foster innovation and enhance our approach to implementing strategy, Karen Miller, our Controller for 11 years, took on the new role of Vice President of Strategy and Corporate Development. In our continuing efforts to develop talent and build organizational depth, 400 employees were promoted to increased responsibilities.

Sharing Success with Investors

In 2008, we returned \$65 million to shareholders through cash dividends and repurchased \$421 million in value of our shares. Every year, we strive to continue earning your confidence and trust through our performance. To achieve growth during challenging times, our approach will be to seize opportunities and enhance our leadership position in select markets through continued focus on growth areas and making prudent decisions to manage costs.

Quality, Sustainability, Safety and Foundation Giving

We had another record year for safety performance with fewer recordable injuries. We also built on our quality program and reduced our carbon footprint through a number of sustainable initiatives. Our employees and the Company continued to give back to our communities. The Company and the Sigma-Aldrich Foundation supported many worthy causes through cash and product contributions amounting to \$8 million.

Looking Ahead

We will likely face the economic challenges that began late in 2008 during most of 2009. We implemented changes at the beginning of 2009 to energize our organization and launch new strategic initiatives. The plan includes:

Accelerating efforts on our 2005 strategic plan initiatives. These include increasing our focus to enhance growth in Research Biotech, SAFC Supply Solutions®, faster-growing geographies, and streamlining our Global Supply Chain.

Elevating performance in an effort to consistently exceed established goals by implementing large systems, refining selection and integration of new technologies and reducing complexity within the organization.

Creating differentiation through innovation. We have dedicated a team to develop a process to foster innovation in every aspect of our business. Though expecting a modest sales contribution from this initiative in 2009, our long-term goal is to create significant growth opportunities to leverage our core competencies in adjacent and new markets.

In closing, I wish to thank each of our shareholders for their confidence and support during 2008. Our focus remains to enhance our competitive strengths by creating differentiation. These are exciting times for our Company, and we fully expect to execute our strategy and stay vigilant in achieving our objectives.

JAI NAGARKATTI President and Chief Executive Officer

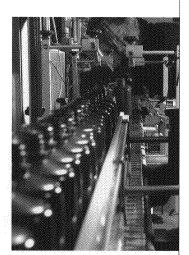
Accelerate efforts on 2005 strategic plan initiatives

Streamline the global supply chain

Process improvement continues to be deeply ingrained in the fabric of Sigma-Aldrich. We've initiated successful improvement programs at all levels and in all areas of our

business, from supplier to customer. 2008 marked the seventh consecutive year that improvement efforts produced over \$15 million in pre-tax benefits.

Our single largest process improvement program is the Global Supply Chain initiative, launched in 2007. This Company-wide initiative focuses on our procurement processes and internal operations to enhance



our profitability and to ensure our customers have a seamless supply of products, delivered in the most efficient way. While savings were modest in 2008, efforts planned for 2009 include the implementation of additional functionality to streamline our procurement and inventory management activities and ensure outstanding, efficient customer service for our more than one million customers with approximately 130,000 products distributed worldwide. These efforts are expected to be a major contributor to profitability in 2009.

Continue Research Biotech focus

As part of our mission to make Sigma-Aldrich a place where life science researchers can access biological information and market-leading products to facilitate their quest to understand life processes, we leveraged our strong scientific capabilities to develop and launch a number of innovative and information-rich solutions for our customers. We believe merging information and innovative research tools can help customers develop new drugs and treatments that can save lives and improve the quality of life.

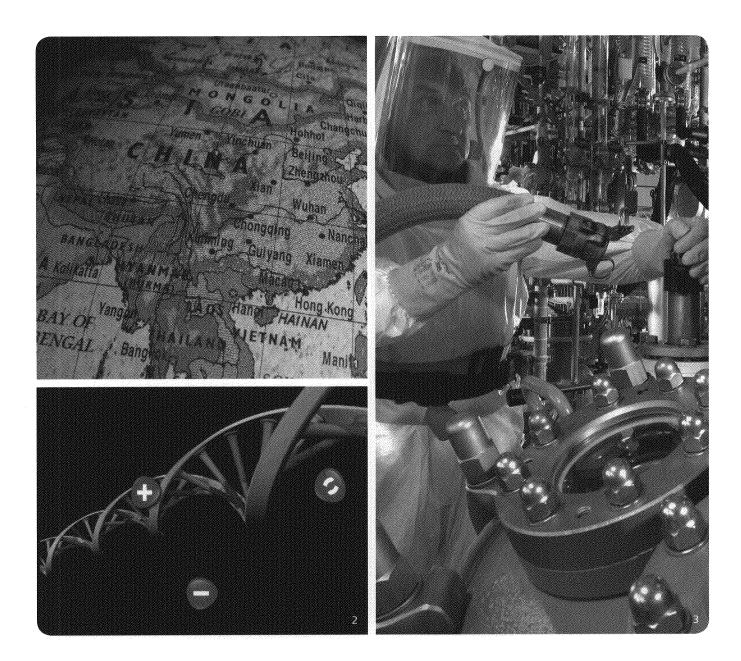
In 2008, we increased our selection of high quality antibody reagents through our Prestige Antibodies[®] program, adding more than 8,000 new antibodies. These materials help address one of the largest obstacles faced by the proteomics and cell biology research communities. Through the Atlas Antibodies program, researchers are able to better understand the functions of specific proteins.

At the same time, through our partnership with Sangamo BioSciences, Inc., Sigma-Aldrich introduced the breakthrough CompoZr™ Zinc Finger Nuclease (ZFN) technology for targeted genome editing. ZFN technology offers researchers the world's first genome-editing tools to enable precise, permanent and heritable modification of the genome in living cells.

Through a collaboration with Ingenuity Systems, Inc.,we launched the "Your Favorite Gene" search engine, which contains novel and proprietary biological information. With this data, scientists can not only search for their favorite gene, but also see biological information about their gene, disease research or pathway. We continue to leverage our comprehensive portfolio of products, services and information for life science researchers to help them answer important biological questions and foster scientific partnerships for now and the future.



1. In 2008, Sigma-Aldrich continued to enhance resources and capabilities that support growth in faster-growing economies. As the global markets continue to develop, our aim is to meet the rising demand for products and services through innovation and leadership. 2. The new CompoZr[™] platform of reagents enables researchers to target and manipulate the genome of living cells, resulting in cell lines or whole organisms with defined gene deletions, insertions or corrections. Zinc Finger Nuclease technology has the potential to alter the way research on living cells and organisms is conducted. **3.** The Buchs, Switzerland manufacturing site supports SAFC Supply Solutions® with enhanced manufacturing and warehouse space to better serve the global market.





SAFC Supply Solutions® helps customers accelerate their development programs by providing regulatory compliance expertise and a secure supply of more than 100,000 raw materials that can be customized to fit their specific needs.

Build on success of SAFC Supply Solutions

Since 2005, SAFC Supply Solutions has transformed its image from a "transactional" supplier into a leading customized supply chain management partner whose focus is meeting customer raw material requirements. Pairing global capabilities with new and innovative offerings, SAFC has taken a proactive approach and created a set of well-received key differentiators in its markets.

SAFC Supply Solutions' target markets consist of highlyregulated industries like pharmaceutical, diagnostics and flavor manufacturers that can take advantage of the Company's high-quality materials, customization capabilities and on-time delivery philosophy. Our objective is to provide unparalleled service to help customers meet regulatory requirements, and employ a localized approach for each global region we serve.

To better serve customers and drive long-term growth, SAFC Supply Solutions has five key initiatives:

- Further develop quality systems through an Enhanced Quality Profile program to match quality requirements with specific applications
- Customize our supply chain offering by coordinating with the overall supply chain initiative
- Develop a more strategic approach to enable SAFC to enter new markets
- Continue to grow in emerging economies (China, India, Latin America, Southeast Asia), in line with the Company's growth strategy
- Identify new markets for existing products and new products for new markets

Pursue opportunities in faster-growing geographies

Our growth strategy in emerging geographies remains unchanged. We continue to focus on expansion, on capitalizing on country-specific opportunities, on increasing collaborations and partnerships, and on optimizing the supply chain. Innovation and leadership can help set us apart in the global marketplace.

In 2008, we made significant service and go-to-market enhancements in Latin America that produced greater than 20% growth. In Singapore, we improved our selling and distribution infrastructure. In Vietnam, a regional office was added to promote future growth in this region of southeast Asia. To further develop our plant biotechnology program, we launched a partnership with Metahelix Life Sciences in India. In addition, we installed additional manufacturing capacity in Taiwan to support our SAFC Hitech[™] customers and commenced a significant distribution expansion project in China to support expected rapid growth in that country.

These initiatives, along with other projects in the global pipeline, helped fuel robust double-digit growth and created many opportunities for our global customers. The coming year looks promising and, even in the face of global economic uncertainty, we plan to continue to invest in emerging economies as we expect these areas to represent an increasing contribution to Sigma-Aldrich's growth.

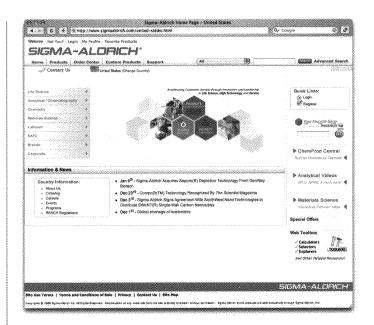
Elevate performance to meet high goals

Further enable web strategies

Technology means business, and our customers are increasingly using Internet-based solutions to facilitate their research or manage aspects of their manufacturing projects. We understand that enabling their success is closely tied to our growth, and e-commerce is the marketplace of the future. With that in mind, we plan to continually elevate our Internet performance to provide a robust and user-friendly online experience that adds value through advanced tools, products and content. We believe we stand apart with easyto-use online tools and a knowledge base that fosters better collaboration and exchange of ideas. By doing this, we can better understand and serve our customers and remain a true partner in their research endeavors.

STRONG ADOPTION The year 2008 was a record for sales generated through electronic channels, with 42% of world-wide research sales coming through the website and other electronic channels. In October, we exceeded three million visits to our website, a new record. Additionally, business-to-business connections increased by 69%, helped in part by cutting connection times in half. We expect online use to continue its rise, and we plan to move forward to improve capabilities that serve our customers and strengthen our web leadership.

RICH IN CONTENT A redesigned website provided better search capabilities with additional content, and a new web content management system improved performance and speed. Through search engine optimization, customers can find the tools and information they need quickly and easily. These improvements should increase customer loyalty as well as success.



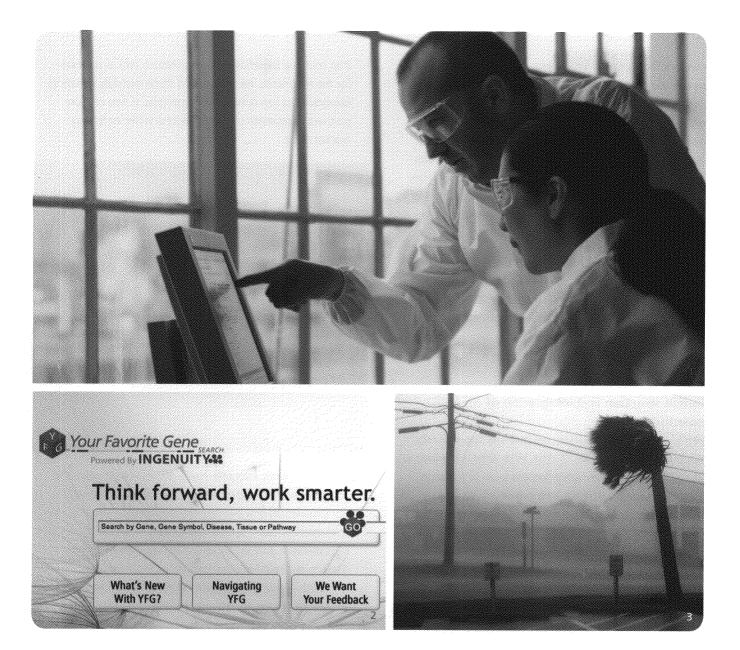
Our goal is to be the ultimate destination for scientists to accelerate their research. With enhancements to "Your Favorite Gene" powered by Ingenuity we have taken contextual searching to a new level. Life scientists are now able to search for their gene of interest by gene, gene symbol, disease, tissue or pathway. This powerful, innovative tool is expected to facilitate the search for gene information and enable customers to more easily conduct and enhance their specific area of genetic research.

OUTSTANDING SERVICE Our technical expertise and unique capabilities are benchmarks in the industry, but our people truly make the difference and elevate Sigma-Aldrich to be a great company. As Hurricane Ike hit the Texas coast



1. Customers are moving toward Internet-based tools for finding research and procurement partners. Sigma-Aldrich continues to enhance its award-winning website capabilities to make products and services available to customers who need them. 2. "Your Favorite Gene" powered by Ingenuity serves as an information hub for researchers exploring diseases, functions and gene pathways, and easily matches our comprehensive collection of products, kits and reagents to relevant biological data.

3. Even as Hurricane Ike ravaged the Texas coast, our operations in The Woodlands continued with assistance from teams in our Evry, France and Haverhill, UK production sites to ensure orders were delivered on time to customers that depend upon our products for their research.





Employing people with the drive to exceed expectations continues to be a focus for success. Today, our 7,900 employees put the customer first every day.

near our facility in The Woodlands, Texas, our employees rose to the occasion, staying on site to service customers and operate safely, enabling us to continue operations without disrupting service. Dedicated teams at numerous global locations, in particular the Information Services team, ensured electronic communications were functioning, orders were filled, and material was shipped as timely as possible. Sigma-Aldrich understands the importance of its customers' research, and we aim to earn their trust every day with outstanding service.

FOCUS ON THE CUSTOMER EXPERIENCE Our goal is to continually provide innovative ways to meet customer objectives. In 2009, we expect to add search improvements, foreign language content and other capabilities to our website. We understand that technology means business, but it can also mean loyalty, trust, understanding and collaboration.

Refine selection and integration of new technologies

Identifying new technologies and business opportunities is a key to future growth. To drive innovation, we added a Strategy and Corporate Development team to focus on long-term growth, leverage core competencies, and ensure that development opportunities are considered throughout the Company.

Acquisition opportunities continue to surface through an increasing network of partners and financial professionals. Our global reach and strong reputation often lead to novel technology opportunities. Our approach is to investigate novel forms of alliances, collaborations and partnerships that could be beneficial to Sigma-Aldrich and its partners for the long-term. We understand these mutually-beneficial opportunities can draw on the strengths of two or more partners to promote customer success while increasing market share.



To efficiently integrate newly acquired businesses and technologies, we utilize best practices adapted through our experiences and leverage the breadth and depth of our management team. Specialized groups, closely aligned with business areas and led by senior management, work to develop and integrate the business or technology.

With our long-term focus, Sigma-Aldrich remains poised to take advantage of new opportunities that we believe will add value and differentiation to the Company. Elevate

Create differentiation through innovation

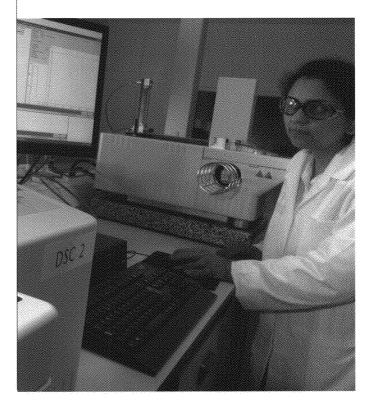
Create novel products, services, technologies and business models

Sigma-Aldrich's success over the years has been driven by our ability to serve researchers, development scientists and manufacturers with more reliability, selection, quality and responsiveness. As science and technology continue to advance at amazing speed, the needs of our customers are also evolving at an unprecedented rate.

Our 2008 strategic review focused on these realities, and we found numerous opportunities where we can enhance our capabilities to meet the future needs of customers. Our innovation effort goes beyond continuing research and development work and focuses toward building new business models.

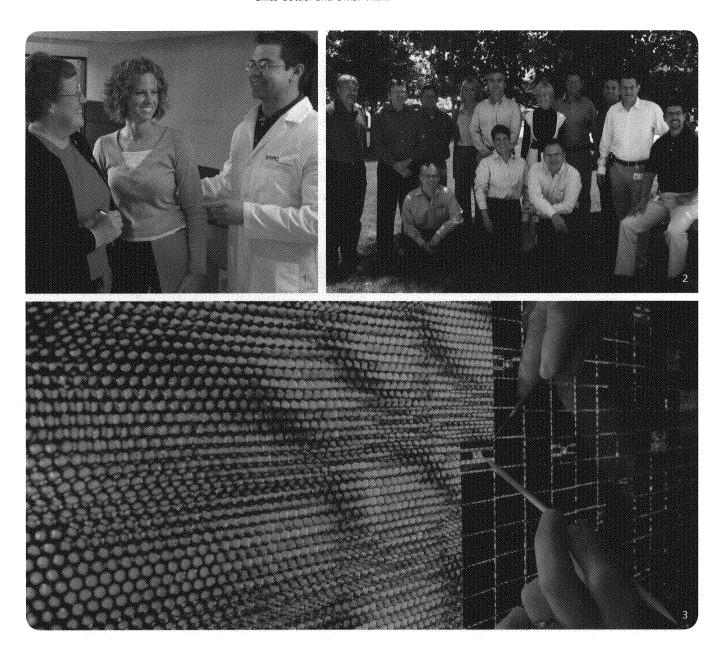
New businesses mean new products and services. We know that future customers will require products and services that don't exist today. From our current market leadership position, we can aggregate products that are available and attempt to develop those that aren't and resolve issues that might be difficult for our customers to resolve. We also have the ability to closely align partners and customers to meet the emerging needs of both.

New businesses also mean new technologies. As Sigma-Aldrich expands its industry-leading website, we continue to provide a platform for unlimited innovation on behalf of the millions of the visitors we serve. *sigma-aldrich.com* is already one of the most visited science sites on the Internet, with further enhancements providing the potential to make it an increasingly central part of accomplishing scientific goals. New businesses also mean new business models. We plan to improve on the paradigm of build, stock and ship to fully respond to changes in global economies and research climates. We intend to continue to differentiate our company through leadership and passion to address the issues at hand: concern for environmental impact, growing governmental regulations, and dramatic increases in multi-national collaborations among researchers. Sigma-Aldrich is committed to building the businesses that address our needs for today and for the future.





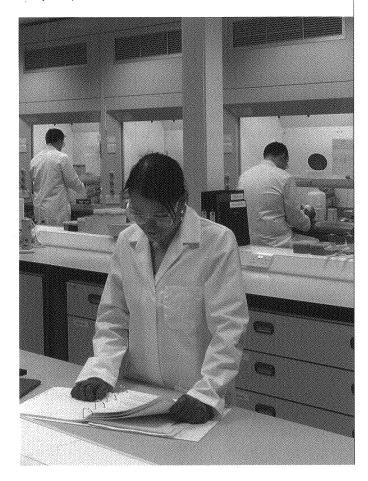
1. To create differentiation through innovation, Sigma-Aldrich plans to continue its close collaboration with customers and suppliers to create value that accelerates their success. We leverage our strong tradition of trust, service and leadership to develop innovative solutions that meet changing customer requirements. 2. The Sigma-Aldrich 2008 strategic review employed team members from around the globe to investigate ways to evaluate and enhance the Company's current and future position. First row (from left) Daniel Boesch, Sondra Brown, and Kevin Krosley. Second row (from left) Jeff Thurston, Ingo Haag, Tim Klages, Amanda Halford, Dieter Hofner, Susan Riley, Joey Bedell, Edward Weinstein, Gilles Cottier and Omar Vikin. 3. To create differentiation, Sigma-Aldrich will explore opportunities that leverage scientific and operational capabilities for new business offerings. From life sciences to solar energy and fuel cells, the speed of discovery is limitless.





Increase market differentiation with breakthroughs in customer value creation

As new business is developed around new products, services, technologies and models, the separation between Sigma-Aldrich and our competitors may well increase. Today, we provide novel solutions that meet research and



development challenges, supported by our strong brand position in the market. We believe the future will provide opportunities to strengthen our brand with the launch of innovative businesses.

SAFC Hitech[™], a business segment that supports the high technology market, has grown from initial entry to a significant player in only three years. This growth has extended the SAFC[®] brand beyond the life science development area and is opening up new areas for successful growth.

A number of opportunities from the 2008 strategic review have been recognized for their potential and prototyping and market testing of concepts has begun.

Add a New Ventures Group

Our recently created New Ventures Group was put together to explore and expand innovative business opportunities using the following approach:

- Collect ideas and insights from customers, employees, suppliers and partners and understand customer challenges
- Develop business solutions to address these challenges through successive prototype iterations
- Incubate promising businesses internally until they can be incorporated into the appropriate business area.

While the global economic outlook for 2009 presents many challenges, Sigma-Aldrich believes it is exactly the right time to invest in building new businesses. Over the next few years, these businesses are expected to play a key role in our core growth. We look forward to developing innovative solutions that can address the research and development needs of tomorrow.

Communicate our commitment to global citizenship

Give back to our communities

Innovation affects more than our financial performance. It impacts the lives of people – employees, friends and neighbors. Like our mission to accelerate our customers' success, we strive to improve the quality of life for the people we are in contact with each and every day. We do this by advancing science education, making donations to worthy causes and giving our time and energy to help those in need of assistance.

Sigma-Aldrich and its employees continued to give generously to our communities in 2008. Through our Team Sigma-Aldrich program, personal employee contributions reached nearly \$60,000 and topped 4,000 volunteer hours. In addition, the Company donated approximately \$8 million in products and cash. Overall, more than 1,300 people participated in 18 events in the communities where we live and work.

Support a healthy environment

In 2008 we progressed our global citizenship initiatives with:

ENVIRONMENTAL SUSTAINABILITY With more than 115 facilities worldwide, we continue collecting data to evaluate energy use and spending, and to calculate our carbon foot-print on a global, regional and site-specific basis. We have the foundation to evaluate energy consumption and employ natural resource conservation projects and emissions reductions projects at select locations. We are working to prepare Sigma-Aldrich for a more carbon-constrained world, and to help us comply with current and proposed regulations and reporting requirements.

GREEN CHEMISTRY AND RECYCLING We completed our first-ever worldwide green chemistry and recycling

reconnaissance. Eager to learn from each other, our Worldwide Sustainable Development Committee set out to create a list of innovative chemical process improvements so that our global facilities can leverage process improvements. In addition, recycling efforts are tracked and shared to help inspire and implement reduction, reuse and recycling across all facilities.

EXTERNAL REPORTING We published our inaugural Global Citizenship Report in 2008 on the Sigma-Aldrich website. This report communicates our progress against our worldwide energy tracking initiatives and records our carbon footprint for select facilities. We share information on waste reduction and material reuse projects in many parts of the globe, and highlight our employee volunteerism as one way to help us engage the communities where we work and live.

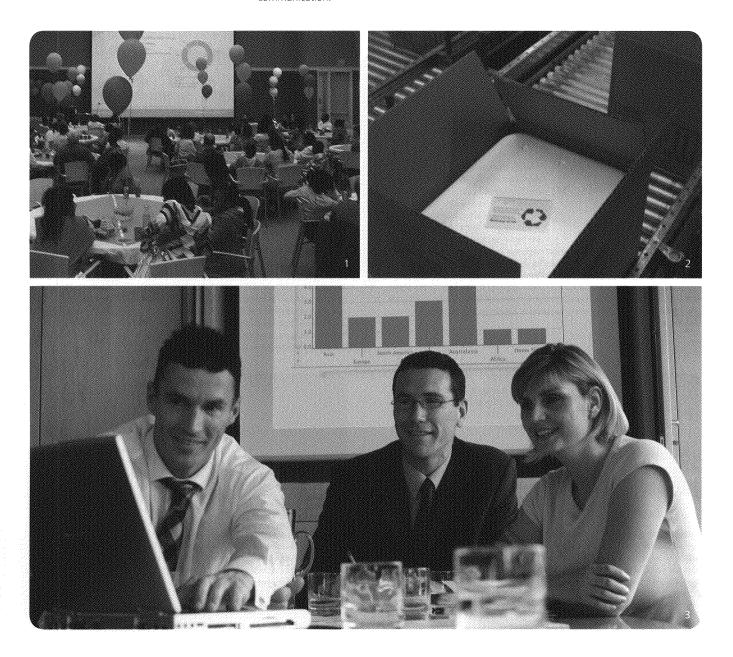
Promote fiscal integrity

We strive to provide a high standard of fiscal behavior, along with unquestionable integrity. Continued honest and ethical business conduct is a cornerstone of our Company values. Our Business Conduct Policy guides employees toward achieving the highest degree of personal and professional conduct possible and upholds our dedication to corporate ethics in daily activities.

Sigma-Aldrich and its employees are focused on taking the Company "beyond the numbers." We are committed to our One Company values of honesty and integrity, providing transparency in our financial information and operating responsibly and in compliance at all times.



1. Reaching out to our community, the Reading Partners Program in St. Louis, Mo., pairs employees with underprivileged children to enhance their reading and comprehension skills. Our investment in people, with personal rewards for those who get involved, is beyond measure. 2. Polystyrene containers used for shipping products with wet or dry ice can take thousands of years to decompose. To promote a greener future, our Polystyrene Container Recycling Program enables the free return of any polystyrene container. We now receive approximately 10% of all shipped containers back annually. For 2009, we are looking to improve that rate of return through increased communication. **3.** Sigma-Aldrich has a strong reputation as a global leader in its markets, driven by innovation and integrity. We are in a unique position to attract the talent and resources to aggressively promote the vitality and future of the scientific community. Our products and services enable discoveries that can improve quality of life around the world. It is our business, and it is our passion.



Partner for Success

Every day, employees around the world partner with our customers to accelerate their success. Our vision and approach help us provide solutions that lead the market in innovation. Sigma-Aldrich and its partners work together to share the story of success and we extend considerable thanks to our partners for the initial chapters of that story and look forward to the chapters ahead. Through our partnerships, we will continue to create differentiation through innovation and accelerate their success.

Research Biotech



Donald E. Coling, Ph.D. **Research Associate Professor** Center for Hearing and Deafness The State University of New York at Buffalo

"For the past two years, I have been working with Drs. Samson Jamesdaniel and Richard Salvi at the Center for Hearing and Deafness at SUNY Buffalo. We have been using Sigma's Panorama® Antibody Arrays to study proteins of the inner ear. Focusing our efforts on

cisplatin, a cancer drug that also causes deafness, we look for ways to co-treat with other drugs that still help remove the cancer but also slow the deafness. Antibody microarrays provide a very efficient method to screen for proteomic responses. Sigma's Panorama Antibody Arrays provide the broadest coverage of the proteome of the commercial arrays that are available and have the high quality we need to measure many proteins at a time, and to better conduct our research on hearing loss."



Becki Davis Product Manager, **Research Biotech Business Unit** Sigma-Aldrich St. Louis MO

"Through the dedicated support from multiple teams at Sigma-Aldrich, including technical service, research and development scientists and our sales force, we continue a strong relationship with Dr. Coling and the Center for Hearing and Deafness at SUNY Buffalo.

Sigma-Aldrich is proud to be able to help further their research on hearing loss and accelerate their success with the use of our Panorama Antibody Arrays. In addition, we very much enjoy the collaborative relationship we've developed over the years, and welcome the valuable feedback that ultimately enables Sigma-Aldrich to better serve our customers."

Research Essentials



consolidate our solid sample collection of research compounds that were in multiple research site locations into a single site. We sought a company whose core competency was in the area of compound management, sample repackaging and distribution, and international shipping. After an extensive review of the supplier base, Sigma-Aldrich was chosen as the partner. Now several years into full operation, we continue to be pleased with our partnership. Sigma-Aldrich's competencies in supply chain management and process improvement have helped us establish a process that is so seamlessly integrated into the Pfizer R&D operation that many of our Pfizer

clients, colleagues, and partners did not initially realize that the service was being



managed from an external partner."

Ali Ataei Vice President, QC & Procurement Sigma-Aldrich Milwaukee, WI

"Compound Management Services (CMS) is an example of Sigma-Aldrich's capabilities and flexibility in utilizing its operational excellence in managing large chemical collections by providing custom weighing and packaging solutions together with worldwide distribution. A team of dedicated individuals drove

this project from our Sales, Marketing, Engineering and Operations groups working hand-in-hand to ensure customer success. A crucial success factor on this project was the very close collaboration between the Sigma-Aldrich team and a similarly dedicated team at Pfizer. We are very pleased to have the opportunity to provide a solution that is exceeding customer requirements."

Dr. Rick Connell Vice President and Worldwide Head of

the External Research Solutions Chief Operating Executive Pfizer Global Research & Development

"We continue to assess options for outsourcing certain service functions that fall outside our core business. For example, in 2005, we decided to



Research Specialties



Dr. Frank Stelzer (left) Research Scientist BASE SE Global Research & Development Crop Protection

Klaus Dick (right) Plant Manager BASF SE Specialty Chemicals Research

"To improve the preparative HPLC service in crop protection research

at BASF, a project was started in 2008. One of the main parts was the automation of solvent supply (acetonitrile and water). Three acetonitrile containers (1385-liter solvent) from Sigma-Aldrich were installed. Cooperation with Sigma-Aldrich worked quite well, and so the containers were delivered and integrated in our process very quickly. This innovative and economic project turned out to be very successful."

SAFC



Dr. Brian Dymock Head of Chemistry S*BIO

"We have been working with the SAFC Pharma™-Pharmorphix® solidstate team in Cambridge, UK, for over 18 months with excellent results. Crucial data on preferred salts and polymorphs for our key products have been generated efficiently within a short timeframe. This work has fed directly into a suc-

Víctor M. Díaz Pérez, Ph.D.

Pharmorphix[®] Solid State Services

"Working with S*BIO over the last two years has been an exciting and

rewarding experience. A diverse team

the projects carried out on behalf of

of scientists with different backgrounds and expertise have been involved in

Scientist II

SAFC Pharma™

Cambridge, UK

cessfully partnered development program. Furthermore, we have come to rely on a wide range of SAFC Pharma's Pharmorphix's high quality services, such as solubility/dissolution, X-ray powder diffraction and single crystal X-ray studies, used for project decision making on a regular basis."



Bernd Töpfer Account Specialist, Sigma-Aldrich Munich, Germany

"Our customer BASF is very committed to 'going green,' and the company had one particular challenge to massively reduce the 5-liter glass-bottle waste created by preparative chromatography systems at their Ludwigshafen, Germany, site. I discussed the issues with the various stakeholders at BASF

and quickly involved my colleagues in designing a tailor-made solution. Within a mere two months timeframe, we had a fully-operational system of pressureresistant 1385-liter returnable solvent-containers in place. Sigma-Aldrich helped not only to eliminate waste, but also to secure product quality, increase logistical efficiency and reduce the safety hazard for the BASF employees. With my long-term relationship serving BASF, I was particularly proud to be able to demonstrate to my customer that Sigma-Aldrich is committed to offering application solutions that go far beyond delivering a chemical in a predefined quality."



S*BIO on a wide range of areas within the solid-state services offered through SAFC Pharma's Pharmorphix technology. While sometimes challenging, the outcomes of our projects have always been positive, helping S*BIO to progress their development programs. The feedback received from one of our valued customers has proved encouraging and is a source of motivation for our team."

SIGMA-ALDRICH 2008 ANNUAL REPORT 17

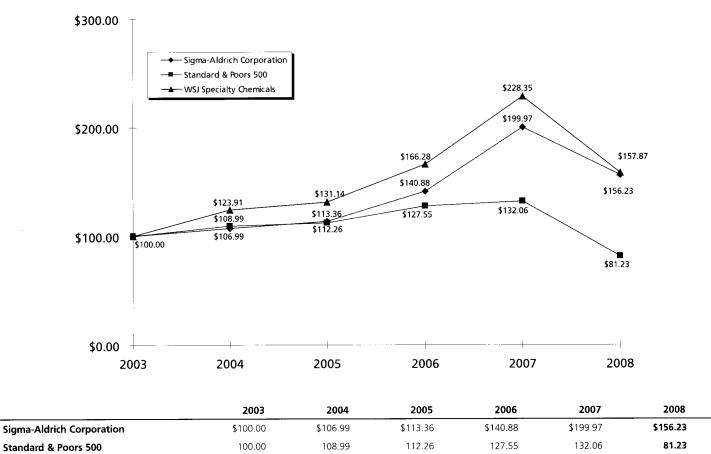
Performance Graph

The following performance graph compares the Company's cumulative shareholder return (stock price appreciation plus reinvestment of dividends) for a five year period ended December 31, 2008, with that of the Standard & Poor's 500 Composite Stock Price Index and an index of the companies included in the Wall Street Journal Specialty Chemicals Industry Group assuming that \$100 was invested in each on December 31, 2003, and that all dividends were reinvested. These indices are only included for comparative purposes as required by Securities and Exchange Commission rules and do not necessarily reflect management's opinion that such indices are an appropriate measure of the relative performance of the Company's common stock, and are not intended to forecast or be indicative of possible future performance of the common stock.

The Company used as a performance graph comparison index those companies comprising the Wall Street Journal (WSJ) Specialty Chemicals Industry Group

(the "2008 Group"). The 2008 Group includes the following companies: Avery Dennison Corp., Cabot Corp., Cambrex Corp., Cytec Industries Inc., Ecolab Inc., Ferro Corp., FMC Corp., HB Fuller Co., International Flavors & Fragrances Inc., Lubrizol Corp., Monsanto Co., OM Group Inc., PPG Industries Inc., Rohm & Haas Co., RPM International Inc., Sigma-Aldrich Corp., Solutia Inc., Tredegar Corp. and Valspar Corp.

Compared to 2007, the 2008 Group added Cambrex Corp., Ferro Corp., HB Fuller Co., OM Group Inc., Solutia Inc. and Tredegar Corp. The 2008 Group deleted Albemarle Corp., Ashland Inc., CF Industries Holdings Inc., Hercules Inc., Mosaic Co., Terra Industries Inc. and WR Grace & Co. With these exceptions, which resulted solely from the independent action of WSJ, the 2008 and 2007 Groups are identical.



123.91

131.14

166.28

228.35

157.87

100.00

Specialty Chemicals Index (WSJ)

Selected Financial Data

(Unaudited)

Common Stock Data (per share):

	2008 Price Range		2007 Prio	ce Range	Divid	lends
	High	Low	High	Low	2008	2007
First Quarter	\$60.04	\$47.13	\$42.91	\$37.40	\$0.13	\$0.115
Second Quarter	63.04	53.75	43.82	40.87	0.13	0.115
Third Quarter	62.74	50.02	50.98	42.61	0.13	0.115
Fourth Quarter	54.13	34.33	56.59	47.92	0.13	0.115

The Company's common stock is traded in the National Association of Securities Dealers Automated Quotation System ("NASDAQ") Global Select Market. The trading symbol is SIAL.

On January 31, 2009, there were 764 record holders of the Company's common stock.

See Management's Discussion and Analysis related to items affecting the comparability of results and accounting changes for the financial data presented below. Annual Financial Data (\$ In Millions, except per share data):

	2008	2007	2006	2005	2004
Net sales	\$2,200.7	\$2,038.7	\$1,797.5	\$1,666.5	\$1,409.2
Net income from continuing operations	341.5	311.1	276.8	258.3	232.9
Per share:					
Net income from continuing operations — Basic	2.70	2.38	2.08	1.90	1.69
Net income from continuing operations — Diluted	2.65	2.34	2.05	1.88	1.67
Dividends	0.52	0.46	0.42	0.38	0.34
Fotal assets	2,556.5	2,629.1	2,334.3	2,131.3	1,745.0
Long-term debt	200.1	207.0	337.9	283.2	177.1
Pension obligations — Long term	53.1	20.0	29.4	7.7	7.0
Post-retirement medical benefit plans	39.5	36.9	38.5	54.3	54.5

Quarterly Financial Data (\$ In Millions, except per share data):

		2008 Quarter Ended					
	March 31	June 30	Sept. 30	Dec. 31			
Net sales	\$569.6	\$580.7	\$540.6	\$509.8			
Gross profit	292.2	294.9	277.9	264.9			
Net income	84.5	90.8	81.9	84.3			
Net income per share — Basic	0.65	0.71	0.65	0.68			
Net income per share — Diluted	0.64	0.70	0.64	0.68			

		2007 Quarter Ended				
	March 31	June 30	Sept. 30	Dec. 31		
Net sales	\$495.9	\$507.5	\$503.2	\$532.1		
Gross profit	254.4	260.5	255.9	265.2		
Net income	74.9	79.7	71.6	84.9		
Net income per share — Basic	0.57	0.61	0.55	0.66		
Net income per share — Diluted	0.56	0.60	0.54	0.64		

All per share and common stock information presented above prior to 2007 has been retroactively adjusted to reflect the December 2006 common stock split.

Sigma-Aldrich 2008 Financial Report

Table of Contents

Management's Discussion And Analysis	21
Consolidated Statements of Income	28
Consolidated Balance Sheets	29
Consolidated Statements of Stockholders' Equity	30
Consolidated Statements of Cash Flows	31
Notes To Consolidated Financial Statements	32
Management's Report On Internal Control Over Financial Reporting	46
Report Of Independent Registered Public Accounting Firm	46

Management's Discussion And Analysis

(\$ In Millions, Except Per Share Data)

The following should be read in conjunction with the consolidated financial statements and related notes.

INTRODUCTION

Sigma-Aldrich Corporation ("the Company") is a leading Life Science and High Technology company. The Company develops, manufactures, purchases and distributes the broadest range of high quality chemicals, biochemicals and equipment available throughout the world. These chemical products and kits are used in scientific research, including genomic and proteomic research, biotechnology, pharmaceutical development and as key components in pharmaceutical, diagnostic and other high technology manufacturing. The Company operates in 37 countries, manufacturing 46,000 of the 100,000 chemical products it offers. The Company also offers 30,000 equipment products. The Company sells into nearly 160 countries, servicing over 88,000 accounts representing over one million individual customers.

The Company has four business units featuring the Research units of Essentials, Specialties and Biotech and the Fine Chemicals unit, SAFC. The units are closely interrelated in their activities and share services such as order entry, billing, technical services, Internet, purchasing and inventory control and share production and distribution facilities. Additionally, these units are supported by centralized functional areas such as finance, human resources, quality, safety and compliance and information technology.

Research Essentials, representing 19% of sales, provides customized, innovative solutions for our economic buyers. Research Specialties, representing 38% of sales, facilitates accelerated research by lab scientists through information and innovation in services and new products. Research Biotechnology, representing

HIGHLIGHTS

Reported sales increased 7.9% to \$2,200.7 in 2008 from \$2,038.7 in 2007. Organic sales growth, excluding currency impacts and the contribution from the acquisition of Epichem, Ltd. (Epichem), was 5.0% in 2008. The impact of changes in currency rates increased otherwise reportable sales growth by 2.7%.

Reported net income in 2008 increased 9.8% to \$341.5 from \$311.1 in 2007. The increase in net income in 2008 resulted from an improved gross profit margin reflecting the benefits of pricing actions and favorable currency, selling, general and administrative expenses that were consistent with 2007 due to successful efforts to control costs to offset losses on equity investments and a litigation settlement, and lower net interest expense due primarily to lower interest rates.

Diluted earnings per share in 2008 increased 13.2% to \$2.65 from \$2.34 in 2007. The increase in diluted earnings per share resulted from items identified in the discussion of net income and benefits from share repurchase activity during 2008.

NON-GAAP FINANCIAL MEASURES

The Company uses certain non-GAAP financial measures to supplement its GAAP disclosures. The Company does not, and does not suggest investors should, consider such non-GAAP financial measures in isolation from, or as a substitute for, GAAP financial information. These non-GAAP measures may not be consistent with the presentation by similar companies in the Company's industry. Whenever the Company uses such non-GAAP measures, it provides a reconciliation of such measures to the most closely applicable GAAP measure.

With over 60% of sales denominated in currencies other than the U.S. dollar, management uses currency adjusted growth, and believes it is useful to investors, to judge the Company's controllable, local currency performance. Organic sales growth data presented herein excludes currency, and where indicated, acquisition impacts. While we are able to report currency impacts after the fact, we are unable to estimate changes that may occur in 2009 15% of sales, provides innovative first-to-market products and technologies for the Life Science researcher. SAFC, representing 28% of sales, drives commercial project managers' success through rapid delivery of custom projects.

The Company has a broad customer base of commercial laboratories, pharmaceutical companies, industrial companies, universities, diagnostics companies, biotechnology companies, electronics companies, hospitals, governmental institutions and non-profit organizations located in the United States and internationally, and would not be significantly impacted by the loss of any one customer. However, economic conditions and government research funding in the United States and internationally do impact demand from our customers.

The current uncertainty in the global markets reduces future visibility, making it difficult to forecast sales with a desirable level of certainty. Demand from several of the Company's key markets is expected to decline in 2009, but with new program launches, global sales initiatives and market share gains, the Company expects to be able to achieve low single digit organic sales growth in 2009.

Reported sales increased 13.4% to \$2,038.7 in 2007 from \$1,797.5 in 2006. Organic sales growth, excluding currency impacts and the contribution from the acquisition of Epichem, Ltd. (Epichem), was 6.5% in 2007. The impact of changes in currency rates increased otherwise reportable sales growth by 4.8%. The acquisition of Epichem in February 2007 added 2.1% to sales growth.

Reported net income in 2007 increased 12.4% to \$311.1 from \$276.8 in 2006. The increase in net income in 2007 resulted from organic sales growth in each of the Company's four business units, lower selling, general and administrative expense levels and lower net interest costs. A higher effective tax rate partially offset net income improvement.

Diluted earnings per share in 2007 increased 14.1% to \$2.34 from \$2.05 in 2006. The increase in diluted earnings per share resulted from items previously identified in the discussion of net income, with additional benefits from share repurchase activity.

to applicable exchange rates and are thus unable to reconcile the projected non-GAAP, currency adjusted internal growth rates to reported GAAP growth rates for the year 2009 as required by Regulation G adopted by the Securities and Exchange Commission. Any significant changes in currency exchange rates would likely have a significant impact on our reported growth rates due to the volume of our sales denominated in foreign currencies.

The Company also reports both GAAP and adjusted sales and income amounts and comparisons to reflect what it believes is ongoing and/or comparable operating results excluding currency impacts and the sales benefit from acquisitions. The Company excludes these other items in judging its historical performance and in assessing its expected future performance. Management also uses free cash flow, a non-GAAP measure, to judge its performance. Management believes this non-GAAP information is useful to investors as well.

(\$ In Millions, Except Per Share Data)

The following should be read in conjunction with the consolidated financial statements and related notes.

CRITICAL ACCOUNTING ESTIMATES

The preparation of consolidated financial statements in conformity with accounting principles generally accepted in the United States requires management to use judgment in making estimates and assumptions that affect the reported amounts of assets and liabilities, disclosures of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the years presented. Actual results could differ from those estimates under different assumptions or conditions.

The following accounting policies are based on, among other things, judgments and assumptions made by management that include inherent risks and uncertainties. Management's estimates are based on the relevant information available at the end of each period.

Inventories Inventories are valued at the lower of cost or market. The Company regularly reviews inventories on hand and records a provision for slow-moving and obsolete inventory, inventory not meeting quality standards and inventory subject to expiration. The provision for slow-moving and obsolete inventory is based on current estimates of future product demand, market conditions and related management judgment. Any significant unanticipated changes in future product demand or market conditions that vary from current expectations could have an impact on the value of inventories.

Long-Lived Assets Long-lived assets, including intangibles with definite lives, are amortized over their expected useful lives. Goodwill and other intangibles with indefinite lives are not amortized against earnings. Goodwill is assessed annually for impairment. All long-lived assets are assessed whenever events and changes in business conditions indicate that the carrying amount of an asset may not be fully recoverable. If impairment is indicated, the asset value is written down to its fair market value. Any significant unanticipated changes in business or market conditions that vary from current expectations could have an impact on the fair market value of these assets and any potential associated impairment.

Pension and Other Post-Retirement Benefits The determination of the obligation and expense for pension and other post-retirement benefits is dependent on the Company's selection of certain assumptions used by actuaries to calculate such amounts. Those assumptions are described in Note 13 to the consolidated financial statements and include, among others, the discount rates, expected return on plan assets and rates of increase in compensation and health care costs.

In accordance with U.S. generally accepted accounting principles, actual results that differ from the assumptions are accumulated and amortized over future periods and therefore, generally affect the recognized expense and recorded obligation in such future periods. While the Company believes that the assumptions are appropriate, significant differences in actual experience or significant changes in the assumptions may materially affect the Company's pension and other post-retirement benefit obligations and the Company's future expense. A 1% increase in the discount rate assumption would have reduced the net periodic benefit cost by \$0.8 for the U.S. plans and \$2.3 for the International plans. A 1% reduction in the discount rate assumption would have increased the net periodic benefit cost by \$0.8 for the U.S. plans and \$5.5 for the International plans. A 1% change in the expected return on plan assets would have an impact on the Company's pension expense of \$2.7.

Stock Options The Company accounts for stock-based compensation in accordance with Statement of Financial Accounting Standards No. 123 (Revised 2004), *"Share-Based Payment"* (SFAS 123(R)). Under the provisions of SFAS 123(R), stock-based compensation cost for stock options is estimated at the grant date based on the award's fair value as calculated by the Black-Scholes option-pricing model and is recognized as expense ratably over the requisite service period. The Black-Scholes model requires the input of various estimates including volatility, forfeiture rates and expected option life. Those inputs to the Black-Scholes model are described in Note 11 to the consolidated financial statements. If any of the assumptions in future periods used in the Black-Scholes model vary significantly from current expectations, future stock-based compensation expense may also change significantly. Therefore, current year stock-based compensation expense is not necessarily indicative of future results.

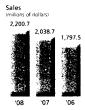
Taxes The Company operates within multiple taxing jurisdictions and is subject to audit in these jurisdictions. These audits can involve complex issues, which may require an extended period of time to resolve. The Company regularly reviews its potential tax liabilities for tax years subject to audit. Changes in the Company's tax provision and liability occurred in 2008, 2007 and 2006 and may occur in the future as its assessments change based on the progress of tax examinations in various jurisdictions and/or changes in worldwide tax regulations. In management's opinion, adequate provisions for income taxes have been made for all years presented.

Deferred tax assets and liabilities are recognized for the future tax benefits or liabilities attributable to differences between the consolidated financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates would be recognized in income in the period that includes the enactment date. The Company regularly reviews its deferred tax assets for recoverability and establishes a valuation allowance when it believes that such assets may not be recovered, taking into consideration historical operating results, expectations of future earnings, changes in its operations and the expected timing of the reversals of existing temporary differences.

(\$ In Millions, Except Per Share Data)

The following should be read in committion with the consolidated financial statements and related notes.

OPERATING RESULTS



Sales Sales increased 7.9%, 13.4%, and 7.9% in 2008, 2007 and 2006, respectively. Sales increases were primarily attributable to improved unit volume growth, price increases, currency benefits and acquisitions. The Company's pricing strategy changed in 2008 to reflect the pressure that the Company was facing from its vendors, including products dependant on petroleum. The 2008 price increase was responsible for approximately 2% of the indicated sales increase. New product sales, while not

material in the year introduced, do contribute to sales growth in subsequent years. The effect of translating foreign currency sales into U.S. dollars increased the 2008, 2007 and 2006 sales growth by 2.7%, 4.8%, and 0.4%, respectively.

Reported sales growth, currency benefits, sales increases from acquisitions and the adjusted sales changes are as follows:

	Year Ended December 31, 2008					
	Reported	Currency Benefit	Acquisition	Adjusted		
Research Essentials	7.7%	2.8%	%	4.9%		
Research Specialties	9.4%	3.0%	_%	6.4%		
Research Biotech	10.0%	3.0%	%	7.0%		
Research Chemicals	9.1%	2.9%	—%	6.2%		
SAFC	5.2%	2.0%	0.7%	2.5%		
Total	7.9%	2.7%	0.2%	5.0%		

	Year Ended December 31, 2007					
	Reported	Currency Benefit	Acquisition	Adjusted		
Research Essentials	10.0%	5.0%	%	5.0%		
Research Specialties	12.5%	5.0%	%	7.5%		
Research Biotech	9.1%	4.5%	—%	4.6%		
Research Chemicals	11.1%	4.9%	—%	6.2%		
SAFC	19.5%	4.4%	7.6%	7.5%		
Total	13.4%	4.8%	2.1%	6.5%		

	Currency					
	Reported	Benefit	Acquisition	Adjusted		
Research Essentials	4.2%	0.4%	—%	3.8%		
Research Specialties	6.9%	0.4%	—%	6.5%		
Research Biotech	5.6%	—%	—%	5.6%		
Research Chemicals	5.9%	0.3%	—%	5.6%		
SAFC	13.4%	0.7%	4.3%	8.4%		
Total	7.9%	0.4%	1.1%	6.4%		

Currency and acquisition adjusted sales growth in Research Essentials, Research Specialties, Research Biotech and SAFC for 2008 was 4.9%, 6.4%. 7.0% and 2.5%, respectively. Research Essentials sales growth was due to solid demand in all world areas with the strongest growth in CAPLA (Canada, Asia Pacific and Latin America). Customer segments primarily driving the unit's growth were commercial labs and industrial companies. Research Specialties sales growth was due to gains in biotechnology, hospital and academic accounts. Product initiatives driving this growth were Analytical and Lab equipment. Europe was the strongest driver of growth from a geography perspective. Research Biotech had its strongest growth in CAPLA followed closely by the U.S. customer segments. Contributing to this growth were commercial, industrial and diagnostics companies. Molecular biology was the strongest initiative in terms of growth over the prior year. SAFC growth in 2008 was driven by strong demand in biotechnology, diagnostics, commercial labs and academic customer segments. Demand for SAFC products in CAPLA showed the strongest growth over the prior year compared to Europe and the U.S. Hitech was the initiative with the most momentum during 2008.

Currency and acquisition adjusted sales growth in Research Essentials, Research Specialties, Research Biotech and SAFC for 2007 was 4.6%, 8.3%, 3.7% and 7.1%, respectively. Research Essentials' sales growth was due to strong demand in all customer segments and all geographies, with particularly strong growth in the industrial and pharmaceutical customer segments and the cell culture and lab essentials product initiatives. Research Specialties delivered sales growth that was helped by increased sales to pharmaceutical and academic accounts in Europe, the U.S. and CAPLA. Better product availability from intentional inventory increases and new supplier relationships in CAPLA markets continued to fuel double-digit organic growth in CAPLA. Customer-centric marketing programs aimed at serving pharmaceutical customers and their contract research organizations wherever located around the globe continued to gain traction. Research Biotech growth was driven by strong spending by academic customers in Europe and by growth in molecular biology and peptide products in both the U.S. and Europe in the latter part of the year. 2007 growth was impacted by softness in demand for synthetic DNA products. The addition of sales specialists and ongoing expansion of product offerings through internal development and technology licenses contributed to resurgent growth during the last half of 2007. Hitech products, including sales from Epichem, helped SAFC drive double-digit growth with commercial and industrial customers in European and CAPLA markets. Strong sales to pharmaceutical customers in the U.S. also contributed to this unit's growth. Demand for industrial cell culture products declined during the second half of 2007.

Our goal to accelerate growth in our non-European international markets was achieved, increasing sales in these markets to approximately 22%, which includes 2% from export sales from other global regions, of total sales for 2008. Our focus countries of China, India and Brazil collectively increased reported sales at a double-digit rate in 2008. Our initiative to build on our Internet superiority continued to drive sales growth. Web-based sales increased to 42% of total Research based sales in 2008 from 40% in 2007.

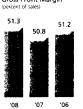
Full year 2009 currency and acquisition adjusted sales are expected to grow modestly at a low single-digit rate. At 2008 year-end rates, currency is expected to negatively impact sales in 2009 versus providing a benefit as it has in 2006 and 2007. The current economic environment makes predicting future sales particularly challenging. We believe some business units will be more impacted by the global economic slowdown, specifically SAFC with its larger dependence on the pharmaceutical industry. There is also uncertainty about the funding of biotech companies which may also impact our Research businesses. Academic spending is also uncertain.

(\$ In Millions, Except Per Share Data)

The following should be read in conjunction with the consolidated financial statements and related notes

OPERATING RESULTS (continued)

Gross Profit Margin



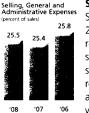
Gross Profit Margin Gross profit margin was 51.3%, 50.8%, and 51.2% of sales in 2008, 2007 and 2006, respectively. The following table reflects the significant contributing factors to the net change in gross profit margin for the years ended December 31, 2008, 2007 and 2006, respectively, as a percentage of sales compared to the same period in the prior year:

	Year En	ded Decem	ber 31,
Contributing Factors	2008	2007	2006
Inventory purchase accounting charges	-%	0.2%	0.9%
Unfavorable product mix	(1.3)		(0.7)
Favorable pricing	0.9	0.6	0.7
Higher unit sales volume	0.4	0.6	0.8
Higher manufacturing and distribution costs	(0.9)	(1.8)	(1.8)
Lower margin acquired business	(0.1)	(0.7)	
Favorable/(unfavorable) currency impact	1.8	1.1	(0.3)
Other impacts	(0.3)	(0.4)	0.7
Net (decline)/improvement in gross profit			
margin as a percentage of sales	0.5%	(0.4)%	0.3%

The increase in gross profit margin as a percent of sales of 0.5% in 2008 was primarily due to currency benefits, favorable pricing and higher unit volumes. These were offset by unfavorable product mix and higher manufacturing and distribution costs

The decrease in gross profit margin as a percent of sales of 0.4% in 2007 is primarily due to higher manufacturing and distribution costs partially offset by favorable pricing, increased unit sales volume and favorable currency benefits. There was also downward pressure on gross profit margin from a lower margin acquired business in 2007.

We have various cost containment initiatives underway including a supply chain initiative, which we expect to provide benefits in 2009. We expect currency to have a negative impact on the gross profit margin in 2009.



Selling, General and Administrative Expenses

Selling, general and administrative expenses were 25.5%, 25.4%, and 25.8% of sales in 2008, 2007 and 2006, respectively. Losses on equity investments and a legal settlement were the primary drivers of the increase in selling general and administrative expenses in 2008 representing a 0.5% increase as a percent of sales. These amounts were primarily offset by decreases in salaries and wages and legal and professional consulting expenses,

aggregating 0.4% of sales. Insurance expense decreased by 0.6% of sales in 2007 as compared to 2006 as a result of decreased claims activity and other recoveries. No other expense category was individually significant as a percent of sales in explaining the change from 2006 to 2007.

Research and Development Expenses Research and development expenses were 2.9% of sales in 2008, 2007 and 2006. The research and development expenses relate primarily to efforts to add new manufactured products. All manufactured products currently account for approximately 60% of total sales.

Interest Expense, Net Net interest expense reduced pretax earnings by \$14.3, \$22.0, and \$24.0 in 2008, 2007 and 2006, respectively. Lower interest rates in 2008 reduced net interest expense compared to 2007, partially offset by higher debt levels in 2008. Lower interest rates during 2007 and shifting debt from higher rate to lower rate world areas reduced net interest expense in 2007 compared to 2006, even with consistently higher debt levels during 2007 as compared to 2006.

Income Taxes Income taxes, which include federal, state and international taxes were 30.2%, 28.9%, and 26.9% of pretax income in 2008, 2007 and 2006, respectively. The higher effective tax rate for the full year of 2008 compared to the same period in 2007 is primarily due to a decrease in the U.S. manufacturing deduction in 2008. The higher effective tax rate for the full year of 2007 compared to the same period in 2006 reflects the absence of a net benefit from audit activity in 2007 and expiring U.S. export tax benefits in 2006, partially offset by increases in the U.S. manufacturing deduction and net international taxes benefits in 2007.

Our effective tax rate for 2009 is expected to be in the range of 31-32%, due to a reduction in net international taxes benefit and an increased charge for tax audit and related contingencies.

Accounting Changes In September 2006, the Financial Accounting Standards Board (FASB) issued Statement of Financial Accounting Standards No. 158, "Employers' Accounting for Defined Benefit Pension and Other Postretirement Plans" (SFAS 158). SFAS 158 requires companies to recognize, on a prospective basis, the funded status of their defined benefit pension and other postretirement benefit plans in the Consolidated Balance Sheets and recognize as a component of other comprehensive income, net of tax, the gains or losses and prior service costs or credits that arise during the period but are not recognized as components of net periodic benefit costs. SFAS 158 also requires additional disclosures in the notes to the consolidated financial statements and the use of a company's fiscal year-end as the measurement date for plan assets and benefit obligations, eliminating the use of earlier measurement dates that were previously permissible. The Company adopted all provisions of SFAS 158 as of December 31, 2006, except the measurement date requirement. The net impact of applying SFAS 158 on the Company's 2006 consolidated financial statements was a \$31.7 reduction of stockholders' equity. The new measurement date requirement is effective for fiscal years ending after December 15, 2008. The adoption of the measurement date provision did not have a significant impact on the consolidated financial statements.

In December 2007, the FASB issued Statement of Financial Accounting Standards No. 141 (revised 2007), "Business Combinations" (SFAS 141(R)). SFAS 141(R) establishes principles and requirements for how an acquiring entity recognizes and measures in its financial statements the assets acquired and liabilities assumed. SFAS 141(R) also establishes disclosure requirements to enable the evaluation of the nature and financial effects of the business combination. SFAS 141(R) is effective for fiscal years beginning after December 15, 2008, and will be applied prospectively to acquisitions beginning January 1, 2009. As this adoption impacts prospective acquisitions, the adoption of SFAS 141(R) is not expected to have a significant impact on the Company's consolidated financial statements.

In December 2007, the EITF reached a consensus on EITF Issue No. 07-1. "Accounting for Collaborative Arrangements" (EITF 07-1). EITF 07-1 addresses the accounting for activities of collaborative arrangements outside of an established separate legal entity, such as those to jointly develop and commercialize intellectual property. Under EITF 07-1, revenues and costs incurred with third parties in connection with the collaborative arrangement should be presented gross or net based on the criteria in EITF Issue No. 99-19, "Reporting Revenue Gross as Principal versus Net as an Agent" and other applicable accounting literature. The consensus is effective for fiscal years beginning after December 15, 2008, and will be applied to using a retrospective method that requires reclassification in all periods presented for those arrangements still in effect at January 1, 2009. The adoption of EITF 07-1 is not expected to have a significant impact on the Company's consolidated financial statements.

(\$ In Millions, Except Per Share Data)

The following should be read in conjunction with the consolidated financial statements and related notes.

OPERATING RESULTS (continued)

In April 2008, the FASB issued FASB Staff Position FAS 142-3, "Determination of the Useful Life of Intangible Assets" (FSP FAS 142-3). FSP FAS 142-3 amends the factors that should be considered in developing renewal or extension assumptions used to determine the useful life of a recognized intangible asset under FASB Statement of Financial Accounting Standards No. 142, "Goodwill and Other Intangible Assets" (SFAS 142). The intent of FSP FAS 142-3 is to improve the consistency between the useful life of a recognized intangible asset under SFAS 142 and the period of expected cash flows used to measure the fair value of the asset under SFAS 141(R). FSP FAS 142-3 is effective for fiscal years

LIQUIDITY AND CAPITAL RESOURCES

The Company's cash flows from operating, investing and financing activities, as reflected in the Consolidated Statements of Cash Flows, are summarized in the following table:

	Years Ended December 31,				
	2008	2007	2006		
Net cash provided by (used in):					
Operating activities	\$404.0	\$417.0	\$328.8		
Investing activities	(86.7)	(149.0)	(102.8)		
Financing activities	(273.9)	(212.0)	(156.2)		

Operating Activities Net cash provided by operating activities decreased \$13.0 or 3.1% in 2008 compared to 2007. This decrease results primarily from higher pension plan contributions and investments in working capital to support current year growth which were partially offset by increased net income and net changes in income taxes.

Net cash provided by operations increased \$88.7 or 26.8% in 2007 compared to 2006. The increase relates primarily to higher net income from operations, including the \$19.0 non-cash impact of stock-based compensation expense. The most significant offset to operating cash inflows was the impact of higher inventory balances at December 31, 2007 as compared to 2006 when high accounts receivable balances were the significant impact. Higher inventory balances are due to intentional international inventory increases to improve service to customers in CAPLA markets. Income taxes paid in 2007 were impacted by the timing of international payments resulting in an increase in accrued income taxes at December 31, 2007.

Investing Activities Cash used in investing activities decreased \$62.3 primarily due to lower levels of acquisition activity in 2008 as compared to 2007. Capital expenditures increased \$12.3, or 15.9%, from 2007 to \$89.9 in 2008, to expand our business systems and website capabilities, as well as increasing production and warehousing capacity at certain locations.

Investing activities in 2007 were focused on capital expenditures to upgrade our website, continuing to expand our business systems utilizing SAP software, and providing incremental production capacity for material science and pharmaceutical customers. These activities are included in the \$77.6 of capital expenditures in 2007. Acquisitions used another \$67.6 of cash in 2007.

For 2009, capital spending is expected to be approximately \$110.0.

Financing Activities In 2008, cash used in financing activities increased \$61.9 from 2007. This increase is due primarily to payments for treasury stock purchases of \$421.2 compared to \$184.3 in 2007, as well as repayment of \$90.0 in long-term debt. These cash outflows were partially offset by an increase in short-term debt, net of repayments, of \$270.5 in 2008 compared to \$61.8 in 2007.

In 2007, financing cash outflows included the repayment of long-term debt of \$69.7 and payment of dividends of \$60.0. The most significant outflow was for the purchase of treasury stock at \$184.3. Cash inflows of \$94.2 were received from the exercise of stock options and the issuance of short-term debt.

beginning after December 15, 2008. The Company does not expect the impact of FSP FAS 142-3 on its consolidated financial statements to be significant.

In December 2008, the FASB issued FASB Staff Position (FSP) No.132 (R)-1, "Employers' Disclosures about Pensions and Other Postretirement Benefits" (FSP 132(R)-1). FSP 132(R)-1 provides additional guidance regarding disclosures about plan assets of defined benefit pension or other postretirement plans. FSP 132(R)-1 is effective for fiscal years ending after December 15, 2009. The Company does not expect the impact of FSP FAS 132(R)-1 on its consolidated financial statements to be significant.

In March 2007, the Company entered into a \$200.0 seven-year multi-currency European revolving credit facility with a syndicate of banks having a maturity date of March 13, 2014. Borrowings of \$135.9 and \$56.5 were outstanding at December 31, 2008 and 2007, respectively.

Long-term debt at December 31, 2008 was \$200.1 compared to \$207.0 in 2007. Total debt as a percentage of total capitalization was 34.6% and 25.0% at December 31, 2008 and 2007, respectively. The significant change in the percentage primarily relates to the stock repurchase of \$421.2 which (1) decreased equity and therefore increased the total debt as a percentage of total capitalization and (2) also contributed to the \$197.5 increase in short-term debt.

For a description of the Company's material debt covenants, see Notes 5 and 6 to the consolidated financial statements.

Share Repurchases At December 31, 2008 and December 31, 2007, the Company had repurchased a total of 92.3 million shares and 84.0 million shares, respectively. On October 20, 2008, the Board of Directors authorized the repurchase of up to an additional 10.0 million shares under the existing repurchase program, to be available for purchase within three years, bringing the total authorization to 100.0 million shares. There were 122.1 million shares outstanding as of December 31, 2008. The Company expects to acquire the remaining 7.7 million authorized shares; however, the timing of these future repurchases, if any, will depend upon market conditions and other factors.

Liquidity and Risk Management Liquidity risk refers to the risk that the Company might be unable to meet potential cash outflows promptly and cost effectively. Factors that could cause such risk to arise might be disruption to the securities market, downgrades in the Company's credit rating or the unavailability of funds. In addition to the Company's cash flows from operations, the Company utilizes commercial paper, its credit facilities and long-term debt as funding sources. The Company maintains committed bank lines of credit to support its commercial paper borrowings, term loans and local bank lines of credit to support international operations. Downgrades in the Company's credit rating or other limitations on the ability to access short-term financing, including the ability to refinance short-term debt as it becomes due, would increase interest costs and adversely affect profitability.

The Company continues to assess the potential impact of recent trends in the global economic environment on its liquidity and overall financial condition, particularly with respect to the Company's availability of and access to short-term credit, including the market for commercial paper. Management does not believe that a significant risk exists of commercial paper or other credit becoming unavailable within the next 12 months. Management believes that the Company's financial condition is such that internal and external resources are sufficient and available to satisfy the Company's requirements for debt service, capital expenditures, acquisitions, dividends, share repurchases, funding of pension and other post-retirement benefit plan obligations, and working capital presently and for the next 12 months.

(\$ In Millions, Except Per Share Data)

The following should be read in conjunction with the consolidated financial statements and related notes:

OTHER MATTERS

The Company is involved in legal proceedings generally incidental to its business, as described below:

Insurance and Other Contingent Liabilities and Commitments The Company is a defendant in several lawsuits and claims related to the normal conduct of its business, including lawsuits and claims related to product liability and personal injury matters. The Company accrues for such liabilities when it is probable that future costs (including legal fees and expenses) will be incurred and such costs can be reasonably estimated. The Company has self-insured retention limits and has obtained insurance to provide coverage above the self-insured limits for product liability and personal injury claims, subject to certain limitations and exclusions. Reserves have been provided to cover expected payments for these self-insured amounts at December 31, 2008 and 2007.

In one group of lawsuits and claims, the Company, as well as others engaged in manufacturing and distributing similar products, is a defendant in multiple claims alleging injuries from exposure to various chemicals by a limited number of employees of one electronics manufacturer. These claims have been filed in three states. A global settlement has been reached for all cases, which will be submitted to the court for approval. The settlement is not significant to the Company's consolidated financial statements.

In another group of lawsuits and claims, the Company provided a product for use in research activities in developing various vaccines at pharmaceutical companies. The Company, together with other manufacturers and distributors offering the same product and several pharmaceutical companies, has been named as a defendant and served in 294 lawsuits, of which 59 lawsuits have been dismissed to date. Several of the outstanding suits have been stayed by various state and federal courts pending a decision on coverage available under a U.S. federal government relief program. No definite date has been set for this decision. In all cases, the Company believes its products in question were restricted to research use and that proper information for safe use of the products was provided to the customer.

In another group of lawsuits and claims, the Company, as well as others engaged in manufacturing and distributing flavoring products, is a defendant in multiple claims alleging personal injuries from exposure to the products. The Company has been named as a defendant and served in 14 lawsuits, 2 of which have been dismissed. These claims have been filed in four states. On November 4, 2008 a settlement, which was not material to the Company's consolidated financial condition, results of operations or liquidity, was reached in one case. Additionally, the Company believes the settlement reached does not change its position as it relates to other claims in this group. The Company is vigorously defending its rights as to the remaining claims. The Company believes it is covered by insurance for the above matters, subject to its self-insurance retention limits.

INFLATION

Management recognizes that inflationary pressures may have an adverse effect on the Company through higher asset replacement costs and higher material and other operating costs. The Company tries to minimize these effects through A class action complaint was filed against a subsidiary of the Company in the Montgomery County, Ohio Court of Common Pleas related to a 2003 explosion in a column at the Company's Isotec facility in Miamisburg, Ohio. The case was separated into the following four phases: phase one — existence of liability, phase two — quantification of any compensatory damages, phase three — existence of any punitive damages and phase four — quantification of any punitive damages. Class certification was granted to phases one, three and four, but denied to phase two. Compensatory damages for all plaintiffs must be established before the case can proceed to the punitive damages phases. The Company has accepted responsibility for phase one, existence of liability. The case is currently in the compensatory damages phase, where, because no class status exists, each plaintiff must individually establish actual damages. The initial phase two, compensatory damages trial, for 31 plaintiffs was completed on April 27, 2007 with a jury verdict establishing actual damages of approximately two hundred dollars per plaintiff. The plaintiffs filed an appeal staying further action on the case until the appeal has been resolved. The appellate court granted in part and denied in part plaintiffs' appeal on evidentiary rulings and jury instructions, and the Company has appealed some elements of that decision to the Ohio Supreme Court. The Company continues to believe it has substantial legal defenses to the allegations, which it will vigorously assert.

The Company believes its reserves and insurance are sufficient to provide for claims outstanding at December 31, 2008. While the outcome of the current claims cannot be predicted with certainty, the possible outcome of the claims is reviewed at least quarterly and reserves adjusted as deemed appropriate based on these reviews. Based on current information available, the Company believes that the ultimate resolution of these matters will not have a material adverse effect on its consolidated financial condition, results of operations or liquidity. Future claims related to the use of these categories of products may not be covered in full by the Company's insurance program.

At December 31, 2008, there were no other known contingent liabilities that management believes could have a material adverse effect on the Company's consolidated financial condition or results of operations, nor were there any material commitments outside of the normal course of business. Material commitments in the normal course of business include notes payable, long-term debt, lease commitments and pension and other post-retirement benefit obligations which are disclosed in Note 5, Note 6, Note 8 and Note 13, respectively, to the consolidated financial statements for the year ended December 31, 2008.

cost reductions and productivity improvements as well as price increases to maintain reasonable profit margins. It is management's view, however, that inflation has not had a significant impact on operations in the three years ended December 31, 2008.

(\$ In Millions, Except Per Share Data)

The following should be read in conjunction with the consolidated financial statements and related notes.

MARKET RISK SENSITIVE INSTRUMENTS AND POSITIONS

The market risk inherent in the Company's financial instruments and positions represents the potential loss arising from adverse changes in interest rates and foreign currency exchange rates.

Interest Rates At December 31, 2008, the Company's outstanding debt represents 34.6% of total capitalization. Approximately 28.4% of the Company's outstanding debt at December 31, 2008 is at a fixed rate. Cash flows from operations and available credit facilities are sufficient to meet the working capital requirements of the Company. It is management's view that market risk or variable interest rate risk will not significantly impact the Company's results of operations.

Foreign Currency Exchange Rates The functional currency of the Company's international subsidiaries is generally the dominant currency in the respective country of residence of the subsidiary. The translation from the functional currencies to the U.S. dollar for revenues and expenses is based on the average exchange rate during the period. Large increases or decreases in the spread between currencies have affected and may continue to affect the Company's revenues, revenue growth rates, gross profit margins, net income and stockholders' equity.

The Company transacts business in many parts of the world and is subject to risks associated with changing foreign currency exchange rates. The Company's objective is to minimize the impact of foreign currency exchange rate changes during the period of time between the original transaction date and its cash settlement. Accordingly, the Company uses forward exchange contracts to stabilize the value of certain receivables and payables denominated in foreign currencies. Most of the contracts are single currency. Gains and losses on these contracts, based on the difference in the contract rate and the spot rate at the end of each month for all contracts still in force, are typically offset either partially or completely by transaction gains and losses, with any net gains and losses included in selling, general and administrative expenses. The market risk of foreign currency rate changes represents the potential loss in fair value of net currency positions at year-end due to an adverse change in foreign currency exchange rates. The Company does not enter into foreign currency contracts for speculative trading purposes. The Company's policy is to manage the risks associated with existing receivables, payables and commitments.

The Company continues to assess the potential impact of recent trends in the global economic environment on the availability of and its access to these forward currency exchange contracts in the open market, as well as the ability of the counterparties to meet their obligations. Based on the relative stability of the significant foreign currencies utilized by the Company, management does not believe that a significant risk exists of these forward contracts becoming unavailable in the global marketplace within the next 12 months.

The market risk of the Company's foreign currency positions at December 31, 2008, assuming a hypothetical 10% change in foreign currency exchange rates, would be less than \$3.5.

AGGREGATE CONTRACTUAL OBLIGATIONS

The following table represents contractual obligations of the Company at December 31, 2008:

Contractual Obligations	Payments due by period				
	Total	Less than 1 year	1-3 years	3–5 years	More than 5 years
Long-term debt	\$207.0	\$ 6.9	\$200.1		
Interest payments related to long-term debt	25.6	12.8	12.8	_	_
Operating lease obligations	117.5	30.8	39.7	22.7	24.3
Purchase obligations	194.3	115.9	35.6	36.2	6.6
Total	\$544.4	\$166.4	\$288.2	\$58.9	\$30.9

See Notes 6 and 8 to the consolidated financial statements for additional disclosures related to long-term debt and lease commitments, respectively. See Note 13 to the consolidated financial statements for the Company's obligations with respect to its pension and post-retirement medical benefit plans.

FORWARD-LOOKING STATEMENTS

Management's Discussion and Analysis and other sections of this Annual Report to shareholders should be read in conjunction with the consolidated financial statements and notes thereto. Except for historical information, the statements in this discussion may constitute forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934 that involve risk and uncertainty, including financial, business environment and projections, as well as statements that are preceded by, followed by, or that include the words "believes," "expects," "plans," "anticipates," "should" or similar expressions, and other statements contained herein regarding matters that are not historical facts. Additionally, this Annual Report to shareholders contains forward-looking statements relating to future performance, goals, strategic actions and initiatives and similar intentions and beliefs, including without limitation, statements regarding the Company's expectations, goals, beliefs, intentions and the like regarding future sales, earnings, return on equity, cash flow, share repurchases. capital expenditures, acquisitions and other matters. These statements involve assumptions regarding the Company operations, investments, acquisitions and conditions in the markets the Company serves. Although the Company believes its expectations are based on reasonable assumptions, such statements are

subject to risks and uncertainties, including, among others, certain economic, political and technological factors. Actual results could differ materially from those stated or implied in this Annual Report to shareholders, due to, but not limited to, such factors as (1) declining global economic conditions, (2) changes in pricing and the competitive environment and the global demand for our products, (3) fluctuations in foreign currency exchange rates, (4) changes in research funding and the success of research and development activities, (5) dependence on uninterrupted manufacturing operations, (6) changes in the regulatory environment in which the Company operates, (7) changes in worldwide tax rates or tax benefits from domestic and international operations, including the matters described in Note 9 - Income Taxes to the consolidated financial statements, (8) exposure to litigation, including product liability claims, (9) the ability to maintain adequate guality standards, (10) reliance on third party package delivery services, (11) the impact of acquisitions and success in integrating and obtaining projected results from the acquisitions, (12) other changes in the business environment in which the Company operates, and (13) the outcome of the matters described in Note 10 - Contingent Liabilities and Commitments — to the consolidated financial statements. A further discussion of the Company's risk factors can be found in Item 1A of the Company's December 31, 2008 Form 10-K. The Company does not undertake any obligation to update these forward-looking statements.

Consolidated Statements of Income

(\$ In Millions, Except Per Share Data)

	Years ended December 31,		
	2008	2007	2006
Net sales	\$2,200.7	\$2,038.7	\$1,797.5
Cost of products sold	1,070.8	1,002.7	877.3
Gross profit	1,129.9	1,036.0	920.2
Selling, general and administrative expenses	561.6	517.1	464.6
Research and development expenses	64.5	59.3	52.9
Operating income	503.8	459.6	402.7
Interest, net	14.3	22.0	24.0
Income before income taxes	489.5	437.6	378.7
Provision for income taxes	148.0	126.5	101.9
Net income	\$ 341.5	\$ 311.1	\$ 276.8
Weighted average number of shares outstanding — Basic (in millions)	126.3	130.6	132.9
Weighted average number of shares outstanding — Diluted (in millions)	128.8	133.1	134.9
Net income per share — Basic	\$2.70	\$2.38	\$2.08
Net income per share Diluted	\$2.65	\$2.34	\$2.05

The accompanying notes are an integral part of these statements.

Consolidated Balance Sheets

(\$ In Millions, Except Per Share Data)

	December 31,	
	2008	2007
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 251.8	\$ 237.6
Accounts receivable, less allowance for doubtful accounts of \$4.1 and \$4.4, respectively	269.8	276.3
Inventories	661.8	653.6
Deferred taxes	45.9	57.7
Other current assets	79.9	57.3
Total current assets	1,309.2	1,282.5
Property, plant and equipment:		
Land	49.0	51.8
Buildings and improvements	674.6	663.8
Machinery and equipment	757.5	734.8
Construction in progress	41.4	44.9
Less accumulated depreciation	(862.1)	(813.8)
Property, plant and equipment, net	660.4	681.5
Goodwill, net	388.3	420.3
ntangibles, net	120.6	136.9
Other assets	78.0	107.9
Total assets	\$2,556.5	\$2,629.1
Current liabilities: Note payable and current maturities of long-term debt	\$ 528.8	\$ 331.3
	444.5	
Accounts payable	114.6	131.0
Accounts payable Accrued payroll and payroll taxes	58.6	131.0 55.0
Accrued payroll and payroll taxes	58.6	55.0
Accrued payroll and payroll taxes Accrued income taxes	58.6 41.1	55.0 47.1
Accrued payroll and payroll taxes Accrued income taxes Other accrued expenses	58.6 41.1 50.8	55.0 47.1 70.6
Accrued payroll and payroll taxes Accrued income taxes Other accrued expenses Total current liabilities	58.6 41.1 50.8 793.9	55.0 47.1 70.6 635.0
Accrued payroll and payroll taxes Accrued income taxes Other accrued expenses Total current liabilities .ong-term debt	58.6 41.1 50.8 793.9 200.1	55.0 47.1 70.6 635.0 207.0
Accrued payroll and payroll taxes Accrued income taxes Other accrued expenses Total current liabilities ong-term debt Deferred post-retirement benefits Deferred taxes	58.6 41.1 50.8 793.9 200.1 39.5	55.0 47.1 70.6 635.0 207.0 36.9
Accrued payroll and payroll taxes Accrued income taxes Other accrued expenses Total current liabilities ong-term debt Deferred post-retirement benefits Deferred taxes	58.6 41.1 50.8 793.9 200.1 39.5 18.6	55.0 47.1 70.6 635.0 207.0 36.9 42.3
Accrued payroll and payroll taxes Accrued income taxes Other accrued expenses Total current liabilities .ong-term debt Deferred post-retirement benefits Deferred taxes Dther liabilities Total liabilities	58.6 41.1 50.8 793.9 200.1 39.5 18.6 125.2	55.0 47.1 70.6 635.0 207.0 36.9 42.3 91.3
Accrued payroll and payroll taxes Accrued income taxes Other accrued expenses Total current liabilities .ong-term debt Deferred post-retirement benefits Deferred taxes Dther liabilities Total liabilities Stockholders' equity: Common stock, \$1.00 par value; 300.0 million shares authorized; 201.8 million shares issued at December 31, 2008 and 2007; 122.1 million and 129.4 million shares outstanding at	58.6 41.1 50.8 793.9 200.1 39.5 18.6 125.2 1,177.3	55.0 47.1 70.6 635.0 207.0 36.9 42.3 91.3 1,012.5
Accrued payroll and payroll taxes Accrued income taxes Other accrued expenses Total current liabilities .ong-term debt Deferred post-retirement benefits Deferred taxes Other liabilities Total liabilities Stockholders' equity: Common stock, \$1.00 par value; 300.0 million shares authorized; 201.8 million shares issued at December 31, 2008 and 2007; 122.1 million and 129.4 million shares outstanding at December 31, 2008 and 2007, respectively	58.6 41.1 50.8 793.9 200.1 39.5 18.6 125.2 1,177.3 201.8	55.0 47.1 70.6 635.0 207.0 36.9 42.3 91.3 1,012.5 201.8
Accrued payroll and payroll taxes Accrued income taxes Other accrued expenses Total current liabilities .ong-term debt Deferred post-retirement benefits Deferred taxes Other liabilities Total liabilities Stockholders' equity: Common stock, \$1.00 par value; 300.0 million shares authorized; 201.8 million shares issued at December 31, 2008 and 2007; 122.1 million and 129.4 million shares outstanding at December 31, 2008 and 2007, respectively Capital in excess of par value Common stock in treasury, at cost, 79.7 million and 72.4 million shares at December 31, 2008	58.6 41.1 50.8 793.9 200.1 39.5 18.6 125.2 1,177.3 201.8 133.0	55.0 47.1 70.6 635.0 207.0 36.9 42.3 91.3 1,012.5 201.8 109.7
Accrued payroll and payroll taxes Accrued income taxes Other accrued expenses Total current liabilities ong-term debt Deferred post-retirement benefits Deferred taxes Dther liabilities Total liabilities Total liabilities itockholders' equity: Common stock, \$1.00 par value; 300.0 million shares authorized; 201.8 million shares issued at December 31, 2008 and 2007; 122.1 million and 129.4 million shares outstanding at December 31, 2008 and 2007, respectively Capital in excess of par value Common stock in treasury, at cost, 79.7 million and 72.4 million shares at December 31, 2008 and 2007, respectively	58.6 41.1 50.8 793.9 200.1 39.5 18.6 125.2 1,177.3 201.8 133.0 (1,935.3)	55.0 47.1 70.6 635.0 207.0 36.9 42.3 91.3 1,012.5 201.8 109.7 (1,534.1)
Accrued payroll and payroll taxes Accrued income taxes Other accrued expenses Total current liabilities ong-term debt Deferred post-retirement benefits Deferred taxes Dther liabilities Total liabilities Total liabilities Stockholders' equity: Common stock, \$1.00 par value; 300.0 million shares authorized; 201.8 million shares issued at December 31, 2008 and 2007; 122.1 million and 129.4 million shares outstanding at December 31, 2008 and 2007, respectively Capital in excess of par value Common stock in treasury, at cost, 79.7 million and 72.4 million shares at December 31, 2008 and 2007, respectively Retained earnings	58.6 41.1 50.8 793.9 200.1 39.5 18.6 125.2 1,177.3 201.8 133.0 (1,935.3) 2,954.4	55.0 47.1 70.6 635.0 207.0 36.9 42.3 91.3 1,012.5 201.8 109.7 (1,534.1) 2,679.3
Accrued payroll and payroll taxes Accrued income taxes Other accrued expenses Total current liabilities .ong-term debt Deferred post-retirement benefits Deferred taxes Other liabilities Total liabilities 	58.6 41.1 50.8 793.9 200.1 39.5 18.6 125.2 1,177.3 201.8 133.0 (1,935.3)	55.0 47.1 70.6 635.0 207.0 36.9 42.3 91.3 1,012.5 201.8 109.7 (1,534.1)

The accompanying notes are an integral part of these statements.

Consolidated Statements of Stockholders' Equity

(\$ In Millions, Except Per Share Data)

	Common Stock	Capital in Excess of Par Value	Common Stock in Treasury	Retained Earnings	Accumulated Other Comprehensive Income/(Loss)	Total Stockholders' Equity	Comprehensive Income
Balance, December 31, 2005	\$100.9	\$ 59.0	\$(1,264.4)	\$2,304.5	\$ 33.4	\$1,233.4	-
Net income			_	276.8	_	276.8	\$276.8
Other comprehensive income —		_			75.6	75.6	75.6
Foreign currency translation							
Unrealized gain on securities, net			—	—	3.4	3.4	3.4
Comprehensive income				—	_	—	\$355.8
Adjustment to initially apply Statement of Financial Accounting Standards No. 158, net of tax			_	_	(31.7)	(31.7)	
Dividends (\$.84 per share)			_	(55.7)	(31.77)	(55.7)	
Shares exchanged for stock options		(1.7)	_	(±=···)	_	(1.7)	
Exercise of stock options		11.2	25.6	_	_	36.8	
Restricted stock grant	-	(0.4)	1.6		_	1.2	
Stock-based compensation expense	_	(0.4)		_		11.0	
			(138.2)	_		(138.2)	
Stock repurchases	100.9	_	(150.2)	(100.9)		(150.2)	
Common stock split	201.8	79.1	(1,375.4)	2,424.7	80.7	1,410.9	-
Balance, December 31, 2006	201.8	/9.1	(1,373.4)	311.1		311.1	\$311.1
Net income Other comprehensive income —		—		511.1			•
Foreign currency translation		—	—	_	71.5	71.5	71.5
Pension and Post Retirement			_	_	8.4	8.4	8.4
Unrealized gain (loss) on securities, net		_		_	(0.7)	(0.7)	(0.7)
Comprehensive income		_	_		_	_	\$390.3
Dividends (\$.46 per share)			_	(60.0)		(60.0)	
Shares exchanged for stock options		(0.9)	_	_		(0.9)	
Exercise of stock options		17.3	24.0			41.3	
Restricted stock grant		0.7	1.6	_		2.3	
Stock-based compensation expense		13.5				13.5	
Stock repurchases			(184.3)	_	_	(184.3)	
Adjustment to initially apply FIN 48		_		3.5		3.5	
Balance, December 31, 2007	201.8	109.7	(1,534.1)	2,679.3	159.9	1,616.6	_
Net income		_		341.5	_	341.5	\$ 341.5
Other comprehensive income —					(06.4)		(86.4)
Foreign currency translation		_	_	_	(86.4)	(86.4)	
Pension and Post Retirement	—	_	—	_	(42.2)	(42.2)	(42.2)
Unrealized gain (loss) on securities, net		_	_	_	(6.0)	(6.0)	(6.0)
Comprehensive income			—	_	_	_	\$ 206.9
Adjustment to initially apply the measurement date features of Statement of Financial Accounting							
Standards No. 158, net of tax		—		(1.0)	_	(1.0)	
Dividends (\$.52 per share)			_	(65.4)	<u></u>	(65.4)	
Shares exchanged for stock options		(0.6)		_	_	(0.6)	
Exercise of stock options	—	15.0	18.1	_	_	33.1	
Restricted stock grant		1.6	1.9	-	—	3.5	
Stock-based compensation expense	_	7.3	—	_	—	7.3	
Stock repurchases			(421.2)			(421.2)	_
Balance, December 31, 2008	\$201.8	\$ 133.0	\$(1,935.3)	\$2,954.4	\$ 25.3	\$1,379.2	_

Common stock shares issued and common stock shares in treasury are summarized below (in millions):	Common Stock Issued	Common Stock in Treasury
Balance, December 31, 2005	100.9	33.7
Exercise of stock options	—	(0.8)
Stock repurchases	—	2.0
Common stock split	100.9	34.9
Balance, December 31, 2006	201.8	69.8
Exercise of stock options		(1.4)
Stock repurchases	-	4.0
Balance, December 31, 2007	201.8	72.4
Exercise of stock options	_	(1.0)
Stock repurchases	_	8.3
Balance, December 31, 2008	201.8	79.7

The accompanying notes are an integral part of these statements. The share information presented above prior to the December 2006 common stock split has not been restated.

Consolidated Statements of Cash Flows (\$ In Millions)

	Ye	Years Ended December 31,		
	2008	2007	2006	
ash flows from operating activities:				
Net income	\$341.5	\$311.1	\$276.8	
Adjustments to reconcile net income to net cash provided by operating activities:				
Depreciation and amortization	98.6	97.8	90.9	
Deferred income taxes	18.1	(21.7)	(44.1	
Stock-based compensation expense	12.2	19.0	13.3	
Loss on equity investments, net	5.3	0.2	1.8	
Other	1.7	(2.6)	4.4	
Changes in assets and liabilities:				
Increase in accounts receivable	(4.0)	(7.3)	(25.2	
Increase in inventories	(37.5)	(25.2)	(11.5	
Increase/(decrease) in accrued income taxes	(0.1)	25.0	(5.4	
Increase/(decrease) in accrued pension obligation	(20.6)	2.6	19.6	
Other	(11.2)	18.1	8.2	
Net cash provided by operating activities	404.0	417.0	328.8	
Cash flows from investing activities:				
Property, plant and equipment additions	(89.9)		(7) 0	
Proceeds from sales of property, plant and equipment	(65.5)	(77.6) 1.3	(72.9	
Proceeds from sales of property, plant and equipment Proceeds from sale of equity investments	11.6	8.8	2.8	
Acquisitions of businesses, net of cash acquired	(6.1)	(67.6)	(20.0	
Other, net	(3.4)	(13.9)	(20.0	
Net cash used in investing activities	(86.7)	(149.0)	(12.7	
	(0011)	(145.0)	(102.0)	
ash flows from financing activities:				
Net issuance of short-term debt	270.5	61.8	45.3	
Issuance of long-term debt	 (10.01)		100.0	
Repayment of long-term debt	(90.0)	(69.7)	(142.8	
Payment of dividends	(65.4)	(60.0)	(55.7	
Treasury stock purchases	(421.2)	(184.3)	(138.2)	
Exercise of stock options	23.8	32.4	30.9	
Excess tax benefits from stock-based compensation	8.4	7.8	4.3	
Net cash (used in) provided by financing activities	(273.9)	(212.0)	(156.2)	
ffect of exchange rate changes on cash	(29.2)	7.8	5.4	
let change in cash and cash equivalents	14.2	63.8	75.2	
ash and cash equivalents at beginning of year	237.6	173.8	98.6	
ash and cash equivalents at end of year	\$251.8	\$237.6	\$173.8	
upplemental disclosures of cash flow information:				
Income taxes paid	\$120.2	\$113.9	\$120.5	
Interest paid, net of capitalized interest	23.1	29.6	34.7	

The accompanying notes are an integral part of these statements.

(\$ In Millions, Except Per Share Data)

NOTE 1: SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Nature of Operations Sigma-Aldrich Corporation ("the Company") develops, manufactures, purchases and distributes a broad range of high quality biochemicals and organic chemicals throughout the world. These chemical products and kits are used in scientific research, including genomic and proteomic research, biotechnology, pharmaceutical development and as key components in pharmaceutical, diagnostic and other high technology manufacturing.

Principles of Consolidation The consolidated financial statements include the accounts of the Company and all majority-owned subsidiaries. All significant intercompany accounts and transactions have been eliminated.

Financial Instruments The Company has no financial instruments that have a materially different fair value than the respective instrument's carrying value, except as described in Notes 6 and 7.

Revenue Revenue, which includes shipping and handling fees billed to customers, is recognized upon transfer of title of the product to the customer, which generally occurs upon shipment to the customer, and is not dependent upon any post-shipment obligations.

Research and Development Expenditures relating to the development of new products and processes, including significant improvements to existing products or processes, are expensed as incurred as research and development.

Cash and Cash Equivalents Cash and cash equivalents include cash on hand and investments with original maturities of less than three months.

Property, Plant and Equipment The cost of property, plant and equipment is depreciated over the estimated useful lives of the assets using the straightline method with lives ranging from three to twelve years for machinery and equipment and fifteen to forty years for buildings and improvements. Depreciation expense was \$87.1, \$86.1, and \$80.0 for the years ended December 31, 2008, 2007 and 2006, respectively. The Company capitalizes interest as part of the cost of constructing major facilities and equipment.

Goodwill Statement of Financial Accounting Standards No. 142, "Goodwill and Other Intangible Assets," requires the Company to assess goodwill for impairment rather than to systematically amortize goodwill against earnings. The goodwill impairment test compares the fair value of a reporting unit to its carrying amount, including goodwill. The Company operates as one reporting unit and its fair value exceeds its carrying value, including goodwill. Therefore, the Company has determined that no impairment of goodwill existed at December 31, 2008 and 2007.

Long-Lived Assets Long-lived assets are reviewed for impairment whenever conditions indicate that the carrying value of assets may not be fully recoverable. Such impairment tests are based on a comparison of the undiscounted cash flows prior to income taxes to the recorded value of the asset. If impairment is indicated, the asset value is written down to its fair market value if readily determinable or using discounted cash flows. Any significant unanticipated changes in business or market conditions that vary from current expectations could have an impact on the fair market value of these assets and any potential associated impairment.

Foreign Currency Translation Assets and liabilities denominated in foreign currencies are translated at current exchange rates and profit and loss accounts are translated at weighted average exchange rates. Resulting translation gains and losses are included as a separate component of stockholders' equity in accumulated other comprehensive income or loss.

Use of Estimates The preparation of consolidated financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the years presented. Actual results could differ from those estimates under different assumptions or conditions.

Common Stock Split In November 2006, the Board of Directors authorized a two-for-one stock split effected in the form of a 100 percent stock dividend to shareholders of record on December 15, 2006. Shareholders of record received an additional share on January 2, 2007 for each share they owned. The par value of the Company's common stock remains \$1.00 per share. The stock split is reflected in the Consolidated Statements of Stockholders' Equity as a reclassification from Retained Earnings to Common Stock. Except as otherwise noted, all share and per share information presented prior to 2007 herein has been retroactively adjusted to reflect the common stock split.

Reclassifications The accompanying consolidated financial statements for prior years contain certain reclassifications to conform with the presentation used in 2008.

Effect of New Accounting Standards In September 2006, the FASB issued Statement of Financial Accounting Standards No. 158, "Employers' Accounting for Defined Benefit Pension and Other Postretirement Plans" (SFAS 158). SFAS 158 requires companies to recognize, on a prospective basis, the funded status of their defined benefit pension and other post-retirement benefit plans in the Consolidated Balance Sheets and recognize as a component of other comprehensive income, net of tax, the gains or losses and prior service costs or credits that arise during the period but are not recognized as components of the net periodic benefit costs. SFAS 158 also requires additional disclosures in the notes to the consolidated financial statements and the use of a company's fiscal year-end as the measurement date for plan assets and benefit obligations, eliminating the use of earlier measurement dates that were previously permissible. The Company adopted all provisions of SFAS 158 as of December 31, 2006, except the measurement date requirement. The net impact of applying SFAS 158 on the Company's 2006 consolidated financial statements was a \$31.7 reduction of stockholders' equity. The new measurement date requirement is effective for fiscal years ending after December 15, 2008. The adoption of the measurement date provision did not have a significant impact on the consolidated financial statements.

NOTE 1: SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

In December 2007, the FASB issued Statement of Financial Accounting Standards No. 141 (revised 2007), "Business Combinations" (SFAS 141(R)). SFAS 141(R) establishes principles and requirements for how an acquiring entity recognizes and measures in its financial statements the assets acquired and liabilities assumed. SFAS 141(R) also establishes disclosure requirements to enable the evaluation of the nature and financial effects of the business combination. The effective date for this statement is fiscal years beginning after December 15, 2008, and will be applied prospectively to acquisitions beginning January 1, 2009. The Company does not expect the impact of SFAS 141(R) on its consolidated financial statements to be significant.

In December 2007, the EITF reached a consensus on EITF Issue No. 07-1, "Accounting for Collaborative Arrangements" (EITF 07-1). EITF 07-1 addresses the accounting for activities of collaborative arrangements outside of an established separate legal entity, such as those to jointly develop and commercialize intellectual property. Under EITF 07-1, revenues and costs incurred with third parties in connection with the collaborative arrangement should be presented gross or net based on the criteria in EITF Issue No. 99-19, "Reporting Revenue Gross as Principal versus Net as an Agent" and other applicable accounting literature. The consensus is effective for fiscal years beginning after December 15, 2008, and will be applied to using a retrospective method that requires reclassification in all periods presented for those arrangements still in effect at January 1, 2009. The Company does not expect the impact of EITF 07-1 on its consolidated financial statements to be significant.

In April 2008, the FASB issued FASB Staff Position FAS 142-3, "*Determination of the Useful Life of Intangible Assets*" (FSP FAS 142-3). FSP FAS 142-3 amends the factors that should be considered in developing renewal or extension assumptions used to determine the useful life of a recognized intangible asset under FASB Statement of Financial Accounting Standards No. 142, "*Goodwill and Other Intangible Assets*" (SFAS 142). The intent of FSP FAS 142-3 is to improve the consistency between the useful life of a recognized intangible asset under SFAS 142 and the period of expected cash flows used to measure the fair value of the asset under SFAS 141(R). FSP FAS 142-3 is effective for fiscal years beginning after December 15, 2008. The Company does not expect the impact of FSP FAS 142-3 on its consolidated financial statements to be significant.

In December 2008, the FASB issued FASB Staff Position (FSP) No.132 (R)-1, "Employers' Disclosures about Pensions and Other Postretirement Benefits" (FSP 132(R)-1). FSP 132(R)-1 provides additional guidance regarding disclosures about plan assets of defined benefit pension or other postretirement plans. FSP 132(R)-1 is effective for fiscal years ending after December 15, 2009. The Company does not expect the impact of FSP FAS 132(R)-1 on its consolidated financial statements to be significant.

NOTE 2: ALLOWANCE FOR DOUBTFUL ACCOUNTS

Changes in the allowance for doubtful accounts for the years ended December 31, 2008, 2007 and 2006 are as follows:

	2008	2007
Balance, beginning of year	\$4.4	\$4.7
Additions to reserves	1.4	0.5
Deductions from reserves	1.7	0.8
Balance, end of year	\$4.1	\$4.4

NOTE 3: INVENTORIES

The principal categories of inventories at December 31, 2008 and 2007 are as follows:

2008	2007
\$566.9	\$542.8
27.2	29.1
67.7	81.7
\$ 661.8	\$653.6
	\$566.9 27.2 67.7

Inventories are valued at the lower of cost or market. Costs for 75% of inventories are determined using a weighted average actual cost method. Costs for 25% of inventories are determined using the last-in, first-out method. If the value of all last-in, first-out inventories had been determined using the weighted average actual cost method, inventories would have been \$1.3, \$0.7, and \$0.4 higher than reported at December 31, 2008, 2007 and 2006, respectively.

The Company regularly reviews inventories on hand and records a provision for slow-moving and obsolete inventory, inventory not meeting quality standards and inventory subject to expiration. The provision for slow-moving and obsolete inventory is based on current estimates of future product demand, market conditions and related management judgment. Any significant unanticipated changes in future product demand or market conditions that vary from current expectations could have an impact on the value of inventories.

(\$ In Millions, Except Per Share Data)

NOTE 4: INTANGIBLE ASSETS

The Company's amortizable and unamortizable intangible assets at December 31, 2008 and 2007 are as follows:

	Cost		Accumulated Amortization	
	2008	2007	2008	2007
Amortizable intangible assets:				
Patents	\$ 16.7	\$ 16.6	\$ 6.6	\$ 5.6
Licenses	20.1	19.1	5.8	4.6
Customer relationships	95.1	100.9	23.1	17.6
Technical knowledge	21.1	22.6	5.6	4.3
Other	12.5	12.7	11.4	11.0
Total amortizable intangible assets	\$165.5	\$171.9	\$52.5	\$43.1
Unamortizable intangible assets:				
Goodwill	\$414.2	\$446.6	\$25.9	\$26.3
Trademarks and trade names	15.4	15.9	7.8	7.8
Total unamortizable intangible assets	\$429.6	\$462.5	\$33.7	\$34.1

The purchase price paid in cash for acquired intangible assets is based upon their estimated fair values at the date of acquisition. The Company added \$2.2 of acquired amortizable intangible assets during 2008, including adjustments for the finalization of the purchase accounting allocation of various insignificant acquisitions.

The Company recorded amortization expense of \$11.5, \$11.7, and \$10.9, for the years ended December 31, 2008, 2007 and 2006, respectively, related to amortizable intangible assets with estimated useful lives ranging from one to twenty years using a straight-line method. The Company expects to record annual amortization expense for all existing intangible assets in a range from approximately \$10.0 to \$11.0 from 2009 through 2013. Changes in net goodwill for the years ended December 31, 2008 and 2007 are as follows:

	2008	2007
Balance, beginning of year	\$420.3	\$361.3
Acquisitions	(0.7)	51.7
Impact of foreign exchange rates	(31.3)	7.3
Balance, end of year	\$388.3	\$420.3

NOTE 5: NOTES PAYABLE

The Company has a \$200.0 seven-year multi-currency European revolving credit facility with a syndicate of banks having a maturity date of March 13, 2014. The facility can be used for general purposes, including acquisitions, by certain European subsidiaries. At December 31, 2008, borrowings outstanding in U.S. dollars (USD) were \$135.9 at a weighted average interest rate of 0.6%. At December 31, 2007, borrowings outstanding in USD were \$56.5 at a weighted average interest rate of 3.2%. This facility contains financial covenants that require the maintenance of consolidated net worth of at least \$750.0 and a consolidated ratio of debt to total capital of no more than 55.0%. The Company's consolidated net worth and consolidated total debt as a percentage of total capitalization, as defined in the credit facility, were \$1,286.9 and 36.2%, respectively, at December 31, 2008.

The Company has a \$450.0 five-year revolving credit facility with a syndicate of banks in the U.S. under which \$30.0 will mature on December 11, 2011 and \$420.0 will mature on December 11, 2012. The facility supports the Company's commercial paper program. At December 31, 2008 and 2007, the Company did not have any borrowings outstanding under this facility. The syndicated facility contains financial covenants that require the maintenance of consolidated net worth of at least \$750.0 and a ratio of consolidated debt to total capitalization of no more than 55%. The Company's consolidated net worth and total consolidated debt as a percentage of total capitalization, as defined in the credit facility, were \$1,286.9 and 36.2%, respectively, at December 31, 2008.

At December 31, 2008, \$378.7 of commercial paper was outstanding with a weighted average interest rate of 0.5%. At December 31, 2007, \$171.2 of commercial paper was outstanding with a weighted average interest rate of 4.3%.

Sigma-Aldrich Korea Limited has a short-term credit facility denominated in Korean Won expiring on March 11, 2009. The total commitment converted into U.S. Dollars (USD) was \$15.8 at December 31, 2008. The borrowings bear interest based on the Korean market rate plus an incremental margin based upon the Company's credit rating. At December 31, 2008, borrowings outstanding in USD were \$5.1 at an average interest rate of 6.2%. At December 31, 2007, borrowings outstanding in USD were \$11.8 at an average interest rate of 6.4%.

The Company has provided guarantees for any outstanding borrowings from the European revolving credit facility and the short-term credit facility of the wholly-owned Korean subsidiary described above. There are no existing events of default that would require the Company to honor these guarantees. The borrowings subject to these guarantees are reflected in the consolidated financial statements.

The Company has other short-term credit facilities denominated in foreign currencies, excluding those mentioned above, with a total commitment converted into USD of \$25.5 at December 31, 2008. Borrowings outstanding under the facilities were \$2.2 and \$1.8, with a weighted average interest rate of 1.5% and 1.4% at December 31, 2008 and 2007, respectively.

NOTE 6: LONG-TERM DEBT

Long-term debt consists of the following at December 31, 2008 and 2007:

	2008	2007
7.687% Senior Notes, due September 12, 2010	\$100.0	\$100.0
5.11% Senior Notes, due December 5, 2011	100.0	100.0
Medium-Term Notes, due February 23, 2008		90.0
Other	7.0	7.0
Total	207.0	297.0
Less — Current maturities	(6.9)	(90.0)
	\$200.1	\$207.0

The Company, at its option, may redeem all or any portion of the \$100.0 of 7.687% Senior Notes by notice to the holder and by paying a make whole amount to the holder as compensation for loss of future interest income. The 7.687% Senior Notes contain financial covenants that require the maintenance of consolidated net worth of at least \$750.0, a ratio of consolidated debt to total capitalization of no more than 55% and an aggregate amount of all consolidated priority debt no more than 30% of consolidated net worth. Consolidated priority debt includes all unsecured debt of any subsidiary in which a majority of the voting shares are owned by the Company. The Company's consolidated priority debt as a percentage of total capitalization and consolidated priority debt as a percentage of consolidated total net worth as defined in the 7.687% Senior Notes was \$1,286.9, 36.2% and 10.4%, respectively, at December 31, 2008.

The Company, at its option, may redeem all or any portion of the \$100.0 of 5.11% Senior Notes by notice to the holder and by paying a make whole amount to the holder as compensation for loss of future interest income. The 5.11% Senior Notes contain financial covenants that require a ratio of consolidated debt to total capitalization of no more than 60% and an aggregate amount of all consolidated priority debt no more than 30% of consolidated net worth. The Company's consolidated debt as a percentage of total capitalization and consolidated priority debt as a percentage of total capitalization as defined in the 5.11% Senior Notes was 34.6% and 9.8%, respectively, at December 31, 2008.

The Medium-Term Notes due February 23, 2008 were issued in February 2005 as a component of the \$300.0 credit agreement entered into with a syndicate of banks in the U.S. to partially fund acquisitions and provide for working capital requirements. These notes were fully paid at maturity on February 25, 2008. At December 31, 2007, borrowings outstanding under the three-year term were \$90.0 with a weighted average interest rate of 5.4%.

Total interest expense incurred on short-term and long-term debt, net of amounts capitalized, was \$21.0, \$28.9, and \$31.4 in 2008, 2007, and 2006, respectively.

The fair value of long-term debt, including current maturities, was approximately \$221.4 and \$306.1 at December 31, 2008 and 2007, respectively, based upon a discounted cash flow analysis using current market interest rates.

NOTE 7: FINANCIAL DERIVATIVES AND RISK MANAGEMENT

The Company transacts business in many parts of the world and is subject to risks associated with changing foreign currency exchange rates. The Company's objective is to minimize the impact of foreign currency exchange rate changes during the period of time between the original transaction date and its cash settlement. Accordingly, the Company enters into forward currency exchange contracts in order to stabilize the value of certain receivables and payables denominated in foreign currencies. The Company does not enter into foreign currency transactions for speculative trading purposes. The Company's policy is to manage the risks associated with existing receivables, payables and commitments.

The principal forward currency exchange contracts are for the British pound, Euro, Swiss franc, Japanese yen, Indian rupee and Canadian dollar. These contracts are recorded at fair value and are included in other current assets. Resulting gains and losses are recorded in selling, general and administrative expenses and are partially or completely offset by changes in the value of related exposures. The duration of the contracts typically does not exceed six months.

The Company continues to assess the potential impact of recent trends in the global economic environment on the availability of and its access to these forward currency exchange contracts in the open market, as well as the ability of the counterparties to meet their obligations. Based on the relative stability of the significant foreign currencies utilized by the Company, management does not believe that a significant risk exists of these forward contracts becoming unavailable in the global marketplace within the next 12 months.

The notional amount, which approximates fair value, of open forward exchange contracts at December 31, 2008 and 2007 was \$210.1 and \$167.7, respectively.

NOTE 8: LEASE COMMITMENTS

The Company and its subsidiaries lease manufacturing, office and warehouse facilities and computer equipment under non-cancelable operating leases expiring at various dates. Rent charged to operations was \$41.4, \$36.6, and \$32.9 in 2008, 2007 and 2006, respectively. Minimum rental commitments for non-cancelable leases in effect at December 31, 2008, are as follows:

2009	\$ 30.8
2010	22.7
2011	17.0
2012	12.4
2013	10.3
2014 and thereafter	24.3

NOTE 9: INCOME TAXES

The components of income before income taxes consisted of the following for the years ended December 31:

	2008	2007	2006
United States operations	\$321.4	\$286.6	\$270.0
International operations	168.1	151.0	108.7
Total income before taxes	\$489.5	\$437.6	\$378.7

The provision for income taxes consists of the following for years ended December 31:

	2008	2007	2006
Current:			
Federal	\$110.2	\$ 82.1	\$ 82.9
State and local	7.2	7.4	6.2
International	38.3	58.9	54.5
Total current	155.7	148.4	143.6
Deferred:			
Federal	(9.2)	(13.8)	(24.8)
State and local	0.7	(0.5)	(1.1)
International	0.8	(7.6)	(15.8)
Total deferred	(7.7)	(21.9)	(41.7)
Provision for income taxes	\$148.0	\$126.5	\$101.9

The items accounting for the difference between income taxes computed at the U.S. federal statutory rate and the Company's effective tax rate are as follows for years ended December 31:

	2008	2007	2006
Statutory tax rate	35.0%	35.0%	35.0%
EIE benefit	_		(1.9)
U.S. manufacturing deduction	(1.3)	(2.1)	(0.7)
State and local income taxes, net of federal benefit	1.0	1.0	0.8
Research and development credits	(0.7)	(0.8)	(0.8)
International taxes	(4.8)	(4.9)	(3.6)
Tax audits and unrecognized tax positions	0.2		(2.3)
Other, net	0.8	0.7	0.4
Total effective tax rate	30.2%	28.9%	26.9%

The Extraterritorial Income Exclusion (EIE) on the Company's U.S. export sales which provided a benefit in 2006 was eliminated for subsequent years as a result of the phase-out of this benefit in the American Jobs Creation Act of 2004 (AJCA). U.S. manufacturing deduction benefits in 2007 and in 2008 are the result of the phase-in of the new benefits on U.S. manufacturing income provided in the AJCA. The international taxes benefit is primarily the result of lower statutory tax rates for our international operations, which provided a net benefit from audit activity in 2006, reflects the absence of net benefits in 2007 and 2008.

Undistributed earnings of the Company's international subsidiaries amounted to approximately \$443.0 at December 31, 2008. Upon distribution of those earnings in the form of dividends or otherwise, the Company would be subject to both U.S. income taxes (subject to an adjustment for foreign tax credits) and withholding taxes payable to various foreign countries. The Company may periodically make distributions from its international subsidiaries to its U.S. parent. These distributions will only be made at such time that they are deemed to be tax efficient. The Company does not anticipate any significant increase to its U.S. tax liability above that which has been previously recorded.

Deferred income tax provisions reflect the effect of temporary differences between consolidated financial statement and tax reporting of income and expense items. The net deferred tax assets/liabilities at December 31, 2008 and 2007, respectively, result from the following temporary differences:

	2008	2007
Deferred tax assets:		
Inventories	\$ 32.8	\$ 45.8
Net operating loss carryforwards	27.7	25.5
Post-retirement benefits and other employee benefits	39.3	32.8
Amortization	27.8	20.2
Pension benefits	11.4	3.4
Other	5.2	6.2
Total deferred tax assets	144.2	133.9
Deferred tax liabilities:		
Property, plant and equipment	(74.8)	(72.2)
Total deferred tax liabilities	(74.8)	(72.2)
Net deferred tax assets (liabilities)	\$ 69.4	\$ 61.7

The net operating loss carryforwards relate to international operations. At December 31, 2008, \$16.0 of these deferred tax assets expire in 2012 and the remainder of these assets have no expiration. The Company believes it will have sufficient taxable income to fully utilize the carryforwards prior to expiration.

Deferred tax assets and liabilities in the preceding table, netted by taxing jurisdiction, are included in the following captions in the Consolidated Balance Sheets at December 31:

	2008	2007
Deferred tax assets	\$ 45.9	\$ 57.7
Other assets	43.6	54.4
Other accrued expenses	(1.5)	(8.1)
Deferred tax liabilities	(18.6)	(42.3)
Net deferred tax assets (liabilities)	\$ 69.4	\$ 61.7

Uncertainty in Income Taxes The Company adopted the provisions of FASB Interpretation No. 48, "Accounting for Uncertainty in Income Taxes, an interpretation of Statement of Financial Accounting Standard No. 109" (FIN 48) on January 1, 2007. As a result of adoption, the Company decreased its unrecognized tax positions by \$3.5 with the offset to retained earnings resulting in a balance of \$33.5 of unrecognized tax benefits in the consolidated financial statements as of January 1, 2007.

NOTE 9: INCOME TAXES (continued)

The Company and its subsidiaries file income tax returns for U.S. federal taxes, and for various state, local and international taxes, as applicable. The Company is no longer subject to U.S. federal income tax examination for years prior to 2005 and, with limited exceptions, for any state, local and international income tax examinations prior to 2004 as of December 31, 2008.

The following table sets forth changes in our total gross unrecognized tax benefits, excluding interest and penalties, for the year ended December 31:

	2008	2007
Balance, beginning of year	\$32.1	\$33.5
Tax positions related to current year:		
Additions	4.1	4.4
Reductions	(0.2)	—
Tax positions related to prior year:		
Additions	4.2	0.6
Reductions	(6.2)	(4.4)
Settlements	(1.8)	_
Lapse in statutes of limitations	<u> </u>	(2.0)
Balance, end of year	\$32.2	\$32.1

Approximately \$19.5 and \$20.5 of the total gross unrecognized tax benefits reported as of December 31, 2008, and 2007, respectively, if recognized, would affect our effective tax rate in the future periods.

The Company believes it is reasonably possible that the unrecognized tax benefits at December 31, 2008 may decrease by approximately \$5.0 due to the completion of examinations and the expiration of statutes in several jurisdictions within 12 months of December 31, 2008.

The Company recognizes interest accrued, net of tax, and penalties related to unrecognized tax benefits as components of our income tax provision as applicable. The Company had accrued approximately \$6.3 and \$6.5 for payment of interest, net of tax, and penalties as of December 31, 2008 and 2007, respectively.

NOTE 10: CONTINGENT LIABILITIES AND COMMITMENTS

The Company is involved in legal proceedings generally incidental to its business, as described below:

Insurance and Other Contingent Liabilities and Commitments The Company is a defendant in several lawsuits and claims related to the normal conduct of its business, including lawsuits and claims related to product liability and personal injury matters. The Company accrues for such liabilities when it is probable that future costs (including legal fees and expenses) will be incurred and such costs can be reasonably estimated. The Company has self-insured retention limits and has obtained insurance to provide coverage above the self-insured limits for product liability and personal injury claims, subject to certain limitations and exclusions. Reserves have been provided to cover expected payments for these self-insured amounts at December 31, 2008.

In one group of lawsuits and claims, the Company, as well as others engaged in manufacturing and distributing similar products, is a defendant in multiple claims alleging injuries from exposure to various chemicals by a limited number of employees of one electronics manufacturer. These claims have been filed in three states. A global settlement has been reached for all cases, which will be submitted to the court for approval. The settlement is not significant to the Company's consolidated financial statements.

In another group of lawsuits and claims, the Company provided a product for use in research activities in developing various vaccines at pharmaceutical companies. The Company, together with other manufacturers and distributors offering the same product and several pharmaceutical companies, has been named as a defendant and served in 294 lawsuits, of which 59 lawsuits have been dismissed to date. Several of the outstanding suits have been stayed by various state and federal courts pending a decision on coverage available under a U.S. federal government relief program. No definite date has been set for this decision. In all cases, the Company believes its products in question were restricted to research use and that proper information for safe use of the products was provided to the customer.

In another group of lawsuits and claims, the Company, as well as others engaged in manufacturing and distributing flavoring products, is a defendant in multiple claims alleging personal injuries from exposure to the products. The Company has been named as a defendant and served in 14 lawsuits, 2 of which have been dismissed. These claims have been filed in four states. On November 4, 2008 a settlement, which was not material to the Company's consolidated financial condition, results of operations or liquidity, was reached in one case. Additionally, the Company believes the settlement reached does not change its position as it relates to other claims in this group. The Company is vigorously defending its rights as to the remaining claims. The Company believes it is covered by insurance for the above matters, subject to its self-insurance retention limits.

A class action complaint was filed against a subsidiary of the Company in the Montgomery County, Ohio Court of Common Pleas related to a 2003 explosion in a column at the Company's Isotec facility in Miamisburg, Ohio. The case was separated into the following four phases: phase one — existence of liability, phase two — quantification of any compensatory damages, phase three — existence of any punitive damages and phase four — quantification of any punitive damages. Class certification was granted to phases one, three and four, but denied to phase two. Compensatory damages for all plaintiffs must be established before the case can proceed to the punitive damages phases.

The Company has accepted responsibility for phase one, existence of liability. The case is currently in the compensatory damages phase, where, because no class status exists, each plaintiff must individually establish actual damages. The initial phase two, compensatory damages trial, for 31 plaintiffs was

NOTE 10: CONTINGENT LIABILITIES AND COMMITMENTS (continued)

completed on April 27, 2007 with a jury verdict establishing actual damages of approximately two hundred dollars per plaintiff. The plaintiffs filed an appeal staying further action on the case until the appeal has been resolved. The appellate court granted in part and denied in part plaintiffs' appeal on evidentiary rulings and jury instructions, and the Company has appealed some elements of that decision to the Ohio Supreme Court. The Company continues to believe it has substantial legal defenses to the allegations, which it will vigorously assert.

The Company believes its reserves and insurance are sufficient to provide for claims outstanding at December 31, 2008. While the outcome of the current claims cannot be predicted with certainty, the possible outcome of the claims is reviewed at least quarterly and reserves adjusted as deemed appropriate based

NOTE 11: COMMON STOCK

The Company's 2003 Long-Term Incentive Plan (2003 LTIP), permits the granting of incentive or nonqualified stock options as well as stock appreciation rights, performance shares, restricted stock and other stock-based awards. The 2003 LTIP permits the distribution of up to 11,000,000 shares of the Company's common stock, subject to increase for any shares forfeited under the other plans after the effective date of the 2003 LTIP. Shares issued under the 2003 LTIP may be authorized and unissued shares or treasury shares. This plan permits the award of non-qualified stock options to those members of the Board of Directors who are not employees of the Company. Under this plan, a nonemployee Director will receive an initial option to purchase 20,000 shares of common stock on the date of his or her initial election as a Director. Additional awards of options to purchase 10,000 shares are made to each eligible Director on the day after each annual shareholders' meeting if the non-employee Director has served on the Board of Directors for at least six months. Under this plan, incentive stock options may only be granted to employees of the Company or its subsidiaries, and a participant may not hold incentive stock options with a fair market value, determined as of the grant date, in excess of \$0.1 in the year in which they are first exercisable if this limitation is necessary to qualify the option as an incentive stock option. Incentive and nongualified stock options

on these reviews. Based on current information available, the Company believes that the ultimate resolution of these matters will not have a material adverse effect on its consolidated financial condition, results of operations or liquidity. Future claims related to the use of these categories of products may not be covered in full by the Company's insurance program.

At December 31, 2008, there were no other known contingent liabilities that management believes could have a material adverse effect on the Company's consolidated financial condition or results of operations, nor were there any material commitments outside of the normal course of business. Material commitments in the normal course of business include notes payable, long-term debt, lease commitments and pension and other post-retirement benefit obligations which are disclosed in Note 5, Note 6, Note 8 and Note 13, respectively, to the consolidated financial statements for the year ended December 31, 2008.

may not have an option price of less than the fair market value of the shares at the date of the grant. Options generally become exercisable from three months to three years following the grant date and expire ten years after the grant date. Including shares forfeited or swapped, 4,085,547 shares of the Company's common stock remain to be awarded at December 31, 2008 under this plan.

As of December 31, 2008, the Company expects \$17.3 of unrecognized expense related to nonvested stock-based compensation arrangements granted to be incurred in future periods. This expense is expected to be recognized over a weighted average period of 1.4 years.

Stock-based compensation expense charged against income is included in selling, general and administrative expenses. The stock-based compensation expense, net of tax of \$3.1 and \$4.1 for the years ended December 31, 2008 and 2007 was \$9.1 and \$14.9, respectively.

Stock Options The Company measures the total fair value of options on the grant date using the Black-Scholes option-pricing model. The Company then recognizes each grant's total cost over the period that the options vest based on its calculated fair value. During the year ended December 31, 2008, the Company granted a total of 507,350 stock options under the 2003 LTIP.

The weighted-average assumptions under the Black-Scholes option-pricing model for stock option grants are as follows:

	2008	2007	2006
Expected term (years)	4.7	5.9	6.0
Expected volatility	19.19%	25.12%	27.84%
Risk-free interest rate	2.72%	4.68%	5.01%
Dividend yield	1.03%	1.18%	1.22%

Expected term — The expected term of the options represents the period of time between the grant date of the options and the time the options are either exercised or forfeited, including an estimate of future forfeitures for outstanding options. In accordance with Securities and Exchange Commission Staff Accounting Bulletin No. 107, the Company has used the "simplified" method for "plain vanilla" options to estimate the expected term of options granted prior to 2008.

Expected volatility — The expected volatility is calculated based on an average of the historical volatility of the Company's stock price for a period approximating the expected term.

Risk-free interest rate — The risk-free interest rates are based on the U.S. Treasury yield curve in effect at the time of grant and a maturity that approximates the expected term.

Dividend yield — The dividend yield is based on the Company's authorized quarterly dividend, approved by the Board of Directors during the respective periods noted above, and the Company's expectation for dividend yields over the expected term.

NOTE 11: COMMON STOCK (continued)

The following table presents activity for the Company's stock option plans, including the 2003 LTIP, the Stock Option Plan of 2000, the 1998 Directors' Non-Qualified Share Option Plan, the Share Option Plan of 1995 and the Stock Option Plan of 1987. A summary of the combined stock option activity and other data for the Company's stock option plans for the year ended December 31, 2008 is as follows:

	Number of Stock Options	Wtd. Avg. Exercise Price Per Share	Wtd. Avg. Remaining Contractual Life	Aggregate Intrinsic Value
Stock Options outstanding, January 1, 2008	7,212,496	\$28.66		
Granted	507,350	52.89	_	
Exercised	(1,058,500)	23.07	—	_
Forfeitecl	(84,565)	32.44	_	_
Stock Options outstanding, December 31, 2008	6,576,781	\$31.38	68.93 months	\$77.06
Stock Options exercisable at December 31, 2008	5,295,252	\$28.66	61.81 months	\$73.75

The aggregate intrinsic value of options exercised during the year ended December 31, 2008, 2007 and 2006 was \$35.6, \$31.9, and \$20.2, respectively. The weighted average grant date fair value of options granted during the year ended December 31, 2008, 2007 and 2006 was \$9.96, \$12.58, and \$11.25 per share, respectively.

Performance Units Performance Unit awards in 2008, 2007, and 2006 were 319,845, 193,580, and 174,480 units, respectively. The Performance Units awarded in 2008, 2007, and 2006 contain a three-year service period and vest beginning on the grant date and ending on December 31, 2010, 2009, and 2008, respectively. The actual Performance Units awarded are determined at the end of the performance period with possible payouts ranging from 0% to 150% of the target amount based upon the achievement of specified performance criteria. One-half of the awards issued are based upon the Company's three-year average return on equity ratio calculation and one-half of the awards are based upon the Company's three-year average sales growth (adjusted for currency, but including acquisitions). Each Performance Unit paid will include one-half share of the Company's common stock and the cash equivalent of one-half share of the Company's common stock, except that the Company will direct that any fractional shares of stock be paid in cash. The value of the equity portion of a Performance Unit is equivalent

to the closing market price of the Company's stock on the grant date. The Company will expense the expected cost of the equity portion over the vesting period beginning on the grant date and ending on December 31 of the third subsequent fiscal year. The value of the Performance Unit to be paid in cash is determined based on the closing market price of the Company's stock at each quarter-end and ratably expensed during the remaining performance period. Therefore, the related stock-based compensation expense will fluctuate with the value of the Company's stock. The expense for the entire number of Performance Units awarded is dependant upon the probability of achieving the specific financial targets and is recorded ratably over the vesting period.

A summary of the Company's nonvested Performance Units as of December 31, 2008, and changes during the year then ended, is reflected in the table below. The Weighted Average Grant Date Fair Value includes both the fair value at grant date for the equity portion of the Performance Unit and the fair value of the cash portion of the Performance Unit.

	Number of Performance Units	Wtd. Avg. Grant Date Fair Value
Nonvested Performance Units outstanding, January 1, 2008	313,243	\$46.00
Granted	319,845	57.24
Vested (1)	(99,243)	36.94
Forfeited ⁽²⁾	(99,818)	43.87
Nonvested Performance Units outstanding, December 31, 2008	434,027	\$47.43

(1) Represents the entire amount of performance units which vested during the year ended December 31, 2008, all of which were outstanding as of December 31, 2008.

(2) Includes the reduction to the number of units for the expected payout based on the specified performance criteria at the end of the performance period, December 31, 2008, for the 2006 and 2007 awards at less than 100%.

The weighted average grant date fair value of performance units granted during the year ended December 31, 2008, 2007, and 2006 was \$57.24, \$40.45 and \$32.50, respectively.

Stock Awards On January 2, 2009, 2008, and 2007 each non-employee Director received an additional 1,200 shares of Company stock. The 2009 stock award will be expensed in the first quarter of 2009 based on the fair market value of the Company's common stock at December 31, 2008. The 2008 stock award was expensed in the first quarter of 2008 based on the fair market value of the Company's common stock at December 31, 2007. The 2007 stock award was expensed in the first quarter of 2007 based on the fair market value of the Company's common stock at December 31, 2007. The 2007 stock award was expensed in the first quarter of 2007 based on the fair market value of the Company's common stock at December 31, 2006.

Restricted Stock Awards On November 17, 2008, the Company issued to certain executives 18,632 shares of restricted stock with a weighted average grant date fair value of \$39.58, based on the fair market value of the Company's common stock at November 17, 2008. These shares will be expensed over a three-year vesting period beginning on the date of grant.

Common Stock Purchase Rights The Company has outstanding one common share purchase right (a "Right") for each outstanding share of common stock of the Company. Generally, if any person or group acquires 15% or more of the Company's outstanding voting stock without prior written consent of the Company's Board of Directors, these Rights become exercisable (except for rights held by the acquiring person).

NOTE 12: COMPANY OPERATIONS BY BUSINESS UNIT

The Company is organized into four business units featuring the Research units of Essentials, Specialties and Biotech and the Fine Chemicals unit, SAFC, to align the Company with the customers it serves. The business unit structure is the Company's approach to serving customers and reporting sales rather than any internal division used to allocate resources. Net sales for the Company's business units are as follows:

	2008	2007	2006
Research Essentials	\$ 420.9	\$ 390.7	\$ 355.3
Research Specialties	824.1	753.5	669.7
Research Biotech	332.2	302.0	276.8
Research Chemicals	1,577.2	1,446.2	1,301.8
SAFC	623.5	592.5	495.7
Total	\$2,200.7	\$2,038.7	\$1,797.5

The Company's Chief Operating Decision Maker and Board of Directors review profit and loss information on a consolidated basis to assess performance, make overall operating decisions and make resource allocations. The Company's business units are closely interrelated in their activities and share services such as order entry, billing, technical services, Internet, purchasing and inventory control and share production and distribution facilities. Additionally, these units are supported by centralized functional areas such as finance, human resources, quality, safety and compliance and information technology. Further, the Company's Chief Operating Decision Maker, Chief Financial Officer and Business Unit Presidents participate in compensation programs which reward performance based upon consolidated Company results for sales growth, operating income growth, return on equity and return on assets. Certain Business Unit Presidents also have a modest component of their compensation program based on their respective business unit sales growth in addition to consolidated sales growth. Based on these factors, the Company concludes that it operates in one segment.

Sales are attributed to countries based upon the location of product shipped. The United States sales to unaffiliated customers presented in the summary below include sales to international markets as follows:

Year	Amount	Year	Amount	Year	Amount
2008	\$31.5	2007	\$30.5	2006	\$35.0

Geographic financial information is as follows:

	2008	2007	2006
Net sales to unaffiliated customers:			
United States	\$ 794.6	\$ 756.3	\$ 715.4
United Kingdom	176.6	212.7	187.6
Germany	225.0	187.6	160.9
Other International	1,004.5	882.1	733.6
Total	\$2,200.7	\$2,038.7	\$1,797.5
ong-lived assets at December 31:			
United States	\$ 470.6	\$ 466.3	\$ 433.1
International	259.1	268.7	257.9
Total	\$ 729.7	\$ 735.0	\$ 691.0

NOTE 13: PENSION AND OTHER POST-RETIREMENT BENEFIT PLANS

The Company maintains several retirement plans covering substantially all U.S. employees and employees of certain international subsidiaries. Pension benefits are generally based on years of service and compensation. The Company also maintains post-retirement medical benefit plans covering some of its U.S. employees. Benefits are subject to deductibles, co-payment provisions and coordination with benefits available under Medicare. The Company has made a determination regarding the effects of the Medicare Prescription Drug, Improvement and Modernization Act of 2003 (the Act) that the prescription drug benefits it provides will be actuarially equivalent to the benefits provided under the Act. This determination was based on an analysis of the benefits and participant contributions for a particular participant group and comparing them to the benefits and contributions for the Medicare Part D standard benefit package. Retiree groups were assumed to be actuarially equivalent where the actuarial net value of the benefit/contribution package was greater than the Medicare Part D standard benefit package. The estimated benefit of the subsidy resulting from the Act was incorporated as an actuarial gain into the measurement of the Plan obligation as of the November 30, 2007 measurement date and updated as of the new December 31, 2008 measurement date. The impact of the Act was not significant on the Company's post-retirement benefit expense in any year presented. The Company may amend any of the plans periodically to reflect legislative or other benefit changes.

NOTE 13: PENSION AND OTHER POST-RETIREMENT

BENEFIT PLANS (continued)

The following chart summarizes the Consolidated Balance Sheet impact, as well as the benefit obligations, assets and funded status of the pension and postretirement medical benefit plans:

		Pensio	Post-Retirement			
	United States		Intern	ational	Medical Benefit	
	2008	2007	2008	2007	2008	2007
Reconciliation of funded status of the plans and the amounts included in the Company's Consolidated Balance Sheets at December 31:						
Change in benefit obligations						
Beginning obligations	\$ 99.2	\$ 95.8	\$186.7	\$173.2	\$ 38.9	\$ 40.6
Adjustments due to adoption of FAS 158	0.3	n/a	1.2	n/a	0.2	n/a
Service cost	5.8	5.4	8.0	8.8	1.0	1.1
Interest cost	6.0	5.1	7.9	6.3	2.4	2.2
Plan participant contributions	_	_	2.6	2.4	0.7	0.7
Benefits and expenses paid	(4.6)	(5.6)	(3.1)	(3.7)	(2.7)	(3.4)
Actuarial loss (gain)	1.9	(1.5)	(11.5)	(10.2)	1.3	(2.3)
Exchange rate changes	_	_	(11.0)	9.9	_	
Ending obligations	\$108.6	\$ 99.2	\$180.8	\$186.7	\$ 41.8	\$ 38.9
Changes in plans assets						
Beginning fair value	\$ 98.9	\$ 93.7	\$168.3	\$145.6	s —	\$ —
Adjustments due to adoption of FAS 158	(0.7)	n/a	0.1	n/a	(0.1)	n/a
Actual return on plan assets	(31.0)	7.4	(22.2)	5.3	_	_
Employer contributions	29.7	3.4	9.2	10.7	2.1	2.7
Plan participant contributions	_	_	2.6	2.4	0.7	0.7
Benefits and expenses paid	(4.6)	(5.6)	(3.1)	(3.7)	(2.7)	(3.4)
Exchange rate changes	_	—	(11.3)	8.0	_	_
Ending fair value	\$ 92.3	\$ 98.9	\$143.6	\$168.3	s —	\$
Reconciliation of funded status						
Funded status	\$ (16.3)	\$ (0.3)	\$ (37.2)	\$ (18.4)	\$ (41.8)	\$ (38.9)
Contributions and distributions made by Company from measurement date to fiscal year end	_	_	_	0.3	_	0.1
Net Consolidated Balance Sheet asset/(liability)	\$ (16.3)	\$ (0.3)	\$ (37.2)	\$ (18.1)	\$ (41.8)	\$ (38.8)
Amounts recognized in the Consolidated Balance Sheets: For years after adoption of the funded status provisions of SFAS 158						
Noncurrent assets	\$ —	\$ —	\$ —	\$ 1.9	\$ —	\$ —
Current liabilities	_	_	(0.4)	(0.3)	(2.3)	(1.9)
Noncurrent liabilities	(16.3)	(0.3)	(36.8)	(19.7)	(39.5)	(36.9)
Net amount recognized	\$ (16.3)	\$ (0.3)	\$ (37.2)	\$ (18.1)	\$ (41.8)	\$ (38.8)
Reconciliation of amounts recognized in the Consolidated Balance Sheets						
Initial net (obligation)	s —	\$ —	\$ (0.3)	\$ (0.3)	\$ —	\$ —
Prior service (cost) credit	(1.4)	(1.9)	(1.1)	(1.4)	8.5	9.6
Net (loss) gain	(62.7)	(22.3)	(38.4)	(21.7)	4.0	5.4
Accumulated other comprehensive (loss) income	\$ (64.1)	\$ (24.2)	\$ (39.8)	\$ (23.4)	\$ 12.5	\$ 15.0
Accumulated contributions in excess of net periodic benefit cost	47.8	23.9	2.6	5.3	(54.3)	(53.8)
Net amount surplus (deficit) recognized in statement of						

NOTE 13: PENSION AND OTHER POST-RETIREMENT

BENEFIT PLANS (continued)

			Pension	Plans			Post-Retirement		
-	U	nited States	tates International			Medical Benefit Plans			
-	2008	2007	2006	2008	2007	2006	2008	2007	2006
Changes recognized in other comprehensive income				·			·		
Changes due to minimurn liability and intangible assest recognition prior to adoption of SFAS 158									
Decrease in additional minimum liability	n/a	n/a	\$	n/a	n/a	\$ (0.1)	n/a	n/a	\$ —
Decrease in intangible asset	n/a	n/a		n/a	n/a	0.4	n/a	n/a	
Other comprehensive loss	n/a	n/a	\$	n/a	n/a	\$ 0.3	n/a	n/a	\$
Changes in plan assets and benefit obligations recognized in other comprehensive income									
Net loss (gain) arising during the year	\$ 41.5	\$ (1.4)	n/a	\$ 21.1	\$ (7.8)	n/a	\$ 1.3	\$ (2.3)	n/a
Effect of exchange rates on amounts included in AOCI	_		n/a	(4.1)	1.2	n/a			n/a
Amounts recognized as a component of net periodic benefit cost									
Amortization or curtailment recognition of prior service credit (cost)	(0.5)	(0.4)	n/a	(0.3)	(0.2)	n/a	1.1	1.0	n/a
Amortization or settlement recognition of net gain (loss)	(1.1)	(1.0)	n/a	(0.3)	(1.3)	n/a	0.1		n/a
Total recognized in other comprehensive loss (income)	\$ 39.9	\$ (2.8)	n/a	\$ 16.4	\$ (8.1)	\$ 0.3	\$ 2.5	\$ (1.3)	n/a
Total recognized in net periodic benefit cost and other comprehensive loss (income)	\$ 45.2	\$ 1.7	\$ 5.1	\$ 23.4	\$ 0.9	\$ 7.9	\$ 4.8	\$ 1.0	\$ 2.0
Increase in accumulated other comprehensive (loss) income, before taxes), to reflect the adoption of SFAS 158	n/a	n/a	\$ (27.0)	n/a	n/a	\$ (30.7)	n/a	n/a	\$ 13.7
Estimated amounts that will be amortized from accumulated other comprehensive income over the next fiscal year									
Initial net (obligation)	\$ —	\$	\$	s —	\$ —	\$ —	s —	\$	\$ -
Prior service (cost) credit	(0.4)	(0.4)	(0.4)	(0.2)	(0.3)	(0.3)	1.0	1.0	1.0
Net (loss) gain	(4.5)	(1.1)	(1.0)	(2.4)	(0.3)	(1.2)	_	0.1	
Total estimated amortization	\$ (4.9)	\$ (1.5)	\$ (1.4)	\$ (2.6)	\$ (0.6)	\$ (1.5)	\$ 1.0	\$ 1.1	\$ 1.0

The components of the net periodic benefit costs are as follows:

	Pension Plans						Post-Retirement				
		United State	:5		Internation	al	Med	Medical Benefit Plans			
	2008	2007	2006	2008	2007	2006	2008	2007	2006		
Service cost	\$5.8	\$5.4	\$5.1	\$8.0	\$8.8	\$7.4	\$1.0	\$1.1	\$1.1		
Interest cost	6.0	5.1	4.9	7.9	6.3	5.6	2.4	2.2	2.1		
Expected return on plan assets	(7.9)	(7.4)	(6.8)	(9.5)	(7.6)	(6.9)					
Amortization	1.4	1.4	1.9	0.6	1.5	1.5	(1.1)	(1.0)	(1.2)		
Net periodic benefit cost	\$5.3	\$4.5	\$5.1	\$7.0	\$9.0	\$7.6	\$2.3	\$2.3	\$2.0		

Notes To Consolidated Financial Statements (continued)

(\$ In Millions, Except Per Share Data)

NOTE 13: PENSION AND OTHER POST-RETIREMENT

BENEFIT PLANS (continued)

The rate assumptions associated with the pension and post-retirement medical benefit plans to determine benefit obligations and additional year-end information are as follows:

		Post-Re	tirement			
	United States		International		Medical Benefit Plan	
	2008	2007	2008	2007	2008	2007
Assumptions to determine benefit obligations						
Discount rate	6.35%	6.30%	4.16%	4.35%	6.25%	6.45%
Compensation rate increase	3.60%	3.60%	2.98%	3.50%	n/a	n/a
Measurement date	Dec-31	Nov-30	Dec-31	Nov-30	Dec-31	Nov-30
Additional year-end information						
Accumulated benefit obligation	\$ 96.8	\$ 88.1	\$163.1	\$161.7	n/a	n/a
Plans with accumulated benefit obligations in excess of plan assets:						
Projected benefit obligation	\$108.6	\$ —	\$131.9	\$ 13.5	n/a	n/a
Accumulated benefit obligation	96.8	_	118.1	10.9	n/a	n/a
Fair value of plan assets	92.3	_	96.8	_	n/a	n/a
Plans with projected benefit obligations in excess of plan assets:						
Projected benefit obligation	\$108.6	\$ 99.2	\$180.8	\$122.4	\$ 41.8	\$ 38.9
Fair value of plan assets	92.3	98.9	143.6	102.2	_	_

The rate assumptions associated with the pension and post-retirement medical benefit plans to determine periodic pension costs are as follows:

		Pension Plans						Post-Retirement			
	Un	United States		United States International		al	Medical Benefit Plans				
	2008	2007	2006	2008	2007	2006	2008	2007	2006		
Discount rate	6.30%	5.55%	5.65%	4.35%	3.60%	3.88%	6.45%	5.55%	5.65/6.15% ⁽¹⁾		
Expected rate of return on plan assets	8.25%	8.25%	8.25%	5.66%	5.08%	5.46%	n/a	n/a	n/a		
Compensation rate increase	3.60%	3.25%	3.25%	3.50%	3.31%	3.48%	n/a	n/a	n/a		

(1) Due to plan changes, the Post-Retirement Medical Plan expense was remeasured at May 31, 2006, using a discount rate of 6.15%.

The expected employer contributions and benefit payments are shown in the following table for the pension and post-retirement medical benefit plans:

		Pen	sion Plans	Post-Retirement	Expected
sh Flows	Year Ending	United States	International	Medical Benefit Plans ⁽²⁾	Medicare Subsidy Receipts
Expected employer contributions	2009	\$	\$ 4.6	\$ 2.3	n/a
Expected benefit payments for fiscal year ending	2009	12.7	3.2	2.3	0.2
	2010	8.9	4.2	2.5	0.2
	2011	7.9	3.7	2.7	0.3
	2012	9.0	3.9	2.9	0.3
	2013	9.2	4.3	3.1	0.4
	Next 5 years	55.2	35.0	17.7	2.6

(2) Expected payments for Post-Retirement Medical Benefit Plans payments are shown net of the expected Medicare subsidy receipts.

The Persion Protection Act of 2006 ("PPA") was effective on August 17, 2006. While the PPA will have some effect on specific plan provisions in the United States retirement program, its primary effect was to change the minimum funding requirements for plan years beginning in 2008. The changes in the timing and amount of our required contributions are not expected to be materially different than current projections.

NOTE 13: PENSION AND OTHER POST-RETIREMENT BENEFIT PLANS (continued)

Pension Plans For determination of the discount rate, the present value of the cash flows as of the measurement date is determined using the spot rates from the Mercer Yield Curve, and based on the present values, a single equivalent discount rate is developed. This rate is the single uniform discount rate that, when applied to the same cash flows, results in the same present value of the cash flows as of the measurement date. The plans are assumed to continue in force for as long as the assets are expected to be invested. In estimating the expected long-term rate of return on assets, appropriate consideration is given to historical performance for the major asset classes held or anticipated to be held by the Plan and to current forecasts of future rates of return for those asset classes. Cash flow and expenses are taken into consideration to the extent that the expected return would be affected by them. Because assets are held in qualified trusts, expected returns are not reduced for taxes.

The assets of the pension plans are invested in institutionally acceptable investments to produce a diversified portfolio. The Company believes the investments are sufficiently diversified to maintain a reasonable level of risk without sacrificing return. Target asset allocations and weighted average asset allocations at December 31, 2008 are as follows:

	Target	Allocations		ted Average Allocations
	U.S. Plans	International Plans	U.S. Plans	International Plans
Equity Securities	75-85%	38-50%	55%	36%
Real Estate	_	6-12%		9%
Debt Securities	15–30%	36-57%	19%	41%
Other	0-10%	0-10%	26%	14%

The trustee has engaged an investment manager for the U.S. Plan that has the responsibility of selecting investment fund managers with demonstrated experience and expertise and funds with demonstrated historical performance meeting the Plan's investment guidelines. The investment manager considers both actively and passively managed investment strategies and allocates funds across the asset classes to develop an efficient investment structure.

The trustees of the International Plans have engaged institutions that are believed to be reputable to invest the Plan's assets in funds with demonstrated historical performance and manage the Plan's assets in accordance with investment guidelines developed by the trustees. Post-Retirement Medical Benefit Plans For determination of the discount rate, the present value of the cash flows as of the measurement date is determined using the spot rates from the Mercer Yield Curve, and based on the present values, a single equivalent discount rate is developed. This rate is the single uniform discount rate that, when applied to the same cash flows, results in the same present value of the cash flows as of the measurement date. Assumed health care cost trend rates have a significant effect on the amounts reported for the post-retirement medical benefit plans. Medical costs were assumed to increase at an annual rate of 10% in 2008, decreasing ratably to a growth rate of 5.0% in 2014 and remaining at 5.0% per year thereafter. The effects of a one-percentage point decrease in the assumed health care cost trend rates on the aggregate service and interest cost components and on the post-retirement benefit obligations are decreases of \$0.1 and \$0.9, respectively. The effects of a one-percentage point increase on the aggregate service and interest cost components and on the post-retirement benefit obligations are increases of \$0.1 and \$0.9, respectively. Benefits are funded as claims are paid.

401(k) Retirement Savings Plan The Company's 401(k) retirement savings plan provides retirement benefits to eligible U.S. employees in addition to those provided by the pension plan. The plan permits participants to voluntarily defer a portion of their compensation, subject to Internal Revenue Code limitations. The Company also contributes a fixed amount per year to the account of each eligible employee plus a percentage of the employee's salary deferral. The Company's policy is to fully fund this plan. The cost for this plan was \$9.2, \$8.3, and \$7.7 for the years ended December 31, 2008, 2007 and 2006, respectively.

NOTE 14: EARNINGS PER SHARE

A reconciliation of basic and diluted earnings per share, together with the related shares outstanding for the years ended December 31 are as follows:

	2008	2007	2006
Net income available to common shareholders	\$341.5	\$311.1	\$276.8
Weighted average shares (\$ In Millions)			1
Basic shares	126.3	130.6	132.9
Effect of dilutive securities — options outstanding	2.5	2.5	2.0
Diluted shares	128.8	133.1	134.9
Net income per share — Basic	\$ 2.70	\$ 2.38	\$ 2.08
Net income per share — Diluted	\$ 2.65	\$ 2.34	\$ 2.05

Potential common shares comprised of 0.3 million stock options were excluded from the calculation of weighted average shares for the year ended December 31, 2008, respectively, because their effect was considered to be antidilutive.

NOTE 15: SHARE REPURCHASES

At December 31, 2008 and December 31, 2007, the Company had repurchased a total of 92.3 million shares and 84.0 million shares, respectively. On October 20, 2008, the Board of Directors authorized the repurchase of up to an additional 10.0 million shares under the existing repurchase program, to be available for purchase within three years, bringing the total authorization to 100.0 million shares. There were 122.1 million shares outstanding as of December 31, 2008. The Company expects to acquire the remaining 7.7 million authorized shares, however, the timing of these future repurchases, if any, will depend upon market conditions and other factors.

NOTE 16: ACCUMULATED OTHER COMPREHENSIVE INCOME

Components of accumulated other comprehensive income, net of tax are as follows:

	Foreign Currency Translation Adjustment	Unrealized Gain (Loss) on Securities	Pension and Post-Retirement Benefit Plans	Accumulated Other Comprehensive Income
Balance, December 31, 2005	\$ 31.7	\$ 0.7	\$ 1.0	\$ 33.4
Current period change	75.6	3.4	(31.7)	47.3
Balance, December 31, 2006	107.3	4.1	(30.7)	80.7
Current period change	71.5	(0.7)	8.4	79.2
Balance, December 31, 2007	178.8	3.4	(22.3)	159.9
Current period change	(86.4)	(6.0)	(42.2)	(134.6)
Balance, December 31, 2008	\$ 92.4	\$ (2.6)	\$ (64.5)	\$ 25.3

The 2008 activity for unrealized loss on securities is net of tax of \$3.2. The 2008 pension and post-retirement benefit plans activity is net of tax of \$18.2. Deferred taxes are not provided on foreign currency translation adjustment.

MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

Our management is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in the Securities Exchange Act Rule 13a-15 (f)). Under the supervision and with the participation of our management, including our principal executive officer and our principal financial officer, we assessed the effectiveness of our internal control over

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To The Board of Directors and Stockholders Sigma-Aldrich Corporation:

We have audited the accompanying consolidated balance sheets of Sigma-Aldrich Corporation and subsidiaries (the Company) as of December 31, 2008 and 2007, and the related consolidated statements of income, stockholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2008. We also have audited the Company's internal control over financial reporting as of December 31, 2008, based on criteria established in *Internal Control – Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on these consolidated financial statements and an opinion on the Company's internal control over financial reporting based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the consolidated financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the consolidated financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with U.S. generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit financial reporting as of December 31, 2008. In making this assessment, our management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in the Internal Control-Integrated Framework. Our management has concluded that, as of December 31, 2008, our internal control over financial reporting is effective based on these criteria.

preparation of financial statements in accordance with U.S. generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Sigma-Aldrich Corporation and subsidiaries as of December 31, 2008 and 2007, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2008, in conformity with U.S. generally accepted accounting principles. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2008, based on criteria established in *Internal Control – Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

As discussed in Note 1 to the consolidated financial statements, the Company adopted the recognition and disclosure provision as required by Statement of Financial Accounting Standards No. 158, *Employers' Accounting for Defined Benefit Pension and Other Postretirement Plans* as of December 31, 2006.

As discussed in Note 9 to the consolidated financial statements, effective January 1, 2007, the Company adopted Financial Accounting Standards Board Interpretation No. 48. Accounting for Uncertainty in Income Taxes, an Interpretation of Statement of Financial Accounting Standard No. 109.

/s/ KPMG LLP St. Louis, Missouri

February 26, 2009

Leadership

Creating Differentiation through Innovation



Corporate Officers Back row from left to right: Rakesh Sachdev, Frank Wicks, Gerrit van den Dool, Dave Smoller, Dave Julien, Kirk Richter, Gilles Cottier, Steve Walton; middle row from left to right: Doug Rau, Carl Turza, Karen Miller; front row: Jai Nagarkatti

Office of the Chief Executive

Gilles A. Cottier President, SAFC

David W. Julien President, Supply Chain

Karen J. Miller Vice President, Strategy and Corporate Development

Board of Directors

Rebecca M. Bergman Vice President, New Therapies and Diagnostics, Cardiac Rhythm Management, Medtronic Inc.

David R. Harvey Chairman of the Board

W. Lee McCollum Former Executive Vice President and Chief Financial Officer, S.C. Johnson and Son, Inc.

Jai P. Nagarkatti President and Chief Executive Officer

Avi M. Nash Managing Director, Avi Nash LLC; Former Partner, Goldman Sachs

Steven M. Paul, M.D. Executive Vice President for Science and Technology and President of the Lilly Research Laboratories of Eli Lilly and Company Jai P. Nagarkatti President & Chief Executive Officer

Douglas W. Rau Vice President,

Human Resources Kirk A. Richter Treasurer

J. Pedro Reinhard President, Reinhard & Associates; Former Chief Financial Officer, Dow Chemical Company

Timothy R.G. Sear Former Chairman and Chief Executive Officer, Alcon, Inc.

D. Dean Spatz Chief Executive Officer, Watasso Ventures; Former Chairman and Chief Executive Officer, Osmonics, Inc.

Barrett A. Toan Former Chairman and Chief Executive Officer, Express Scripts, Inc.

For the most up-to-date information about our Company visit our Investor Relations website at sigma-aldrich.com

Sigma-Aldrich, Sigma, Aldrich, SAFC, SAFC Biosciences, SAFC Supply Solutions, SAFC Hitech, SAFC Pharma, Prestige Antibodies, Supelco, Ascentis, MISSION, iScale Oligos, Panorama, Pharmorphix and CompoZr are trademarks belonging to Sigma-Aldrich and its related companies.

Rakesh Sachdev Vice President, Chief Financial Officer & Secretary

David A. Smoller President, Research Biotech

Carl S. Turza Chief Information Officer

Corporate Information

Annual Meeting Date: May 5, 2009 Time: 11:00 a.m. CDT Place: Sigma-Aldrich Life Science and High Technology Center, 2909 Laclede Ave., St. Louis, MO 63103

General Information Shares traded on NASDAQ Global Select Market, Trading symbol: SIAL

Transfer Agent American Stock Transfer and Trust Company, New York, NY 800-937-5449 Gerrit J. C. van den Dool Vice President, Sales

Steven G. Walton Vice President, Safety & Quality

Franklin D. Wicks President, Research Specialties and Research Essentials

10-K

A copy of the Company's Form 10-K annual report, as filed with the Securities and Exchange Commission, may be obtained without charge by writing to the Secretary, Sigma-Aldrich Corporation, P.O. Box 14508, St. Louis, Missouri 63178.

. .,

Corporate Offices Sigma-Aldrich Corporation 3050 Spruce Street St. Louis, Missouri 63103 800-521-8956 Fax: 314-286-7874 Email: sig-ald@sial.com Website: sigma-aldrich.com





This annual report is printed on FSC-certified paper. The pages are printed on 10% recycled stock.

SIGMA-ALDRICH

3050 Spruce Street, St. Louis, Missouri 63103 sigma-aldrich.com