THE LUBRIZOL CORPORATION 2003 ANNUAL REPORT

Lubrizol:
Where fluids meet surfaces

CORPORATE PROFILE

Lubrizol is a global fluid technology company that provides high-performance chemicals, systems and services for transportation and industry markets. Throughout its 75-year history, Lubrizol has provided technology-based solutions to customers in order to make things work better, last longer and benefit the environment.

Headquartered in Cleveland, Ohio, Lubrizol owns and operates 37 manufacturing plants in 16 countries and has 53 sales and technical offices and more than 5,000 employees worldwide. Its three research centers are located in the United States (Ohio), England and Japan.

Lubrizol's fluid technologies for transportation improve the operating efficiency and reduce the environmental impact of all types of vehicles. Lubrizol is a market leader in specialty additives for lubricants and fuels, its largest and longest-standing business.

Lubrizol's fluid technologies for industry are chemical products and systems that enhance performance and reduce environmental hazards and health exposure in industrial operations. This segment offers products for coatings and inks, personal care, process chemicals, hydraulics, grease, compressor lubricants and metalworking fluids.

As it pursues a broad vision of "fluid technologies for a better world,™" Lubrizol is exploring new markets where it can apply its technologies and expertise. Emerging new lines of products are in advanced fluid systems, which includes diagnostic products, fluid management systems, fluid conditioning products, emission control products and emulsified products technology.

Lubrizol has prospered by maintaining a solid commitment to the ethical behavior and the values of honesty, integrity and respect that have defined the company from the first. That commitment will continue to define our activities as we move ahead with new products and technologies that will deliver outstanding performance wherever surfaces meet.

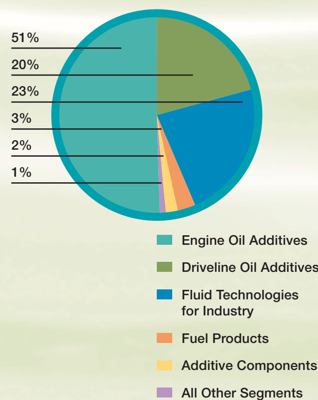
WHERE FLUIDS AND SURFACES MEET

In 2003, Lubrizol celebrated 75 years of making the world a better place. While that fundamental vision has remained constant over the years, the definition of a Lubrizol product has changed. Today, Lubrizol is not only the leader in lubricant additive solutions for transportation markets, but also an innovative fluid technology partner in a wide range of high-growth industrial markets.

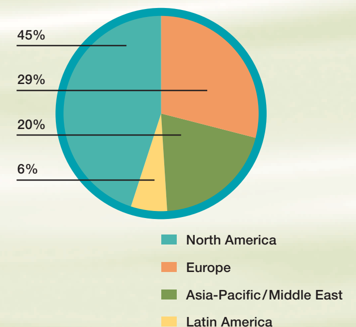
All Lubrizol products, whether they are additives for gear oils or ingredients for hair care products, share a common basis in similar chemistries that deliver performance where surfaces meet. Lubrizol technology performs at the molecular level to provide cost-effective solutions to real-world problems such as extending equipment life, improving surface feel, enhancing tool life and improving cleaning properties. In addition, Lubrizol is enhancing its traditional chemical product offerings with systems and services that provide new opportunities for profitable growth.

On the following pages, you will see how Lubrizol's products and technologies deliver outstanding performance wherever surfaces meet.

WORLDWIDE BY PRODUCT
$2,052.1 MILLION IN REVENUES



WORLDWIDE BY ZONE
$2,052.1 MILLION IN REVENUES

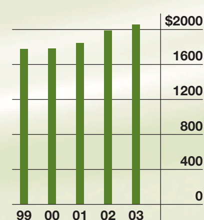


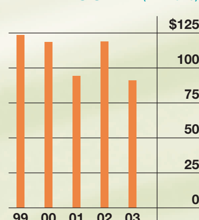
Financial Highlights

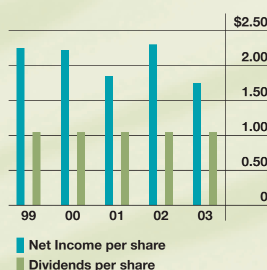
(In Millions Except Per Share and Employee Data)	2003	2002	Increase (Decrease)
OPERATIONS			
Revenues	$2,052.1	$1,983.9	3%
Income before cumulative effect of a change in accounting principle	90.8	126.3	(28%)
Net income	90.8	118.5	(23%)
Income per share before cumulative effect of a change in accounting principle	1.76	2.45	(28%)
Net income per share	1.76	2.30	(23%)
Dividends per share	1.04	1.04	
Cash provided from operating activities	194.8	244.9	(20%)
Return on average shareholders' equity before cumulative effect of a change in accounting principle	10%	15%	
FINANCIAL POSITION			
Total assets	$1,942.3	$1,860.1	4%
Shareholders' equity	953.3	869.3	10%
Debt as a percent of capitalization	29%	32%	
OTHER			
Capital expenditures	$ 88.5	$ 65.3	36%
Shares outstanding at December 31	51.6	51.5	
Number of employees	5,032	5,231	(4%)

COMMON SHARE PRICE HISTORY

	2003		2002	
	High	Low	High	Low
1st quarter	$32.06	$26.54	$36.18	$31.75
2nd quarter	32.46	29.50	36.36	32.26
3rd quarter	34.40	30.50	33.55	27.01
4th quarter	34.31	29.23	31.60	26.20







To Our Shareholders

WE FINISHED OUR SEVENTY-FIFTH YEAR WITH RECORD REVENUES OF $2 BILLION. A YEAR OF STRONG GROWTH IN OUR FLUID TECHNOLOGIES FOR INDUSTRY SEGMENT (FTI) OUTWEIGHED A DIFFICULT YEAR IN OUR FLUID TECHNOLOGIES FOR TRANSPORTATION BUSINESS (FTT).

More important than reaching the $2 billion milestone, however, was our progress in steadily transforming the company by adding higher-growth businesses that complement our traditional lubricant additive business. This progress was most apparent within FTI, which added more than $80 million to revenues by integrating acquisitions and expanding existing businesses. Because the 2003 acquisitions occurred late in the year—with the most significant announced at year-end—we expect FTI's 2004 results to be even stronger, with revenues exceeding $500 million.

The corporation's earnings per share of $1.76, or $2.05 before restructuring charges of $.29, were less than the $2.20 to $2.30 we anticipated at the beginning of the year. This decline resulted primarily from lower shipment volumes in FTT, even though currency was positive for the year. In addition, the bottom line in FTI carried some start-up and one-time costs, while the bottom line for all other businesses reflected investments in new, emerging businesses that have not yet broken even.

Looking more closely at our performance by segment, FTT, which accounted for 76 percent of the company's revenues, faced a year of challenges. Raw material costs rose while industry demand weakened. We responded to higher raw material costs by increasing product prices, and we reined in the costs that were under our control: we managed all operating budgets tightly, delayed salary increases, implemented changes in our benefit programs, removed manufacturing capacity in the U.K. and made difficult decisions throughout the year to reduce about 5 percent of the worldwide workforce.

W. G. BARES AND JAMES L. HAMBRICK

Despite the temporary demand downturn, we continued our ongoing investments in FTT plant equipment and product technology. Installation of a second continuous process in-line blender will enhance the efficiency and flexibility of our Deer Park, Texas, facility. Expanded production capabilities will prepare our joint venture in Lanzhou to meet anticipated demand in China. New products, including low-emissions engine oil additives for North America and Europe, new additives for automatic transmission fluids and a new gasoline dispersant additive, will position FTT to meet increasingly demanding technical requirements. GF-4 additives for North American passenger cars, which will be introduced in 2004, will deliver environmental benefits by improving emissions systems durability and enhancing fuel economy.

We continued to extend our technical expertise to applications outside our traditional transportation markets. FTI revenues of $464 million grew 21 percent in 2003 from a combination of acquisitions and organic growth. Acquisitions in their first year added 11 percent to FTI revenues. During 2003, we completed acquisitions of foam control product lines from BASF and a personal care ingredients business from The Dow Chemical Company. Both fit well with existing FTI businesses

and will increase revenues by about $40 million in 2004. In addition, we recently completed the acquisition of the Additives business of Avecia, which is expected to contribute about $50 million in annualized revenues to our coatings and inks additives business.

Although we targeted more acquisitions in 2003, we held to our criteria for strategic fit and financial return. We focused on assimilating our acquisitions of the past few years. As part of our FTI integration activities, we improved manufacturing efficiency in several businesses and positioned our operations for growth. We consolidated production of metalworking additives, expanded facilities for personal care ingredients and purchased a manufacturing plant to produce a variety of FTI products, including additives for foam control and process chemicals. Overall, we are very satisfied with the results of our integration efforts.

Even with weaker than normal industrial markets, organic growth—from sources other than acquisitions—added 10 percent to FTI revenues. This followed a 9 percent increase from organic growth in 2002. Gains were spread across all the FTI businesses, and the strongest were in additives for coatings and inks, personal care ingredients, metalworking additives and foam control additives. New products, new applications, market share gains, cross-selling, geographic expansion and favorable currency all contributed to FTI's revenue improvements. These positive results in FTI continue to validate our strategy of deploying much of our considerable cash flow into higher-growth businesses.

All other businesses beyond FTT and FTI produced revenues of $33 million, an increase of 31 percent over 2002. Most of this growth was in our equipment businesses and was evenly split between fluid metering and emission control systems. PuriNOx™ low-emissions diesel fuel technology has carved a few niches where regulations are in force and financial incentives are available to encourage product use. And while we have been successful in developing new technical concepts for contaminant management and fluid sensors, commercialization of those technologies has been slower than expected. However, we anticipate initial sales in some of these areas in 2004, which will provide a basis for evaluating the potential of the portfolio.

Looking back on our seventy-fifth year, we continued to improve, learn and adjust. Among our successes, we maintained our market and technology leadership in the increasingly complex and challenging FTT marketplace, acquired and successfully integrated new FTI businesses and saw impressive revenue growth in our equipment businesses.

Looking ahead to 2004, we are well positioned to deliver higher value to shareholders. We will continue to sell chemicals, systems and services that will make the world a better place by allowing engines and equipment to run better and last longer and by reducing emissions that harm the environment. We will apply our innovative technologies and products in cost-effective solutions to real-world problems for companies in new, higher-growth markets. At the same time, we will continue to serve the large and important lubricant additive market Lubrizol's founders created 75 years ago. And we will extract value from our expertise in chemistries that deliver performance where a fluid meets a surface. You will see applications of that expertise in the following pages of this report.

With your continuing support, we look forward with confidence to continuing to grow profitably and to expand in new areas where we can provide "Fluid technologies for a better world.™"

W. G. BARES
Chairman and Chief Executive Officer

JAMES L. HAMBRICK
President

March 17, 2004

Where molecules

75 years ago, when Lubrizol began, the 20th century was still relatively young. Industries and markets unknown in earlier days were appearing everywhere, like the automobiles fresh off the assembly line. The future seemed full of promise for a new company. Still, there were significant challenges for the fledgling enterprise. One obvious challenge: in 1928, there was no science of lubricant additive chemistry. There was oil, as it was pumped from the ground, and there were rudimentary automotive engines. In the beginning, that was enough. But, as the chemists at the young Lubrizol soon realized, there was much more work to be done with lubrication at the engine's internal surfaces, where molecules meet metal.

The metal surfaces of an engine are under constant attack from dirt, soot, water, organic compounds and the operating stress of metal against metal. Without proper protection at the surface, engines fail, equipment malfunctions and time and money are lost. Preventing those consequences, while improving performance at the molecular level, has been Lubrizol's focus for 75 years. Because of that focus, we have gained an unsurpassed, practical knowledge of how fluids and surfaces interact. That knowledge has resulted in groundbreaking chemistries and advanced fluid technologies for transportation that control harmful emissions to keep air cleaner, improve equipment performance and keep our customers ahead of the demands of a complex and changing industry. It has also provided us with a valuable asset—a profound understanding of fluids that can be applied not just to transportation, but also to any industry where fluids and surfaces meet.

DISPERSANTS: KEEPING CONTAMINANTS UNDER CONTROL

Dispersant chemistry is one of Lubrizol's most enduring contributions to the science of fluid technology. When used as an additive in motor oils, the molecules of a dispersant chemically interact with contaminants in the oil to keep them from clumping together and damaging engine parts. Contaminants are then kept suspended in the oil until they can be removed by a filter or oil change. This unique ability to hold particles in suspension has applications in a number of markets for transportation and industry.

meet metal

Where surfaces

Consider how much happens at the surface level every day: ink adheres to a page; an oak floor gleams with the sheen of a coating; hand lotion soothes chapped skin; a soap bubble skims across water. The chemistry of surface interaction makes all of this, and more, possible. Our long-established competency in designing solutions at the molecular level is the foundation for Lubrizol's fluid technologies for industry (FTI).

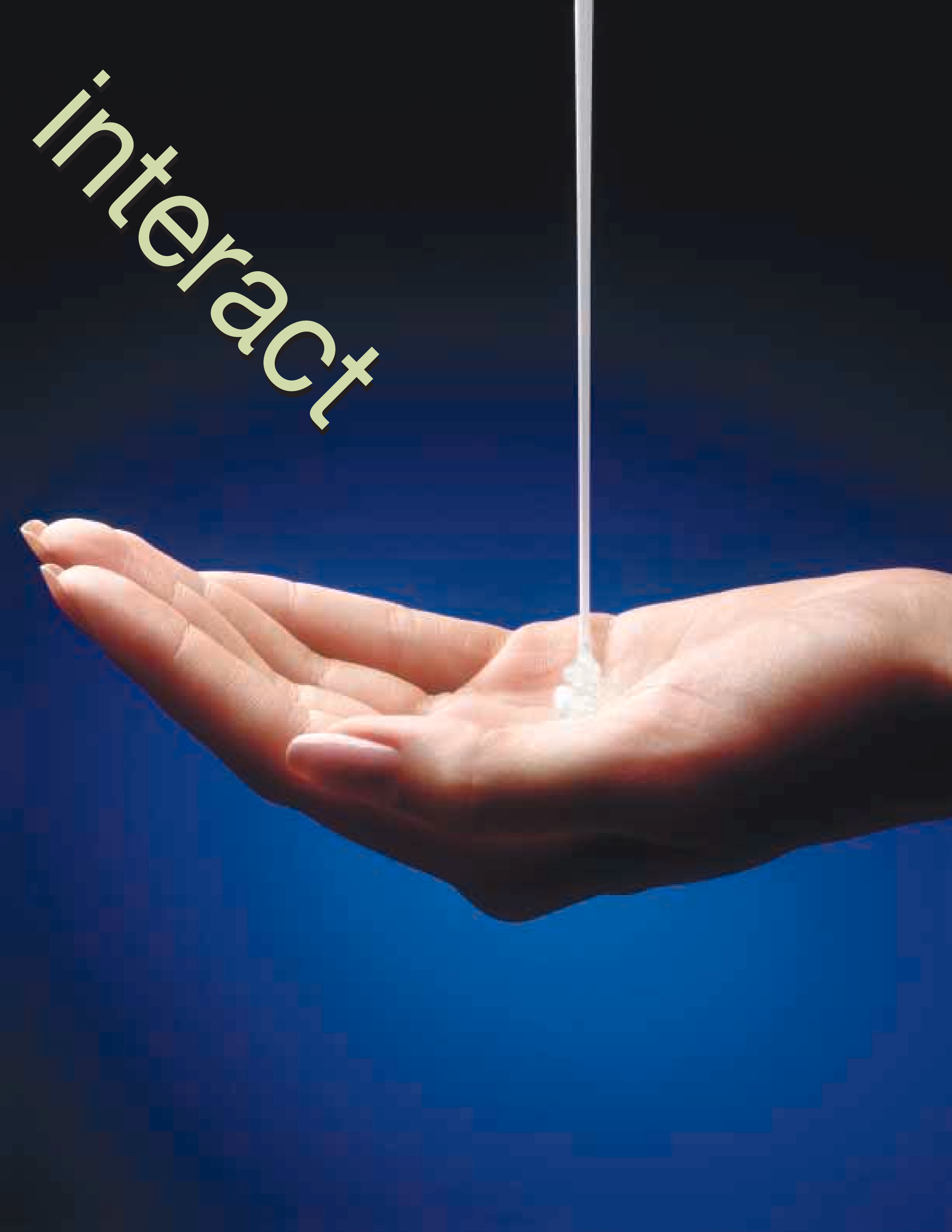
The connection between motor oil and hand lotion may not be immediately apparent, but it is there, right at the surface. The markets and applications may be radically different, but at the molecular level, where Lubrizol products do their work, the challenges, and the solutions, are remarkably similar. That is why it is possible, for instance, to take a dispersant—a core component of motor oil—and with appropriate modifications to the formula, turn it into the key ingredient in a new, highly effective type of skin lotion.

When it comes to FTI, we are focusing our attention on markets where our knowledge of surface interaction, our testing experience and our problem-solving capability offer the greatest opportunity: markets such as metalworking, paints, coatings, inks and defoamers. Our analysis of the personal care ingredients business tells us that this is a market that values technology and new approaches, which is consistent with our strengths and how we like to do business.

We have just begun to tap into the potential of our fluid technologies for industry. Expect the benefits our customers see from using Lubrizol technology to keep growing.

DISPERSANTS: KEEPING IT TOGETHER

Dispersants, used as part of our surfactant technology for the personal care ingredient market, enable the creation of a stable mixture of substances that cannot be blended together when one of the substances is liquid and the other is solid. This allows our customers to create new and unique products where such a bridge between incompatible substances is required. Examples are hair care and body wash products, creams and lotions.


interact

Where it all comes

With the stroke of a brush, a surface changes for the better. It looks simple, but at the molecular level, complex forces are working to keep a coating smooth, to improve its coverage, even to battle gravity. The surface is the proving ground for a Lubrizol coating additive; the place where it all comes together —knowledge, ingredients, innovation. By creating the right balance among all of the surface interactions, we are building the products that make the world a better place. In much the same way, by creating the right balance of technology, services and systems, we are building the 21st century version of Lubrizol.

Our ongoing commercial development projects can provide an advanced look at the shape of Lubrizol's future. These activities are centered on fluid contaminant management, advanced fluid systems and emulsified products. The products that result will monitor and remove contaminants, reduce emissions and manage the cost of fluids used in transportation and industrial equipment. In creating these products we are combining our knowledge of surface interaction and fluid technology with decades of experience in transportation systems and a history of unmatched customer service.

The technology of surface interaction will always be at the heart of Lubrizol's business. However, the form of the technology and its impact on our future are evolving day by day. Whatever markets we choose to enter, we can be certain that Lubrizol technology will make a difference where it counts—at the surface where it all comes together.

DISPERSANTS: KEEPING COLORS TRUE

Lubrizol's dispersants for the coatings industry help solve common formulating problems through a variety of chemistries. They are used to maximize color development and maintain color consistency in coatings and pigment concentrates. They eliminate the pigment settling, flooding and floating that can result in poor coating performance.

together

2003 financial results

MANAGEMENT'S DISCUSSION AND ANALYSIS:

Overview 11

2003 Results of Operations Compared with 2002 12

2002 Results of Operations Compared with 2001 15

Segment Analysis 17

Return on Average Shareholders' Equity 20

Working Capital, Liquidity and Capital Resources 20

Critical Accounting Policies 22

Cautionary Factors 24

Quantitative and Qualitative Disclosures about Market Risk 25

QUARTERLY FINANCIAL DATA 26

INDEPENDENT AUDITORS' REPORT 26

CONSOLIDATED FINANCIAL STATEMENTS:

Consolidated Statements of Income 27

Consolidated Balance Sheets 28

Consolidated Statements of Cash Flows 29

Consolidated Statements of Shareholders' Equity 30

NOTES TO FINANCIAL STATEMENTS 31

HISTORICAL SUMMARY 48

CORPORATE INFORMATION 49

Management's Discussion and Analysis of Financial Condition and Results of Operations

OVERVIEW

General

The Lubrizol Corporation is a global fluid technology company that develops, produces and sells high-performance chemicals, systems and services for transportation and industry. We create these products by applying advanced chemical and mechanical technologies to enhance the performance, quality and value and reduce the environmental impact of the customer products in which our products are used. We are a geographically diverse company operating manufacturing and blending facilities, laboratories and offices in approximately 30 countries through the efforts of approximately 5,000 employees.

We group our product lines into three reportable segments: fluid technologies for transportation (FTT), which comprised 76% of 2003 consolidated revenues; fluid technologies for industry (FTI), which comprised 23% of revenues; and all other, which is comprised of the advanced fluid systems (AFS) and emulsified products operating segments. Note 13 to the financial statements contains a further description of the nature of our operations, the product lines within each of the operating segments, segment contribution and related financial disclosures for the reportable segments.

Fluid Technologies for Transportation

A variety of industry market forces and conditions continues to influence the transportation lubricant additives business. A key factor is the low global growth rate for this business, which we believe is in the range of approximately 0% to 1% per year. Additional characteristics of this market are:

- Consolidation of the customer base in recent years, which has increased the competitiveness of the transportation lubricant additives market. Our 2003 volume was impacted by the loss of a large piece of business as a result of a major oil company merger.
- Frequent product specification changes driven primarily by original equipment manufacturers (OEMs) and the impact of environmental and fuel economy regulations on the OEMs. The specification changes require us to incur product development and testing costs, but also enable us to apply our technological know-how to create products and solve problems. We believe our technology, and our expertise in applying it, are key strengths.
- Improved engine design, which can result in longer lubricant drain intervals. Longer drain intervals lessen demand for lubricants.

We believe we are the market leader in transportation lubricant additives and intend to remain the leader by continuing to invest in this business. FTT represents the preponderance of our assets, revenues, earnings and cash flow.

Fluid Technologies for Industry

We are expanding beyond our FTT business by using our strengths, including our technology, formulating skills and broad geographic infrastructure, to develop and invest in new fluid technology applications in higher-growth industrial markets. FTI revenues have grown from $259.1 million in 1998 to $464.1 million in 2003. Key factors to FTI's success continue to be introduction of new products, development of new applications for existing products, cross-selling of products, geographic expansion and acquisitions.

In 2002, we completed four FTI acquisitions having aggregate annualized revenues of $85 million, including Chemron Corporation, a supplier of specialty surfactants principally for the personal care market. In 2003, we acquired a personal care ingredients business from Amerchol Corporation, a subsidiary of The Dow Chemical Company. In addition, we expanded our foam control additives business with the acquisition of silicones product lines. The 2003 acquisitions expanded our foam control additives business to approximately $40 million in annual revenues. In late January 2004, we acquired the additives business of Avecia, with annual revenues of approximately $50 million. The business develops, manufactures and markets high-value additives used in coatings and inks.

Primary Factors Affecting 2003 Results

In addition to lower shipment volume in our FTT business along with acquisitions and ongoing business growth in FTI, the factors that most affected our 2003 results were:

- currency effects;
- increased raw material and energy costs; and
- cost control activities, including restructuring programs.

In 2003, currency had an overall favorable effect on our operating results. We conduct a significant amount of our business outside the United States and are subject to business risks inherent in non-U.S. activities, including currency exchange rate fluctuations. As the U.S. dollar strengthens or weakens against other international currencies in which we transact business, our financial results will be affected.

Raw material costs are significantly influenced by the price of crude oil and natural gas. Our results are affected by how quickly and the extent to which we are able to change our product selling prices in reaction to raw material cost and operating cost changes.

Our operating cost structure has been pressured by higher energy, insurance, pension and health care expenses. Additionally, a large portion of our manufacturing expenses are fixed in the short term. As a result of these cost pressures and to achieve a more competitive cost structure, primarily in FTT, we implemented several restructuring programs in 2003.

2003 RESULTS OF OPERATIONS COMPARED WITH 2002

Analysis of Revenues

(Millions of Dollars)	2003	2002	$ Change	% Change	Excluding Acquisitions $ Change	Excluding Acquisitions % Change
Net sales	$2,049.1	$1,980.3	$68.8	3%	$25.8	1%
Royalties and other revenues	3.0	3.6	(0.6)	(15%)	(0.6)	(17%)
Total revenues	$2,052.1	$1,983.9	$68.2	3%	$25.2	1%

We had record consolidated revenues for 2003. However, income per share before cumulative effect of a change in accounting principle declined 28% in 2003 to $1.76 per share, from $2.45 per share in 2002. The primary operating drivers of the lower earnings were lower shipment volume and higher raw material costs and manufacturing expenses, which more than offset higher selling price/mix, favorable currency, a lower effective tax rate and acquisitions that were accretive to earnings. In addition, a restructuring charge reduced 2003 earnings by $.29 per share.

In 2003, the increase in consolidated revenues was due to a 9% increase in average selling price, partially offset by a 6% decline in shipment volume.

Changes in our shipment volume vary by geographic area. The following table shows our 2003 shipment volume by geographic zone as well as the changes compared with 2002:

Analysis of Volume – 2003 vs. 2002

	2003 Volume	% Change	Excluding Acquisitions % Change
North America	45%	(5%)	(9%)
Europe	28%	(8%)	(8%)
Asia-Pacific / Middle East	20%	(5%)	(5%)
Latin America	7%	(2%)	(2%)
Total	100%	(6%)	(8%)

Excluding acquisitions, approximately half of the decline in shipment volume was due to the loss of a portion of the business associated with a major international customer and 16% of the decline was due to a shift in our viscosity modifier product line from liquids to higher-value concentrated solid form. All geographic zones were affected by the loss of business with this customer and the viscosity modifier shift, though the effects were mostly seen in North America and Europe. In addition, weak worldwide demand for lubricants negatively impacted volume for the year. We believe that the economic and political conditions within certain countries of the Asia-Pacific / Middle East region contributed to the volume decline in this zone. See the "Segment Analysis" section for additional explanations of shipment volume changes by business segment and geographic zone in 2003 compared with 2002. We are seeing indications that customer demand is firming and we believe customer demand will strengthen in 2004.

The 9% increase in average selling price was due to a 5% increase in the combination of price and product mix and 4% favorable currency effects. We combine the impact of price and product mix, as frequent product changes in our fluid technologies for transportation segment have made it difficult to distinguish between the two components. Sequentially, the fourth quarter 2003 average selling price was 3% higher than the third quarter of 2003, due to favorable currency effects, and 6% higher than the first quarter of 2003, due to favorable currency effects and price increases implemented in the first half of the year. In February 2004, we announced an additional price increase in the fluid technologies for transportation segment.

Analysis of Costs and Expenses

(Millions of Dollars)	2003	2002	$ Change	% Change	Excluding Acquisitions $ Change	Excluding Acquisitions % Change
Cost of sales	$1,507.8	$1,416.3	$ 91.5	6%	$61.7	4%
Selling and administrative expenses	202.9	196.9	6.0	3%	2.2	1%
Research, testing and development expenses	167.0	168.3	(1.3)	(1%)	(2.9)	(2%)
Restructuring charge	22.5	—	22.5	*	22.5	*
Total costs and expenses	$1,900.2	$1,781.5	$118.7	7%	$83.5	5%

** Calculation not meaningful*

Cost of sales increased due to higher average raw material cost and higher manufacturing expenses, partially offset by lower shipment volume. Average raw material cost increased 9% in 2003 compared with 2002, primarily due to 6% higher raw material prices and, to a lesser extent, unfavorable currency effects. Raw material prices started to increase in the second half of 2002 and continued to increase in the first and third quarters of 2003. Sequentially, the fourth quarter 2003 average raw material cost increased 2% compared with the third quarter and 7% compared with the first quarter, primarily due to higher raw material prices driven by higher prices of crude oil and natural gas and unfavorable currency effects. We believe raw material costs will continue to increase during the first half of 2004.

Manufacturing expenses, which are included in cost of sales, increased 14% (12% excluding acquisitions) in 2003 compared with 2002. The increase was due to unfavorable currency effects, acquisitions, higher utility expenses and higher salary and benefit expenses, partially offset by a reduction in variable pay expense. In addition, total manufacturing expenses in 2003 included a $2.6 million reclassification of expenses at certain subsidiaries of our FTI and AFS operating segments that were charged in 2002 to selling and administrative expenses or material costs. We expect natural gas utility costs to remain high in 2004, which will continue to affect our manufacturing expenses.

Cost of sales in 2003 also included approximately $3.4 million in manufacturing expenses to cover costs associated with two fires that occurred during the second quarter of 2003. In April 2003, an after-working-hours fire destroyed a metalworking additive blending facility we leased in Detroit. There were no injuries, nor any damage to a nearby warehouse where we stored finished goods. We were able to supply customers from this warehouse and have permanently shifted production to our Painesville, Ohio, plant. In April 2003, a fire associated with a maintenance shutdown occurred in a dispersant production unit at our plant in Le Havre, France. Again, there were no injuries and we were able to continue to supply customers from other facilities.

Excluding currency effects, acquisitions and the cost associated with the fires, consolidated manufacturing expense increased 5% over 2002.

Gross profit (net sales less cost of sales) decreased $22.7 million, or 4% ($35.8 million, or 6%, excluding acquisitions), in 2003 compared with 2002. Our gross profit percentage (gross profit divided by net sales) decreased to 26.4% in 2003 compared with 28.5% in 2002. Excluding the impact of acquisitions, our gross profit percentage was 26.3% in 2003. These decreases primarily were due to lower shipment volume, higher average raw material cost and higher manufacturing expenses, partially offset by higher average selling price and favorable net currency effects.

The selling and administrative expenses increase, excluding acquisitions, was due to higher salary and benefit expenses and unfavorable currency effects, partially offset by lower variable pay expense and the reclassification to manufacturing expense of approximately $1.1 million of FTI and AFS costs that were classified as selling and administrative expenses in 2002.

The timing and amount of research, testing and development expenses (technology expenses) are affected by FTT product standards, which change periodically to meet new emissions, efficiency, durability and other performance factors as engine and transmission designs are improved by original equipment manufacturers (OEMs). The decrease in technology expenses was due to lower testing activity at outside laboratories and a reduction in our variable pay expense, partially offset by unfavorable currency effects and higher salary and benefit expenses. In addition, technology expenses in 2003 included a write-down of $1.1 million related to a former technical facility in Japan that we sold during the third quarter of 2003. During 2003, approximately 82% of our technology cost was incurred in company-owned facilities and 18% was incurred at third-party testing facilities, compared with 78% and 22%, respectively, in 2002. In 2003, we completed a development program for GF-4, the U.S. passenger car motor oil technical standard that is scheduled for commercial introduction in 2004. We do not expect a major shift by our customers to GF-4 before the fourth quarter of 2004.

In 2003, we recorded a restructuring charge of $22.5 million, or $.29 per share, related to the separation of approximately 250 employees in the United States, Europe and India, comprising 5% of our worldwide workforce. The components of the restructuring charge are shown in the table below:

Components of the Restructuring Charge

(Millions of Dollars)	U.S.	Europe	India	Total
Employee severance	$11.2	$4.6	$1.5	$17.3
Asset impairments		3.3		3.3
Other*	1.6	.3		1.9
Total restructuring charge	$12.8	$8.2	$1.5	$22.5

** Other costs primarily include outplacement costs*

In November 2003, we announced workforce reductions of approximately 150 employees primarily at our headquarters in Wickliffe, Ohio, at our Deer Park and Bayport, Texas manufacturing facilities and at our Hazelwood, England, technical facility. This resulted in a restructuring charge primarily for employee severance costs in both the United States and England. The workforce reductions were completed prior to the end of 2003. The charge for Europe also included costs associated with the restructuring program announced in February 2003, for our Bromborough, England, intermediate production and blending facility. We have eliminated some capacity at this facility and substantially completed workforce reductions of 45 positions. An asset impairment charge of $3.3 million was recorded at Bromborough for production units taken out of service. The charge for Europe also included some severance-related costs for the closing of a sales office in Scandinavia. The charge for India pertains to a voluntary separation program of approximately 55 employees at our joint venture in India.

The 2003 restructuring programs were undertaken to achieve a more competitive cost structure, primarily within FTT, and to help mitigate cost pressures from higher energy, pension, health care and insurance expenses. Annual savings are projected to be approximately $20 million, of which approximately $5 million were realized in 2003.

Excluding the effects of currency and acquisitions, we estimate 2004 operating expenses, which consist of manufacturing, selling, administrative and technology expenses, will be approximately the same as 2003.

Analysis of Other Items and Net Income

(Millions of Dollars)	2003	2002	$ Change	% Change	Excluding Acquisitions $ Change	Excluding Acquisitions % Change
Other expense – net	$ (1.6)	$ (5.4)	$ 3.8	*	$ 4.5	*
Interest expense – net	(21.3)	(16.6)	(4.7)	*	(4.7)	*
Income before income taxes and cumulative effect of change in accounting principle	129.1	180.4	(51.3)	(28%)	(58.5)	(32%)
Provision for income taxes	38.3	54.1	(15.8)	(29%)	(17.9)	(33%)
Income before cumulative effect of change in accounting principle	90.8	126.3	(35.5)	(28%)	(40.6)	(32%)
Cumulative effect of change in accounting principle	—	(7.8)	7.8	*	7.8	*
Net income	$ 90.8	$118.5	$(27.7)	(23%)	$(32.8)	(28%)

* *Calculation not meaningful*

The favorable change in other income (expense) primarily was due to increased currency exchange translation gains.

Interest income decreased $2.9 million in 2003 compared with 2002 as a result of lower interest rates. Interest expense increased $1.8 million in 2003 compared with 2002, due to the absence of the interest rate swap agreements that we utilized in 2002. In 2002, we had swap agreements that reduced interest expense by approximately $4.2 million ($3.1 million impact from outstanding swap and $1.1 million amortization of deferred gain). We terminated the interest rate swap agreements in 2002 and recorded an unrecognized gain, which is being amortized as a reduction of interest expense through December 1, 2008. Amortization of the unrealized gain reduced interest expense in 2003 by approximately $2.7 million.

During 2003, the U.S. dollar weakened against most currencies, especially the euro. We believe the change in currency exchange rates in 2003, as compared with 2002 exchange rates, had a favorable effect on 2003 net income.

We had an effective tax rate of 29.7% in 2003 as compared with 30.0% in 2002. The 2003 effective tax rate was lower than the U.S. federal and state statutory rate of 35%, primarily due to significant nontaxable translation gains at foreign subsidiaries utilizing a U.S. dollar functional currency. The low effective tax rate in 2002 was due primarily to a non-recurring U.S. tax benefit resulting from the charitable contribution of technology, partially offset by nontaxable translation losses. We believe our effective tax rate for 2004 will be approximately 34%.

As a result of the factors described above, income per share before the cumulative effect of a change in accounting principle was $1.76 in 2003 compared with $2.45 in 2002. The restructuring charge reduced earnings in 2003 by $.29 per share.

During the first half of 2002, we completed the impairment analysis required for Statement of Financial Accounting Standards 142 (SFAS 142), "Goodwill and Other Intangible Assets," which we adopted on January 1, 2002. There was no impairment in either the FTT or FTI operating segments; however, for the AFS operating segment, which is included in the all other reporting segment, we recorded an impairment of $7.8 million, which eliminated all the goodwill for the all other reporting segment. The charge was recorded as a cumulative effect of a change in accounting principle as of January 1, 2002. There was no tax benefit associated with this charge.

After adjustment of 2002 for the cumulative effect of a change in accounting principle from the implementation of SFAS 142, net income per share was $1.76 in 2003 compared with $2.30 for 2002.

2002 RESULTS OF OPERATIONS COMPARED WITH 2001

Analysis of Revenues

(Millions of Dollars)	2002	2001	$ Change	% Change	Excluding Acquisitions & LZ India $ Change	Excluding Acquisitions & LZ India % Change
Net sales	$1,980.3	$1,839.2	$141.1	8%	$33.1	2%
Royalties and other revenues	3.6	5.4	(1.8)	(34%)	0.7	12%
Total revenues	$1,983.9	$1,844.6	$139.3	8%	$33.8	2%

We achieved higher revenues in 2002, primarily due to higher shipment volume resulting from the consolidation of Lubrizol India Private Limited and the favorable impact of acquisitions. Higher gross profit margins were realized in 2002 compared with 2001, driven by lower average raw material cost combined with lower unit manufacturing cost (manufacturing costs per metric ton sold) and ongoing volume growth. The increased margin, elimination of goodwill amortization and a lower effective tax rate, partially offset by higher STAR (selling, testing, administrative and research) expenses, resulted in increased net income in 2002 compared with 2001.

Beginning January 1, 2002, we consolidated 100% of the revenues, costs, expenses, assets and liabilities of our joint venture, Lubrizol India Private Limited, with an offset for our partner's minority interest. Before 2002, we recorded our ownership in the joint venture as equity earnings, which was included in other income on the income statement. The change from equity to consolidation accounting resulted from an amendment to the joint venture agreement with our partner, Indian Oil Corporation Limited, which gave us operating control of Lubrizol India. We continue to own 50 percent of the voting shares. This change had no effect on our net income, but it did affect the line item comparisons for the income statement, the balance sheet and the statement of cash flows.

The increase in 2002 revenues was due to 12% higher shipment volume, partially offset by a 4% decline in average selling price. The consolidation of Lubrizol India contributed 3% to the higher volume, acquisitions in our fluid technologies for industry segment added 5.5% to volume and increases in ongoing shipment levels provided the remaining 3.5% of the total shipment volume increase.

Changes in our shipment volume vary by geographic area. The following table shows our 2002 shipment volume by geographic zone as well as the changes compared with 2001:

Analysis of Volume – 2002 vs. 2001

	2002 Volume	% Change	Excluding Acquisitions & LZ India % Change
North America	45%	20%	7%
Europe	29%	6%	6%
Asia-Pacific / Middle East	20%	9%	(6%)
Latin America	6%	(3%)	(3%)
Total	100%	12%	3.5%

The increases in North America and Europe were due to acquisitions and the strengthening of our business with major fluid technologies for transportation customer accounts for engine oils and specialty driveline additives, along with the strengthening of our fluid technologies for industry markets, including coatings and inks and metalworking. The decrease in Asia-Pacific volume, excluding the consolidation of Lubrizol India, primarily was the result of business lost in Japan in mid-2001 and the weak business environment and competitive intensity in Asia. Latin America, our smallest zone, experienced volume declines as the result of economic conditions, timing of orders and some business losses after the first quarter of 2001 due to price increases.

The decrease in average selling price in 2002 compared with 2001 was due to the combination of lower prices and product mix changes. Currency had a negligible effect on average selling price for the year. Approximately half of the decline in average selling price was the result of the Chemron acquisition made in April 2002, due to its lower-priced product mix.

The decrease in royalties and other revenues in 2002 compared with 2001 primarily was due to the consolidation of Lubrizol India, effective January 1, 2002, as royalties from India were eliminated when reporting consolidated results.

Analysis of Costs and Expenses

(Millions of Dollars)	2002	2001	$ Change	% Change	Excluding Acquisitions & LZ India $ Change	Excluding Acquisitions & LZ India % Change
Cost of sales	$1,416.3	$1,335.5	$ 80.8	6%	$ (4.3)	0%
Selling and administrative expenses	196.9	177.4	19.5	11%	15.0	8%
Research, testing and development expenses	168.3	158.5	9.8	6%	8.9	6%
Total costs and expenses	$1,781.5	$1,671.4	$110.1	7%	$19.6	1%

The 2002 increase in cost of sales was due to higher shipment levels and higher manufacturing expenses, partially offset by a decline in average raw material cost. Average raw material cost decreased 6% in 2002 compared with 2001, due to both lower raw material prices and product mix changes.

Although average raw material cost decreased in 2002 compared with 2001 on an annual basis, raw material prices started to increase in the second half of 2002. Sequentially in 2002, average raw material cost increased 1% in the third quarter compared with the second quarter, and 4% in the fourth quarter compared with the third quarter, due to the combination of higher raw material prices and higher-cost product mix. There were five price increases in base oil, our highest-volume raw material, between the end of April 2002 and the middle of October 2002, along with increases in other raw material prices. To recover the rapidly rising raw material prices that were affecting our business, we implemented an additive price increase in our fluid technologies for transportation segment in December 2002 for the North America zone and in January 2003 for the rest of the world.

Manufacturing expenses, which are included in cost of sales, increased 9% (2% excluding acquisitions and the consolidation of Lubrizol India), in 2002 compared with 2001. The increase in manufacturing expenses was due to higher volume and higher compensation costs, consisting of variable pay, salary and employee benefit expenses, partially offset by lower utility expenses. Even though total manufacturing expenses increased, unit manufacturing cost was down 3% in 2002 compared with the prior year, primarily due to higher throughput and productivity improvements.

Gross profit (net sales less cost of sales) increased $60.3 million, or 12% ($37.4 million, or 7%, excluding acquisitions and the consolidation of Lubrizol India), in 2002 compared with 2001. The increase primarily was the result of higher volume and lower raw material costs, partially offset by higher manufacturing expenses and lower selling prices. Our gross profit percentage (gross profit divided by net sales) increased to 28.5% in 2002 compared with 27.4% in 2001, due to the reasons explained previously. Excluding the impact of the consolidation of Lubrizol India and acquisitions, our gross profit percentage was 28.9% in 2002.

The 2002 increase in selling and administrative expenses, excluding acquisitions, primarily was due to higher compensation costs for existing businesses and incremental staffing and other costs associated with our strategy to expand into new markets. In addition, we recorded a $2.0 million charge for a contract claim related to an employee offsite personal injury.

The 2002 increase in research, testing and development expenses primarily was a result of four engine oil programs. The first program pertained to the U.S. passenger car motor oil technical standard, GF-4, which is slated for commercial introduction at the end of 2004. The second program pertained to the European program for reduced emission targets for both diesel and passenger car applications (Euro IV). Commercial introduction was originally anticipated for 2005, when Euro IV becomes mandatory. However, plans to offer road tax incentives in Europe pushed commercial introduction to mid-2003. This resulted in increased technology and commercial product development expense in the fourth quarter of 2002 that had not been anticipated. The third program pertained to the introduction in early 2003 of new European passenger car standards, which significantly increase performance requirements. The change in the baseline performance required by OEMs for their specifications resulted in the redevelopment of several products. The fourth program pertained to the current U.S. diesel engine oil specification, PC-9, which was formally introduced in the third quarter of 2002.

Analysis of Other Items and Net Income

(Millions of Dollars)	2002	2001	$ Change	% Change	Excluding Acquisitions & LZ India $ Change	Excluding Acquisitions & LZ India % Change
Other expense – net	$ (5.4)	$ (15.1)	$ 9.7	*	$ 12.3	*
Interest expense – net	(16.6)	(18.3)	1.7	*	1.5	*
Income before income taxes and cumulative effect of change in accounting principle	180.4	139.9	40.5	29%	28.0	20%
Provision for income taxes	54.1	45.8	8.3	18%	1.0	(2%)
Income before cumulative effect of change in accounting principle	126.3	94.1	32.2	34%	29.0	31%
Cumulative effect of change in accounting principle	(7.8)	—	(7.8)	*	(7.8)	*
Net income	$118.5	$ 94.1	$ 24.4	26%	$ 21.2	23%

** Calculation not meaningful*

Beginning in 2002, the other income (expense) line item no longer included amortization of goodwill, due to a change in accounting standards, or equity income from Lubrizol India. Goodwill amortization expense was approximately $11.0 million in 2001. Equity income for Lubrizol India was $2.9 million in 2001. The remaining variance primarily was due to lower currency exchange translation losses.

Interest income was about even in 2002 compared with 2001. Interest expense decreased $1.6 million in 2002 compared with 2001, partially due to lower interest rates. In addition, we terminated our interest rate swap agreements, which had converted the fixed interest rate on $100 million of 5.875% debentures to a variable rate. In terminating the swaps, we received cash of $18.1 million and recorded a $17.3 million unrealized gain, which is being amortized as a reduction of interest expense through December 1, 2008, the due date of the underlying debt. Amortization of the unrealized gain reduced interest expense in 2002 by $1.1 million.

During 2002, the U.S. dollar weakened against most currencies, especially the euro and the yen, and we believe the change in currency exchange rates had a slightly favorable effect on net income as compared with the impact during 2001.

We had an effective tax rate of 30.0% in 2002, compared with 32.7% for 2001, which increased 2002 earnings by $.09 per share. The lower effective tax rate in 2002 was primarily due to the U.S. tax benefit resulting from a charitable contribution of technology made in 2002 that did not occur in 2001, along with the elimination of goodwill amortization pursuant to the new accounting standard.

As a result of the factors described above, income per share before the cumulative effect of a change in accounting principle was $2.45 in 2002 compared with $1.84 in 2001. After adjusting net income for the cumulative effect of a change in accounting principle due to the implementation of SFAS 142, net income per share was $2.30 in 2002 compared with $1.84 for 2001.

SEGMENT ANALYSIS

A description of the company's operating segments along with the products, services and markets for each of the operating segments is included in Note 13 to the financial statements. Prior year amounts have been restated to reflect reclassifications of products among the reportable segments.

Operating Results by Segment

(Millions of Dollars)	2003	2002	2001
Revenues:			
FTT	$1,554.7	$1,576.0	$1,520.8
FTI	464.1	382.5	300.2
All other	33.3	25.4	23.7
Total	$2,052.1	$1,983.9	$1,844.7
Gross Profit:			
FTT	$ 438.4	$ 467.8	$ 427.8
FTI	141.0	126.5	105.5
All other	8.3	6.0	2.0
Total	$ 587.7	$ 600.3	$ 535.3
Segment Contribution Income:			
FTT	$ 286.9	$ 312.0	$ 283.4
FTI	73.3	70.3	46.5
All other	(7.7)	(10.2)	(18.2)
Total	$ 352.5	$ 372.1	$ 311.7

Fluid Technologies for Transportation Segment

Segment revenues decreased $21.3 million, or 1%, in 2003 compared with 2002 due to a 9% decrease in shipment volume partially offset by an 8% increase in average selling price. The increase in average selling price in 2003 primarily was due to favorable currency effects of 4.5% and the remainder was due to higher prices and favorable product mix.

The FTT segment implemented a price increase in December 2002 for the North America zone and in January 2003 for the rest of the world. A second price increase that was structured as a surcharge was implemented in late March 2003 for North America and in late April for Asia and Latin America as well as for select products in Europe. This surcharge was designed to address the continuing rise in raw material prices and natural gas-fired utility costs that had occurred since our last price increase in the fourth quarter of 2002. In February 2004, we announced an additional price increase, effective March 2004, for products sourced from North America and effective April 2004, for products sourced from Latin America, in response to recent increases in the prices of raw materials and energy.

The following table shows the changes in shipment volume by geographic zone in 2003 compared with 2002:

Analysis of Volume – 2003 vs. 2002

	% Change
North America	(11%)
Europe	(9%)
Asia-Pacific / Middle East	(6%)
Latin America	(4%)
Total	(9%)

Approximately half of the total shipment volume decline in 2003 was due to business losses associated with a major international customer. Lower unit sales of viscosity modifiers in 2003 also contributed to the decline, principally caused by a shift from liquid polymers to solid polymers. Generally, solids are one-tenth the volume of liquids. Excluding this shift in our viscosity modifier product line, total shipment volume decreased 8% in 2003. The shift had no impact on gross profit dollars. All geographic zones were affected by the loss of business with this customer and the viscosity modifier shift, though the effects were mostly seen in North America and Europe. The declines in North America for 2003 also were due to the conversion of some products in our specialties business to more concentrated formulations. In addition, weak worldwide demand for lubricants contributed to the declines in the North America and Europe zones in 2003. The decrease in Asia-Pacific/Middle East volume primarily was due to the weak business environment stemming from economic and political conditions in some parts of this region.

Segment gross profit (net sales less cost of sales) decreased $29.4 million, or 6%, in 2003 compared with 2002. The decrease primarily was due to lower shipment volume, higher average raw material cost and higher manufacturing expenses, partially offset by higher average selling price and favorable net currency effects. In calculating gross profit at the operating segment level, we exclude our estimate of the cost of excess capacity from product costs (see Note 13 to the financial statements). For these reasons, the gross profit percentage for this segment decreased to 28.2% in 2003, compared with 29.7% in 2002.

Direct selling, marketing and technology expenses decreased $6.3 million, or 4%, in 2003 compared with 2002, primarily due to lower technical spending at outside test laboratories. Segment contribution income (revenues less expenses directly identifiable to the product lines aggregated within each segment) decreased $25.1 million, or 8%, in 2003 compared with 2002 as a result of lower gross profit and lower equity earnings from our joint venture in Saudi Arabia, partially offset by lower technology expenses.

In 2002, segment revenues increased $55.2 million, or 4%, compared with 2001, with 6% higher shipment volume. Excluding the impact of the consolidation of Lubrizol India, revenues increased $6.5 million, or less than 1%, due to a 2.5% increase in ongoing shipment volume, partially offset by a 2% decrease in average selling price. The combination of lower prices and product mix effects reduced average selling price by 2.5%, but partially was offset by slightly favorable currency effects, due to the weakening of the dollar against the euro and the yen.

The following table shows the changes in shipment volume by geographic zone in 2002 compared with 2001:

Analysis of Volume – 2002 vs. 2001

	% Change	Excluding LZ India % Change
North America	7%	7%
Europe	5%	5%
Asia-Pacific / Middle East	8%	(7%)
Latin America	(4%)	(4%)
Total	6%	2.5%

The 2002 shipment volume increases in North America and Europe primarily were due to the strengthening of our engine oils additives business and, to a lesser extent, our specialty driveline additives business. In North America, this increase was with major international accounts, while in Europe it was across our customer base. Excluding Lubrizol India, the decline in Asia-Pacific volume primarily was as a result of lost engine oil business in Japan in mid-2001 and the weak business environment and competitive intensity in Asia. Latin America, our smallest zone, experienced volume declines as the result of economic conditions, timing of orders and some business losses after the first quarter of 2001 due to price increases.

Segment gross profit increased $40.0 million, or 9%, in 2002 compared with 2001. Excluding the impact of the consolidation of Lubrizol India, gross profit increased by $26.6 million, or 6%. The increase was due to higher shipment volume and lower average raw material cost, partially offset by increased manufacturing expenses and lower average selling price. The gross profit percentage for this segment was 29.7% in 2002 compared with 28.2% in 2001.

Segment contribution income increased $28.6 million, or 10%, in 2002 compared with 2001. The increase primarily was due to higher gross profit, partially offset by higher direct technology and marketing expenses.

Fluid Technologies for Industry Segment

Segment revenues increased $81.6 million, or 21% ($38.5 million, or 10%, excluding acquisitions), in 2003 compared with 2002. The acquisition-related increase primarily was due to the 2002 acquisitions of Dock Resins Corporation and Chemron Corporation and the 2003 acquisition of a personal care ingredients business. The 2003 increase in segment revenues, excluding acquisitions, was due to a 6% increase in shipment volume along with a 4% increase in average selling price, due almost entirely to favorable currency effects.

The following table shows the changes in shipment volume by geographic zone in 2003 compared with 2002:

Analysis of Volume – 2003 vs. 2002

	% Change	Excluding Acquisitions % Change
North America	23%	4%
Europe	10%	10%
Asia-Pacific / Middle East	15%	14%
Latin America	16%	16%
Total	19%	6%

The 2003 shipment volume increase in North America primarily was due to the 2002 acquisitions of Chemron and Dock Resins and the 2003 acquisition of a personal care ingredients business. Excluding acquisitions, the increase in North America in 2003 was due to market share gains in our personal care and specialty emulsifiers businesses along with increases in the coatings and inks business from the introduction of new products. The increase in Europe in 2003 was related to increases in our metalworking and compressor lubricant businesses due to market share gains and new applications in our specialty monomers business. The increase in 2003 for the Asia-Pacific / Middle East zone was spread across many of the FTI businesses. Approximately half of the increase in 2003 for Asia-Pacific / Middle East was due to increased shipments in our metalworking business as a result of a distributor relationship that was terminated at the beginning of 2002. Our metalworking sales in this zone in the first half of 2002 were below normal levels because customers were buying from the distributor's inventory. These customers subsequently commenced purchasing the products directly from us beginning in the second half of 2002. The increase in Latin America in 2003 was due to a shift from North America to Latin America of our specialty emulsifiers business with some of our existing customers, along with some business gains in our coatings and inks, defoamer and specialty monomers businesses.

Segment gross profit increased $14.5 million, or 11% ($1.4 million increase, or 1%, excluding acquisitions), in 2003 compared with 2002. Excluding acquisitions, the increase in segment gross profit in 2003 was due to higher shipment volume and higher average selling price due to favorable currency effects, partially offset by higher average raw material cost and higher manufacturing expenses. The increase in manufacturing expenses was due to higher shipment volume, $3.4 million in costs related to the fire at the Detroit manufacturing facility, $2.4 million in expenses associated with the integration of a multipurpose chemical production facility in Spartanburg, South Carolina that was purchased in the second quarter of 2003, and the reclassification to manufacturing expenses of $2.6 million charged in 2002 as selling and administrative expenses. The gross profit percentage for this segment was 30.5% in 2003, compared with 33.2% in 2002. The decrease in the gross profit percentage in 2003 was due to higher raw material costs and increased manufacturing expenses as a result of the metalworking fire and the reclassification of selling and administrative expenses to manufacturing expenses. In addition, unfavorable product mix in the compressor lubricant business and lower volume of anti-wear hydraulics products contributed to the lower segment gross profit in 2003.

Segment contribution income increased $3.0 million, or 4%, in 2003 compared with 2002. The increase primarily was due to higher gross profit, after costs related to the fire and integration of the Spartanburg facility referred to previously, partially offset by higher direct technology and selling expenses and higher amortization expenses of intangibles other than goodwill that resulted from acquisitions.

In 2002, segment revenues increased $82.3 million, or 27%, compared with 2001, primarily due to a 58% increase in total shipment volume. The acquisitions of Chemron and Kabo Unlimited, Inc. contributed $51.5 million toward the $56.7 million total increase in revenues due to acquisitions. Segment revenues, excluding acquisitions, increased $25.5 million, or 8%, primarily due to 9% ongoing volume growth as a result of strengthening markets compared with 2001, partially offset by a slight decrease in average selling price.

The following table shows the changes in shipment volume by geographic zone in 2002 compared with 2001:

Analysis of Volume – 2002 vs. 2001

	% Change	Excluding Acquisitions % Change
North America	101%	9%
Europe	6%	6%
Asia-Pacific / Middle East	31%	24%
Latin America	4%	4%
Total	58%	9%

The increase in North America shipment volume primarily was due to the acquisitions of Chemron and Kabo. Excluding acquisitions, the ongoing volume growth in North America and all of the increase in Europe was due to strengthening markets, particularly in coatings and inks and metalworking, as well as the introduction of new products and some business gains in both these areas. The increase in the Asia-Pacific zone primarily was due to new business gains across all of our businesses.

Segment gross profit increased $21.0 million, or 20%, in 2002 compared with 2001. Excluding acquisitions, gross profit increased $11.5 million, or 11%. The increases primarily were due to higher shipment volume and lower average raw material cost. The gross profit percentage for this segment was 33.2% in 2002, compared with 35.4% in 2001. The decrease in the gross profit percentage primarily was due to the impact of the Chemron acquisition, due to its lower-priced product mix.

Segment contribution income increased $23.8 million, or 51%, in 2002 compared with 2001. The increase was due to higher gross profit and the accounting change for goodwill amortization. The elimination of goodwill amortization, effective January 1, 2002, benefited this segment by approximately $6.1 million in 2002.

RETURN ON AVERAGE SHAREHOLDERS' EQUITY

Return on average shareholders' equity was 10% in 2003, 14% in 2002 and 12% in 2001 (10%, 15% and 12%, respectively, excluding the cumulative effect of the change in accounting principle in 2002). The return on average shareholders' equity is calculated as current year net income divided by the average of year-end shareholders' equity for the current and prior year. The restructuring charge in 2003 lowered the return on average shareholders' equity by approximately 2%.

WORKING CAPITAL, LIQUIDITY AND CAPITAL RESOURCES

The following table summarizes our financial performance indicators of liquidity:

Selected Measures of Liquidity and Capital Resources

	2003	2002
Cash and short-term investments (millions of dollars)	$258.7	$266.4
Working capital (millions of dollars)	$638.4	$602.0
Current ratio	3.1	3.0
Debt as a % of capitalization	29.0%	31.6%
Net debt as a % of capitalization	14.2%	15.5%
Average number of days sales in accounts receivable	54.1	52.7
Average number of days sales in inventory	89.4	80.6

The following table summarizes the major components of cash flow:

Summary of Cash Flows

(Millions of Dollars)	2003	2002	2001
Cash provided from/ (used for):			
Operating activities	$ 194.8	$ 244.9	$ 195.8
Investing activities	(155.9)	(148.5)	(81.6)
Financing activities	(59.5)	(30.4)	(68.7)
Effect of exchange-rate changes on cash	12.9	11.4	(2.4)
Net increase/(decrease) in cash and short-term investments	$ (7.7)	$ 77.4	$ 43.1

Operating Activities

Cash provided from operating activities in 2003 decreased $50.1 million, or 20%, compared with 2002. The decrease primarily was due to lower earnings and an unfavorable change in working capital items of $9.0 million in 2003 compared with a favorable change of $13.9 million in working capital items in 2002. Lower receivable and inventory levels partially offset the increase in the other working capital items, when currency effects and acquisitions are considered.

We manage our levels of inventories and accounts receivable on the basis of average days sales in inventory and average days sales in receivables. Our target for days sales in inventory is established with the goal of minimizing our investment in inventories while at the same time ensuring adequate supply for our customers. Our 2003 target for days sales in inventory was 87.0 days. The 2003 average days sales in inventory of 89.4 days exceeded target because we built strategic stock in mid-year to secure supply of certain key materials and because shipment volume was lower than anticipated, especially in the third quarter of 2003. The 2002 average days sales in inventory of 80.6 days was below the 2002 target level of 85.0 days because of strong demand and high plant utilization in 2002. Our target for days sales in accounts receivable is established primarily as a function of the average credit terms offered to our customers. Our average days sales in receivables of 54.1 days was approximately equal to our target of 53.5 days in 2003. Our 2004 targets for inventory and receivables are 90.0 days and 53.5 days, respectively.

We reduced accounts payable and accrued liabilities by $26.8 million in 2003 compared with a buildup of $2.6 million in 2002, due to lower variable pay accrual and the timing of procurement and payment to vendors. We have not changed our payment terms to suppliers.

Investing Activities

Our capital expenditures in 2003 were $88.5 million compared with $65.3 and $66.3 million in 2002 and 2001, respectively. We manage our capital investments at the authorization level and the expenditures occur over the period required to complete the individual projects. We authorized projects totaling $105.4 million in 2003, $97.2 million in 2002 and $87.8 million in 2001. Significant capital expenditures in 2003 included the purchase and integration of a multipurpose chemical production facility in Spartanburg, South Carolina, for $5.2 million, a number of projects at our Deer Park, Texas, facility and expanded production capabilities at our joint venture in China. In 2004, we are budgeting our capital authorizations at approximately $95 million, which approximates our estimated annual depreciation expense. We also estimate capital expenditures will approximate $95 million in 2004.

In 2003, we completed two acquisitions in the FTI segment for cash totaling $68.6 million. In September 2003, we acquired a personal care ingredients business from Amerchol Corporation, a subsidiary of The Dow Chemical Company. Products from this business are utilized in a wide variety of end-use applications, including skin care and hair conditioners. Products include methyl glucoside derivatives, lanolin derivatives and Promulgen™ personal care ingredients. Historical annualized revenues of this acquisition approximate $30 million. In July 2003, we purchased silicone product lines from BASF with historical annualized revenues of approximately $6 million, which expanded our foam control additives business to approximately $40 million in annual revenues. Silicones are used in the manufacture of sealants, caulks and waterproofing products.

In 2002, we completed four acquisitions in the FTI segment for cash of $86.7 million. In the first quarter, we purchased Kabo, which specializes in the development, manufacture and sale of antifoam and defoaming agents to the food, fermentation, mining and wastewater industries. Kabo's product lines expanded our defoamer business. In the second quarter, we purchased Chemron, which formulates, produces and supplies specialty surfactants used in personal care products, industrial cleaners and a wide range of other consumer and industrial products. The acquisition extended our existing surfactants business into growth markets where we previously had not competed.

In October 2002, we acquired Dock Resins, which develops, manufactures and sells proprietary polymers including acrylic, methacrylic, alkyd and polyester resins to customers in the paint and coatings, printing ink, laminating, adhesives and sealants and grease markets. In October, we also acquired Brose Chemical Company, which has product lines that complement our integrated defoamer business that are now manufactured in our Kabo foam control facility. Annualized 2002 revenues from these acquisitions in the aggregate were approximately $85 million.

On January 30, 2004, we completed the acquisition of the additives business of Avecia for approximately $125 million. This additives business is headquartered in Blackley, United Kingdom, and develops, manufactures and markets high-value additives that are based on polymeric dispersion technology and used in coatings and inks. These products enrich and strengthen color while reducing production costs and solvent emissions, and are marketed under the brand names Solsperse™, Solplus™ and Solthix™. Historical annualized revenues of this business are approximately $50 million. We funded the acquisition through Euro 43 million borrowings ($55 million equivalent) under a 364-day credit facility, $5 million in yen borrowings and the remainder in cash. At December 31, 2003, we had a foreign currency forward contract of $125 million in order to fix the U.S. dollar price for this acquisition. (See Note 6 to the financial statements.)

Financing Activities

Cash used in financing activities increased in 2003 primarily because 2002 included proceeds of $18.1 million from the termination of the interest rate swaps that did not recur in 2003. The remainder of the increase was due to a net decrease in borrowings of $6.8 million and a $4.0 million reduction of cash received from exercise of stock options.

During the first half of 2001, we repurchased approximately 1.0 million common shares for $30.0 million pursuant to our share repurchase program. We suspended this program indefinitely in the second quarter of 2001 in order to hold our financial resources for acquisitions.

Capitalization and Credit Facilities

Our net debt as a percent of capitalization of 14.2% is relatively low, which enhances our ability to borrow funds, if needed, to make acquisitions or for other purposes. Net debt is the total of short- and long-term debt, reduced by cash and short-term investments in excess of an assumed operating cash level of $40 million and excluding unrealized gains and losses on derivative instruments designated as fair value hedges of fixed rate debt. Capitalization is shareholders' equity plus net debt.

At December 31, 2003, we had a $350 million credit facility that matures in July 2006, which allows us to borrow at or below the U.S. prime rate. There were no borrowings under this agreement at December 31, 2003. We had an additional $175 million revolving credit facility that expired in July 2003, which we chose not to renew. In January 2004, we obtained a separate revolving credit facility that enables us to borrow up to Euro 50 million for the purpose of financing European acquisitions. We borrowed Euro 43 million under this facility in January 2004. This facility expires in January 2005.

Contractual Cash Obligations

The following table shows our contractual cash obligations (in millions of dollars) under debt agreements, leases, non-cancelable purchase commitments and other long-term liabilities at December 31, 2003. Additional information on debt and operating leases can be found in Notes 5 and 12 to the financial statements.

Contractual Cash Obligations

	Payments Due by Period				
	Total	Less Than 1 Year	1-3 Years	4-5 Years	After 5 Years
Debt	$389.6	$ 2.9	$ 54.7	$ 0.1	$331.9
Operating leases	51.6	15.0	16.5	8.5	11.6
Non-cancelable purchase commitments	72.2	24.8	42.6	4.3	0.5
Other long-term liabilities	40.9	1.9	15.5	8.3	15.2
Total contractual cash obligations	$554.3	$44.6	$129.3	$21.2	$359.2

Non-cancelable purchase commitments primarily include raw materials purchased under take or pay contracts, drumming, warehousing and service contracts, terminal agreements and toll processing arrangements. Other long-term liabilities disclosed in the table represent long-term liabilities reported in our consolidated balance sheet at December 31, 2003, under "other noncurrent liabilities," excluding pension, postretirement and other non-contractual liabilities.

In 2004, we expect to make a minimum required contribution to the U.S. qualified plan in the range of $2.5 million to $3.0 million and a contribution to the U.K. plan of approximately $5.0 million. These two plans represent approximately 90% of consolidated pension obligations. In addition, non-pension postretirement benefit payments in the United States are expected to be approximately $4 million in 2004.

In addition, we have contingent obligations aggregating $18.0 million under standby letters of credit issued in the ordinary course of business to financial institutions, customers and insurance companies to secure short-term support for a variety of commercial transactions, insurance and benefit programs. These standby letters of credit expire in 2004.

We believe our future operating cash flows will be more than sufficient to cover debt repayments, other contractual obligations, capital expenditures and dividends. In addition, we believe our existing cash position, together with our untapped borrowing capacity, provides us with substantial additional financial resources. If we were to incur significant additional indebtedness (for example, to make a large acquisition) that would cause an adverse change in our current long-term debt ratings, we would expect to be able to continue to meet our liquidity needs but at some increased cost for interest and commitment fees under our credit facilities. We do not believe any such increased costs would have a material impact upon our results of operations or financial condition.

CRITICAL ACCOUNTING POLICIES

The determination and application of our accounting policies is an important process that has developed as our business activities have evolved and as the accounting rules have developed. Accounting rules generally do not allow a selection among alternatives, but involve an implementation and interpretation of existing rules and the use of judgment to the specific set of circumstances existing in our business. We believe the proper implementation and consistent application of the accounting pronouncements are critical. However, not all situations are specifically addressed in the accounting rules and we use our best judgment to adopt a policy for accounting for those situations not addressed. We accomplish this by analyzing similar situations and the accounting guidance governing them, and often consult with our independent auditors about the appropriate interpretation and application of these policies.

Accounting policies for which our subjective judgment is particularly important include estimating valuation reserves and contingencies, determining the net periodic pension cost and postretirement benefit cost and accounting for business combinations and goodwill impairment. To the extent actual experience differs from our assumptions and estimates, we may have to increase or decrease these reserves and contingencies and earnings could be affected.

Accounting for Reserves and Contingencies

Our accounting policies for reserves and contingencies cover a wide variety of business activities, including reserves for potentially uncollectible receivables, slow-moving or obsolete inventory, legal and environmental exposures, and tax exposures. We accrue these reserves when our assessments indicate that it is probable that a liability has been incurred or an asset will not be recovered and an amount can be reasonably estimated. We review these estimates quarterly based on currently available information. Actual results may differ from our estimates and our estimates may be revised upward or downward, depending upon the outcome or changed expectations based on the facts surrounding each exposure. We discuss annually with the audit committee of our Board of Directors our reserves and contingencies, as well as our policies and processes for evaluating them.

Determination of Net Periodic Pension Cost

Each year we review with our actuaries the actuarial assumptions used in the determination of U.S. net periodic pension cost, as prescribed by SFAS 87, "Employers Accounting for Pensions." The determination of net periodic pension cost is based upon a number of actuarial assumptions, including the expected return on plan assets, the discount rate for determining the funded status, and the rate of compensation increase. We also annually review our international pension plan assumptions by country with the applicable plan actuary and appropriately adjust the assumptions. Additionally, the assumptions for each of our pension plans are reviewed with the audit committee of our Board of Directors. Our net periodic pension cost for all pension plans was $14.1 million in 2003, $8.4 million in 2002 and $6.2 million in 2001. In 2003, our U.S. pension expense represented approximately 60% of the consolidated total pension expense.

Our assumption for the expected return on plan assets is based upon our long-term experience and return targets for specific investment classes. During 2003, we maintained our assumption for the U.S. plans of 9% because we believe that it represents a reasonable return that can be achieved over the long term using our current asset allocation. We did not substantially change our investment philosophy or investment mix of the asset portfolio in the U.S. plans. A change in the rate of return of 100 basis points would have the following effects on the net periodic pension cost:

Increase (decrease) in net periodic pension cost from change in rate of return

	100 Basis Point	
(Millions of Dollars)	Increase	Decrease
U.S. pension plans	$(2.0)	$2.0
International pension plans	(1.2)	1.2
All pension plans	$(3.2)	$3.2

The selection of a discount rate for pension plans is required to determine future pension obligations and represents our estimate of the available cost in the market place of settling all pension obligations through annuity purchases. We determine the discount rate based upon current market indicators, including rates of return on AA-rated corporate bonds or on long-term U.S. Treasury obligations. We lowered the 2003 discount rate assumption for our U.S. pension plans to 6.25% from 6.75% used in 2002. On a worldwide basis, the 2003 weighted average discount rate was lowered to 5.88% from 6.34% used in 2002. A change in the discount rate of 100 basis points would have the following effects on the periodic pension cost:

Increase (decrease) in net periodic pension cost from change in discount rate

	100 Basis Point	
(Millions of Dollars)	Increase	Decrease
U.S. pension plans	$(2.1)	$4.3
International pension plans	(2.2)	2.5
All pension plans	$(4.3)	$6.8

The value of our U.S. plan assets increased in 2003 and the value of the assets exceeds the accumulated benefit obligation liability by approximately $19 million at the end of the year. The higher investment returns in 2003 have increased the funded level of our U.S. plans. The accumulated benefit obligation for all pension plans worldwide exceeds the value of plan assets by approximately $23 million.

Changes in pension plan assumptions are expected to increase pension expense for all pension plans worldwide in 2004 by approximately $6 to $7 million, which will not have a significant impact on our financial condition or results of operations. The increase in the pension expense is due primarily to the decline in the discount rate, the addition of approximately $1.0 million of unrecognized loss amortization in 2004, market returns and other factors.

Determination of Postretirement Benefit Cost

Annually we review with our actuaries the key economic assumptions used in calculating postretirement benefit cost as prescribed by SFAS 106, "Employers' Accounting for Postretirement Benefits Other than Pensions." Postretirement benefits include health care and life insurance plans. The determination of postretirement benefit cost is based upon a number of actuarial assumptions, including the discount rate for determining the accumulated postretirement benefit obligation, the assumed health care cost trend rates and ultimate health care trend rate. The same discount rate selected for the pension plan generally is used for calculating the postretirement benefit obligation. Net non-pension postretirement benefit cost was $5.6 million in 2003, $4.7 million in 2002 and $3.9 million in 2001. Our U.S. non-pension postretirement benefit cost in 2003 approximated 92% of the total non-pension postretirement benefit cost.

A change in the discount rate of 100 basis points would have the following effects on the postretirement benefit cost:

Increase (decrease) in postretirement benefit cost from change in discount rate

	100 Basis Point	
(Millions of Dollars)	Increase	Decrease
U.S. postretirement plans	$(1.4)	$1.7
International postretirement plans		0.1
All postretirement plans	$(1.4)	$1.8

A change in the assumed health care cost trend rate of 100 basis points would have the following effects on the postretirement benefit cost:

Increase (decrease) in postretirement benefit cost from change in assumed health care cost trend rate

	100 Basis Point	
(Millions of Dollars)	Increase	Decrease
U.S. postretirement plans	$1.6	$(1.2)
International postretirement plans		(0.1)
All postretirement plans	$1.6	$(1.3)

Accounting for Business Combinations

During the past three years, we have completed several business combination transactions. In the future, we anticipate growing our business through additional acquisitions. We accounted for our past combinations using the purchase method of accounting, which is the only method allowed under SFAS 141, "Business Combinations." The accounting for business combinations is complicated and involves the use of significant judgment. Under the purchase method of accounting, a business combination is accounted for at a purchase price based upon the fair value of the consideration given including direct acquisition costs, whether it is in the form of cash, assets, stock or the assumption of liabilities. The assets and liabilities acquired are measured at their fair values and the purchase price is allocated to the assets and liabilities based upon these fair values. Generally, the acquisition price exceeds the fair value of the tangible assets acquired and the various intangible assets also acquired must be valued. Determining the fair values of the assets and liabilities acquired involves the use of judgment, since some of the assets and liabilities acquired do not have fair values that are readily determinable. Different techniques may be used to determine fair values, including market prices, where available, appraisals, comparisons to transactions for similar assets and liabilities and present value of estimated future cash flows. Since these estimates involve the use of significant judgment, they can change as new information becomes available. During 2003, we used an outside appraiser for our largest acquisition, Amerchol products, to assist in the allocation of the purchase price to intangible assets and goodwill. The appraiser used the income approach to value the intangibles, in which the value is developed on the basis of capitalization of net earnings that would be generated for a specific stream of income attributed to an asset or group of assets. The value of the intangibles identified by the appraiser for the Amerchol products acquisition was $17.9 million and goodwill was determined to be $36.1 million. Amortization of the Amerchol intangible assets will result in annual amortization expense of approximately $.8 million.

Accounting for Goodwill Impairment

We expect acquisitions to play an important role in our future growth strategy and accordingly expect the accounting required under SFAS 142, "Goodwill and Other Intangible Assets," to be important to the fair presentation of our financial condition and results of operations. SFAS 142 requires goodwill to be tested annually and between annual tests if events occur or circumstances change that would more likely than not reduce the fair value of an operating segment below its carrying amount. We have elected October 1 as the annual evaluation date to test for potential goodwill impairment. The annual goodwill impairment test requires us to make a number of assumptions and estimates concerning future levels of earnings and cash flow, which are based upon our strategic plans. A discounted cash flow model is used to determine the fair value of each operating segment. The integrity of the model was reviewed by an outside independent appraiser during 2002 and found to be appropriate. No impairment of goodwill was identified in the annual impairment test completed in 2003. (See Note 4 to the financial statements.)

New Accounting Pronouncements

The impact of new accounting pronouncements is reviewed and discussed in Note 2 to the financial statements.

CAUTIONARY FACTORS THAT MAY AFFECT FUTURE RESULTS (CAUTIONARY STATEMENTS UNDER THE PRIVATE SECURITIES LITIGATION REFORM ACT OF 1995)

This Management's Discussion and Analysis of Financial Condition and Results of Operations and the letter "To Our Shareholders" from W. G. Bares, Chairman and Chief Executive Officer of Lubrizol, and J. L. Hambrick, President, contain forward-looking statements within the meaning of the federal securities laws. As a general matter, forward-looking statements are those focused upon future plans, objectives or performance as opposed to historical items and include statements of anticipated events or trends and expectations and beliefs relating to matters not historical in nature. Forward-looking statements are subject to uncertainties and factors relating to our operations and business environment, all of which are difficult to predict and many of which are beyond our control. These uncertainties and factors could cause our actual results to differ materially from those matters expressed in or implied by any forward-looking statements.

We believe that the following factors, among others, could affect our future performance and cause our actual results to differ materially from those expressed or implied by forward-looking statements made in this annual report:

- the overall demand for lubricant and fuel additives on a worldwide basis, which has a slow growth rate in mature markets such as North America and Europe;
- the effect on our business resulting from economic and political uncertainty within the Asia-Pacific, Middle East and Latin American regions;
- the lubricant additive demand in developing regions such as China and India, which geographic areas are an announced focus of our activities;
- the potential negative impact on product pricing and volume demand from the consolidation of finished lubricant marketers;
- the degree of competition resulting from lubricant additive industry overcapacity;
- technology developments that affect longer-term trends for lubricant additives, such as improved equipment design, fuel economy, longer oil drain intervals, alternative fuel powered engines and emission system compatibility;
- the overall global economic environment, which affects the operating results of fluid technologies for industry in particular;
- the extent to which we are successful in expanding our business in new and existing fluid technology markets incorporating chemicals, systems and services for industry and transportation;
- our ability to identify, complete and integrate acquisitions for profitable growth;
- our success at continuing to develop proprietary technology to meet or exceed new industry performance standards and individual customer and original equipment manufacturers' expectations;
- the frequency of change in industry performance standards, which affects the level and timing of our technology costs, the product life cycles and the relative quantity of additives required for new specifications;
- our ability to continue to reduce complexities and conversion costs and modify our cost structure to maintain and enhance our competitiveness;
- our success in strengthening relationships and growing business with our largest customers, including those with affiliated lubricant additive companies, and retaining the business of our largest customers over extended time periods;
- the cost, availability and quality of raw materials, including petroleum-based products;
- the cost and availability of energy, including natural gas and electricity;
- the effects of fluctuations in currency exchange rates upon our reported results from international operations, together with non-currency risks of investing in and conducting significant operations in foreign countries, including those relating to political, social, economic and regulatory factors;
- the extent to which we achieve market acceptance of our commercial development programs in the area of contaminant management and advanced fluid systems;
- significant changes in government regulations affecting environmental compliance;
- the ability to identify, understand and manage risks inherent in new markets in which we choose to expand.

QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We operate manufacturing and blending facilities, laboratories and offices around the world and utilize fixed and variable rate debt to finance our global operations. As a result, we are subject to business risks inherent in non-U.S. activities, including political and economic uncertainty, import and export limitations and market risk related to changes in interest rates and foreign currency exchange rates. We believe the political and economic risks related to our foreign operations are largely mitigated due to the stability of the countries in which our largest foreign operations are located.

In the normal course of business, we use derivative financial instruments including interest rate and commodity hedges and forward foreign currency exchange contracts to manage our market risks. Additional information regarding our financial instruments is contained in Notes 5 and 6 to the financial statements. Our objective in managing our exposure to changes in interest rates is to limit the impact of such changes on our earnings and cash flow. Our objective in managing the exposure to changes in foreign currency exchange rates is to reduce volatility on our earnings and cash flow associated with such changes. Our principal currency exposures are the euro, the pound sterling, the Japanese yen and certain Latin American currencies. Our objective in managing our exposure to changes in commodity prices is to reduce the volatility on earnings of utility expense. We do not hold derivatives for trading purposes.

We measure our market risk related to our holdings of financial instruments based on changes in interest rates, foreign currency rates and commodity prices utilizing a sensitivity analysis. The sensitivity analysis measures the potential loss in fair value, cash flow and earnings based on a hypothetical 10% change (increase and decrease) in interest, currency exchange rates and commodity prices. We use current market rates on our debt and derivative portfolios to perform the sensitivity analysis. Certain items such as lease contracts, insurance contracts and obligations for pension and other postretirement benefits are not included in the analysis.

Our primary interest rate exposures relate to our cash and short-term investments, fixed and variable rate debt and interest rate swaps. The calculation of potential loss in fair value is based on an immediate change in the net present values of our interest rate-sensitive exposures resulting from a 10% change in interest rates. The potential loss in cash flow and income before tax is based on the change in the net interest income/expense over a one-year period due to an immediate 10% change in rates. A hypothetical 10% increase in interest rates would have had a favorable impact and a hypothetical 10% decrease in interest rates would have had an unfavorable impact on fair values of $12.2 million, cash flows of $.2 million and income before tax of $.2 million in 2003, and $13.3 million, $.2 million and $.2 million in 2002, respectively.

Our primary currency rate exposures are to foreign denominated debt, intercompany debt, cash and short-term investments and forward foreign currency exchange contracts. The calculation of potential loss in fair value is based on an immediate change in the U.S. dollar equivalent balances of our currency exposures due to a 10% shift in exchange rates. The potential loss in cash flow and income before tax is based on the change in cash flow and income before tax over a one-year period resulting from an immediate 10% change in currency exchange rates. A hypothetical 10% increase in currency exchange rates would have had an unfavorable impact and a hypothetical 10% decrease in currency exchange rates would have had a favorable impact on fair values of $6.8 million, cash flows of $16.5 million and income before tax of $4.0 million in 2003, and $13.3 million, $19.5 million and $4.2 million in 2002, respectively.

Beginning in 2003, we had commodity hedge exposures related to natural gas and electric utility expenses. The calculation of potential loss in fair value is based on an immediate change in the U.S. dollar equivalent balances of our commodity exposures due to a 10% shift in the underlying commodity prices. The potential loss in cash flow and income before tax is based on the change in cash flow and income before tax over a one-year period resulting from an immediate 10% change in commodity prices. A hypothetical 10% increase in commodity prices would have had a favorable impact and a hypothetical 10% decrease in commodity prices would have had an unfavorable impact on fair value of $.5 million, cash flow of $.5 million, and income before tax of $.5 million in 2003.

Quarterly Financial Data (Unaudited)

	Three Months Ended			
	March 31	June 30	Sept. 30	Dec. 31
	(In Thousands of Dollars Except Per Share Data)			
2003				
Net sales	$507,000	$514,276	$509,107	$518,718
Gross profit	138,737	141,665	131,621	129,286
Net income	26,023	29,383	24,298	11,070
Net income per share	$0.50	$0.57	$0.47	$0.21
Net income per share, diluted	$0.50	$0.57	$0.47	$0.21
2002				
Net sales	$466,713	$507,505	$509,427	$496,644
Gross profit	135,503	145,735	150,577	132,219
Net income before cumulative effect of change in accounting principle	29,817	34,487	36,478	25,490
Net income	22,032	34,487	36,478	25,490
Net income per share before cumulative effect of change in accounting principle	$0.58	$0.67	$0.71	$0.49
Net income per share before cumulative effect of change in accounting principle, diluted	$0.58	$0.66	$0.71	$0.49
Net income per share	$0.43	$0.67	$0.71	$0.49
Net income per share, diluted	$0.43	$0.66	$0.71	$0.49

In the first quarter of 2002, the company recorded an after-tax $7.8 million ($.15 per share) goodwill impairment charge as a cumulative effect of a change in accounting principle.

Deloitte.

Independent Auditors' Report

TO THE SHAREHOLDERS AND BOARD OF DIRECTORS OF THE LUBRIZOL CORPORATION

We have audited the accompanying consolidated balance sheets of The Lubrizol Corporation and its subsidiaries as of December 31, 2003 and 2002 and the related consolidated statements of income, shareholders' equity, and cash flows for each of the three years in the period ended December 31, 2003. These financial statements are the responsibility of the Corporation's management. Our responsibility is to express an opinion on these financial statements based on our audits.

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

In our opinion, such consolidated financial statements present fairly, in all material respects, the financial position of The Lubrizol Corporation and its subsidiaries at December 31, 2003 and 2002, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2003 in conformity with accounting principles generally accepted in the United States of America.

As discussed in Notes 2 and 4 to the consolidated financial statements, in 2002 the Corporation changed its method of accounting for goodwill and other intangible assets to conform to Statement of Financial Accounting Standards No. 142.

Deloitte & Touche LLP

Cleveland, Ohio
February 6, 2004

Consolidated Statements of Income

(In Thousands of Dollars Except Per Share Data)	Year Ended December 31 2003	2002	2001
Net sales	$2,049,101	$1,980,289	$1,839,244
Royalties and other revenues	3,022	3,578	5,400
Total revenues	2,052,123	1,983,867	1,844,644
Cost of sales	1,507,792	1,416,255	1,335,461
Selling and administrative expenses	202,904	196,940	177,431
Research, testing and development expenses	166,942	168,303	158,473
Restructuring charge	22,534		
Total cost and expenses	1,900,172	1,781,498	1,671,365
Other expense – net	(1,565)	(5,380)	(15,076)
Interest income	3,799	6,697	6,787
Interest expense	(25,114)	(23,298)	(25,041)
Income before income taxes and cumulative effect of change in accounting principle	129,071	180,388	139,949
Provision for income taxes	38,297	54,116	45,833
Income before cumulative effect of change in accounting principle	90,774	126,272	94,116
Cumulative effect of change in accounting principle		(7,785)	
Net income	$ 90,774	$ 118,487	$ 94,116
Net income per share:			
Income before cumulative effect of change in accounting principle	$1.76	$2.45	$1.84
Cumulative effect of change in accounting principle		(0.15)	
Net income per share	$1.76	$2.30	$1.84
Diluted net income per share:			
Income before cumulative effect of change in accounting principle	$1.75	$2.44	$1.83
Cumulative effect of change in accounting principle		(0.15)	
Net income per share, diluted	$1.75	$2.29	$1.83
Dividends per share	$1.04	$1.04	$1.04

The accompanying notes to the financial statements are an integral part of these statements.

Consolidated Balance Sheets

(In Thousands of Dollars)	December 31 2003	2002
ASSETS		
Cash and short-term investments	$ 258,699	$ 266,428
Receivables	324,567	295,508
Inventories	311,919	302,968
Other current assets	42,663	44,875
Total current assets	937,848	909,779
Property and equipment – at cost	1,960,599	1,809,071
Less accumulated depreciation	1,270,605	1,129,916
Property and equipment – net	689,994	679,155
Goodwill	208,726	168,352
Intangible assets – net	62,402	43,162
Investments in non-consolidated companies	6,296	6,690
Other assets	37,050	52,999
TOTAL	$1,942,316	$1,860,137
LIABILITIES AND SHAREHOLDERS' EQUITY		
Short-term debt and current portion of long-term debt	$ 2,899	$ 17,046
Accounts payable	143,120	140,424
Accrued expenses and other current liabilities	153,458	150,271
Total current liabilities	299,477	307,741
Long-term debt	386,726	384,845
Postretirement health care obligations	98,387	96,495
Noncurrent liabilities	100,330	92,655
Deferred income taxes	52,810	55,761
Total liabilities	937,730	937,497
Minority interest in consolidated companies	51,281	53,388
Contingencies and commitments		
Preferred stock without par value – unissued		
Common shares without par value – outstanding 51,588,190 shares in 2003 and 51,457,642 shares in 2002	123,770	118,985
Retained earnings	865,488	828,318
Accumulated other comprehensive loss	(35,953)	(78,051)
Total shareholders' equity	953,305	869,252
TOTAL	$1,942,316	$1,860,137

The accompanying notes to the financial statements are an integral part of these statements.

Consolidated Statements of Cash Flows

(In Thousands of Dollars)	2003	2002	2001
	Year Ended December 31		
CASH PROVIDED FROM (USED FOR):			
OPERATING ACTIVITIES			
Net income	$ 90,774	$118,487	$ 94,116
Adjustments to reconcile net income to cash provided by operating activities:			
Depreciation and amortization	100,423	95,831	98,832
Deferred income taxes	1,491	3,158	(2,392)
Restructuring charge	3,327		
Cumulative effect of change in accounting principle		7,785	
Change in current assets and liabilities net of acquisitions:			
Receivables	4,726	28,984	2,217
Inventories	17,372	(10,152)	866
Accounts payable, accrued expenses and other current liabilities	(26,835)	2,566	(8,399)
Other current assets	(4,308)	(7,475)	(3,171)
	(9,045)	13,923	(8,487)
Change in noncurrent liabilities	11,648	3,636	4,740
Other items – net	(3,864)	2,048	9,029
Total operating activities	194,754	244,868	195,838
INVESTING ACTIVITIES			
Capital expenditures	(88,453)	(65,285)	(66,316)
Acquisitions and investments in nonconsolidated companies	(68,597)	(86,671)	(14,989)
Other – net	1,146	3,420	(340)
Total investing activities	(155,904)	(148,536)	(81,645)
FINANCING ACTIVITIES			
Short-term repayment	(5,754)	(1,399)	(4,579)
Long-term borrowing	4,479		
Long-term repayment	(9,194)	(2,308)	(3,120)
Debt issuance costs			
Dividends paid	(53,571)	(53,430)	(53,218)
Proceeds from termination of interest rate swaps		18,134	
Common shares purchased			(30,039)
Common shares issued upon exercise of stock options	4,569	8,569	22,294
Total financing activities	(59,471)	(30,434)	(68,662)
Effect of exchange rate changes on cash	12,892	11,435	(2,373)
Net increase (decrease) in cash and short-term investments	(7,729)	77,333	43,158
Cash and short-term investments at the beginning of year	266,428	189,095	145,937
Cash and short-term investments at the end of year	$258,699	$266,428	$189,095

The accompanying notes to the financial statements are an integral part of these statements.

Consolidated Statements of Shareholders' Equity

(In Thousands of Dollars)	Number of Shares Outstanding	Shareholders' Equity			
		Common Shares	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Total
BALANCE, DECEMBER 31, 2000	51,307,688	$ 82,128	$750,779	$(80,626)	$752,281
Comprehensive income:					
Net income 2001			94,116		94,116
Other comprehensive income (loss)				(19,186)	(19,186)
Comprehensive income					74,930
Cash dividends			(53,206)		(53,206)
Deferred stock compensation		5,474			5,474
Common shares – treasury:					
Shares purchased	(967,610)	(1,662)	(28,377)		(30,039)
Shares issued upon exercise of stock options	812,029	23,752			23,752
BALANCE, DECEMBER 31, 2001	51,152,107	109,692	763,312	(99,812)	773,192
Comprehensive income:					
Net income 2002			118,487		118,487
Other comprehensive income (loss)				21,761	21,761
Comprehensive income					140,248
Cash dividends			(53,481)		(53,481)
Deferred stock compensation		507			507
Common shares – treasury:					
Shares issued upon exercise of stock options and awards	305,535	8,786			8,786
BALANCE, DECEMBER 31, 2002	51,457,642	118,985	828,318	(78,051)	869,252
Comprehensive income:					
Net income 2003			90,774		90,774
Other comprehensive income (loss)				42,098	42,098
Comprehensive income					132,872
Cash dividends			(53,604)		(53,604)
Deferred stock compensation		1,053			1,053
Common shares – treasury:					
Shares issued upon exercise of stock options and awards	130,548	3,732			3,732
BALANCE, DECEMBER 31, 2003	51,588,190	$123,770	$865,488	$(35,953)	$953,305

The accompanying notes to the financial statements are an integral part of these statements.

Notes To Financial Statements

(In Thousands of Dollars Unless Otherwise Indicated)

NOTE 1 — NATURE OF OPERATIONS

The Lubrizol Corporation is a global fluid technology company that develops, produces and sells high-performance chemicals, systems and services for transportation and industry. The company creates these products by applying advanced chemical and mechanical technologies to enhance the performance, quality and value and reduce the environmental impact of the customer products in which our products are used. The company groups its product lines into three reportable segments: fluid technologies for transportation, fluid technologies for industry and all other, which is comprised of the advanced fluid systems and emulsified products operating segments. Fluid technologies for transportation comprise approximately 76% of the company's consolidated revenues and 81% of the company's segment contribution income. Refer to Note 13 for a further description of the nature of the company's operations, the product lines within each of the operating segments, segment contribution income and related financial disclosures for the reportable segments.

NOTE 2 — ACCOUNTING POLICIES

CONSOLIDATION — The consolidated financial statements include the accounts of The Lubrizol Corporation and its subsidiaries where ownership is 50% or greater and the company has effective management control. For nonconsolidated companies (affiliates), the equity method of accounting is used when ownership exceeds 20% and when the company has the ability to exercise significant influence over the policies of the investee. The book value of investments carried on the equity method was $5.6 million and $5.9 million at December 31, 2003 and 2002, respectively. Investments carried at cost were $.7 million and $.8 million at December 31, 2003 and December 31, 2002, respectively.

CONSOLIDATION OF VARIABLE INTEREST ENTITIES — In January 2003, the Financial Accounting Standards Board (FASB) issued Interpretation No. (FIN) 46, "Consolidation of Variable Interest Entities." FIN 46 provides guidance on how to identify a variable interest entity (VIE) and determine when the assets, liabilities, noncontrolling interests and results of operations of a VIE need to be included in a company's consolidated financial statements. FIN 46 also requires additional disclosures by primary beneficiaries and other significant variable interest holders. In December 2003, the FASB issued a revision to FIN 46 (FIN 46R), which provided additional guidance on the definition of a variable interest entity and delayed the effective date until the first reporting period ending after March 15, 2004, except for special-purpose entities, which must be accounted for under FIN 46 or FIN 46R no later than the end of the first reporting period ending after December 15, 2003. The adoption of FIN 46R did not have a material impact on the company's consolidated financial position or results of operations.

ESTIMATES — The preparation of consolidated financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions pending completion of related events. These estimates and assumptions affect the amounts reported at the date of the consolidated financial statements for assets, liabilities, revenues and expenses and the disclosure of contingencies. Actual results could differ from those estimates.

CASH EQUIVALENTS — The company invests its excess cash in short-term investments with various banks and financial institutions. Short-term investments are cash equivalents, as they are part of the cash management activities of the company and are comprised of investments having maturities of three months or fewer when purchased.

INVENTORIES — Inventories are stated at the lower of cost or market value. Cost of inventories is determined by either the first-in, first-out (FIFO) method or the moving average method, except in the United States for chemical inventories, which are primarily valued using the last-in, first-out (LIFO) method.

The company accrues volume discounts on purchases from vendors where it is probable that the required volume will be attained and the amount can be reasonably estimated. The company records the discount as a reduction in the cost of the purchase (generally raw materials), based on projected purchases over the purchase agreement period.

PROPERTY AND EQUIPMENT — Property and equipment are carried at cost. Repair and maintenance costs are charged against income while renewals and betterments are capitalized as additions to the related assets. Costs incurred for computer software developed or obtained for internal use are capitalized for application development activities and immediately expensed for preliminary project activities or post-implementation activities. Accelerated depreciation methods are used in computing depreciation on certain machinery and equipment, which comprise approximately 12% of the depreciable assets in both 2003 and 2002. The remaining assets are depreciated using the straight-line method. The estimated useful lives are 10 to 40 years for buildings and land and building improvements and range from 3 to 20 years for machinery and equipment.

IMPAIRMENT OR DISPOSAL OF LONG-LIVED ASSETS — The company reviews the carrying value of its long-lived assets, including property and equipment, whenever events or changes in circumstances indicate that the carrying value of the assets may not be recoverable. An impairment loss may be recognized when estimated undiscounted future cash flows expected to result from the use of the asset, including disposition, are less than the carrying value of the asset. The measurement of the impairment loss to be recognized is based on the difference between the fair value and the carrying amounts of the assets. Fair value is generally determined based on a discounted cash flow analysis. In order to determine if an asset has been impaired, assets are grouped and tested at the lowest level for which identifiable, independent, cash flows are available.

GOODWILL AND INTANGIBLE ASSETS — In June 2001, the FASB issued Statement of Financial Accounting Standards (SFAS) 142, "Goodwill and Other Intangible Assets," which became effective for the company on January 1, 2002. Intangibles resulting from business acquisitions, including purchased technology, land use rights, non-compete agreements, distributor networks, trademarks and patents, are amortized on a straight-line method over periods ranging from 5 to 40 years. Under SFAS 142, goodwill and other intangibles determined to have indefinite lives are no longer amortized, but are tested for impairment at least annually. The company has elected to perform its annual tests for potential impairment of goodwill and indefinite life intangibles as of October 1 of each year (see Note 4). The company had goodwill amortization expense of approximately $11.0 million in 2001.

As part of the annual impairment test required under SFAS 142, the useful lives of the non-amortized trademarks are reviewed to determine if the indefinite status remains appropriate. After considering the expected use of the trademarks and reviewing any legal, regulatory, contractual, obsolescence, demand, competitive or other economic factors that could limit the useful lives of the trademarks, in accordance with SFAS 142, the company determined that the trademarks had indefinite lives.

RESEARCH, TESTING AND DEVELOPMENT — Research, testing and development costs are expensed as incurred. Research and development expenses, excluding testing, were $93.9 million in 2003, $93.5 million in 2002 and $87.6 million in 2001.

ENVIRONMENTAL LIABILITIES — The company accrues for expenses associated with environmental remediation obligations when such expenses are probable and reasonably estimable. These accruals are adjusted as further information develops or circumstances change. Costs of future expenditures for environmental remediation obligations are not discounted to their present value. The company's environmental reserves totaled $9.8 million and $9.9 million at December 31, 2003 and 2002, respectively. Of these amounts, $1.2 million and $1.1 million was included in other current liabilities at December 31, 2003 and 2002, respectively.

FOREIGN CURRENCY TRANSLATION — The assets and liabilities of the company's international subsidiaries are translated into U.S. dollars at exchange rates in effect at the balance sheet date, and revenues and expenses are translated at weighted-average exchange rates in effect during the period. Unrealized translation adjustments are recorded as a component of other comprehensive income in shareholders' equity, except for subsidiaries for which the functional currency is the U.S. dollar, where translation adjustments are realized in income. Transaction gains or losses that arise from exchange rate changes on transactions denominated in a currency other than the functional currency, except those transactions that function as a hedge of an identifiable foreign currency commitment or as a hedge of a foreign currency investment, are included in income as incurred.

SHARE REPURCHASES — The company uses the par value method of accounting for its treasury shares. Under this method, the cost to reacquire shares in excess of paid-in capital related to those shares is charged against retained earnings.

REVENUE RECOGNITION — Revenues are recognized at the time of shipment of products to customers, or at the time of transfer of title if later, with appropriate provision for uncollectible accounts. All amounts in a sales transaction billed to a customer related to shipping and handling are reported as revenues.

Provisions for sales discounts and rebates to customers are recorded based upon the terms of sales contracts in the same period the related sales are recorded, as a deduction to the sale. Sales discounts and rebates are offered to certain customers to promote customer loyalty and to encourage greater product sales. These rebate programs provide that upon the attainment of pre-established volumes or the attainment of revenue milestones for a specified period, the customer receives credits against purchases. The company estimates the provision for rebates based on the specific terms in each agreement at the time of shipment.

COMPONENTS OF COST OF SALES — Cost of sales is comprised of raw material costs including freight and duty, inbound handling costs associated with the receipt of raw materials, direct production, maintenance and utility costs, plant and engineering overhead, terminals and warehousing costs, and outbound shipping and handling costs.

PER SHARE AMOUNTS — Net income per share is computed by dividing net income by average common shares outstanding during the period, including contingently issuable shares. Net income per diluted share includes the dilution effect resulting from outstanding stock options and stock awards. Per share amounts are computed as follows:

	2003	2002	2001
Numerator:			
Income before cumulative effect of change in accounting principle . . .	$90,774	$126,272	$94,116
Cumulative effect of change in accounting principle . .		(7,785)	
Net income	$90,774	$118,487	$94,116
Denominator:			
Weighted-average common shares outstanding	51,702	51,514	51,209
Dilutive effect of stock options and awards . . .	182	280	285
Denominator for net income per share, diluted	51,884	51,794	51,494
Income Per Share:			
Income before cumulative effect of change in accounting principle . . .	$ 1.76	$ 2.45	$ 1.84
Net income per share	$ 1.76	$ 2.30	$ 1.84
Diluted Net Income Per Share:			
Income before cumulative effect of change in accounting principle . . .	$ 1.75	$ 2.44	$ 1.83
Net income per share, diluted .	$ 1.75	$ 2.29	$ 1.83

Weighted-average shares issuable upon the exercise of stock options which were excluded from the diluted earnings per share calculations because they were antidilutive were 2.5 million in 2003, 2.4 million in 2002 and 1.8 million in 2001.

ACCOUNTING FOR DERIVATIVE INSTRUMENTS — Derivative financial instruments are recognized on the balance sheet as either assets or liabilities and are measured at fair value. Derivatives that are not hedges are adjusted to fair value through income. Depending upon the nature of the hedge, changes in fair value of the derivative are either offset against the change in fair value of assets, liabilities or firm commitments through earnings or recognized in other comprehensive income until the hedged item is recognized in earnings. The ineffective portion of a derivative's change in value is immediately recognized in earnings. The company uses derivative financial instruments only to manage well-defined interest rate, foreign currency and commodity price risks. The company does not use derivatives for trading purposes.

ASSET RETIREMENT OBLIGATIONS — In June 2001, the FASB issued SFAS 143, "Accounting for Asset Retirement Obligations," which became effective for the company on January 1, 2003. This statement requires entities to record the fair value of a liability for an asset retirement obligation in the period in which it is incurred. The amount recorded as a liability is capitalized by increasing the carrying amount of the related long-lived asset. Subsequent to initial measurement, the liability is accreted to the ultimate amount anticipated to be paid and is also adjusted for revisions to the timing or amount of estimated cash flows. The capitalized cost is depreciated over the useful life of the related asset. Upon settlement of the liability, an entity either settles the obligation for its recorded amount or incurs a gain or loss upon settlement. The adoption of this statement did not have a material impact on the company's consolidated financial position or results of operations.

COSTS ASSOCIATED WITH EXIT OR DISPOSAL ACTIVITIES — In June 2002, the FASB issued SFAS 146, "Accounting for Costs Associated with Exit or Disposal Activities," which became effective for the company for exit or disposal activities initiated after December 31, 2002. This statement requires that a liability for a cost associated with an exit or disposal activity be recognized and measured initially at fair value when the liability is incurred and is effective for exit or disposal activities initiated after December 31, 2002.

GUARANTEES — In December 2002, the FASB issued FIN 45, "Guarantor's Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Others." FIN 45 requires the disclosure of any guarantees beginning December 31, 2002, and the recognition of a liability for any guarantees entered into or modified after that date.

STOCK-BASED COMPENSATION — The company uses the intrinsic value method to account for employee stock options. The following table shows the pro forma effect on net income and earnings per share if the company had applied the fair value recognition provisions of SFAS 123, "Accounting for Stock-Based Compensation," to stock-based employee compensation.

	2003	2002	2001
Reported net income	$90,774	$118,487	$94,116
Plus: Stock-based employee compensation (net of tax) included in net income	256	123	47
Less: Stock-based employee compensation (net of tax) using the fair value method	(4,368)	(6,106)	(6,033)
Pro forma net income	$86,662	$112,504	$88,130
Reported net income per share	$1.76	$2.30	$1.84
Pro forma net income per share	$1.68	$2.18	$1.72
Reported net income per share, diluted	$1.75	$2.29	$1.83
Pro forma net income per share, diluted	$1.67	$2.17	$1.71

FINANCIAL INSTRUMENTS WITH CHARACTERISTICS OF BOTH LIABILITIES AND EQUITY — As of July 1, 2003, the company adopted the provisions of SFAS 150, "Accounting for Certain Financial Instruments with Characteristics of Both Liabilities and Equity," including the deferral of certain effective dates as a result of the provisions of FASB Staff Position (FSP) SFAS 150-3, "Effective Date, Disclosures, and Transition for Mandatorily Redeemable Financial Instruments of Certain Nonpublic Entities and Certain Mandatorily Redeemable Noncontrolling Interests Under FASB Statement No. 150, Accounting for Certain Financial Instruments with Characteristics of Both Liabilities and Equity." The company does not currently utilize these types of financial instruments and the adoption of this statement had no impact on the company's consolidated financial position or results of operation.

ACCOUNTING FOR THE MEDICARE PRESCRIPTION DRUG IMPROVEMENT AND MODERNIZATION ACT — In December 2003, the Medicare Prescription Drug, Improvement and Modernization Act was enacted, which introduced a Medicare prescription drug benefit and a federal subsidy to sponsors of retiree health care plans that provide a benefit at least actuarially equivalent to the Medicare benefit. In accordance with FSP SFAS 106-1, the company has elected to defer recognition of the effects of the new Medicare Act. The accumulated postretirement benefit obligation and net periodic postretirement benefit cost do not reflect the provisions of the Act. Specific authoritative guidance on accounting for the federal subsidy is pending and may require changes to previously reported information. The company estimates the annual cash flows from the federal subsidy to be in the range of $.6 million to $.8 million, beginning in 2006, although the accounting treatment for the federal subsidy has not been resolved by the FASB.

RECLASSIFICATIONS — Certain prior period amounts have been reclassified to conform to the current year presentation.

NOTE 3 — INVENTORIES

	2003	2002
Finished products	$150,711	$148,478
Products in process	62,306	58,643
Raw materials	78,856	76,779
Supplies and engine test parts	20,046	19,068
Total Inventory	$311,919	$302,968

Inventories on the LIFO method were 24% and 26% of consolidated inventories at December 31, 2003 and 2002, respectively. The current replacement cost of these inventories exceeded the LIFO cost at December 31, 2003 and 2002, by $57.2 million and $50.1 million, respectively.

During 2003, some inventory quantities were reduced, resulting in a liquidation of certain LIFO inventory quantities carried at lower costs in prior years as compared with costs at December 31, 2003. The effect of this liquidation increased income before income taxes by $.6 million.

NOTE 4 — GOODWILL & INTANGIBLE ASSETS

Effective January 1, 2002, the company adopted SFAS 142, "Goodwill and Other Intangible Assets." Under SFAS 142, goodwill and other intangibles determined to have indefinite lives are no longer amortized but are tested for impairment upon adoption and at least annually thereafter.

SFAS 142 provided for a six-month period from the date of adoption for the company to perform an assessment of potential impairment of goodwill. Any impairment identified upon adoption was recognized as a cumulative effect of a change in accounting principle effective as of January 1, 2002. Goodwill is tested for impairment at the reporting unit level. The company has determined the reporting units were the same as its four operating segments, since the component businesses have similar economic characteristics and can thus be combined under the aggregation rules. The company determined the carrying value of each operating segment by assigning the company's assets and liabilities to them, including existing goodwill, as of January 1, 2002. The company then determined the implied fair value of each operating segment by using a combination of discounted cash flow analysis and terminal value calculations. The fair value of each operating segment was compared to its carrying value to determine if there was an indication of impairment. This evaluation indicated that goodwill recorded in the advanced fluid systems operating segment was impaired as of January 1, 2002. The economic conditions at the time of impairment testing, including declining revenues, reduced the estimated future expected performance of this operating segment, which includes the equipment businesses the company acquired in fluid metering and particulate traps. Accordingly, the company recognized a transitional impairment charge of $7.8 million retroactive to January 1, 2002 in the all other reporting segment, which includes advanced fluid systems. This was a non-cash charge and was recorded as a cumulative effect of a change in accounting principle on the consolidated statement of income in 2002. There was no tax benefit associated with this charge.

In connection with adopting SFAS 142, the company also reassessed the useful lives and the classification of its intangible assets. Excluding the non-amortized trademarks, which are indefinite and are not amortized, the intangible assets will continue to be amortized over the lives of the agreements or other periods of value, which range between 5 and 40 years. The following table shows the components of identifiable intangible assets as of December 31, 2003 and 2002:

	2003		2002	
	Gross Carrying Amount	Accumulated Amortization	Gross Carrying Amount	Accumulated Amortization
Amortized intangible assets:				
Technology	$38,720	$18,266	$31,504	$15,540
Land use rights	7,069	605	6,990	379
Non-compete agreements	6,892	1,989	6,125	1,472
Distributors networks	3,350	282	3,136	110
Trademarks	2,211	1,116	2,211	757
Other	11,592	706	5,583	500
Total amortized intangible assets	69,834	22,964	55,549	18,758
Non-amortized trademarks	15,532		6,380	9
Total	$85,366	$22,964	$61,929	$18,767

Amortization expense for intangible assets was $5 million in 2003, $4 million in 2002 and $3 million in 2001. Excluding the impact of further acquisitions, estimated annual intangible amortization expense for the next five years will approximate $6 million in 2004 and 2005, $5 million in 2006 and 2007 and $3 million in 2008.

The fair value of intangible assets acquired in acquisitions in 2003 and 2002 are shown below by major asset class. The intangible assets will be amortized over a period ranging from 5 to 20 years.

	Fair Value of Assets	
	2003	2002
Amortized intangible assets:		
Technology	$ 7,212	$ 1,409
Non-compete agreements	1,442	5,414
Distributors networks	214	3,136
Other	5,400	900
Total amortized intangible assets	14,268	10,859
Non-amortized trademarks	9,173	6,326
Total	$23,441	$17,185

SFAS 142 also requires goodwill to be tested annually, and between annual tests if events occur or circumstances change that would more likely than not reduce the fair value of a reporting segment below its carrying amount. The company has elected to perform its annual tests for potential goodwill impairment as of October 1 of each year. No impairment of goodwill was identified in the fourth quarter of 2003 or 2002. The carrying amount of goodwill by reporting segment is as follows:

	FTT	FTI	All Other	Total
Balance, December 31, 2001	$42,755	$ 88,850	$7,668	$139,273
Goodwill acquired		32,484		32,484
Transitional impairment charge			(7,785)	(7,785)
Translation & other adjustments	2,132	2,131	117	4,380
Balance, December 31, 2002	$44,887	$123,465		$168,352
Goodwill acquired		36,219		36,219
Translation & other adjustments	2,091	2,064		4,155
Balance, December 31, 2003	$46,978	$161,748	$ —	$208,726

In accordance with SFAS 142, the company discontinued the amortization of goodwill and certain trademarks effective January 1, 2002. The following table reconciles the company's net income and earnings per share for 2003, 2002 and 2001. The pro forma results for 2001 have been adjusted to exclude goodwill amortization expense. 2002 results include an adjustment for the cumulative effect of a change in accounting principle for the transitional impairment loss under SFAS 142 and are presented for comparative purposes.

	2003	2002	2001
Reported net income	$90,774	$118,487	$94,116
Add: Goodwill & trademark amortization, net of tax			7,697
Cumulative effect of a change in accounting principle		7,785	
Pro forma net income	$90,774	$126,272	$101,813
Reported net income per share	$ 1.76	$ 2.30	$ 1.84
Add: Goodwill & trademark amortization, net of tax			0.15
Cumulative effect of a change in accounting principle		0.15	
Pro forma net income per share	$ 1.76	$ 2.45	$ 1.99
Reported net income per share, diluted	$ 1.75	$ 2.29	$ 1.83
Add: Goodwill & trademark amortization, net of tax			0.15
Cumulative effect of a change in accounting principle		0.15	
Pro forma net income per share, diluted	$ 1.75	$ 2.44	$ 1.98

NOTE 5 — SHORT-TERM AND LONG-TERM DEBT

	2003	2002
Long-term debt consists of:		
5.875% notes, due 2008, including remaining unamortized gain on termination of swaps of $13,430 and $16,162	$213,430	$216,162
7.25% debentures, due 2025	100,000	100,000
Debt supported by long-term banking arrangements:		
Commercial paper at weighted-average rates of 1.1% and 1.4%	50,000	50,000
Marine terminal refunding revenue bonds, at 1.3% and 1.7%, due 2018	18,375	18,375
Term loans:		
Yen denominated, at 1.0%, due 2006	4,673	
Yen denominated, at 2.2%, due 2003		8,403
Euro denominated, at 3.5% to 5.0%, due 2003–2010	344	366
Other, at a weighted-average rate of 5.6%, due 2003		182
	386,822	393,488
Less current portion	96	8,643
	$386,726	$384,845
Short-term debt consists of:		
Yen denominated, at weighted-average rates of 8% and 5%	$2,803	$8,403
Current portion of long-term debt	96	8,643
	$2,899	$17,046

In May 2000, the company borrowed $18,375,000 through the issuance of marine terminal refunding revenue bonds, the proceeds of which were used to repay previously issued marine terminal refunding revenue bonds. The bonds have a stated maturity of July 1, 2018, and bear interest at a variable rate which is determined weekly by the remarketing agent. The bonds may be put to the company by the bond holders at each weekly interest reset date; however, the company expects that these bonds would then be remarketed.

In November 1998, the company issued notes having an aggregate principal amount of $200 million. The notes are unsecured, senior obligations of the company that mature on December 1, 2008, and bear interest at 5.875% per annum, payable semi-annually on June 1 and December 1 of each year. The notes have no sinking fund requirement but are redeemable, in whole or in part, at the option of the company. The company incurred debt issuance costs aggregating $10.5 million, including a loss of $6.5 million related to closed Treasury rate lock agreements originally entered into as a hedge against changes in interest rates relative to the anticipated issuance of these notes. Debt issuance costs are deferred and then amortized as a component of interest expense over the term of the notes. Including debt issuance costs and the remaining unrealized gain on termination of interest rate swaps (see Note 6), these notes have an effective annualized interest rate of 5.0%.

The company has debentures outstanding, issued in June 1995, in an aggregate principal amount of $100 million. These debentures are unsecured, senior obligations of the company that mature on June

15, 2025, and bear interest at an annualized rate of 7.25%, payable semi-annually on June 15 and December 15 of each year. The debentures are not redeemable prior to maturity and are not subject to any sinking fund requirements.

As of December 31, 2003, the company had committed revolving credit facilities of $350 million that expire on July 17, 2006. These facilities, which were unused at December 31, 2003, permit the company to borrow at or below the U.S. prime rate. These facilities also permit the company to refinance beyond one year $350 million of debt, which by its terms is due within one year. As a result, the company classified as long-term, at each balance sheet date, the portion of commercial paper borrowings expected to remain outstanding throughout the following year and the amount due under the marine terminal refunding revenue bonds, whose bondholders have the right to put the bonds back to the company. The company had an additional $175 million of committed revolving credit facilities that expired in July 2003, which the company chose not to renew.

In January 2004, the company obtained a committed revolving credit facility of Euro 50 million for the purpose of financing acquisitions. This facility expires on January 24, 2005. On January 30, 2004, the company borrowed Euro 43 million to finance a portion of the acquisition of the additives business of Avecia.

Amounts due on long-term debt are $.1 million in 2004, $54.7 million in 2006, $.1 million in 2008 and $331.9 million thereafter.

In July 2002, the company terminated its interest rate swap agreements expiring December 2008, which converted fixed rate interest on $100 million of its 5.875% debentures to a variable rate. In terminating the swaps, the company received cash of $18.1 million, which is being amortized as a reduction of interest expense through December 1, 2008, the due date of the underlying debt. Gains and losses on terminations of interest rate swap agreements designated as fair value hedges are deferred as an adjustment to the carrying amount of the outstanding obligation and amortized as an adjustment to interest expense related to the obligation over the remaining term of the original contract life of the terminated swap agreement. In the event of early extinguishment of the outstanding obligation, any unamortized gain or loss from the swaps would be recognized in the consolidated statement of income at the time of such extinguishment. The company recorded a $17.3 million unrealized gain, net of accrued interest, on the termination of the interest rate swaps as an increase in the underlying long-term debt. The remaining unrealized gain is $13.4 million and $16.2 million at December 31, 2003 and 2002, respectively.

The company has interest rate swap agreements, which expire in March 2005, that exchange variable rate interest obligations on a notional principal amount of $50 million for a fixed rate of 7.6%. The company also has an interest rate swap agreement that expires in October 2006, that exchanges variable rate interest obligations on a notional principal amount of Japanese yen 500 million for a fixed rate of 2.0% (see Note 6).

Interest paid, net of amounts capitalized, amounted to $26.1 million, $23.8 million and $23.3 million during 2003, 2002 and 2001, respectively. The company capitalizes interest on qualifying capital projects. The amount of interest capitalized during 2003, 2002 and 2001 amounted to $.2 million, zero and $.2 million, respectively.

NOTE 6 — FINANCIAL INSTRUMENTS

The company has various financial instruments, including cash and short-term investments, investments in nonconsolidated companies, foreign currency forward contracts, commodity forward contracts, interest rate swaps and short- and long-term debt. The company has determined the estimated fair value of these financial instruments by using available market information and generally accepted valuation methodologies. The use of different market assumptions or estimation methodologies could have a material effect on the estimated fair value amounts. The estimated fair value of the company's debt instruments at December 31, 2003 and 2002 approximated $424.9 million and $441.0 million, compared with the carrying value of $389.6 million and $401.9 million, respectively. The company uses derivative financial instruments only to manage well-defined foreign currency, commodity price and interest rate risks. The company does not use derivative financial instruments for trading purposes.

Effective January 1, 2001, the company adopted SFAS 133, "Accounting for Derivative Instruments and Hedging Activities," as amended. SFAS 133 requires the company to recognize all derivatives on the balance sheet at fair value and establishes criteria for designation and effectiveness of hedging relationships. Derivatives that are not designated as hedges must be adjusted to fair value through earnings. Depending upon the nature of the hedge, changes in fair value of the derivative are either offset against the change in fair value of assets, liabilities or firm commitments through earnings or recognized in other comprehensive income until the hedged item is recognized in earnings. The ineffective portion of a derivative's change in value is immediately recognized in earnings. The adoption of SFAS 133 did not have a material cumulative effect on net income as of January 1, 2001, but did result in a $2.0 million reduction ($1.3 million net of tax) of other comprehensive income.

The company is exposed to the effect of changes in foreign currency rates on its earnings and cash flow as a result of doing business internationally. In addition to working capital management, pricing and sourcing, the company selectively uses foreign currency forward contracts to lessen the potential effect of currency changes. These contracts relate to transactions with maturities of less than one year. The maximum amount of foreign currency forward contracts outstanding at any one time was $130.9 million in 2003, $14.8 million in 2002 and $17.9 million in 2001. At December 31, 2003, the company had short-term forward contracts to buy or sell currencies at various dates during the first quarter of 2004 for $128.0 million, most of which relate to the company's acquisition of the additives business of Avecia. At December 31, 2002, the company had short-term forward contracts to sell currencies at various dates during 2003 for $3.1 million. These forward contracts are not designated as hedges. Any changes in the fair value of these contracts are either recorded in other income, or deferred as an acquisition purchase price adjustment. The fair value of these instruments at December 31, 2003 and 2002, and the related adjustments recorded in other income or deferred as an acquisition purchase price adjustment were an unrealized gain of $1.6 million and an unrealized loss of $.1 million, respectively.

The company is exposed to market risk from changes in interest rates. The company's policy is to manage interest expense using a mix of fixed and variable rate debt. To manage this mix in a cost-efficient

manner, the company may enter into interest rate swaps in which the company agrees to exchange, at specified intervals, the difference between fixed and variable interest amounts calculated by reference to an agreed-upon notional principal amount. Interest payments receivable and payable under the terms of the interest rate swap agreements are accrued over the period to which the payment relates and the net difference is treated as an adjustment of interest expense related to the underlying liability.

In July 2002, the company terminated its interest rate swap agreements expiring December 2008, which converted fixed rate interest on $100 million of 5.875% debentures to a variable rate (see Note 5).

At December 31, 2003 and 2002, the company had interest rate swap agreements to convert the interest on existing variable rate debt to fixed rates on a notional principal amount of $50 million. The fair values of these swaps at December 31, 2003 and 2002, were an unrealized loss of $3.5 million and $6.0 million, respectively. These swaps are designated as cash flow hedges of underlying variable rate debt obligations and are recorded as a noncurrent liability. The adjustments to record the net changes in fair value during 2003 of $2.2 million ($1.4 million net of tax) and 2002 of $1.2 million ($.8 million net of tax) were recorded in other comprehensive income. Ineffectiveness was determined to be immaterial in 2003 and 2002. The company does not expect any significant portion of these existing losses to be reclassified into earnings within the next 12 months.

At December 31, 2003, the company also had an interest rate swap agreement that exchanges variable rate interest obligations for a fixed rate on a notional principal amount of Japanese yen 500 million. This interest rate swap is not designated as a hedge. Accordingly, the decrease in the fair value of this contract of $.1 million was recorded in other expense at December 31, 2003.

The company is exposed to market risk from changes in commodity prices. In 2003, the company modified its commodity hedging program policy to include the use of financial instruments to manage the cost of natural gas and electricity purchases. These contracts have been designated as cash flow hedges and, accordingly, any effective unrealized gains or losses on open contracts are recorded in other comprehensive income, net of related tax effects. At December 31, 2003, open contracts totaled $5.4 million. A hedge asset of $.1 million ($.1 million net of tax) was recorded on December 31, 2003, which represents the net unrealized gain based upon current futures prices at that date. Ineffectiveness was determined to be immaterial in 2003. Contract maturities are less than 12 months. As such, the company expects that all of these gains will be reclassified into earnings within the next 12 months.

NOTE 7 — OTHER BALANCE SHEET INFORMATION

Receivables:	2003	2002
Customers	$284,617	$267,085
Affiliates	4,734	3,804
Other	35,216	24,619
	$324,567	$295,508

Receivables are net of allowance for doubtful accounts of $4.2 million in 2003 and $4.4 million in 2002.

Property and Equipment – at cost:	2003	2002
Land and improvements	$ 121,568	$ 113,698
Buildings and improvements	363,951	343,241
Machinery and equipment	1,420,169	1,311,060
Construction in progress	54,911	41,072
	$1,960,599	$1,809,071

Depreciation and amortization of property and equipment were $95.5 million in 2003, $91.6 million in 2002 and $84.7 million in 2001.

Accrued Expenses and Other Current Liabilities:	2003	2002
Employee compensation	$ 59,800	$ 61,334
Income taxes	18,707	32,496
Taxes other than income	15,519	16,606
Sales allowances	11,937	9,766
Restructuring charge	12,385	
Other	35,110	30,069
	$153,458	$150,271

Dividends payable at the end of 2003 and 2002 was $13.4 million and is included in accounts payable.

Noncurrent Liabilities:	2003	2002
Pensions	$ 48,602	$ 49,444
Employee benefits	32,828	25,223
Other	18,900	17,988
	$100,330	$ 92,655

NOTE 8 — SHAREHOLDERS' EQUITY

The company has 147 million authorized shares consisting of 2 million shares of serial preferred stock, 25 million shares of serial preference shares and 120 million common shares, each of which is without par value. Common shares outstanding exclude common shares held in treasury of 34,607,704 and 34,738,252 at December 31, 2003 and 2002, respectively.

The company has a shareholder rights plan under which one right to buy one-half common share has been distributed for each common share held. The rights may become exercisable under certain circumstances involving actual or potential acquisitions of 20% or more of the common shares by a person or affiliated persons who acquire stock without complying with the requirements of the company's articles of incorporation. The rights would entitle shareholders, other than this person or affiliated persons, to purchase common shares of the company or of certain acquiring persons at 50% of then current market value. At the option of the directors, the rights may be exchanged for common shares, and may be redeemed in cash, securities or other consideration. The rights will expire in 2007 unless redeemed earlier.

Accumulated other comprehensive income (loss) shown in the consolidated statements of shareholders' equity at December 31, 2003, 2002 and 2001 is comprised of the following:

	Foreign Currency Translation Adjustment	Unrealized Losses on Interest Rate Swaps	Pension Plan Minimum Liability	Accumulated Other Comprehensive Income (Loss)
December 31, 2000	$(79,648)		$ (978)	$(80,626)
Other comprehensive income (loss):				
Pre-tax cumulative effect of accounting change – SFAS 133		$ (2,021)		(2,021)
Pre-tax	(17,022)	(1,715)	(538)	(19,275)
Tax benefit (provision)	528	1,308	274	2,110
Total	(16,494)	(2,428)	(264)	(19,186)
December 31, 2001	(96,142)	(2,428)	(1,242)	(99,812)
Other comprehensive income (loss):				
Pre-tax	44,179	(1,181)	(29,331)	13,667
Tax benefit (provision)	(1,236)	413	8,917	8,094
Total	42,943	(768)	(20,414)	21,761
December 31, 2002	(53,199)	(3,196)	(21,656)	(78,051)
Other comprehensive income (loss):				
Pre-tax	51,536	2,216	(12,038)	41,714
Tax benefit (provision)	(2,435)	(776)	3,595	384
Total	49,101	1,440	(8,443)	42,098
December 31, 2003	$ (4,098)	$ (1,756)	$(30,099)	$(35,953)

NOTE 9 — OTHER INCOME (EXPENSE) – NET

	2003	2002	2001
Equity earnings of nonconsolidated companies	$ 133	$ 986	$ 2,196
Amortization of goodwill and intangible assets	(4,938)	(4,206)	(14,118)
Currency exchange/transaction gain (loss)	3,544	(427)	(3,041)
Other – net	(304)	(1,733)	(113)
	$(1,565)	$(5,380)	$(15,076)

Dividends received from the nonconsolidated companies were $1.0 million in 2003, $2.7 million in 2002 and $3.8 million in 2001.

NOTE 10 — INCOME TAXES

The provision for income taxes is based upon income before tax for financial reporting purposes. Deferred tax assets and liabilities are recognized for the expected future tax consequences of temporary differences between the tax bases of assets and liabilities and their carrying values for financial reporting purposes. In estimating future tax consequences, the company considers anticipated future events, except changes in tax laws or rates, which are recognized when enacted.

Income before income taxes and cumulative effect of change in accounting principle consists of the following:

	2003	2002	2001
United States	$ 39,244	$ 95,482	$ 79,576
Foreign	89,827	84,906	60,373
Total	$129,071	$180,388	$139,949

The provision for income taxes consists of the following:

	2003	2002	2001
Current:			
United States	$ 6,089	$14,791	$25,891
Foreign	30,717	36,167	22,334
	36,806	50,958	48,225
Deferred:			
United States	3,019	1,208	(4,992)
Foreign	(1,528)	1,950	2,600
	1,491	3,158	(2,392)
Total	$38,297	$54,116	$45,833

The United States tax provision includes the U.S. tax on foreign income distributed to the company. The provision for taxes outside the United States includes withholding taxes.

The differences between the provision for income taxes at the U.S. statutory rate and the tax shown in the consolidated statements of income are summarized as follows:

	2003	2002	2001
Tax at statutory rate of 35%	$45,175	$63,136	$48,982
U.S. tax on foreign dividends	3,574	(946)	369
U.S. tax benefit on exports	(3,715)	(4,114)	(4,223)
Technology donation		(5,163)	
Untaxed translation (gains)/losses	(5,422)	1,625	2,940
Other – net	(1,315)	(422)	(2,235)
Provision for income taxes	$38,297	$54,116	$45,833

The tax effects of temporary differences that give rise to significant portions of deferred tax assets and liabilities at December 31 are as follows:

	2003	2002
Deferred tax assets:		
Accrued compensation and benefits	$ 65,528	$ 56,362
Intercompany profit in inventory . . .	8,733	10,554
Net operating losses carried forward	2,737	5,722
Other	2,373	6,184
Total gross deferred tax assets	79,371	78,822
Less valuation allowance	(1,910)	(3,602)
Net deferred tax assets	77,461	75,220
Deferred tax liabilities:		
Depreciation and other basis differences	101,901	101,475
Undistributed foreign equity income	2,870	3,199
Inventory basis differences	2,729	1,659
Other	7,445	3,132
Total gross deferred tax liabilities	114,945	109,465
Net deferred tax liabilities	$ 37,484	$ 34,245

At December 31, 2003, certain foreign subsidiaries had net operating loss carryforwards of $9.1 million for income tax purposes, all of which have no expiration. After evaluating tax planning strategies and historical and projected profitability, a valuation allowance has been recognized to reduce the deferred tax assets related to those carryforwards to the amount expected to be realized. The net change in the total valuation allowance for the years ended December 31, 2003, 2002 and 2001, was a decrease of $1.7 million, a decrease of $.7 million and an increase of $.1 million, respectively.

U.S. income taxes and foreign withholding taxes are not provided on undistributed earnings of foreign subsidiaries, which are considered to be indefinitely reinvested in the operations of such subsidiaries. The amount of these earnings was approximately $500.6 million at December 31, 2003. Determination of the net amount of unrecognized U.S. income tax with respect to these earnings is not practicable.

Income taxes paid during 2003, 2002 and 2001 were $50.8 million, $48.8 million and $49.7 million, respectively.

NOTE 11 — PENSION, PROFIT SHARING AND OTHER POSTRETIREMENT BENEFIT PLANS

The company has noncontributory defined benefit pension plans covering most employees. Pension benefits under these plans are based on years of service and the employee's compensation. The company's funding policy in the United States is to contribute amounts to satisfy the Internal Revenue Service funding standards and elsewhere to fund amounts in accordance with local regulations. Several of the company's smaller defined benefit plans are not funded.

The investment objective of the funded U.S. pension plan is to assure payment of benefits at a minimum cost consistent with prudent standards of investment, given the strength of the company and its earnings record, the adequacy of the plan's funding and the age of the company's work force. The plan utilizes a diversified portfolio of investments and seeks to earn returns consistent with a reasonable level of risk. The expected return on plan assets is based upon the company's long term experience and return targets for specific investment classes. During 2003, the company maintained the expected long-term rate of return assumption for the U.S. plan of 9%.

As long-term asset allocation is recognized as the primary determinant of performance, the company has established the following allocation targets to achieve the U.S. pension plan objectives: 70% equity securities, 25% debt securities and 5% real estate. As appropriate, allocation targets and ranges have been established for various subcategories. Allocations are reviewed quarterly and adjusted as necessary.

Approved U.S. pension plan investments include: equities, fixed-income securities, real estate, venture capital, cash and cash equivalent instruments and such other instruments (including mutual fund investments), as the company may approve. Investments in tax-exempt securities, commodities and options, other than covered calls, and the use of leverage are prohibited. Plan investment managers may use derivatives to hedge currency risk and to keep fully invested. Any other use of derivative instruments must be approved by the company.

The market values of U.S. pension plan assets are compared annually to the value of plan benefit obligations. The future value of assets, as calculated based on the expected long-term rate of return, are also compared to expected future plan benefit distributions and contributions to determine the sufficiency of expected plan funding levels. Investment asset allocations are revised as appropriate.

Plan assets are invested principally in marketable equity securities and fixed income instruments. The allocation of U.S. pension plan assets by major asset class is shown below:

	Percentage of Plan Assets at December 31	
	2003	2002
Asset Category		
Equity securities	72%	73%
Debt securities	23%	21%
Real estate	5%	6%
Total	100%	100%

Equity securities included no company common stock in the asset percentages reported above for 2003 and 2002, respectively.

The company also provides certain non-pension postretirement benefits, primarily health care and life insurance benefits, for retired employees. Most of the company's full-time employees in the United States become eligible for health care benefits after attaining specified years of service and age 55 at retirement. Full-time employees who retired before January 1, 2003, are also eligible for life insurance benefits. Participants contribute a portion of the cost of these benefits. The company's non-pension postretirement benefit plans are not funded.

The change in the projected benefit obligation and plan assets for 2003 and 2002 and the amounts recognized in the consolidated balance sheets at December 31 of the company's defined benefit pension and non-pension postretirement plans are as follows:

	Pension Plans		Other Benefits	
	2003	2002	2003	2002
Change in projected benefit obligation:				
Projected benefit obligation at beginning of year	$ 355,898	$ 311,959	$ 106,524	$ 91,746
Service cost	14,454	12,648	2,028	1,636
Interest cost	22,351	20,467	6,959	6,509
Plan participants' contributions	286	249	2,515	1,879
Actuarial loss	26,758	15,694	6,514	11,181
Currency exchange rate change	16,965	11,589	721	233
Amendments	869	2,126	(5,440)	
Divestitures	(107)	(5)		
Benefits paid	(18,164)	(18,829)	(6,625)	(6,660)
Projected benefit obligation at end of year	419,310	355,898	113,196	106,524
Change in plan assets:				
Fair value of plan assets at beginning of year	249,100	273,714		
Actual return on plan assets	53,690	(19,267)		
Divestitures	(107)	(5)		
Employer contributions	10,604	5,218	4,110	4,781
Plan participants' contribution	286	249	2,515	1,879
Currency exchange rate change	11,113	8,020		
Benefits paid	(18,164)	(18,829)	(6,625)	(6,660)
Fair value of plan assets at end of year	306,522	249,100		
Plan assets greater (less) than the projected benefit obligation	(112,788)	(106,798)	(113,196)	(106,524)
Unrecognized net loss	89,457	89,510	49,193	44,809
Unrecognized net transition obligation (asset)	(82)	(957)		
Unrecognized prior service cost	24,160	26,100	(39,813)	(39,965)
Net amount recognized	$ 747	$ 7,855	$(103,816)	$(101,680)
Amount recognized in the consolidated balance sheets:				
Prepaid benefit cost	$ 5,458	$ 27,778		
Accrued benefit liability	(53,070)	(55,798)	$(103,816)	$(101,680)
Accumulated other comprehensive income	43,483	31,445		
Intangible asset	4,876	4,430		
Net amount recognized	$ 747	$ 7,855	$(103,816)	$(101,680)
Accumulated benefit obligation at end of year	$ 329,451	$ 272,006	$ 113,196	$ 106,524
The weighted-average assumptions used to determine benefit obligations at December 31:				
Measurement date	12/31/2003	12/31/2002	12/31/2003	12/31/2002
Discount rate	5.88%	6.34%	6.2%	6.7%
Expected long-term return on plan assets	8.32%	8.34%		
Rate of compensation increase	3.87%	3.78%		
The weighted-average assumptions used to determine net periodic benefit cost for years ended December 31:				
Discount rate	6.34%	6.67%	6.7%	7.3%
Expected long-term return on plan assets	8.34%	8.45%		
Rate of compensation increase	3.78%	3.82%		

The projected benefit obligation and fair value of plan assets for pension plans with projected benefit obligations in excess of plan assets were $414.5 million and $301.5 million, respectively, as of December 31, 2003, and $355.2 million and $248.4 million, respectively, as of December 31, 2002. The accumulated benefit obligation and fair value of plan assets for pension plans with accumulated benefit obligations in excess of plan assets were $149.8 million and $98.5 million, respectively, as of December 31, 2003, and $121.9 million and $85.6 million, respectively, as of December 31, 2002.

The following table shows the amounts the company contributed to its U.S. pension plans in 2003 and 2002 and the expected contribution for 2004:

Employer Contributions	Pension Benefits	Other Benefits	Total Benefits
2002	$ 221	$4,618	$4,839
2003	$4,315	$3,949	$8,264
2004 (expected)	$5,196	$4,147	$9,343

Expected employer contributions for pension benefits in 2004 consist of $2.7 million to the U.S. qualified plan and $2.5 million to the U.S. non-qualified plan. The expected contribution to the non-qualified plan, which is unfunded, represents an actuarial estimate of future assumed payments based on historic retirement and payment patterns. Actual amounts paid could differ from this estimate.

Contributions by participants to the other benefit plans were $2.5 million and $1.9 million for the years ending December 31, 2003 and 2002, respectively.

Net periodic pension cost of the company's defined benefit pension plans consists of:

	2003	2002	2001
Service cost – benefits earned during period	$ 14,453	$ 12,648	$ 11,673
Interest cost on projected benefit obligation	22,351	20,467	20,425
Expected return on plan assets	(26,416)	(26,685)	(26,860)
Amortization of prior service costs	3,287	3,208	3,127
Amortization of initial net asset	(688)	(703)	(1,218)
Recognized net actuarial (gain) loss	814	(543)	(1,045)
Settlement loss	274		142
Net non-pension postretirement benefit cost	$ 14,075	$ 8,392	$ 6,244

The company also has defined contribution plans, principally involving profit sharing plans and a 401(k) savings plan, covering most employees in the United States and at certain non-U.S. subsidiaries. Expense for all defined contribution retirement plans was $9.5 million in 2003, $10.0 million in 2002 and $9.6 million in 2001.

Net non-pension postretirement benefit cost consists of:

	2003	2002	2001
Service cost – benefits earned during period	$2,028	$1,636	$1,569
Interest cost on projected benefit obligation	6,959	6,509	6,387
Amortization of prior service costs	(5,592)	(5,180)	(4,501)
Recognized net actuarial loss	2,230	1,723	944
Curtailment gain			(1,358)
Settlement loss			853
Net periodic pension cost	$5,625	$4,688	$3,894

The weighted average of the assumed health care cost trend rates used in measuring the accumulated postretirement benefit obligation for the company's postretirement benefit plans at December 31, 2003, was 7.98%, (8.77% at December 31, 2002), with subsequent annual decrements to an ultimate trend rate of 4.9% by 2009. The assumed health care cost trend rates have a significant effect on the amounts reported for the health care plans. A one-percentage-point change in the assumed health care cost trend rate would have the following effects as of and for the year ended December 31, 2003:

	One-Percentage-Point	
	Increase	Decrease
Effect on postretirement benefit obligation	$17,700	$(14,244)
Effect on total service and interest cost components	$ 1,648	$ (1,287)

NOTE 12 — LEASES

The company has commitments under operating leases primarily for office space, terminal facilities, land, railroad tank cars and various computer and office equipment. Rental expense was $15.8 million in 2003, $15.6 million in 2002 and $14.0 million in 2001. Future minimum rental commitments under operating leases having initial or remaining non-cancelable lease terms exceeding one year are $15.0 million in 2004, $10.0 million in 2005, $6.5 million in 2006, $5.1 million in 2007, $3.4 million in 2008 and $11.6 million thereafter. Minimum rental commitments are net of estimated credits for railroad usage of $1.1 million in 2004, $1.0 million in 2005, $.6 million in 2006, $.3 million in 2007, $.2 million in 2008 and $.2 million thereafter.

NOTE 13 — BUSINESS SEGMENTS AND GEOGRAPHIC REPORTING

Beginning in 2002, the company reorganized its product lines into four principal operating segments: fluid technologies for transportation, fluid technologies for industry, advanced fluid systems and emulsified products. The segment information for prior years has been restated to conform to the current operating structure.

Fluid technologies for transportation (FTT) is comprised of additives for lubricating engine oils, such as gasoline, diesel, marine and stationary gas engines and additive components; additives for driveline oils, such as automatic transmission fluids, gear oils and tractor lubricants; and additives for fuel products and refinery and oil field chemicals. In addition, this segment sells additive components and viscosity improvers within its lubricant and fuel additives product lines. The company's fluid technologies for transportation product lines are generally produced in shared company manufacturing facilities and sold largely to a common customer base. Fluid technologies for industry (FTI) includes industrial additives, such as additives for hydraulic, grease and metalworking fluids and compressor lubricants; and performance chemicals, such as additives for coatings and inks, defoamers, process chemicals and surfactants for personal care and industrial cleaners. The advanced fluid systems and emulsified products operating segments do not constitute reportable business segments. The results of these two operating segments have been aggregated into the all other segment. Advanced fluid systems is comprised of fluid metering devices, particulate emission trap devices, and FluiPak™ sensor systems. Emulsified products is comprised of PuriNOx™ low-emissions diesel fuel.

The company's accounting policies for its operating segments are the same as those described in Note 2. The company evaluates performance and allocates resources based on segment contribution income, which is revenues less expenses directly identifiable to the product lines aggregated within each segment, as well as projected future returns. Segment contribution income reflects the exclusion for internal management reporting purposes of excess production capacity from product costs. The following table presents a summary of the company's reportable segments for the years ended December 31:

	2003	2002	2001
Fluid technologies for transportation:			
Revenues from external customers	$1,554,733	$1,575,998	$1,520,766
Equity earnings	107	923	4,078
Goodwill and intangibles amortization	2,552	2,924	5,593
Segment contribution income	286,880	312,033	283,449
Segment total assets	1,101,343	1,121,387	1,079,903
Capital expenditures	73,858	56,965	60,304
Depreciation	85,986	83,624	78,208
Fluid technologies for industry:			
Revenues from external customers	$ 464,085	$ 382,427	$ 300,191
Equity earnings	26	62	280
Goodwill and intangibles amortization	2,386	1,282	7,410
Segment contribution income	73,276	70,335	46,486
Segment total assets	448,328	326,728	212,137
Capital expenditures	14,347	8,043	5,586
Depreciation	8,687	7,019	5,570
All Other:			
Revenues from external customers	$ 33,305	$ 25,442	$ 23,687
Equity earnings (loss)			(2,162)
Goodwill and intangibles amortization			1,115
Segment contribution income (loss)	(7,658)	(10,247)	(18,175)
Segment total assets	22,045	22,278	29,303
Capital expenditures	248	277	426
Depreciation	812	982	936
Reconciliation to consolidated income before income taxes and cumulative effect of change in accounting principle:			
Segment contribution income	$ 352,498	$ 372,121	$ 311,760
Corporate expenses	(183,878)	(172,927)	(150,217)
Corporate other income (loss)	4,300	(2,205)	(3,340)
Restructuring charge	(22,534)		
Interest expense – net	(21,315)	(16,601)	(18,254)
Income before income taxes and cumulative effect of change in accounting principle	$ 129,071	$ 180,388	$ 139,949
Revenues from external customers by product group:			
Engine oil additives	$1,053,671	$1,070,394	$1,018,999
Driveline oil additives	413,787	412,086	396,808
Fuel additives and refinery oil additives	64,035	67,871	75,596
Additive components	23,240	25,647	29,363
Fluid technologies for transportation	1,554,733	1,575,998	1,520,766
Industrial additives	208,096	195,159	182,249
Performance chemicals	255,989	187,268	117,942
Fluid technologies for industry	464,085	382,427	300,191
All Other	33,305	25,442	23,687
Total revenues from external customers	$2,052,123	$1,983,867	$1,844,644

In order to conform to current-year classifications, prior-year 2002 and 2001 amounts have been restated to reflect reclassifications of products between fluid technologies for transportation and fluid technologies for industry operating segments.

Revenues are attributable to countries based on the location of the customer. The United States of America is the only country where sales to external customers comprise in excess of 10% of the company's consolidated revenues. Revenues from external customers by geographic zone are as follows:

	2003	2002	2001
United States	$ 829,554	$ 810,991	$ 738,384
Other North America	86,506	87,763	85,722
Europe	601,942	552,278	511,697
Asia-Pacific / Middle East	403,345	405,469	376,652
Latin America	130,776	127,366	132,189
Total revenues from external customers	$2,052,123	$1,983,867	$1,844,644

The company's sales and receivables are concentrated in the oil and chemical industries. The company's lubricant and fuel additive customers consist primarily of oil refiners and independent oil blenders and are located in more than 100 countries. The 10 largest customers, most of which are international oil companies and a number of which are groups of affiliated entities, comprised approximately 52% of consolidated sales in 2003, 55% of consolidated sales in 2002 and 53% of consolidated sales in 2001. In 2003, the company had one customer, including its affiliated entities, predominantly within fluid technologies for transportation segment, with revenues of $217.6 million that represented more than 10% of consolidated revenues. In 2002, the company had two customers with revenues of $229.7 million and $195.2 million, respectively, that individually accounted for more than 10% of consolidated revenues. In 2001, there was no single customer that accounted for more than 10% of revenues.

The table below presents a reconciliation of segment total assets to consolidated total assets for the years ended December 31:

	2003	2002	2001
Total segment assets	$1,571,716	$1,470,393	$1,321,343
Corporate assets	370,600	389,744	340,976
Total consolidated assets	$1,942,316	$1,860,137	$1,662,319

Segment assets include receivables, inventories and long-lived assets including goodwill and intangible assets. Corporate assets include cash and short-term investments, investments accounted for on the cost basis and other current and noncurrent assets.

The company's principal long-lived assets are located in the following countries at December 31:

	2003	2002	2001
United States	$670,668	$617,410	$532,827
France	77,941	69,421	66,638
England	80,243	81,267	106,008
All other	132,270	122,571	105,366
Total long-lived assets	$961,122	$890,669	$810,839

Net income of non-U.S. subsidiaries was $61 million in 2003, $41 million in 2002 and $35 million in 2001; dividends received from these subsidiaries were $28 million, $12 million and $55 million, respectively.

NOTE 14 — STOCK COMPENSATION PLANS

The 1991 Stock Incentive Plan provides for the granting of restricted and unrestricted shares and options to buy common shares up to an amount equal to 1% of the outstanding common shares at the beginning of any year, plus any unused amount from prior years. Options are intended either to qualify as "incentive stock options" under the Internal Revenue Code or to be "non-statutory stock options" not intended to so qualify. Under the 1991 Plan, options generally become exercisable 50% one year after grant, 75% after two years, 100% after three years and expire up to 10 years after grant. "Reload options," which are options to purchase additional shares if a grantee uses already-owned shares to pay for an option exercise, are granted automatically once per year for options granted prior to March 28, 2000, under the 1991 Plan; may be granted at the discretion of the administering committee under the 1985 Employee Stock Option Plan and for options granted on or after March 28, 2000, under the 1991 Plan; and have been eliminated under the 1991 Plan for grants of options occurring on or after November 11, 2002. The 1991 Plan generally supersedes the 1985 Plan, although options outstanding under the 1985 Plan remain exercisable until their expiration dates. The option price for stock options under the 1985 Plan is the fair market value of the shares on the date of grant. The option price for stock options under the 1991 Plan is not less than the fair market value of the shares on the date of grant. Both plans permit or permitted the granting of stock appreciation rights in connection with the grant of options. In addition, the 1991 Plan provides to each outside director of the company an automatic annual grant of an option to purchase 2,500 common shares, with terms generally comparable to employee stock options. In 2001, the 1991 Plan provided for the grant to each outside director of a one-time additional option to purchase 2,500 common shares as an incentive relating to Lubrizol's five-year strategic initiatives.

Under the 1991 Stock Incentive Plan, the company has granted performance share stock awards to certain executive officers. Common shares equal to the number of performance share stock awards granted were to be issued if the market price of the company's common stock reached $45 per common share for 10 consecutive trading days, or on March 24, 2003, whichever occurred first. Under certain conditions such as retirement, a grantee of performance share stock awards could have been issued a pro-rata number of common shares. The market value of the company's common shares at date of grant of the performance share stock awards was $33.45 per share (for 500 awards) in 2002, $30.40 per share (for 750 awards) in 2001, $28.06 per share (for 3,000 awards) and $25.38 (for 1,500 awards) in 2000. The company recognized compensation expense related to performance share stock awards ratably over the estimated period of vesting. Compensation costs recognized for performance share stock awards were approximately $15 thousand in 2003, $56 thousand in 2002 and $50 thousand in 2001. 3,500 shares were issued on March 24, 2003, and 57,250 shares were deferred to the deferred compensation plan for officers. The company has allocated 1,415 share units under this plan in 2003, which represent quarterly dividends paid on the company's shares. At December 31, 2003, 58,665 share units were outstanding. Compensation expense recognized for the dividend on the deferred shares was less than $50 thousand in 2003.

Under a supplemental retirement plan, an account for the participant is credited with 500 share units each year and is credited with additional share units for quarterly dividends paid on the company's shares. When the participant retires, the company will issue shares equal to the number of share units in the participant's account or the cash equivalent. The company has allocated 567, 546 and 528 share units under this plan in 2003, 2002 and 2001, respectively. At December 31, 2003, 2,159 share units were outstanding. Compensation costs recognized for this plan were less than $20 thousand per year in 2003, 2002 and 2001. For share units attributable to grants credited after January 1, 2004, the payment will be in cash.

Under the deferred stock compensation plan for outside directors, each nonemployee director receives 500 share units on each October 1 and is credited with additional share units for quarterly dividends paid on the company's shares. When a participant ceases to be a director, the company issues shares equal to the number of share units in the director's account. The company has allocated to nonemployee directors, 6,048, 6,208 and 6,028 share units under this plan in 2003, 2002 and 2001, respectively. Director fee expense recognized for share units was approximately $.2 million in 2003, 2002 and 2001. At December 31, 2003, 46,552 share units for nonemployee directors were outstanding. No new grants will be made under this plan after January 1, 2004.

In addition, under a separate deferred compensation plan for outside directors, the company has allocated to nonemployee directors 620, 573 and 547 share units under this plan in 2003, 2002 and 2001, respectively. These share units continue to accrue quarterly dividends paid on the company's shares. When a participant ceases to be a director, the company issues shares equal to the number of share units in the director's account. At December 31, 2003, 18,607 share units for nonemployee directors were outstanding. Director fee expense recognized for share units for this plan was less than $20 thousand per year in 2003, 2002 and 2001.

Under the deferred compensation plan for executive officers, participants may elect to defer any amount of their variable pay. Deferred amounts are converted into share units based on the current market price of the company's shares. There is a 25% company match. Additional share units are credited for quarterly dividends paid on the company's shares. At the end of the deferral period, which is at least three years, the company issues shares equal to the number of share units in the participant's account. The company has allocated to executive officers 23,060, 8,010 and 16,628 share units under this plan in 2003, 2002 and 2001, respectively. Compensation costs recognized for share units were approximately $.7 million in 2003, $.3 million in 2002 and $.5 million in 2001. At December 31, 2003, 68,315 share units for executive officers were outstanding. For share units attributable to company match credited after January 1, 2004, distributions will be made in cash.

Under the 1991 Stock Incentive Plan, effective January 1, 2003, the company granted 15,000 restricted shares to each of three executive officers and 5,000 restricted shares to one executive officer. The shares will be issued only if the executive remains an employee until January 1, 2008. There are no voting or dividend rights on these shares unless and until they are issued. The restricted shares stock awards had a fair value of $25.83 at the date of grant. The company recognizes compensation expense related to restricted shares ratably over the estimated period of vesting. Compensation costs recognized for restricted share stock awards were approximately $.3 million in 2003.

Under the Long-Term Incentive Plan, dollar-based target awards were determined by the organization and compensation committee in December 2002 for the three-year performance period of 2003-2005. A portion of the award was converted into a number of share units based on the price of Lubrizol stock on the date of the award. There are no voting or dividend rights associated with the share units until the end of the performance period and a distribution of shares, if any, is made. The target awards correspond to a pre-determined three-year earnings per share growth rate target. Based on the awards granted for the 2003-2005 performance period the company does not believe it is probable that shares will be issued under this plan and as a result no expense has been recorded.

Accounting principles generally accepted in the United States encourage the fair-value based method of accounting for stock compensation plans under which the value of stock-based compensation is estimated at the date of grant using valuation formulas, but permit the use of intrinsic-value accounting. The company accounts for its stock compensation plans using the intrinsic-value accounting method (measured as the difference between the exercise price and the market value of the stock at the measurement date).

Disclosures under the fair value method are estimated using the Black-Scholes option-pricing model with the following weighted-average assumptions for grants of stock options in the following years:

	2003	2002	2001
1991 Plan:			
Risk-free interest rate	3.9%	5.2%	5.1%
Dividend yield	3.4%	3.1%	2.9%
Volatility	24.0%	24.0%	25.0%
Expected life (years)	10.0	8.4	9.7
Performance Share Plan:			
Risk-free interest rate	n/a	2.4%	3.2%
Dividend yield	n/a	3.1%	2.9%
Volatility	n/a	24.0%	25.0%
Expected life (years)	n/a	1.0	2.0
Restricted Share Plan:			
Risk-free interest rate	2.7%	n/a	n/a
Dividend yield	3.3%	n/a	n/a
Volatility	24.0%	n/a	n/a
Expected life (years)	5.0	n/a	n/a

If the fair value method to measure compensation cost for the company's stock compensation plans had been used, including the performance share stock awards and the restricted share stock awards, the company's net income would have been reduced by $4.4 million in 2003, $6.1 million in 2002 and $6.0 million in 2001 with a corresponding reduction in net income per share of $.08, in 2003, $.12 in 2002 and $.12 in 2001.

Information regarding these option plans, excluding the performance share stock awards, the restricted share stock awards and the long-term incentive plan stock awards, follows:

	Shares	Weighted-Average Exercise Price
Outstanding, January 1, 2003	5,272,723	$31.38
Granted	525,401	30.35
Exercised	(151,112)	27.87
Forfeited	(253,970)	33.60
Outstanding, December 31, 2003	5,393,042	$31.28
Options exercisable, December 31, 2003	4,173,632	$31.18
Weighted-average fair value of options granted during the year		$ 6.78
Outstanding, January 1, 2002	4,827,266	$30.74
Granted	949,102	34.06
Exercised	(396,420)	29.25
Forfeited	(107,225)	34.11
Outstanding, December 31, 2002	5,272,723	$31.38
Options exercisable, December 31, 2002	3,560,650	$31.10
Weighted-average fair value of options granted during the year		$ 8.99
Outstanding, January 1, 2001	4,624,135	$30.68
Granted	1,461,945	30.39
Exercised	(911,696)	28.05
Forfeited	(347,118)	35.64
Outstanding, December 31, 2001	4,827,266	$30.74
Options exercisable, December 31, 2001	2,850,184	$31.73
Weighted-average fair value of options granted during the year		$8.69

Information regarding the performance share stock awards follows:

	Shares
Outstanding, January 1, 2003	60,750
Granted	0
Forfeited	0
Common Shares Issued / Deferred	(60,750)
Outstanding, December 31, 2003	0
Outstanding, January 1, 2002	66,250
Granted	500
Forfeited	(918)
Common Shares Issued	(5,082)
Outstanding, December 31, 2002	60,750
Outstanding, January 1, 2001	65,500
Granted	750
Outstanding, December 31, 2001	66,250

The weighted-average fair value per share was $32.16 in 2002 and $28.69 in 2001.

The following table summarizes information about stock options outstanding, excluding the performance share stock awards, restricted share stock awards and long-term incentive plan awards at December 31, 2003:

	Options Outstanding			Options Exercisable	
Range of exercise prices	Number Outstanding at 12/31/03	Weighted-Average Remaining Contractual Life	Weighted-Average Exercise Price	Number Exercisable at 12/31/03	Weighted-Average Exercise Price
$19 – $25	295,519	4.8 Years	$21.35	295,519	$21.35
25 – 31	3,076,880	6.6	29.68	2,267,895	29.44
31 – 38	2,014,643	4.8	35.15	1,604,218	35.43
38 – 45	6,000	4.3	38.25	6,000	38.25
	5,393,042	5.8	31.28	4,173,632	31.18

NOTE 15 — ACQUISITIONS AND INVESTMENTS IN NONCONSOLIDATED SUBSIDIARIES

In the third quarter of 2003, the company completed two acquisitions in the fluid technologies for industry segment, for cash of $68.6 million. In July 2003, the company purchased the product lines of a silicones business from BASF, which expanded the foam control additives business to approximately $40 million in annual revenues. Assets acquired from BASF included customer lists, certain trademarks, manufacturing technology and other related intellectual property specifically developed for silicone products in the North America region and finished goods inventory. Silicones are used in the manufacture of sealants, caulks and water proofing products. Historical annual revenues for these silicone products approximate $6 million. In September 2003, the company completed an acquisition of selected personal care ingredients business from Amerchol Corporation, a subsidiary of The Dow Chemical Company. Products from this business go into a wide range of end uses, including skin care and hair conditioners. Products include methyl glucoside derivatives, lanolin derivatives and Promulgen™ personal care ingredients. Annualized revenues of the acquisition are approximately $30 million.

The fair value of assets acquired and liabilities assumed in 2003 acquisitions is as follows:

	Assets and Liabilities Acquired in 2003
Receivables	$ 400
Inventories	7,715
Property	1,804
Goodwill	36,219
Intangibles	23,441
Other assets	223
Total assets	69,802
Accrued expenses	1,019
Deferred taxes-non current	186
Total liabilities	1,205
Increase in net assets from acquisitions	$68,597

In 2002, the company completed several acquisitions in the fluid technologies for industry segment for cash of $86.7 million. In the first quarter, the company acquired Kabo Unlimited, Inc., which specializes in the development, manufacture and sale of antifoam and defoaming agents to the food, fermentation, mining and wastewater industries. Kabo's product lines expand the company's defoamer business. In the second quarter, the company acquired Chemron Corporation, which formulates, produces and supplies specialty surfactants used in personal care products, industrial cleaners and a wide range of other consumer and industrial products. The acquisition extends the company's existing surfactants business into growth markets where the company had not previously competed. In October 2002, the company acquired Dock Resins Corporation, which develops, manufactures and sells proprietary polymers including acrylic, methacrylic, alkyd and polyester resins to customers in the paint and coatings, printing ink, laminating, adhesives and sealants and grease markets. In October 2002, the company also acquired Intermountain Specialties, Inc., known as Brose Chemical Company, which has product lines that complement the company's integrated defoamer business that are now manufactured in the Kabo foam control facility. Annualized 2002 revenues for these acquisitions in the aggregate are approximately $85 million.

Effective January 1, 2002, the company began accounting for the investment in its India joint venture, Lubrizol India Private Limited (Lubrizol India), through consolidation because an amendment to the joint venture agreement gave the company control as of that date. The company has ownership of 50% of the voting shares. The amended joint venture agreement grants the company the authority to appoint three of Lubrizol India's six board directors and the unilateral and perpetual ability to appoint its managing director. Further, the amended joint venture agreement delegates to the managing director the authority to make all significant decisions to run the day-to-day business of Lubrizol India. The company had previously accounted for its investment under the equity method of accounting because the company's joint venture partner held certain substantive participating rights, which were eliminated with the amendment to the joint venture agreement. The change to consolidate Lubrizol India had the effect of increasing revenues and total cost and expenses by $50.4 million and $41.1 million, respectively, for the year ended 2002. The change had no impact on net income, but resulted in the recording of 100% of Lubrizol India's assets and liabilities, which is offset by our partner's minority interest.

The fair value of assets acquired and liabilities assumed in the 2002 acquisitions and the impact on the balance sheet from the consolidation of Lubrizol India is as follows:

	Assets and Liabilities Acquired in 2002
Cash	$ 2,762
Receivables	23,463
Inventories	25,816
Prepaid assets	767
Property	43,752
Investment in equity affiliates (Lubrizol India)	(22,911)
Goodwill	32,672
Intangibles	17,185
Other assets	482
Total assets	123,988
Short-term debt	1,006
Accounts payable	10,984
Accrued expenses	1,495
Long-term debt	1,248
Minority interest	22,584
Total liabilities	37,317
Increase in net assets from acquisitions and consolidation of LZ India	$ 86,671

In 2001, the company spent $14.7 million on an acquisition to purchase ROSS Chem, Inc., a manufacturer and supplier of antifoam and defoaming agents, with annual revenues of $10.0 million, that expanded the company's product lines in metalworking and paints, coatings and inks. Also in 2001, the company dissolved the joint venture with GE Transportation Systems and replaced the joint venture with separate cross-licensing agreements.

On January 30, 2004, the company acquired the additives business of Avecia for approximately $125 million. The additives business of Avecia has annualized revenues of approximately $50 million and develops, manufactures and markets high-value additives used in coatings and inks.

NOTE 16 — RESTRUCTURING CHARGE

In 2003, the company recorded a restructuring charge of $22.5 million, or $.29 per share, related to the separation of 252 employees in the United States, Europe and India, comprising 5% of our worldwide workforce. The workforce reductions are estimated to result in annual pretax savings of approximately $20 million beginning in 2004. The company began to realize savings in 2003 of approximately $5 million.

In February 2003, the company initiated a restructuring at its Bromborough, England, facility by consolidating various operational activities to achieve greater efficiency through improved business processes. There was a workforce reduction of 45 employees, or approximately 41% of the facility's headcount, by the end of January 2004. As a result of these changes, the company recorded a restructuring charge for Bromborough of $7.0 million in 2003 comprised of $3.5 million in severance costs, $3.3 million in asset impairments and $.2 million in other miscellaneous costs. Cash expenditures in 2003 were $3.5 million and an accrued liability of $.2 million remained at December 31, 2003, relating to employee severance costs.

The restructuring charge also included $1.5 million for a voluntary separation program for approximately 55 employees at the company's India joint venture, Lubrizol India Private Limited, which is accounted for using the consolidated method. The workforce reduction occurred primarily in the second quarter of 2003. Cash expenditures for India were $1.4 million in 2003 and an accrued liability of $.1 million remained at December 31, 2003.

Lastly, in November 2003, the company announced workforce reductions of approximately 150 employees at its headquarters in Wickliffe, Ohio, its Deer Park and Bayport, Texas, manufacturing facilities and its Hazelwood, England, technical facility. All of the workforce reductions occurred prior to December 31, 2003. This resulted in a restructuring charge in the United States of $12.8 million, comprised of $11.2 million in severance costs and $1.6 million in outplacement and other miscellaneous costs and a restructuring charge in Europe for $1.2 million, primarily for employee severance costs. The charge for Europe included $.8 million for the Hazelwood, England, testing facility and $.4 million for the closing of a sales office in Scandinavia. Cash expenditures in 2003 were $.7 million in the United States and $1.2 million in Europe with an accrued liability as of December 31, 2003, of $12.1 million in the United States. Most of the accrued liability will be paid during the first quarter of 2004.

The charge for these cost reduction initiatives are reported as a separate line item in the consolidated income statement, entitled "Restructuring charge" and are included in the "Total cost and expenses" subtotal on the consolidated income statement. The charge related primarily to the fluid technologies for transportation segment. The following table shows the reconciliation of the December 31, 2003 liability balance:

	Year Ended December 31, 2003
December 31, 2002 balance	$ —
Restructuring charge	22,534
Less cash paid	(6,857)
Less asset impairments	(3,327)
Translation adjustments	35
December 31, 2003 balance	$12,385

NOTE 17 — LITIGATION

The company is party to lawsuits, threatened lawsuits and other claims arising out of the normal course of business. Management is of the opinion that any liabilities that may result were adequately covered by insurance, or to the extent not covered by insurance, are adequately accrued for at December 31, 2003, or would not be significant in relation to the company's financial position at December 31, 2003, or its results of operations for the year then ended.

Historical Summary

(In Millions, Except Shareholders, Employees and Per Share Data)	2003	2002	2001	2000	1999
OPERATING RESULTS					
Revenues	$2,052.1	$1,983.9	$1,844.6	$1,775.8	$1,780.3
Total cost and expenses*	1,900.2	1,781.5	1,671.4	1,592.5	1,574.1
Gain on litigation settlements				19.4	17.6
Net interest expense & other income	(22.9)	(22.0)	(33.3)	(32.3)	(28.5)
Income before cumulative effect of change in accounting principle	90.8	126.3	94.1	118.0	123.0
Cumulative effect of change in accounting principle		(7.8)			
Net income	90.8	118.5	94.1	118.0	123.0
Income per share before cumulative effect of change in accounting principle	1.76	2.45	1.84	2.22	2.25
Cumulative effect of change in accounting principle per share		(0.15)			
Net income per share	1.76	2.30	1.84	2.22	2.25
FINANCIAL RATIOS					
Gross profit percentage	26.4	28.5	27.4	27.8	30.9
Percent of revenues:					
Selling and administrative expenses	9.9	9.9	9.6	9.5	10.2
Research and testing expenses	8.1	8.5	8.6	8.5	8.2
Return on average shareholders' equity (%)	10.0	14.4	12.3	15.3	15.8
Debt to capitalization (%)	29.0	31.6	33.9	34.5	33.8
Current ratio	3.1	3.0	2.9	2.6	2.5
OTHER INFORMATION					
Dividends declared per share	$1.04	$1.04	$1.04	$1.04	$1.04
Average common shares outstanding	51.6	51.5	51.2	53.1	54.6
Capital expenditures	$88.5	$65.3	$66.3	$85.8	$64.9
Depreciation expense	95.5	91.6	84.7	88.0	88.3
At year end:					
Total assets	$1,942.3	$1,860.1	$1,662.3	$1,659.5	$1,682.4
Total debt	389.6	401.9	397.2	395.9	403.0
Total shareholders' equity	953.3	869.3	773.2	752.3	790.1
Shareholders' equity per share	18.48	16.89	15.12	14.66	14.50
Common share price	32.52	30.50	35.09	25.75	30.88
Number of shareholders	3,903	4,081	4,335	4,681	5,126
Number of employees	5,032	5,231	4,530	4,390	4,074

** Includes restructuring charges of $22.5 million in 2003 and $19.6 million in 1999 and a restructuring credit of $4.5 million in 2000.*

Corporate Information

TRANSFER AGENT, REGISTRAR AND DIVIDEND DISBURSING AGENT

American Stock Transfer & Trust Company
59 Maiden Lane
New York, NY 10038
(212) 936-5100 (800) 937-5449

ANNUAL MEETING

The Annual Meeting of Shareholders will be held at the Radisson Hotel & Conference Center, Eastlake, Ohio, on April 26, 2004.

FORM 10-K

The Form 10-K Annual Report to the Securities and Exchange Commission will be available March 1, 2004. A copy may be obtained without charge upon written request to the Secretary of the Corporation or from the Lubrizol Web site.

SHAREHOLDER INFORMATION

The Common Shares of The Lubrizol Corporation are listed on the New York Stock Exchange under the symbol LZ. The number of shareholders of record of Common Shares was 3,894 as of February 9, 2004.

Investors and shareholders may purchase shares of stock through The Lubrizol Corporation Dividend Reinvestment and Direct Stock Purchase and Sale Plan. To participate in the Plan, contact our transfer agent, American Stock Transfer & Trust Company, Dividend Reinvestment Department, at (877) 573-3998 (toll free) or on the Internet at www.investpower.com.

INTERNET WEB SITE

Company and investor information is available at the Internet Web site: http://www.lubrizol.com.

Officers

W. G. BARES
Chairman and
Chief Executive Officer

JAMES L. HAMBRICK
President

GEORGE R. HILL
Senior Vice President

JOSEPH W. BAUER
Vice President and
General Counsel

DONALD W. BOGUS
Vice President

CHARLES P. COOLEY
Vice President and
Chief Financial Officer

STEPHEN A. DI BIASE
Vice President

JOE E. HODGE
Vice President

STEPHEN F. KIRK
Vice President

YANNICK LE COUÉDIC
Vice President

GREGORY R. LEWIS
Vice President

MARK W. MEISTER
Vice President and
Chief Ethics Officer

LESLIE M. REYNOLDS
Corporate Secretary and
Counsel

JOANNE WANSTREET
Vice President

JOHN R. AHERN
Controller–Accounting and
Financial Reporting

ANNORA C. MARCUS
Assistant Secretary

ROSANNE S. POTTER
Treasurer

Board of Directors

WILLIAM G. BARES
Chairman of the Board
and Chief Executive Officer
Director since 1981

JERALD A. BLUMBERG
Former Executive Vice President,
Chairman of DuPont Europe
Director since 1999

FOREST J. FARMER, SR.
President and Chief Executive Officer
of The Farmer Group
Director since 1997

GORDON D. HARNETT
Chairman and Chief Executive Officer
of Brush Engineered Materials Inc.
Director since 1995

VICTORIA F. HAYNES
President of Research Triangle Institute
Director since 1995

DAVID H. HOAG
Retired Chairman and Chief Executive Officer
of The LTV Corporation
Director since 1989

WILLIAM P. MADAR
Chairman of the Board
of Nordson Corporation
Director since 1992

PEGGY GORDON MILLER
President of South Dakota State University
Director since 1993

RONALD A. MITSCH
Retired Vice Chairman and
Executive Vice President of 3M
Director since 1991

DANIEL E. SOMERS
Vice Chairman of Blaylock & Partners LP
Director since 1999

PRINCIPAL SUBSIDIARIES AND BRANCHES

Lubrizol Adibis (UK) Limited
Lubrizol Adibis Holdings (UK) Limited
Lubrizol Adibis Scandinavia A/S
Lubrizol Australia
Lubrizol Belgium B.V.B.A.
Lubrizol do Brasil Aditivos Ltda.
Lubrizol Canada Limited
Lubrizol de Chile Limitada
Lubrizol China, Inc.
Lubrizol Deutschland GmbH
Lubrizol Española, S.A.
Lubrizol Europe B.V. (The Netherlands)
Lubrizol Foam Control Additives, Inc.
Lubrizol France S.A.S.
Lubrizol Gesellschaft m.b.H. (Austria)
Lubrizol International, Inc.
Lubrizol International Management Corporation
Lubrizol Italiana S.p.A.
Lubrizol Japan Limited
Lubrizol Korea
Lubrizol Limited (England)
Lubrizol de Mexico Comercial, S. de R.L. de C.V.
Lubrizol Overseas Trading Corporation
Lubrizol Performance Systems Inc.
Lubrizol Performance Systems Limited (England)
Lubrizol S.A. (Belgium)
Lubrizol Servicios Tecnicos, S. de C.V. (Mexico)
Lubrizol South Africa (Pty) Limited
Lubrizol Southeast Asia (Pte.) Ltd. (Singapore)
Lubrizol de Venezuela, C.A.
Carroll Scientific, Inc.
Chemron Corporation
CPI Engineering Services, Inc.
Engine Control Systems Europe AB (Sweden)
Engine Control Systems Ltd. (US)
Engine Control Systems Ltd. (England)
Gateway Additive Company
Lanzhou Lubrizol Lanlian Additive Co. Ltd. (China)
Shanghai Lubrizol International Trading Co., Ltd. (China)
Tianjin Lubrizol – Lanlian Additive Co. Ltd. (China)
Lubrizol India Private Limited

AFFILIATES

Terminal Industrial Apodaca, S.A. de C.V. (Mexico)
Lubrizol Transarabian Company, Ltd. (Saudi Arabia)

TECHNICAL CENTERS

Charlotte, North Carolina
Wickliffe, Ohio
Blackley, England
Hazelwood, England
Kinuura, Japan
Singapore, Singapore

MANUFACTURING PLANTS

Paso Robles, California
Atlanta, Georgia
Countryside, Illinois
Midland, Michigan
Reno, Nevada
Linden, New Jersey
Bowling Green, Ohio
Painesville, Ohio
Mountaintop, Pennsylvania
Spartanburg, South Carolina
Bayport, Texas
Deer Park, Texas
Houston, Texas
Cheyenne, Wyoming
Sydney, Australia
Vilvoorde, Belgium
Rio de Janeiro, Brazil
London, Canada
Newmarket, Canada
Niagara Falls, Canada
Nyborg, Denmark
Bromborough, England
Fareham, England
Huddersfield, England
Le Havre, France
Mourenx, France
Rouen, France
Hamburg, Germany
Ritterhude, Germany
Mumbai, India
Kinuura, Japan
Apodaca, Mexico
Yanbu, Saudi Arabia
Jurong, Singapore
Durban, South Africa
Malmo, Sweden

Designed by Dix & Eaton   Printed on Recycled Paper

The Lubrizol Corporation
29400 Lakeland Boulevard, Wickliffe, Ohio 44092 2298
Telephone: 440.943.4200 Facsimile: 440.943.5337

www.lubrizol.com