

2010 ANNUAL REPORT



in it to **WIN**



# in it to WIN

Ferro's vision is to be a leading advanced materials company serving the ceramics, electronics, glass and pigments markets. We compete and win in these markets by continuously innovating and providing superior technical support, product quality and service to Ferro customers. Our cover illustrates three examples of how we are achieving our vision (left to right):

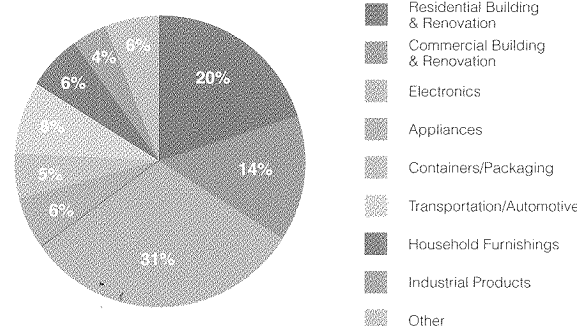
- Ferro's keramINKs® enable customers to decorate ceramic tile with exquisite detail in a highly efficient, continuous inkjet printing process. Our pioneering work with inkjet technologies has created a sea change in the global tile manufacturing industry and built one of Ferro's fastest-growing businesses.
- The Burj Khalifa in Dubai, the world's tallest building, is beautiful at its peak of 160 stories, as well as its lower levels where office, annex and entrance glass is decorated with Ferro's System 140 enamels, environmentally friendly coatings that provide optimum opacity and gloss along with high chemical and mechanical durability.
- An innovator in photovoltaic advanced materials for nearly 30 years, Ferro today is a leading supplier of conductive pastes to solar cell manufacturers around the world. We are expanding our global network of applied technology and R&D laboratories to support our customers' growing demand for custom-formulated products and innovative solutions for next-generation technology.

As we continue to win in our markets, we are confident in our ability to create profitable growth for Ferro shareholders.

## Products & Applications

BUSINESS GROUPS	PRODUCTS	END-USE APPLICATIONS
Electronic, Color and Glass Materials (\$1,058 million 2010 Net Sales)	Conductive metal pastes and powders; high-performance polishing materials; specialty dielectrics  Glazes, pigments and colors; frits; specialty ceramics and glasses	Solar cells; touch-sensitive displays; lenses, semiconductor wafers; capacitors  Automotive, architectural and container glass; roof tiles; dinnerware; paint and plastics; holloware; appliances; electronics packaging
Polymer and Ceramic Engineered Materials (\$1,044 million 2010 Net Sales)	Polymer specialty materials; engineered plastic compounds; liquid color dispersions and gelcoats  Pigments and colors, frits, enamels  High-potency pharmaceutical active ingredients; high-purity, low-endotoxin carbohydrates	Automotive parts; construction materials; vinyl flooring, siding and wall coverings; packaging; household cleaners; personal care products; tools and appliances  Ceramic tile; appliances; water heaters; cookware; industrial products  Pharmaceuticals and biopharmaceuticals

## Revenue by Application



## Financial Highlights

(Dollars in millions, except per-share amounts)

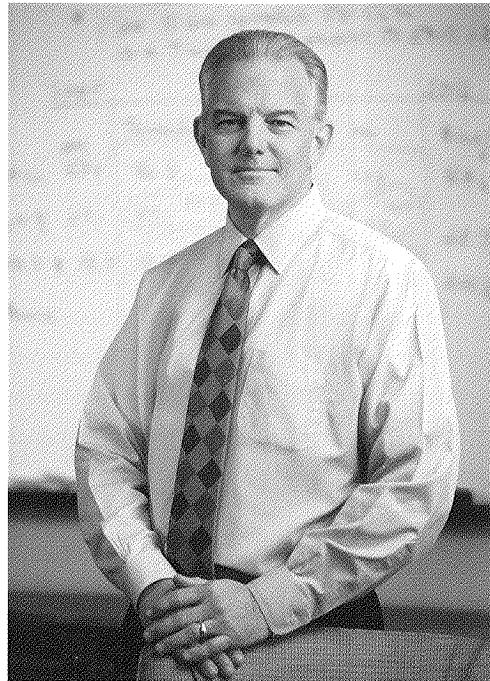
	2010	2009	2008
<b>Sales</b>	\$ 2,102	\$ 1,658	\$ 2,245
<b>Total Segment Income</b>	\$ 234	\$ 105	\$ 144
<b>Income (Loss) Per Share<sup>1</sup></b>	\$ 0.06	\$ (0.86)	\$ (0.95)

<sup>1</sup> Diluted income (loss) per share attributable to Ferro Corporation common shareholders

## Fellow Shareholders:

The past year was marked by significant progress toward Ferro's long-term goals. The sustained dedication and commitment of our 5,000 employees around the world resulted in higher sales, improved manufacturing performance, excellent operating cash flow and a stronger balance sheet. I am pleased to share with you the progress we delivered in 2010, how that positively affected the year's financial results, and how it positions us for global growth and increased profitability.

Sales grew 27 percent during 2010 as a result of improving global customer demand and our ability to deliver products with industry-leading performance and customer support. Growth in sales of our conductive pastes that are used by customers who manufacture solar cells helped drive a 58 percent increase in sales by our Electronic Materials segment. In addition, our Color and Glass Performance Materials, Performance Coatings and Polymer Additives segments all generated double-digit sales growth percentages.

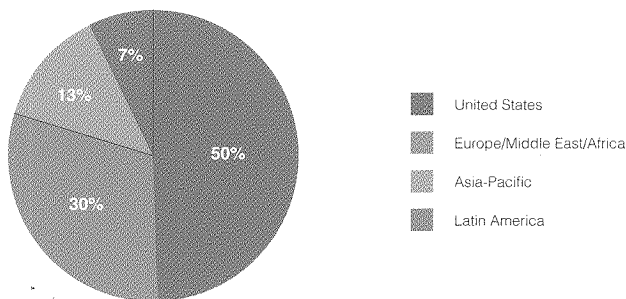


Jim Kirsch, Chief Executive Officer

Our improved cost structure from ongoing efficiency initiatives provided excellent operating leverage, allowing us to deliver higher gross profit margins as manufacturing volumes recovered and product mix improved. Gross profit improved 46 percent compared with 2009 – growing faster than sales due to improved fixed-cost absorption, benefits from our manufacturing rationalization activities and changes in product mix. Our gross margins (gross profit as a percent of net sales) are

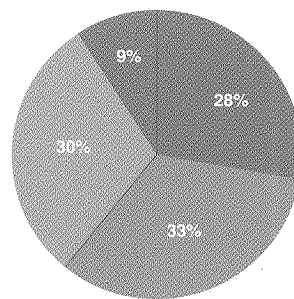
### Sales Based on Location of Product Manufacturing

(As reported)



### Sales Based on Customer Location

(Estimate based on shipping address)





now higher than they were before the global economic downturn in mid-2008, despite lower aggregate volumes across our manufacturing facilities.

Ferro's balance sheet also improved dramatically in 2010. As a result of our strong operating cash flow, we were able to reduce total debt by \$129 million during the year. In addition, we refinanced our credit facilities and issued new eight-year bonds in order to lengthen our debt maturities and lower interest expense.

Investors certainly took note of our excellent financial performance. The price of Ferro's common stock rose by 78 percent during 2010, helping us achieve our goal of providing leading shareholder returns relative to our peer group.

### Achieving Our Desired Manufacturing and Customer Support Footprint

In 2010, we completed the major operational activities associated with Ferro's multi-year manufacturing rationalization and cost-reduction programs. These programs were launched in late 2006 with an initial goal of reducing annual fixed costs by \$40 million to \$50 million,

primarily in our European manufacturing operations. Over the past four years, we expanded these cost-reduction and operational efficiency programs to be global in scope. In addition to consolidating and modernizing our European

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Our gross profit margins are now higher than they were before the global economic downturn.

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manufacturing operations, we have closed underperforming or underutilized sites and significantly reduced costs in the United States, Asia-Pacific and Latin America. As a result, our annual fixed-cost reductions have been significantly higher than the original target.

Ferro's global manufacturing footprint is now well-positioned to serve our growing worldwide customer base more effectively. We continue to have an extensive manufacturing presence in Europe, with large-scale operations in Spain, Germany and France. During 2010, we also acquired a tile coatings manufacturing plant in Egypt. This new plant will allow us to serve our growing customer base in the region more cost-effectively.

## Ferro's Major Manufacturing Sites and Laboratories

### ● MANUFACTURING SITES

- Carpentersville, Illinois
- Evansville, Indiana
- Bridgeport, New Jersey
- Cleveland, Ohio
- Stryker, Ohio
- Fort Worth, Texas
- Mexico City, Mexico
- Villagran, Mexico
- Buenos Aires, Argentina
- Americana, Brazil
- Fayoum, Egypt
- Colditz, Germany
- Bekasi, Indonesia
- Gyeonggi, Korea
- Saraburi, Thailand
- Carabobo, Venezuela
- Newport, Wales

### ▲ DEVELOPMENT AND APPLICATION LABORATORIES

- Cleveland, Ohio
- Haverhill, England
- Hanau, Germany
- Taipei, Taiwan

### ▲ MANUFACTURING SITES WITH LABORATORIES

- Vista, California
- South Plainfield, New Jersey
- Penn Yan, New York
- Washington, Pennsylvania
- Antwerp, Belgium
- Suzhou, China
- Zibo, China
- Saint-Dizier, France
- Frankfurt, Germany
- Sidoarjo, Indonesia
- Tsukuba, Japan
- Almazora, Spain





We are also expanding our established manufacturing and customer support operations throughout Asia-Pacific to keep pace with growing demand. During 2010, we increased production of conductive pastes at our plant in Suzhou, China. This additional manufacturing capacity allowed us to stay ahead of the extraordinary increase in demand from solar cell manufacturers in 2010, both in Asia-Pacific and around the world. To support our growing solar customer base in Asia, we expanded our solar applications laboratory in Suzhou and are making additional investments in technical support labs in Taiwan and Japan.

Because of the growth in customer demand throughout Asia-Pacific, an increased percentage of our future capital expenditures will be directed toward our manufacturing locations in that region. For instance, in 2011 we are expanding our capacity to manufacture inks for digital tile printing to several new Asian locations.

### Capturing Growing Global Customer Demand

Ferro has long been a successful international company, with significant operations and sales in Europe,

Asia-Pacific and Latin America in addition to operations in the United States. More than half our product sales in 2010 were sourced from our manufacturing operations outside the United States.

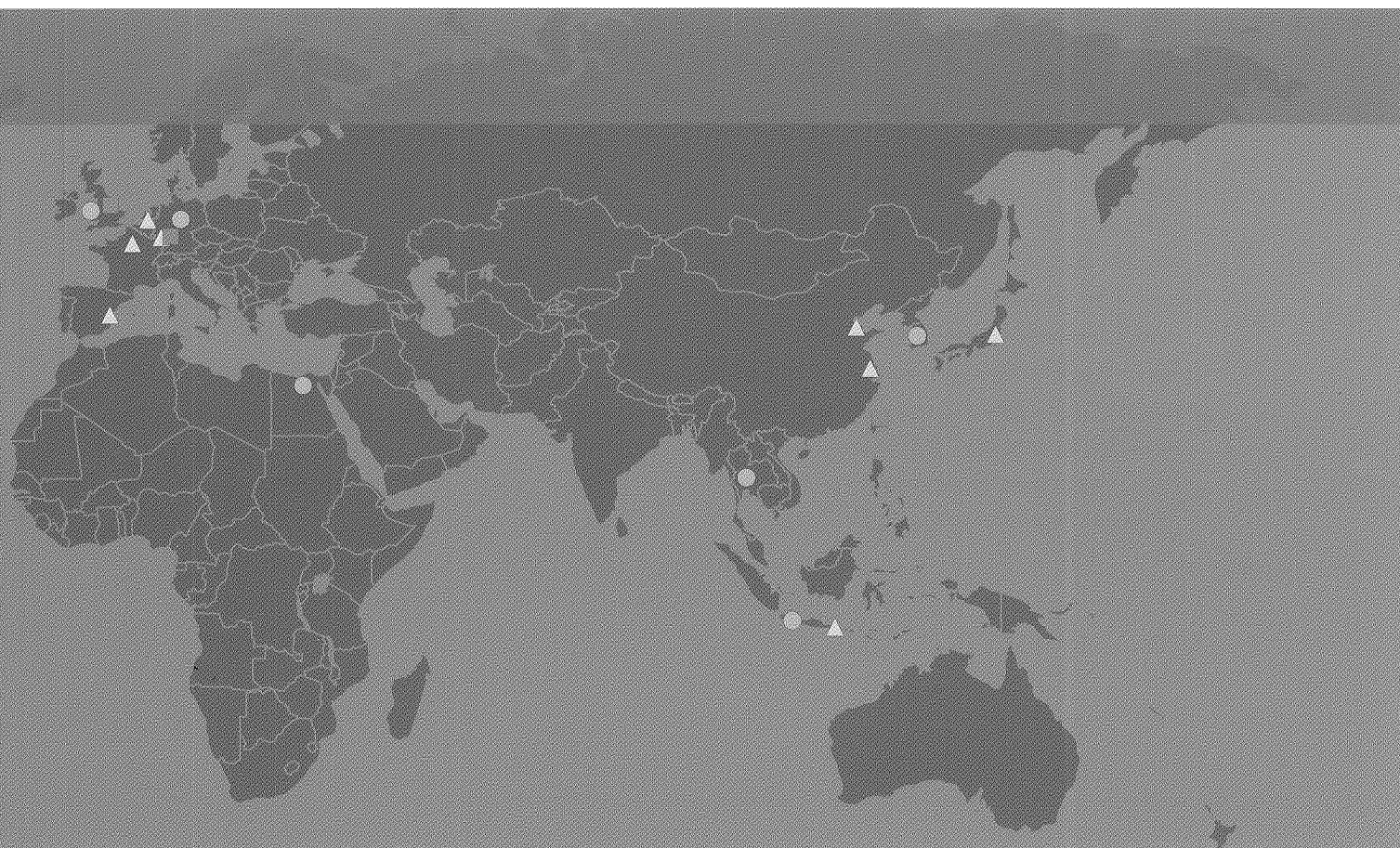
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Growth in the sale of products shipped to Asian customers accounted for more than half of our worldwide sales increase.

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Based on the location of customers buying our products, Ferro's sales by region are even more balanced among our international regions. In 2010, we shipped products valued at more than \$640 million to customers located in Asia-Pacific, including products manufactured at our sites in the region and products exported to Asia-Pacific from other regions. Growth in the sale of products shipped to Asian customers accounted for more than half of our worldwide sales increase for 2010, and these sales now account for 31 percent of our total consolidated sales.

We believe there continue to be new opportunities to grow our international sales, particularly in the



fast-growing economies in the Asia-Pacific region. As we expand our in-region manufacturing assets and customer support laboratories, we will be well-positioned to satisfy additional demand for our electronic materials, porcelain enamels, auto glass enamels, tile coatings and other products.

## Ferro's Winning Vision

Our vision is to be a leading advanced materials company serving the ceramics, electronics, glass and pigments markets. To win in these markets we will continue to invest in the development of category-leading products and in superior customer support and service.

To achieve our vision, we are focused on three strategic objectives that drive the creation of shareholder value:

- *Strengthen Ferro's leadership position in our core businesses.* We will continue to leverage our skills in particle engineering, color and glass science, surface application technology, and formulation to develop products that bring measurable added value to our customers' products. In addition, we are investing to improve our business processes and information systems support to drive continual efficiency and effectiveness enhancements in all our operations.
- *Achieve continuous operational improvements.* Continuous improvement is a key goal of all of our operations as we build sustainable competitive advantages in our markets. From manufacturing to customer support, from order entry to shipping, and from accounting to leadership development, we are focused on being better today than we were yesterday, and better tomorrow than we are today.
- *Expansion into attractive adjacent markets.* We are investing for profitable growth within our existing businesses as we identify new, high-value market opportunities such as digital tile printing, organic

glass coatings, fine metal powders used in displays and touch screens, and innovative nanofilms. In addition, we are strengthening our capabilities to evaluate and execute opportunities to acquire new businesses and integrate them into Ferro.

As we manage your business in a time of global change and growth, our objective will continue to be achieving consistently leading shareholder returns relative to our peer companies. I am confident that you can depend on the outstanding capabilities of Ferro employees around the world as we work together to reach this goal. They consistently demonstrated their commitment to winning as our Company faced the economic challenges of the past several years. Not only did they strengthen or maintain our customer relationships and strong product franchises, they also executed the hard work of restructuring manufacturing operations while improving the business processes necessary to make Ferro stronger in 2011 and beyond.

Ferro employees have truly proven that they are in it to Win.

Sincerely,



James F. Kirsch  
Chairman, President and Chief Executive Officer

March 15, 2011



UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

SEC Mail Processing  
Division

MAR 30 2011

Form 10-K

Washington, DC  
110

(Mark One)

- ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934  
For the fiscal year ended December 31, 2010
- or
- TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934  
For the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission file number 1-584

**FERRO CORPORATION**

(Exact name of registrant as specified in its charter)

Ohio

(State of Corporation)

34-0217820

(IRS Employer Identification No.)

1000 Lakeside Avenue  
Cleveland, OH

(Address of principal executive offices)

44114

(Zip Code)

Registrant's telephone number, including area code: 216-641-8580

Securities Registered Pursuant to section 12(b) of the Act:

Title of Each Class	Name of Each Exchange on Which Registered
Common Stock, par value \$1.00	New York Stock Exchange

Securities Registered Pursuant to Section 12(g) of the Act:

6.50% Convertible Senior Notes due August 15, 2013

7.875% Senior Notes due August 15, 2018

Series A ESOP Convertible Preferred Stock, without Par Value

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. YES  NO

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. YES  NO

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. YES  NO

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). YES  NO

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained here, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

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

Large accelerated filer  Accelerated filer  Non-accelerated filer  Smaller reporting company   
(Do not check if a smaller reporting company)

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). YES  NO

The aggregate market value of Ferro Corporation Common Stock, par value \$1.00, held by non-affiliates and based on the closing sale price as of June 30, 2010, was approximately \$624,595,000.

On January 31, 2011, there were 86,193,176 shares of Ferro Corporation Common Stock, par value \$1.00 outstanding.

**DOCUMENTS INCORPORATED BY REFERENCE**

Portions of the Proxy Statement for Ferro Corporation's 2011 Annual Meeting of Shareholders are incorporated into Part III of this Annual Report on Form 10-K.

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## PART I

### Item 1 — *Business*

#### *History, Organization and Products*

Ferro Corporation was incorporated in Ohio in 1919 as an enameling company. When we use the terms “Ferro,” “we,” “us” or “the Company,” we are referring to Ferro Corporation and its subsidiaries unless we indicate otherwise. Today, we are a leading producer of specialty materials and chemicals that are sold to a broad range of manufacturers who, in turn, make products for many end-use markets. In approximately 40 manufacturing sites around the world, we produce the following types of products:

- Electronic, Color and Glass Materials — Conductive metal pastes and powders, polishing materials, glazes, enamels, pigments, decoration colors, and other performance materials; and
- Polymer and Ceramic Engineered Materials — Polymer additives, engineered plastic compounds, pigment dispersions, glazes, frits, porcelain enamel, pigments, and high-potency pharmaceutical active ingredients.

We refer to our products as performance materials and chemicals because we formulate them to perform specific functions in the manufacturing processes and end products of our customers. The products we develop often are delivered to our customers in combination with customized technical service. The value of our products stems from the benefits they deliver in actual use. We develop and deliver innovative products to our customers through our key strengths in:

- Particle Engineering — Our ability to design and produce very small particles made of a broad variety of materials, with precisely controlled characteristics of shape, size and size distribution. We understand how to disperse these particles within liquid, paste and gel formulations.
- Color and Glass Science — Our understanding of the chemistry required to develop and produce pigments that provide color characteristics ideally suited to customers’ applications. We have a demonstrated ability to provide glass-based coatings with properties that precisely meet customers’ needs in a broad variety of applications.
- Surface Chemistry and Surface Application Technology — Our understanding of chemicals and materials used to develop products and processes that involve the interface between layers and the surface properties of materials.
- Product Formulation — Our ability to develop and manufacture combinations of materials that deliver specific performance characteristics designed to work within customers’ particular manufacturing processes.

We deliver these key technical strengths to our customers in a way that creates additional value through our integrated applications support. Our applications support personnel provide assistance to our customers in their material specification and evaluation, product design and manufacturing process characterization in order to help them optimize the efficient and cost-effective application of our products.

We divide our operations into seven business units, which comprise six reportable segments. We have grouped these units by their product group below:

**Polymer and Ceramic Engineered Materials**

- Polymer Additives
- Specialty Plastics
- Pharmaceuticals
- Tile Coating Systems(1)
- Porcelain Enamel(1)

**Electronic, Color and Glass Materials**

- Electronic Materials
- Color and Glass Performance Materials

- 
- (1) Tile Coating Systems and Porcelain Enamel are combined into one reportable segment, Performance Coatings, for financial reporting purposes.

Financial information about our segments is included herein in Note 20 to the consolidated financial statements under Item 8 of this Annual Report on Form 10-K.

***Markets and Customers***

Ferro's products are used in a variety of product applications in markets including:

- Appliances
- Automobiles
- Building and renovation
- Electronics
- Household furnishings
- Industrial products
- Packaging
- Pharmaceuticals
- Photovoltaic products

Many of our products are used as coatings on our customers' products, such as glazes and decorations on tile, glass and dinnerware. Other products are applied as pastes in products such as solar cells and other electronic components. Still other products are added during our customers' manufacturing processes to provide desirable properties to their end product. Often, our products are a small portion of the total cost of our customers' products, but they can be critical to the appearance or functionality of those products.

Our leading customers include manufacturers of ceramic tile, major appliances, construction materials, automobile parts, glass, bottles, vinyl flooring and wall coverings, solar cells, and pharmaceuticals. Many of our customers, including makers of major appliances and automobile parts, purchase materials from more than one of our business units. Our customer base is well diversified both geographically and by end market.

We generally sell our products directly to our customers. However, a portion of our business uses indirect sales channels, such as agents and distributors, to deliver products to market. In 2010, no single customer or related group of customers represented more than 10% of net sales. In addition, none of our reportable segments is dependent on any single customer or related group of customers.

***Backlog of Orders and Seasonality***

Generally, there is no significant lead time between customer orders and delivery in any of our business segments. As a result, we do not consider that the dollar amount of backlogged orders believed to be firm is material information for an understanding of our business. We also do not regard any material part of our business to be seasonal. However, customer demand has historically been higher in the second quarter when building and renovation markets are particularly active, and this quarter is normally the strongest for sales and operating profit.



## **Competition**

In most of our markets, we have a substantial number of competitors, none of which is dominant. Due to the diverse nature of our product lines, no single competitor directly matches all of our product offerings. Our competition varies by product and by region, and is based primarily on price, product quality and performance, customer service and technical support, and our ability to develop custom products to meet specific customer requirements.

We are a worldwide leader in the production of glass enamels, porcelain enamels, ceramic glaze coatings, and conductive metal pastes used in solar cells. There is strong competition in our markets, ranging from large multinational corporations to local producers. While many of our customers purchase custom products and formulations from us, our customers could generally buy from other sources, if necessary.

## **Raw Materials and Supplier Relations**

Raw materials widely used in our operations include:

### Metal Oxides:(1)(2) -

- Aluminum oxide(3)
- Cerium oxide(3)
- Cobalt oxide
- Nickel oxide
- Titanium dioxide(4)
- Zinc oxide

### Precious and Non-precious Metals:(1)(3)

- Aluminum
- Bismuth
- Copper
- Gold
- Palladium
- Platinum
- Silver

### Polymers:(4)

- Polyethylene
- Polypropylene
- Polystyrene
- Unsaturated polyester

### Other Inorganic Materials:

- Boric acid(1)(2)
- Feldspar(1)(2)
- Fiberglass(4)
- Lithium (1)(2)
- Silica(1)(2)
- Zircon(1)(2)

### Other Organic Materials:(5)

- Butanol
- Phthalic anhydride
- Soybean oil
- Tallow
- Toluene

### Energy:

- Electricity
- Natural gas

- 
- (1) Primarily used by Color and Glass Performance Materials.
  - (2) Primarily used by Tile Coating Systems and Porcelain Enamel.
  - (3) Primarily used by Electronic Materials.
  - (4) Primarily used by Specialty Plastics.
  - (5) Primarily used by Polymer Additives.

These raw materials make up a large portion of our product costs in certain of our product lines, and fluctuations in the cost of raw materials may have a significant impact on the financial performance of the related

businesses. We attempt to pass through to our customers raw material cost increases, including those related to precious metals.

We have a broad supplier base and, in many instances, multiple sources of essential raw materials are available worldwide if problems arise with a particular supplier. We maintain many comprehensive supplier agreements for strategic and critical raw materials. We did not encounter raw material shortages in 2010 that significantly affected our manufacturing operations, but we are subject to volatile raw material costs that can affect our results of operations.

### ***Environmental Matters***

As part of the production of some of our products, we handle, process, use and store hazardous materials. As a result, we operate manufacturing facilities that are subject to a broad array of environmental laws and regulations in the countries in which we operate, particularly for plant wastes and emissions. In addition, some of our products are subject to restrictions under laws or regulations such as California Proposition 65 or the European Union's ("EU") hazardous substances directive. The costs to comply with complex environmental laws and regulations are significant and will continue for the industry and us for the foreseeable future. These routine costs are expensed as they are incurred. While these costs may increase in the future, they are not expected to have a material impact on our financial position, liquidity or results of operations. We believe we are in substantial compliance with the environmental regulations to which our operations are subject and, to the extent we may not be in compliance with such regulations, non-compliance will not have a materially adverse effect on our financial position, liquidity or results of operations.

Our policy is to operate our plants and facilities in a manner that protects the environment and the health and safety of our employees and the public. We intend to continue to make expenditures for environmental protection and improvements in a timely manner consistent with available technology. Although we cannot precisely predict future environmental spending, we do not expect the costs to have a material impact on our financial position, liquidity or results of operations. Capital expenditures for environmental protection were \$1.5 million in 2010, \$2.4 million in 2009, and \$2.4 million in 2008.

We also accrue for environmental remediation costs when it is probable that a liability has been incurred and we can reasonably estimate the amount. We determine the timing and amount of any liability based upon assumptions regarding future events, and inherent uncertainties exist in such evaluations primarily due to unknown conditions, changing governmental regulations and legal standards regarding liability, and evolving technologies. We adjust these liabilities periodically as remediation efforts progress, the nature and extent of contamination becomes more certain, or as additional technical or legal information becomes available.

### ***Research and Development***

We are involved worldwide in research and development activities relating to new and existing products, services and technologies required by our customers' continually changing markets. Our research and development resources are organized into centers of excellence that support our regional and worldwide major business units. We also conduct research and development activities at our Posnick Center for Innovative Technology in Independence, Ohio. These centers are augmented by local laboratories, which provide technical service and support to meet customer and market needs of particular geographic areas.

Total expenditures in continuing operations for product and application technology, including research and development, customer technical support and other related activities, were \$37.2 million in 2010, \$34.9 million in 2009, and \$41.4 million in 2008. These amounts include expenditures for company-sponsored research and development activities of approximately \$27.3 million in 2010, \$28.3 million in 2009, and \$33.6 million in 2008.

## ***Patents, Trademarks and Licenses***

We own a substantial number of patents and patent applications relating to our various products and their uses. While these patents are of importance to us and we exercise diligence to ensure that they are valid, we do not believe that the invalidity or expiration of any single patent or group of patents would have a material adverse effect on our businesses. Our patents will expire at various dates through the year 2030. We also use a number of trademarks that are important to our businesses as a whole or to a particular segment. We believe that these trademarks are adequately protected.

## ***Employees***

At December 31, 2010, we employed 5,034 full-time employees, including 3,390 employees in our foreign consolidated subsidiaries and 1,644 in the United States ("U.S."). Total employment decreased by 290 in our foreign subsidiaries from the prior year end primarily due to our various restructuring and cost reduction programs. Employment in the U.S. increased by 111 from the prior year end, primarily to support the growth in sales revenue, particularly in Electronic Materials.

Collective bargaining agreements cover approximately 19% of our U.S. workforce. Approximately 6% of the U.S. employees are affected by labor agreements that expire in 2011, and we expect to complete renewals of these agreements without significant disruption to the related businesses. We consider our relations with our employees, including those covered by collective bargaining agreements, to be good.

Our employees in Europe have protections afforded them by local laws and regulations through unions and works councils. Some of these laws and regulations may affect the timing, amount and nature of restructuring and cost reduction programs in that region.

## ***Domestic and Foreign Operations***

We began international operations in 1927. Our products are manufactured and / or distributed through our consolidated subsidiaries and unconsolidated affiliates in the following countries:

### Consolidated Subsidiaries:

- |             |             |               |                  |
|-------------|-------------|---------------|------------------|
| • Argentina | • Egypt     | • Mexico      | • Thailand       |
| • Australia | • France    | • Netherlands | • United Kingdom |
| • Austria   | • Germany   | • Portugal    | • United States  |
| • Belgium   | • Indonesia | • Russia      | • Venezuela      |
| • Brazil    | • Italy     | • Spain       |                  |
| • China     | • Japan     | • Taiwan      |                  |

### Unconsolidated Affiliates:

- |         |         |               |            |
|---------|---------|---------------|------------|
| • Italy | • Spain | • South Korea | • Thailand |
|---------|---------|---------------|------------|

Financial information for geographic areas is included in Note 20 to the consolidated financial statements under Item 8 of this Annual Report on Form 10-K. More than 50% of our net sales are outside of the U.S. Our customers represent more than 30 industries and operate in approximately 100 countries.

Our U.S. parent company receives technical service fees and/or royalties from many of its foreign subsidiaries. As a matter of corporate policy, the foreign subsidiaries have historically been expected to remit a portion of their

annual earnings to the U.S. parent company as dividends. To the extent earnings of foreign subsidiaries are not remitted to the U.S. parent company, those earnings are indefinitely re-invested in those subsidiaries.

### ***Available Information***

Our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, and Current Reports on Form 8-K, including any amendments, will be made available free of charge on our Web site, [www.ferro.com](http://www.ferro.com), as soon as reasonably practical, following the filing of the reports with the U.S. Securities and Exchange Commission (“SEC”). Our Corporate Governance Principles, Legal and Ethical Policies, Guidelines for Determining Director Independence, and charters for our Audit Committee, Compensation Committee, Finance Committee, and Governance and Nomination Committee are available free of charge on our Web site or to any shareholder who requests them from the Ferro Corporation Investor Relations Department located at 1000 Lakeside Avenue, Cleveland, Ohio, 44114-1147.

### ***Forward-looking Statements***

Certain statements contained here and in future filings with the SEC reflect our expectations with respect to future performance and constitute “forward-looking statements” within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. These statements are subject to a variety of uncertainties, unknown risks and other factors concerning our operations and the business environment, which are difficult to predict and are beyond our control.

### **Item 1A. *Risk Factors***

Many factors could cause our actual results to differ materially from those suggested by statements contained in this filing and could adversely affect our future financial performance. Such factors include the following:

***We sell our products into industries where demand has been unpredictable, cyclical or heavily influenced by consumer spending, and such demand and our results of operations may be further impacted by macro-economic circumstances and uncertainty in credit markets.***

We sell our products to a wide variety of customers who supply many different market segments. Many of these market segments, such as building and renovation, major appliances, transportation, and electronics, are cyclical or closely tied to consumer demand. Consumer demand is difficult to accurately forecast and incorrect forecasts of demand or unforeseen reductions in demand can adversely affect costs and profitability due to factors such as underused manufacturing capacity, excess inventory, or working capital needs.

Our results of operations are materially affected by conditions in capital markets and economies in the U.S. and elsewhere around the world. General economic conditions around the world deteriorated sharply at the end of 2008, and difficult economic conditions continue to exist. Concerns over fluctuating prices, energy costs, geopolitical issues, government deficits and debt loads, the availability and cost of credit, the U.S. mortgage market and a declining real estate market have contributed to increased volatility, diminished expectations, and uncertainty regarding economies around the world. These factors, combined with reduced business and consumer confidence, increased unemployment, and volatile raw materials costs, precipitated an economic slowdown and recession in a number of markets around the world. As a result of these conditions, our customers may experience cash flow problems and may modify, delay, or cancel plans to purchase our products. Additionally, if customers are not successful in generating sufficient revenue or are precluded from securing financing, they may not be able to pay, or may delay payment of, accounts receivable that are owed to us. Any reduction in demand or inability of our current and/or potential customers to pay us for our products may adversely affect our earnings and cash flow.



***Uncertainty in the development of the solar energy market could reduce the revenue we generate from product sales to this market.***

Our conductive pastes are used in the manufacture of solar cells and income attributable to the solar energy market has been increasing. The solar energy market is at a relatively early stage of development and the extent to which solar energy technology will be widely adopted is uncertain. Solar industry demand is affected by the availability and size of government and economic incentives related to the use of solar power. Reductions in, or eliminations or expirations of, governmental and economic incentives could result in decreased demand for solar cells, and, consequently, our products, which could have an adverse impact on our results of operations.

***We strive to improve operating margins through sales growth, price increases, productivity gains, and improved purchasing techniques, but we may not achieve the desired improvements.***

We work to improve operating profit margins through activities such as growing sales to achieve increased economies of scale, increasing prices, improving manufacturing processes, and adopting purchasing techniques that lower costs or provide increased cost predictability to realize cost savings. However, these activities depend on a combination of improved product design and engineering, effective manufacturing process control initiatives, cost-effective redistribution of production, and other efforts that may not be as successful as anticipated. The success of sales growth and price increases depends not only on our actions but also the strength of customer demand and competitors' pricing responses, which are not fully predictable. Failure to successfully implement actions to improve operating margins could adversely affect our financial performance.

***Our implementation of new business information systems and processes could adversely affect our results of operations and cash flow.***

We are designing and implementing a new enterprise-wide information system and related processes to consolidate our legacy operating systems into an integrated system. The objective is to standardize and streamline business processes. We may be unable to complete the implementation in accordance with our timeline and we could incur additional costs. The implementation could result in operating inefficiencies and could impact our ability to perform business transactions. These risks could adversely impact our results of operations, financial condition, and cash flows.

***We depend on reliable sources of energy and raw materials, including petroleum-based materials, minerals and other supplies, at a reasonable cost, but the availability of these materials and supplies could be interrupted and/or their prices could escalate and adversely affect our sales and profitability.***

We purchase energy and many raw materials, including petroleum-based materials and other supplies, which we use to manufacture our products. Changes in their availability or price could affect our ability to manufacture enough products to meet customers' demands or to manufacture products profitably. We try to maintain multiple sources of raw materials and supplies where practical, but this may not prevent unanticipated changes in their availability or cost and, for certain raw materials, there may not be alternative sources. We may not be able to pass cost increases through to our customers. Significant disruptions in availability or cost increases could adversely affect our manufacturing volume or costs, which could negatively affect product sales or profitability of our operations.

***The global scope of our operations exposes us to risks related to currency conversion rates, new and different regulatory schemes and changing economic, regulatory, social and political conditions around the world.***

More than 50% of our net sales during 2010 were outside of the U.S. In order to support global customers, access regional markets and compete effectively, our operations are located around the world. We may encounter difficulties expanding into additional growth markets around the world. Our operations have additional complexity due to economic, regulatory, social and political conditions in multiple locations and we are subject to risks relating to currency conversion rates. Other risks inherent in international operations include the following:

- New and different legal and regulatory requirements and enforcement mechanisms in local jurisdictions;
- U.S. and other export licenses may be difficult to obtain and we may be subject to export duties or import quotas or other trade restrictions or barriers;
- Increased costs of, and decreased availability of, transportation or shipping;
- Credit risk and financial conditions of local customers and distributors;
- Risk of nationalization of private enterprises by foreign governments or restrictions on investments;
- Potentially adverse tax consequences, including imposition or increase of withholding and other taxes on remittances and other payments by subsidiaries; and
- Local political, economic and social conditions, including the possibility of hyperinflationary conditions, deflation, and political instability in certain countries.

In particular, we have subsidiaries in Venezuela, a country that has established very rigid controls over the ability of foreign companies to repatriate cash, and in Egypt, a country with recent political instability. Such conditions could potentially impact our ability to recover both the cost of our investments and earnings from those investments. While we attempt to anticipate these changes and manage our business appropriately in each location where we do business, these changes are often beyond our control and difficult to forecast.

The consequences of these risks may have significant adverse effects on our results of operations or financial position, and if we fail to comply with applicable laws and regulations, we could be exposed to civil and criminal penalties, reputational harm, and restrictions on our operations.

***We have a growing presence in the Asia-Pacific region where it can be difficult for a multi-national company, such as Ferro, to compete lawfully with local competitors, which may cause us to lose business opportunities.***

Many of our most promising growth opportunities are in the Asia-Pacific region, especially the People's Republic of China. Although we have been able to compete successfully in those markets to date, local laws and customs can make it difficult for a multi-national company such as Ferro to compete on a "level playing field" with local competitors without engaging in conduct that would be illegal under U.S. or other countries' anti-bribery laws. Our strict policy of observing the highest standards of legal and ethical conduct may cause us to lose some otherwise attractive business opportunities to local competition in the region.

***Regulatory authorities in the U.S., European Union and elsewhere are taking a much more aggressive approach to regulating hazardous materials and other substances, and those regulations could affect sales of our products.***

Legislation and regulations concerning hazardous materials and other substances can restrict the sale of products and/or increase the cost of producing them. Some of our products are subject to restrictions under laws or regulations such as California Proposition 65 or the European Union's ("EU") hazardous substances directive. The EU "REACH" registration system became effective June 1, 2007, and requires us to perform toxicity studies of the components of some of our products and to register the information in a central database, increasing the cost of these products. As a result of such regulations, customers may avoid purchasing some products in favor of perceived "greener," less hazardous or less costly alternatives. It may be impractical for us to continue manufacturing heavily regulated products, and we may incur costs to shut down or transition such operations to alternative products. These circumstances could adversely affect our business, including our sales and operating profits.

***Our businesses depend on a continuous stream of new products, and failure to introduce new products could affect our sales, profitability and liquidity.***

One way that we remain competitive in our markets is by developing and introducing new and improved products on an ongoing basis. Customers continually evaluate our products in comparison to those offered by our competitors. A failure to introduce new products at the right time that are price competitive and that provide the features and performance required by customers could adversely affect our sales, or could require us to compensate by lowering prices. In addition, when we invest in new product development, we face risks related to production delays, cost over-runs and unanticipated technical difficulties, which could impact sales, profitability and/or liquidity.

***We have limited or no redundancy for certain of our manufacturing facilities, and damage to those facilities could interrupt our operations, increase our costs of doing business and impair our ability to deliver our products on a timely basis.***

If certain of our existing production facilities become incapable of manufacturing products for any reason, we may be unable to meet production requirements, we may lose revenue and we may not be able to maintain our relationships with our customers. Without operation of certain existing production facilities, we may be limited in our ability to deliver products until we restore the manufacturing capability at the particular facility, find an alternative manufacturing facility or arrange an alternative source of supply. Although we carry business interruption insurance to cover lost revenue and profits in an amount we consider adequate, this insurance does not cover all possible situations. In addition, our business interruption insurance would not compensate us for the loss of opportunity and potential adverse impact on relations with our existing customers resulting from our inability to produce products for them.

***We may not be able to complete future acquisitions or successfully integrate future acquisitions into our business, which could adversely affect our business or results of operations.***

As part of our growth strategy, we intend to pursue acquisitions. Our success in accomplishing this growth may be limited by the availability and suitability of acquisition candidates and by our financial resources, including available cash and borrowing capacity. Acquisitions involve numerous risks, including difficulty determining appropriate valuation, integrating operations, technologies, services and products of the acquired product lines or businesses, personnel turnover and the diversion of management's attention from other business matters. In addition, we may be unable to achieve anticipated benefits from these acquisitions in the time frame that we anticipate, or at all, which could affect adversely our business or results of operations.

***We have significant deferred tax assets, and if we are unable to utilize these assets, our results of operations may be adversely affected.***

To fully realize the carrying value of our net deferred tax assets, we will have to generate adequate taxable profits in various tax jurisdictions. As of December 31, 2010, we had \$143.0 million of net deferred tax assets, after valuation allowances. If we do not generate adequate profits within the time periods required by applicable tax statutes, the carrying value of the tax assets will not be realized. If it becomes unlikely that the carrying value of our net deferred tax assets will be realized, the valuation allowances may need to be increased in our consolidated financial statements, adversely affecting results of operations. Further information on our deferred tax assets is presented in Note 8 to the consolidated financial statements under Item 8 of this Annual Report on Form 10-K.

***The markets for our products are highly competitive and subject to intense price competition, which could adversely affect our sales and earnings performance.***

Our customers typically have multiple suppliers from which to choose. If we are unwilling or unable to provide products at competitive prices, and if other factors, such as product performance and value-added services do not provide an offsetting competitive advantage, customers may reduce, discontinue, or decide not to purchase our products. If we could not secure alternate customers for lost business, our sales and earnings performance could be adversely affected.

***If we are unable to protect our intellectual property rights or to successfully resolve claims of infringement brought against us, our product sales and financial performance could be affected adversely.***

Our performance may depend in part on our ability to establish, protect and enforce intellectual property rights with respect to our products, technologies and proprietary rights and to defend against any claims of infringement, which involves complex legal, scientific and factual questions and uncertainties. We may have to rely on litigation to enforce our intellectual property rights. In addition, we may face claims of infringement that could interfere with our ability to use technology or other intellectual property rights that are material to our business operations. If litigation that we initiate is unsuccessful, we may not be able to protect the value of some of our intellectual property. In the event a claim of infringement against us is successful, we may be required to pay royalties or license fees to continue to use technology or other intellectual property rights that we have been using or we may be unable to obtain necessary licenses from third parties at a reasonable cost or within a reasonable time.

***Our operations are subject to operating hazards and, as a result, to stringent environmental, health and safety regulations, and compliance with those regulations could require us to make significant investments.***

Our production facilities are subject to hazards associated with the manufacture, handling, storage and transportation of chemical materials and products. These hazards can cause personal injury and loss of life, severe damage to, or destruction of, property and equipment and environmental contamination and other environmental damage and could have an adverse effect on our business, financial condition or results of operations.

We strive to conduct our manufacturing operations in a manner that is safe and in compliance with all applicable environmental, health and safety regulations. Compliance with changing regulations may require us to make significant capital investments, incur training costs, make changes in manufacturing processes or product formulations, or incur costs that could adversely affect our profitability, and violations of these laws could lead to substantial fines and penalties. These costs may not affect competitors in the same way due to differences in product formulations, manufacturing locations or other factors, and we could be at a competitive disadvantage, which might adversely affect financial performance.



***We are subject to stringent labor and employment laws in certain jurisdictions in which we operate, we are party to various collective bargaining arrangements, and our relationship with our employees could deteriorate, which could adversely impact our operations.***

A majority of our full-time employees are employed outside the U.S. In certain jurisdictions where we operate, labor and employment laws are relatively stringent and, in many cases, grant significant job protection to certain employees, including rights on termination of employment. In addition, in certain countries where we operate, our employees are members of unions or are represented by a works council. We are often required to consult and seek the consent or advice of these unions and/or works councils. These regulations and laws, coupled with the requirement to consult with the relevant unions or works councils, could have a significant impact on our flexibility in managing costs and responding to market changes.

Furthermore, with respect to our employees who are subject to collective bargaining arrangements or similar arrangements (approximately 19% of our U.S. workforce as of December 31, 2010), there can be no assurance that we will be able to negotiate labor agreements on satisfactory terms or that actions by our employees will not disrupt our business. If these workers were to engage in a strike, work stoppage or other slowdown or if other employees were to become unionized, we could experience a significant disruption of our operations and/or higher ongoing labor costs, which could adversely affect our business, financial condition and results of operations.

***Employee benefit costs, especially postretirement costs, constitute a significant element of our annual expenses, and funding these costs could adversely affect our financial condition.***

Employee benefit costs are a significant element of our cost structure. Certain expenses, particularly postretirement costs under defined benefit pension plans and healthcare costs for employees and retirees, may increase significantly at a rate that is difficult to forecast and may adversely affect our financial results, financial condition or cash flows. Declines in global capital markets may cause reductions in the value of our pension plan assets. Such circumstances could have an adverse effect on future pension expense and funding requirements. Further information regarding our retirement benefits is presented in Note 10 to the consolidated financial statements under Item 8 of this Annual Report on Form 10-K.

***We depend on external financial resources, and the economic environment and credit market uncertainty could interrupt our access to capital markets, borrowings, or financial transactions to hedge certain risks, which could adversely affect our financial condition.***

As of December 31, 2010, we had approximately \$294.6 million of short-term and long-term debt with varying maturities and approximately \$221.3 million of off balance sheet arrangements, including consignment arrangements for precious metals, international receivables sales programs, bank guarantees, and standby letters of credit. These arrangements have allowed us to make investments in growth opportunities and fund working capital requirements. In addition, we may enter into financial transactions to hedge certain risks, including foreign exchange, commodity pricing, and sourcing of certain raw materials. Our continued access to capital markets, the stability of our lenders, customers and financial partners and their willingness to support our needs are essential to our liquidity and our ability to meet our current obligations and to fund operations and our strategic initiatives. An interruption in our access to external financing or financial transactions to hedge risk could adversely affect our business prospects and financial condition. See further information regarding our liquidity in "Capital Resources and Liquidity" under Item 7 and in Note 6 to the consolidated financial statements under Item 8 of this Annual Report on Form 10-K.

***We have undertaken several restructuring programs to improve our operating performance and achieve cost savings, but we may not be able to implement and/or administer these programs in the manner contemplated and these restructuring programs may not produce the desired results.***

We have undertaken several restructuring programs in the last two years, and we may initiate new restructuring programs in the future. These programs involve, among other things, plant closures and staff reductions. Although we expect these programs to help us achieve operational improvements, including incremental cost savings, we may not be able to implement and/or administer these programs, including the implementation of plant closures and staff reductions, in the manner contemplated, which could cause the restructuring programs to fail to achieve the desired results. Additionally, the implementation of restructuring programs may result in impairment charges, some of which could be material. Even if we do implement and administer these restructuring programs in the manner contemplated, they may not produce the desired results. Accordingly, the restructuring programs that we have implemented and those that we may initiate in the future may not improve our operating performance and may not help us achieve cost savings. Failure to successfully implement and/or administer these restructuring programs could have an adverse effect on our financial performance.

***We are exposed to lawsuits in the normal course of business, which could harm our business.***

We are from time to time exposed to certain legal proceedings, which may include claims involving product liability, infringement of intellectual property rights of third parties and other claims. Due to the uncertainties of litigation, we can give no assurance that we will prevail on claims made against us in the lawsuits that we currently face or that additional claims will not be made against us in the future. We do not believe that lawsuits we currently face are likely to have a material adverse effect on our business, operating results or financial condition. Future claims or lawsuits, if they were to result in an adverse ruling to us, could give rise to substantial liability, which could have a material adverse effect on our business, operating results or financial condition.

***We are exposed to intangible asset risk, and a write down of our intangible assets could have an adverse impact to our operating results and financial position.***

We have recorded intangible assets, including goodwill, in connection with business acquisitions. We are required to perform goodwill impairment tests on at least an annual basis and whenever events or circumstances indicate that the carrying value may not be recoverable from estimated future cash flows. As a result of our annual and other periodic evaluations, we may determine that the intangible asset values need to be written down to their fair values, which could result in material charges that could be adverse to our operating results and financial position.

***Interest rates on some of our borrowings are variable, and our borrowing costs could be adversely affected by interest rate increases.***

Portions of our debt obligations have variable interest rates. Generally, when interest rates rise, our cost of borrowings increases. We estimate, based on the debt obligations outstanding at December 31, 2010, that a one percent increase in interest rates would cause interest expense to increase by less than \$0.1 million annually. Continued interest rate increases could raise the cost of borrowings and adversely affect our financial performance. See further information regarding our interest rates on our debt obligations in “Quantitative and Qualitative Disclosures about Market Risk” and in Note 6 to the consolidated financial statements under Item 8 of this Form 10-K.

***Many of our assets are encumbered by liens that have been granted to lenders, and those liens affect our flexibility to dispose of property and businesses.***

Certain of our debt obligations are secured by substantially all of our assets. These liens could reduce our ability and/or extend the time to dispose of property and businesses, as these liens must be cleared or waived by the lenders prior to any disposition. These security interests are described in more detail in Note 6 to the consolidated financial statements under Item 8 of this Annual Report on Form 10-K.

***We are subject to a number of restrictive covenants under our credit facilities and the indenture governing our senior notes, which could affect our flexibility to fund ongoing operations and strategic initiatives, and, if we are unable to maintain compliance with such covenants, could lead to significant challenges in meeting our liquidity requirements.***

Our credit facilities and the indenture governing our senior notes contain a number of restrictive covenants, including those described in more detail in Note 6 to the consolidated financial statements under Item 8 of this Annual Report on Form 10-K. These covenants include customary operating restrictions that limit our ability to engage in certain activities, including additional loans and investments; prepayments, redemptions and repurchases of debt; and mergers, acquisitions and asset sales. We are also subject to customary financial covenants under our credit facilities, including a leverage ratio and a fixed charge coverage ratio. These covenants under our credit facilities restrict the amount of our borrowings, reducing our flexibility to fund ongoing operations and strategic initiatives. These facilities and our senior notes are described in more detail in “Capital Resources and Liquidity” under Item 7 and in Note 6 to the consolidated financial statements under Item 8 of this Annual Report on Form 10-K.

Breaches of these covenants could become defaults under our credit facilities and the indenture governing our senior notes and cause the acceleration of debt payments beyond our ability to pay. Compliance with some of these covenants is based on financial measures derived from our operating results. If economic conditions in key markets deteriorate, we may experience material adverse impacts to our business and operating results, such as through reduced customer demand and inflation. A significant decline in our business could make us unable to maintain compliance with these financial covenants, in which case, our lenders could demand immediate payment of outstanding amounts and we would need to seek alternate financing sources to pay off such debts and to fund our ongoing operations. Such financing may not be available on favorable terms, if at all.

***We may not pay dividends on our common stock at any time in the foreseeable future.***

Holders of our common stock are entitled to receive such dividends as our board of directors from time to time may declare out of funds legally available for such purposes. Our board of directors has no obligation to declare dividends under Ohio law or our amended Articles of Incorporation. We may not pay dividends on our common stock at any time in the foreseeable future. Any determination by our board of directors to pay dividends in the future will be based on various factors, including our financial condition, results of operations and current, anticipated cash needs and any limits our then-existing credit facility and other debt instruments place on our ability to pay dividends.

***We are exposed to risks associated with acts of God, terrorists and others, as well as fires, explosions, wars, riots, accidents, embargoes, natural disasters, strikes and other work stoppages, quarantines and other governmental actions, and other events or circumstances that are beyond our control.***

Ferro is exposed to risks from various events that are beyond our control, which may have significant effects on our results of operations. While we attempt to mitigate these risks through appropriate insurance, contingency planning and other means, we may not be able to anticipate all risks or to reasonably or cost-effectively manage

those risks that we do anticipate. As a result, our results of operations could be adversely affected by circumstances or events in ways that are significant and/or long lasting.

The risks and uncertainties identified above are not the only risks that we face. Additional risks and uncertainties not presently known to us or that we currently believe to be immaterial also may adversely affect us. If any known or unknown risks and uncertainties develop into actual events, these developments could have material adverse effects on our financial position, results of operations, and cash flows.

**Item 1B — *Unresolved Staff Comments***

None.

**Item 2 — *Properties***

Our corporate headquarters offices are located at 1000 Lakeside Avenue, Cleveland, Ohio. The Company also owns other corporate facilities, including a centralized research and development facility, which are located in Independence, Ohio. We own principal manufacturing plants that range in size from 29,000 sq. ft. to over 800,000 sq. ft. Plants we own with more than 250,000 sq. ft. are located in: Spain; Germany; Cleveland, Ohio; and Penn Yan, New York. The locations of these principal manufacturing plants by reportable segment are as follows:

Performance Coatings — U.S.: Cleveland, Ohio. Outside the U.S.: Argentina, Brazil, China, Egypt, France, Indonesia, Italy, Mexico, Spain, Thailand and Venezuela.

Electronic Materials — U.S.: Penn Yan, New York; and South Plainfield, New Jersey. Outside the U.S.: China.

Color and Glass Performance Materials — U.S.: Washington, Pennsylvania, and Orville, Ohio. Outside the U.S.: Brazil, China, France, Germany, Mexico, Spain, the United Kingdom and Venezuela.

Polymer Additives — U.S.: Bridgeport, New Jersey; Cleveland, Ohio; Walton Hills, Ohio; and Fort Worth, Texas. Outside the U.S.: Belgium and the United Kingdom.

Specialty Plastics — U.S.: Evansville, Indiana; Plymouth, Indiana; Edison, New Jersey; and Stryker, Ohio. Outside the U.S.: Spain.

Pharmaceuticals— U.S.: Waukegan, Illinois.

Ferro's revolving credit facility has a security interest in the real estate of the parent company and its domestic material subsidiaries.

In addition, we lease manufacturing facilities for the Electronic Materials segment in Germany, Japan, and Vista, California; for the Color and Glass Performance Materials segment in Austria, Japan and Italy; and for the Specialty Plastics segment in Carpentersville, Illinois. In some instances, the manufacturing facilities are used for two or more segments. Leased facilities range in size from 18,000 sq. ft. to over 100,000 sq. ft. at the plant located in Carpentersville, Illinois.



### **Item 3 — Legal Proceedings**

As previously disclosed, for the year ended December 31, 2007, the Company submitted deviation reports required by the Title V air emission permit issued under the New Jersey Air Pollution Control Act (the “Title V Air Permit”), which contained numerous deviations from the standards required by the Title V Air Permit at our South Plainfield, New Jersey, facility. In November 2009, the Company entered a settlement agreement with the New Jersey Department of Environmental Protection, pursuant to which the Company performed \$100,000 worth of supplemental environmental projects in the community during 2009 and made cash payments totaling \$300,000 in 2010.

There are various other lawsuits and claims pending against the Company and its consolidated subsidiaries. We do not expect the ultimate liabilities, if any, to materially affect the consolidated financial position, results of operations, or cash flows of the Company.

On January 4, 2011, the Company received an administrative subpoena from the U.S. Department of the Treasury’s Office of Foreign Assets Control (“OFAC”). OFAC has requested that the Company provide documents and information related to the possibility of direct or indirect transactions with or to a prohibited country. The Company is cooperating with OFAC in connection with the administrative subpoena. The Company cannot predict the length, scope or results of the inquiry from OFAC, or the impact, if any, on its business activities or results of operations.

#### **Executive Officers of the Registrant**

The executive officers of the Company as of February 28, 2011, are listed below, along with their ages and positions held during the past five years. The year indicates when the individual was named to the indicated position. No family relationship exists between any of Ferro’s executive officers.

James F. Kirsch — 53

Chairman, President and Chief Executive Officer, 2006

Mark H. Duesenberg — 49

Vice President, General Counsel and Secretary, 2008

Executive Director, Legal and Government Affairs, Lenovo Group Ltd., a global manufacturer of personal computers and electronic devices, 2008

Legal Director — Europe, Middle East and Africa, Lenovo Group Ltd., 2005

Ann E. Killian — 56

Vice President, Human Resources, 2005

Thomas R. Miklich — 63

Vice President and Chief Financial Officer, 2010

Independent Consultant, 2007

Chief Financial Officer, Titan Technology Partners, an information technology consulting firm, 2005

Michael J. Murry — 59

Vice President, Electronic, Color and Glass Materials, 2009

Vice President, Inorganic Specialties, 2006

Peter T. Thomas — 55

Vice President, Polymer and Ceramic Engineered Materials, 2009

Vice President, Organic Specialties, 2006

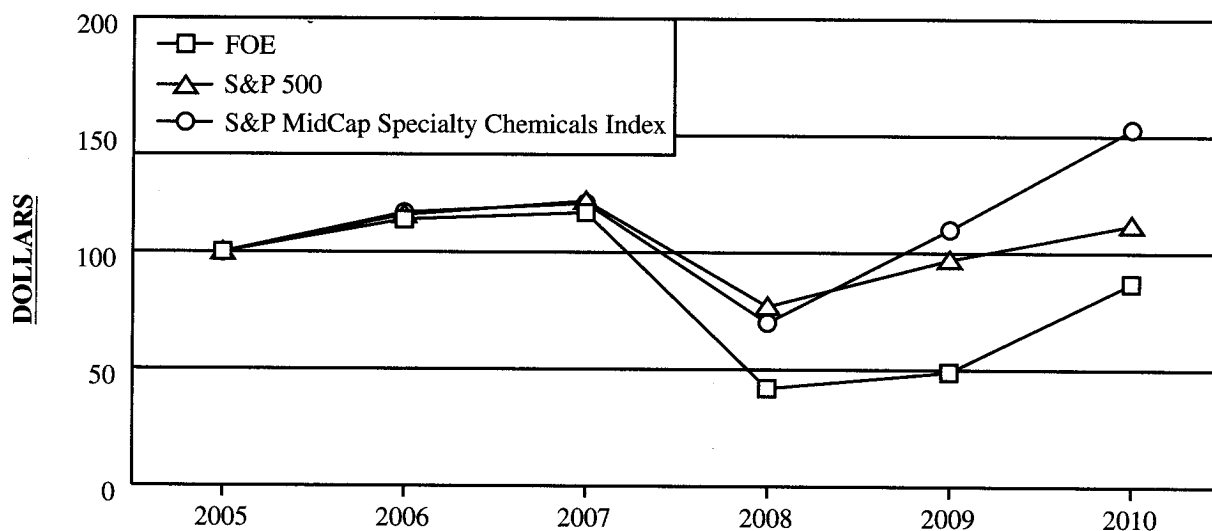
## PART II

### Item 5 — Market for Registrant's Common Equity, Related Stockholder Matters, and Issuer Purchases of Equity Securities

Our common stock is listed on the New York Stock Exchange under the ticker symbol FOE. At January 31, 2011, we had 1,441 shareholders of record for our common stock. The closing price of the common stock on January 31, 2011, was \$15.42 per share.

The chart below compares Ferro's cumulative total shareholder return for the five years ended December 31, 2010, to that of the Standard & Poor's 500 Index and the Standard & Poor's MidCap Specialty Chemicals Index. In all cases, the information is presented on a dividend-reinvested basis and assumes investment of \$100.00 on December 31, 2005.

**COMPARISON OF FIVE-YEAR  
CUMULATIVE TOTAL RETURNS**



The quarterly high and low intra-day sales prices and dividends declared per share for our common stock during 2010 and 2009 were as follows:

	2010			2009		
	High	Low	Dividends	High	Low	Dividends
First Quarter	\$ 9.16	\$ 6.93	\$—	\$ 7.77	\$0.81	\$0.01
Second Quarter	11.62	6.91	—	6.00	1.33	—
Third Quarter	13.77	6.68	—	10.46	1.95	—
Fourth Quarter	15.53	12.44	—	8.98	5.40	—

If we pay cash dividends in excess of a base dividend amount in any single quarterly period, the conversion rate on our 6.50% Convertible Senior Notes will be increased by formula. The base dividend amount is \$0.145 per share, subject to adjustment in certain events.

The restrictive covenants contained in our credit facility limit the amount of dividends we can pay on our common stock. For further discussion, see Management's Discussion and Analysis of Financial Condition and Results of Operations under Item 7 of this Annual Report on Form 10-K.

We did not repurchase any of our common stock during the fourth quarter of 2010.

## Item 6 — Selected Financial Data

The following table presents selected financial data for the last five years ended December 31st:

	2010	2009	2008	2007	2006
	(Dollars in thousands, except per share data)				
Net sales	\$ 2,101,865	\$ 1,657,569	\$ 2,245,152	\$ 2,147,904	\$ 1,987,606
Income (loss) from continuing operations	7,273	(40,040)	(52,882)	(97,502)	17,181
Basic earnings (loss) per share from continuing operations attributable to Ferro Corporation common shareholders	0.06	(0.85)	(1.28)	(2.34)	0.33
Diluted earnings (loss) per share from continuing operations attributable to Ferro Corporation common shareholders	0.06	(0.85)	(1.28)	(2.34)	0.33
Cash dividends declared per common share	—	0.01	0.58	0.58	0.58
Total assets	1,434,355	1,526,355	1,544,117	1,638,260	1,741,602
Long-term debt, including current portion, and redeemable preferred stock	303,269	409,231	577,290	538,758	601,765

In 2008, we sold our Fine Chemicals business. For all periods presented, we report that business as discontinued operations. That divestiture is further discussed in Note 17 to the consolidated financial statements under Item 8 of this Annual Report on Form 10-K.

## Item 7 — Management's Discussion and Analysis of Financial Condition and Results of Operations

### Overview

Market conditions improved during 2010 as customer demand continued to recover from the sharp decline in late 2008 and early 2009. As a result, sales volumes increased across our business. Customer demand was particularly strong within our Electronic Materials segment where demand for our products resulted in significantly higher sales volume, especially for conductive pastes used to produce solar cells.

Net sales increased by 27% compared with 2009. Sales increased in all reporting segments during the year with the highest growth rates in Electronic Materials, Polymer Additives and Color and Glass Performance Materials. Higher precious metal costs, which are passed through to customers, contributed to the sales growth in Electronic Materials.

Manufacturing rationalization activities and other cost reduction actions continued during 2010, resulting in a number of plant closures and reduced worldwide employment. The major operational activities related to the restructuring programs that were initiated in 2006 were completed during 2010. The planned plant closings and associated transfer of manufacturing assets between locations have largely been completed, although we expect some activities to continue in 2011 related to product production transfers, customer product re-qualifications and site cleanup. The restructuring activities completed in 2010 and prior years contributed to higher gross margins and income from continuing operations during 2010.

Gross profit increased in 2010 compared with 2009, driven by higher sales, improved product mix and improved manufacturing efficiency. Gross margin percentage increased compared to 2009 and was higher than was recorded prior to the global recession in 2008 and 2009. For the year, raw material cost increases were offset by product price increases, in aggregate, so the cost increases had little effect on gross profit.

Selling, general and administrative (“SG&A”) expenses increased during 2010. Drivers of the increased SG&A expenses included higher incentive compensation accruals and the resumption of normal wage adjustments. In addition, higher special charges, primarily related to manufacturing rationalization projects, contributed to the higher SG&A expenses during the year.

Restructuring and impairment charges were higher in 2010 compared with 2009. The majority of the charges related to our manufacturing rationalization activities in Europe, which resulted in ending manufacturing activities at selected sites in France, the United Kingdom, Portugal and the Netherlands.

Interest expense declined in 2010, primarily as a result of lower average borrowing levels. Interest expense also declined as a result of debt refinancing actions taken during the year which reduced amortization expenses that are included in interest expense. We recorded losses on extinguishment of debt in 2010 that resulted primarily from our purchase of a portion of the Company’s outstanding 6.5% Convertible Senior Notes in connection with our refinancing actions.

We recorded income from continuing operations during 2010 compared with a loss in 2009. The increased income was the result of higher gross profit and lower interest expense. These benefits were partially offset by higher restructuring and impairment charges, losses on extinguishment of debt, increased SG&A expenses, and higher income tax expense.

### ***Outlook***

We expect demand for our products to improve during 2011 compared with 2010. The growth rate of sales is likely to be less in 2011 than in 2010, as growth in 2010 was enhanced by a rebound in customer demand after the global economic downturn. Raw material input costs have increased in the past several quarters as global economic activity has increased, and these costs are expected to continue to rise. We will attempt to raise product prices to maintain our gross margin percentage, but our ability to do so will be dependent on market conditions and our competitors’ pricing actions.

During 2010, we ended production of several products, including certain metal oxides, commodity dielectric materials and precious metal preparations, as a result of restructuring activities and business transactions with third parties.

We have been engaged in significant manufacturing rationalization activities and expense reduction projects for several years. The major operational changes related to these projects have been largely completed, but we expect some continuing restructuring-related activities during 2011, including product production transfers, product re-qualifications and site clean-up. As a result, we expect to incur restructuring charges at a significantly reduced level in 2011 as we complete the final tasks related to these projects.

Factors that could adversely affect our future financial performance are described under the heading “Risk Factors” in Item 1A.



## Results of Operations

Comparison of the years ended December 31, 2010 and 2009

	2010	2009	\$ Change	% Change
	(Dollars in thousands, except per share data)			
<b>Net sales</b>	\$ 2,101,865	\$ 1,657,569	\$ 444,296	26.8%
<b>Cost of sales</b>	1,643,200	1,343,297	299,903	22.3%
Gross profit	458,665	314,272	144,393	45.9%
Gross margin percentage	21.8%	19.0%		
Selling, general and administrative expenses	293,736	272,259	21,477	7.9%
Restructuring and impairment charges	63,732	19,337	44,395	
Other expense (income):				
Interest expense	44,568	63,918	(19,350)	
Interest earned	(651)	(896)	245	
Losses on extinguishment of debt	23,001	—	23,001	
Foreign currency losses, net	4,724	3,827	897	
Miscellaneous expense (income), net	5,814	(618)	6,432	
<b>Income (loss) before income taxes</b>	23,741	(43,555)	67,296	
Income tax expense (benefit)	16,468	(3,515)	19,983	
<b>Income (loss) from continuing operations</b>	7,273	(40,040)	47,313	
Loss on disposal of discontinued operations, net of income taxes	—	(325)	325	
<b>Net income (loss)</b>	\$ 7,273	\$ (40,365)	\$ 47,638	
<b>Diluted earnings (loss) per share attributable to Ferro Corporation common shareholders</b>	\$ 0.06	\$ (0.86)	\$ 0.92	

Net sales increased by 27% in the year ended December 31, 2010. The increased sales reflected recovering customer demand from the economic downturn in 2009. Increased sales volume in 2010 compared with 2009 accounted for approximately 20 percentage points of the sales increase. Changes in product mix and prices accounted for an additional 8 percentage points of the sales growth. Changes in foreign currency exchange rates reduced the growth in sales by approximately 1 percentage point. The changes in sales volume, product mix and prices included the effects of increased sales of precious metals. Higher precious metal sales contributed approximately 9 percentage points to the overall sales increase during the year. Sales increased in all segments during 2010. Sales in the U.S. and international sales both increased compared to 2009.

Gross profit increased during 2010 as a result of the growth in sales volume. Cost reduction initiatives that were completed during 2010, including staffing reductions, plant consolidations and restructuring actions, also contributed to the gross profit improvement. Gross margin percentage increased approximately 280 basis points in 2010 compared with 2009. In aggregate, increases in raw material costs of approximately \$47 million were offset by increased product prices. Special charges, primarily related to manufacturing rationalization activities, reduced gross profit by approximately \$9.0 million during 2010. Gross profit was reduced by charges of \$5.0 million in 2009, also primarily due to manufacturing rationalization activities.

Selling, general and administrative (“SG&A”) expenses increased by \$21.5 million in 2010 compared with the prior-year period. SG&A expenses declined to 14.0% of net sales in 2010 compared with 16.4% of net sales in 2009. Higher incentive compensation accruals and higher special charges were the primary drivers of the increased SG&A expenses. The 2010 SG&A expenses included \$18.1 million in charges, primarily related to manufacturing

rationalization projects, employee severance and corporate development activities. In 2009, SG&A expenses included \$12.2 million in charges, primarily driven by expense reduction activities.

Restructuring and impairment charges were \$63.7 million in 2010, an increase of \$44.4 million compared with the prior-year period. The largest contributors to the charges in 2010 were restructuring initiatives involving the closure of a manufacturing plant in France, two manufacturing sites in the Netherlands and certain manufacturing operations in Portugal. Approximately \$35.0 million of the restructuring and impairment charges were related to employee severance costs associated with manufacturing rationalization projects. Asset impairments of \$12.6 million and pension settlements and curtailments of \$7.4 million contributed to the total restructuring and impairment charges for 2010. Also included in the restructuring and impairment charges for 2010 were costs of \$3.1 million related to lease termination at sites in Germany and Portugal. The remaining charges were primarily related to site cleanup and dismantling costs at various sites.

Interest expense declined by \$19.4 million during 2010 compared with 2009. The reduction was driven primarily by a decline in our average borrowing levels. Interest expense was also lower as a result of lower average interest rates and the effects of refinancing activities during the year, including the write-off of unamortized debt issuance costs related to our previous credit facility. The refinancing activities reduced interest expense beginning in August 2010. Our average borrowing levels declined as a result of reduced requirements to provide cash collateral for our precious metal consignment programs, debt reduction in late 2009 subsequent to our equity offering, and debt reduction as cash generated from operations during 2010 was used to repay borrowings. As of December 31, 2010, we had \$28.1 million of cash on deposit as collateral for precious metals, a decline from \$112.4 million on December 31, 2009. Our 2010 interest expense included a \$2.3 million noncash write-off of debt issuance costs related to repayments of our term loans prior to their scheduled repayment. Interest expense in 2009 included a \$3.2 million write-off of unamortized credit facility issuance costs that was triggered by debt repayments.

We recorded losses from extinguishment of debt of \$23.0 million during 2010 related to our debt refinancing activities. The charge included a write-off of unamortized debt issuance costs and the difference between the carrying value and the fair value of the portion of our 6.5% convertible notes purchased during 2010. The purchases were made pursuant to a tender offer and subsequently on the open market. The losses on extinguishment charge also included a write-off of unamortized debt issuance costs associated with our previous credit facility.

We manage currency risks in a wide variety of foreign currencies principally by entering into forward contracts to mitigate the impact of currency fluctuations on transactions arising from international trade. The carrying values of these contracts are adjusted to market value and the resulting gains or losses are charged to income or expense during the period. Foreign currency translation losses in 2010 included a write-down of approximately \$2.6 million related to receivables affected by a devaluation of the Venezuelan currency.

As part of our miscellaneous expense in 2010, we recorded a net pre-tax gain of \$8.3 million as a result of a business combination in which Ferro Corporation and Heraeus of Hanau, Germany, acquired from each other certain business lines related to decoration materials for ceramic and glass products. In addition, we recorded a charge of \$6.8 million to settle our interest rate swaps in connection with the extinguishment of term loans that were part of our previous credit facility and a charge of \$9.2 million for an increased reserve for environmental remediation costs related to a non-operating facility in Brazil.

In 2010, income tax expense was \$16.5 million, or 69.3% of income before taxes. In the prior-year period, we recorded an income tax benefit of \$3.5 million, or 8.1% of the loss before income taxes. The tax expense in 2010 was affected by a number of items including a \$9.8 million net increase to valuation allowances due to a determination that it is not more likely than not that certain deferred tax assets will be realized; a \$1.5 million increase in tax expense related to a change in U.S. laws; and a \$2.1 million decrease due to a tax benefit related to U.S. manufacturing income. The tax benefit in 2009 was affected by a number of items including a reduction of \$4.2 million due to rate differences between non-U.S. and U.S. jurisdictions; a reduction of \$2.9 million resulting

from goodwill impairment not recognized for tax purposes; a \$2.9 million reduction due to a decrease in reserves for uncertain tax positions; and a \$4.4 million increase resulting from U.S. credits for increasing research activities.

We recorded income from continuing operations of \$7.3 million in 2010. The income was a \$47.3 million improvement from a loss on continuing operations recorded in 2009. The improvement was primarily the result of higher gross profit and reduced interest expense, partially offset by higher restructuring and impairment charges, increased SG&A expenses, losses on extinguishment of debt and higher income tax expense.

	<u>2010</u>	<u>2009</u>	<u>\$ Change</u>	<u>% Change</u>
	(Dollars in thousands)			
<b>Segment Sales</b>				
Electronic Materials	\$ 675,401	\$ 426,896	\$ 248,505	58.2%
Performance Coatings	555,023	487,891	67,132	13.8%
Color and Glass Performance Materials	382,155	321,750	60,405	18.8%
Polymer Additives	302,352	249,510	52,842	21.2%
Specialty Plastics	163,058	149,524	13,534	9.1%
Pharmaceuticals	23,876	21,998	1,878	8.5%
<b>Total segment sales</b>	<b>\$ 2,101,865</b>	<b>\$ 1,657,569</b>	<b>\$ 444,296</b>	<b>26.8%</b>
<b>Segment Operating Income</b>				
Electronic Materials	\$ 132,585	\$ 45,344	\$ 87,241	192.4%
Performance Coatings	39,416	29,551	9,865	33.4%
Color and Glass Performance Materials	31,514	13,123	18,391	140.1%
Polymer Additives	18,387	6,708	11,679	174.1%
Specialty Plastics	11,348	10,164	1,184	11.6%
Pharmaceuticals	814	438	376	85.8%
<b>Total segment operating income</b>	<b>\$ 234,064</b>	<b>\$ 105,328</b>	<b>\$ 128,736</b>	<b>122.2%</b>

*Electronic Materials Segment Results.* Sales increased in Electronic Materials in all product areas, led by higher sales of conductive pastes and powders. Increased sales volume accounted for approximately \$159 million of the sales increase during 2010. Changes in product pricing and mix contributed an additional \$85 million to sales growth, and changes in foreign currency exchange rates accounted for \$5 million of the higher sales. An increase in precious metal sales of \$141 million, reflecting changes in both sales volume and pricing, contributed to the overall change in sales for the year. The costs of precious metals are passed through to our customers as an element of our product prices. Sales from our U.S. manufacturing sites grew the most in 2010. Sales of products manufactured in the U.S. are recorded as U.S. sales, although many of the products are exported to international customers. Sales also grew in Asia-Pacific, as we increased production at a conductive paste manufacturing facility in China, and in the Europe-Middle East-Africa region. Operating income increased due to a \$90 million increase in gross profit, driven primarily by increased sales volume. Partially offsetting the improved gross profit was a \$3 million increase in SG&A expenses.

*Performance Coatings Segment Results.* Sales increased in Performance Coatings primarily as a result of increased sales volume. Higher sales volume accounted for approximately \$80 million in higher sales. This increase was partially offset by a \$14 million reduction in sales due to changes in foreign currency exchange rates. Changes in product mix and pricing increased sales by \$1 million. Sales were higher in all regions, with the largest increase in Europe-Middle East-Africa. Operating income increased due to a \$20 million increase in gross profit, primarily driven by improved sales volume and changes in product pricing and mix. Partially offsetting the improved gross profit was a \$10 million increase in SG&A expenses including higher incentive compensation accruals, salaries and benefits, increased commissions and higher information technology expenses.

*Color and Glass Performance Materials Segment Results.* Sales increased in Color and Glass Performance Materials primarily due to higher sales volume. Increased sales volume contributed approximately \$56 million to the sales growth during 2010. Changes in product pricing and mix contributed an additional \$10 million to the sales growth while changes in foreign currency exchange rates reduced sales by \$6 million. Sales growth was recorded in Europe-Middle East-Africa, the United States and Asia-Pacific. Operating income increased due to a \$24 million increase in gross profit that was primarily driven by increased sales volume. The increase in gross profit was partially offset by a \$6 million increase in SG&A expenses.

*Polymer Additives Segment Results.* Sales increased in Polymer Additives as a result of higher sales volume and changes in product pricing and mix. Increased sales volume accounted for approximately \$36 million of the sales growth for the year. Changes in product pricing and mix contributed an additional \$21 million to the growth in sales. Changes in foreign currency exchange rates reduced sales by \$4 million. Sales growth was primarily in the United States and Europe-Middle East-Africa. Operating profit increased due to a \$12 million increase in gross profit that was primarily due to increased sales volume and improved manufacturing effectiveness.

*Specialty Plastics Segment Results.* Sales increased in Specialty Plastics due to a combination of changes in product pricing and mix, and higher sales volumes. Changes in product pricing and mix contributed approximately \$10 million to the higher sales in 2010. Increased sales volumes accounted for an additional \$6 million of the sales growth, while changes in foreign currency exchange rates reduced sales growth by \$3 million. Sales growth was primarily in the United States. Operating income increased due to a reduction of \$2 million in SG&A expenses, partially offset by a \$1 million decline in gross profit.

*Pharmaceutical Segment Results.* Sales increased in Pharmaceuticals as a result of changes in product mix. Operating income increased as a result of a \$2 million increase in gross profit that was partially offset by a \$1.6 million increase in SG&A expenses.

	<u>2010</u>	<u>2009</u>	<u>\$ Change</u>	<u>% Change</u>
	(Dollars in thousands)			
<b>Geographic Revenues</b>				
United States	\$ 1,039,457	\$ 758,048	\$ 281,409	37.1%
International	1,062,408	899,521	162,887	18.1%
<b>Total geographic revenues</b>	<b>\$ 2,101,865</b>	<b>\$ 1,657,569</b>	<b>\$ 444,296</b>	<b>26.8%</b>

During 2010, sales increased in the United States and internationally. Sales of products manufactured in the United States were 49% of total net sales for the year, compared with 46% of total sales in 2009. Sales grew more rapidly in the United States than internationally in 2010 primarily as a result of strong sales of electronic materials products. Many of our electronic materials products are manufactured in the United States and exported to other regions. Sales recorded in each region include products that are exported to customers located in other regions. The increase in international sales was driven by higher sales in Europe-Middle East-Africa and Asia-Pacific.

Comparison of the years ended December 31, 2009 and 2008

	2009	2008	\$ Change	% Change
	(Dollars in thousands, except per share data)			
<b>Net sales</b>	\$ 1,657,569	\$ 2,245,152	\$ (587,583)	(26.2)%
<b>Cost of sales</b>	1,343,297	1,841,485	(498,188)	(27.1)%
Gross profit	314,272	403,667	(89,395)	(22.1)%
Gross margin percentage	19.0%	18.0%		
Selling, general and administrative expenses	272,259	297,119	(24,860)	(8.4)%
Restructuring and impairment charges	19,337	106,142	(86,805)	
Other expense (income):				
Interest expense	63,918	51,290	12,628	
Interest earned	(896)	(714)	(182)	
Losses on extinguishment of debt	—	5,531	(5,531)	
Foreign currency losses, net	3,827	742	3,085	
Miscellaneous income, net	(618)	(357)	(261)	
<b>Loss before income taxes</b>	(43,555)	(56,086)	12,531	
Income tax benefit	(3,515)	(3,204)	(311)	
<b>Loss from continuing operations</b>	(40,040)	(52,882)	12,842	
Income from discontinued operations, net of income taxes	—	5,014	(5,014)	
(Loss) gain on disposal of discontinued operations, net of income taxes	(325)	9,034	(9,359)	
<b>Net loss</b>	\$ (40,365)	\$ (38,834)	\$ (1,531)	
<b>Diluted loss per share attributable to Ferro Corporation common shareholders</b>	\$ (0.86)	\$ (0.95)	\$ 0.09	

Net sales declined by 26% in 2009, primarily due to reduced sales volume resulting from the worldwide economic downturn. Lower sales volume accounted for approximately 22 percentage points of the overall sales decline. Changes in product mix and prices accounted for approximately 2.6 percentage points of the sales decline. Changes in foreign currency exchange rates also contributed to the lower net sales, accounting for approximately 1.5 percentage points of the sales decline. The changes in sales volume, product mix and prices include the effects of lower sales of precious metals. Lower precious metal sales contributed approximately 3.1 percentage points to the lower sales for the year. Sales declined in all segments and in all regions compared with the prior-year period.

Gross profit declined in 2009 as a result of the decline in net sales. Cost reduction initiatives, including staffing reductions, plant closures and restructuring actions, partially offset the decline in gross profit. As a result, despite the decline in sales, gross profit percentage increased approximately 100 basis points in 2009 compared with 2008. Raw material prices declined, in aggregate, by approximately \$98 million during 2009 compared with the prior-year period. The benefit from lower raw material costs was largely offset by lower product prices. Charges, primarily related to manufacturing rationalization activities, reduced gross profit by approximately \$5.0 million during 2009. Gross profit was reduced by approximately \$3.1 million in 2008 as a result of charges for asset write-offs and costs associated with our manufacturing rationalization initiatives. In 2008, gross profit was also reduced by approximately \$3.3 million spent to clean up an accidental discharge of product into the wastewater treatment facility at our Bridgeport, New Jersey, manufacturing location.

Selling, general and administrative (“SG&A”) expenses declined by \$24.9 million in 2009 compared with 2008. SG&A expenses were 16.4 percent of sales in 2009 compared with 13.2 percent of sales in 2008 due to lower

sales. SG&A expenses declined as a result of expense reduction efforts we made in response to weak customer demand. The expense reductions included reduced staffing and reduced discretionary spending. In 2009, these actions contributed to a reduction of approximately \$17.8 million in salary and wage expense and a \$10.8 million reduction in travel and entertainment expense compared with 2008. Partially offsetting these declines was an increase of approximately \$20.1 million in pension expense. SG&A expenses in 2009 included charges of approximately \$12.2 million primarily related to expense reduction initiatives. The 2008 SG&A expenses included charges of approximately \$3.9 million related to corporate development activities, asset write-offs and employee severance expenses, partially offset by benefits from litigation settlements and insurance proceeds.

We recorded restructuring and impairment charges of \$19.3 million during 2009 consisting of \$11.1 million related to manufacturing rationalization activities in our European manufacturing operations and other cost-reduction actions, and \$8.2 million for a reduction in goodwill associated with our Pharmaceuticals business. The impairment in goodwill was triggered by changes made to the assumptions used to determine valuation under the market approach. In 2008, restructuring and impairment charges were \$106.1 million. The 2008 charges included a \$58.4 million reduction in goodwill and a \$21.8 million charge related to long-lived assets in the Tile Coating Systems business within the Performance Coatings segment, the Specialty Plastics segment, and the Electronic Materials segment. In addition, we recorded restructuring charges of \$25.9 million in 2008, primarily associated with the rationalization of our manufacturing operations in the Performance Coatings and Color and Glass Performance Materials segments, and other activities to reduce costs and expenses throughout all of our businesses.

Interest expense increased during 2009 compared with the prior-year period. Interest expense increased approximately \$7.0 million due to higher interest rates, primarily resulting from an amendment to our credit facilities that we signed in March 2009 and approximately \$2.4 million due to increased borrowings. Additional changes in interest expense resulted from differences in the amortization of debt issuance costs and discounts. Interest expense in 2009 included a required \$3.2 million write-off of unamortized credit facility debt issuance costs triggered by debt repayments. A primary driver of the increased borrowing levels in 2009 was a requirement to provide cash collateral for precious metal consignment programs. As of December 31, 2009, we had \$112.4 million of cash on deposit as collateral for precious metals.

During 2008, we refinanced our 9½% coupon senior notes using the proceeds of a new convertible bond offering and additional borrowing from our revolving credit facility. The repayment of the senior notes resulted in a loss on extinguishment of debt of \$5.5 million. This loss did not recur in 2009.

Net foreign currency transaction losses were \$3.8 million in 2009 compared with losses of \$0.7 million in 2008. We manage currency translation risks in a wide variety of foreign currencies principally by entering into forward contracts to mitigate the impact of currency fluctuations on transactions arising from international trade. The carrying values of these contracts are adjusted to fair value and the resulting gains and losses are charged to income or expense in the period.

During 2009, we recognized a tax benefit of \$3.5 million, or 8.1% of the loss before income taxes, compared to a benefit of \$3.2 million, or 5.7% of the loss before income taxes in 2008. The tax benefit in 2009 was affected by a number of items including a reduction of \$4.2 million due to rate differences between non-U.S. and U.S. jurisdictions; a reduction of \$2.9 million resulting from goodwill impairment not recognized for tax purposes; a \$2.9 million reduction due to a decrease in our reserves for uncertain tax positions; and a \$4.4 million increase resulting from U.S. credits for increasing research activities. The tax benefit in 2008 was impacted by items including a \$15.4 million reduction due to goodwill impairment with only a partial tax benefit; a \$9.8 million decrease resulting from an increase to valuation allowances due to a determination that it is not more likely than not that certain deferred tax assets will be realized; a \$6.5 million decrease from rate differences between non-U.S. and U.S. jurisdictions; a \$6.1 million increase due to a favorable tax impact on foreign dividends; and, a \$5.7 million increase resulting from a decrease in the reserves for uncertain tax positions.

The 2009 loss from continuing operations was reduced from the loss recorded in 2008 as a result of lower impairment charges, reduced SG&A expenses and lower restructuring charges. Partially offsetting these reduced charges and expenses were lower gross profit and higher interest expense.

	2009	2008	\$ Change	% Change
	(Dollars in thousands)			
<b>Segment Sales</b>				
Electronic Materials	\$ 426,896	\$ 558,313	\$ (131,417)	(23.5)%
Performance Coatings	487,891	627,918	(140,027)	(22.3)%
Color and Glass Performance Materials	321,750	456,644	(134,894)	(29.5)%
Polymer Additives	249,510	349,902	(100,392)	(28.7)%
Specialty Plastics	149,524	225,856	(76,332)	(33.8)%
Pharmaceuticals	21,998	26,519	(4,521)	(17.0)%
<b>Total segment sales</b>	<b>\$ 1,657,569</b>	<b>\$ 2,245,152</b>	<b>\$ (587,583)</b>	<b>(26.2)%</b>
<b>Segment Operating Income</b>				
Electronic Materials	\$ 45,344	\$ 52,868	\$ (7,524)	(14.2)%
Performance Coatings	29,551	36,935	(7,384)	(20.0)%
Color and Glass Performance Materials	13,123	39,112	(25,989)	(66.4)%
Polymer Additives	6,708	6,086	622	10.2%
Specialty Plastics	10,164	5,385	4,779	88.7%
Pharmaceuticals	438	3,524	(3,086)	(87.6)%
<b>Total segment operating income</b>	<b>\$ 105,328</b>	<b>\$ 143,910</b>	<b>\$ (38,582)</b>	<b>(26.8)%</b>

*Electronic Materials Segment Results.* Sales declined in Electronic Materials primarily as a result of lower sales volume of dielectric materials and metals pastes and powders, partially offset by improvements in product pricing. The decline in sales volume was responsible for an approximately \$176 million reduction in sales in 2009. This reduction was partially offset by approximately \$40 million due to changes in product pricing and \$4 million due to changes in foreign currency exchange rates. A decline in sales of precious metals of \$59 million contributed to the sales decline, reflecting both price and volume changes in precious metals. The costs of precious metals included in our products are passed through to customers as an element of our product prices. Sales declined in all three principal regional markets for our electronic materials products: Asia-Pacific, the United States and Europe. Operating income declined due to a \$22 million decline in gross profit partially offset by a reduction of \$14 million in SG&A expenses. The decline in gross profit was primarily due to the negative effects of lower sales volumes. The decline in SG&A expenses was due to expense reduction initiatives, including staffing reductions and control of discretionary spending.

*Performance Coatings Segment Results.* Sales declined in Performance Coatings primarily due to reduced sales volumes of tile coatings. The decline in total sales volume was responsible for approximately \$85 million of the reduction in sales, while changes in product prices and mix reduced sales by approximately \$23 million and changes in foreign currency exchange rates contributed approximately \$32 million to the sales decline. The sales decline was the largest in Europe, our largest market for these products. Sales also declined in the United States and Asia-Pacific. Operating income declined primarily due to reduced sales. Gross profit declined by \$25 million, driven by the lower sales volume. Partially offsetting the decline in gross profit was a reduction in SG&A expenses of \$18 million as a result of staffing reductions and expense reduction initiatives.

*Color and Glass Performance Materials Segment Results.* Sales declined in Color and Glass Performance Materials as a result of lower sales volume. Lower sales volume reduced sales by approximately \$93 million. Changes in product prices and mix contributed an additional \$31 million to the sales decline, and changes in foreign currency exchange rates accounted for approximately \$10 million of the lower net sales for the segment. Sales for the year were lower in all regions. Operating income declined due to a \$38 million decline in gross profit, partially offset by a \$12 million reduction in SG&A expenses. The decline in gross profit was primarily due to the negative



effects of lower sales volumes. The reduction in SG&A expenses was primarily due to staffing reductions and control of discretionary spending.

*Polymer Additives Segment Results.* Sales declined in Polymer Additives primarily as a result of lower sales volume and changes in product pricing and mix. The reduction in volume accounted for approximately \$67 million of the sales decline, while changes in product pricing and mix contributed an additional \$29 million to the reduced sales. Changes in foreign currency exchange rates were responsible for \$4 million of the reduction in sales from the prior year. The sales declines occurred primarily in the United States and Europe. Operating income increased, despite the decline in sales, due to a \$7.5 million reduction in SG&A expenses that more than offset a \$6.9 million decline in gross profit. The decline in gross profit was due primarily to the negative effects of lower sales volume. The decline in SG&A expenses was due to staffing reductions and control of discretionary spending. In addition, during 2008 the operating income in Polymer Additives was reduced by approximately \$3.3 million in costs to clean up an accidental discharge of product into the wastewater treatment facility at our Bridgeport, New Jersey, manufacturing plant.

*Specialty Plastics Segment Results.* Sales declined in Specialty Plastics primarily due to lower sales volume. Approximately \$65 million of the sales decline was the result of lower sales volume. Changes in product pricing and mix contributed \$8 million to the lower sales and changes in foreign currency exchange rates reduced sales by an additional \$3 million. The sales decline occurred mainly in the United States and Europe, the primary markets for our plastics products. Operating income increased compared with the prior-year period as a result of a \$7.3 million decrease in SG&A expenses that more than offset a \$2.5 million decrease in gross profit. The decline in gross profit was due to the negative effects of lower sales volumes partially offset by improved manufacturing cost performance. The reduction in SG&A expenses was due to staffing reductions and control of discretionary spending.

*Pharmaceuticals Segment Results.* Sales declined in Pharmaceuticals primarily as a result of reduced demand for high-value products that caused a change in product mix. Operating income declined primarily due to a \$5.0 million reduction in gross profit driven by the change in product mix. The reduction in gross profit was partially offset by a \$1.9 million reduction in SG&A expenses. Results related to our Fine Chemicals business, which had previously been combined with the results from our Pharmaceuticals business and reported as "Other Businesses," are now reported as discontinued operations following the sale of that business in 2008.

	2009	2008	\$ Change	% Change
	(Dollars in thousands)			
<b>Geographic Revenues</b>				
United States	\$ 758,048	\$ 973,717	\$ (215,669)	(22.1)%
International	899,521	1,271,435	(371,914)	(29.3)%
<b>Total geographic revenues</b>	<b>\$ 1,657,569</b>	<b>\$ 2,245,152</b>	<b>\$ (587,583)</b>	<b>(26.2)%</b>

Sales of products shipped from all regions declined as a result of the worldwide economic downturn in 2009. In 2009, sales of products manufactured in the United States were 46% of total net sales compared with 43% of net sales in 2008. The decline in international sales was driven primarily by sales in Europe and Asia-Pacific. Sales in Latin America declined slightly compared with the prior year. Sales recorded in each region include products exported to customers that are located in other regions.

**Summary of Cash Flows for the years ended December 31, 2010, 2009 and 2008**

	2010	2009	2008
	(Dollars in thousands)		
Net cash provided by (used for) operating activities	\$ 198,865	\$ 2,151	\$ (9,096)
Net cash used for investing activities	(33,322)	(42,654)	(17,050)
Net cash (used for) provided by financing activities	(157,264)	46,625	23,854
Effect of exchange rate changes on cash	2,249	2,194	458
<b>Increase (decrease) in cash and cash equivalents</b>	<b>\$ 10,528</b>	<b>\$ 8,316</b>	<b>\$ (1,834)</b>

*Operating activities.* Cash flows from operating activities increased \$196.7 million from 2009 to 2010. Cash flows improved \$196.8 million from decreases in deposit requirements related to our precious metal consignment program, \$54.1 million from increases in accrued expenses and other current liabilities, \$47.6 million as a result of a lower net loss in 2010, and \$41.8 million from increases in accounts payable. These benefits were partially offset by increases in cash used for inventories of \$98.9 million, accounts receivable of \$37.0 million and other receivables and current assets of \$32.5 million.

Cash flows from operating activities increased \$11.2 million from 2008 to 2009. Changes in inventory levels provided \$82.7 million of additional cash flows, and changes in other receivables and other current assets provided another \$54.7 million. Cash outflows of \$46.3 million in 2008 related to a note receivable from Ferro Finance Corporation (“FFC”) did not recur in 2009. Partially offsetting these benefits was \$112.4 million used for deposits related to our precious metals consignment program.

*Investing activities.* Capital expenditures decreased \$1.5 million from 2009 to 2010 and decreased \$29.8 million from 2008 to 2009. In 2008, capital spending included the construction of a new plant in Spain that produces colors for the European tile market, increased investment in the Company’s manufacturing facilities in the Asia-Pacific region to produce electronic materials, and projects related to our manufacturing rationalization programs in the United States and Europe. In 2009 and 2010, we continued capital spending on manufacturing rationalization programs, but the other projects from 2008 had been substantially completed, and we made a concerted effort to defer or scale back new projects in order to conserve cash during a period of reduced customer demand associated with the global economic downturn. In 2010, we received proceeds of \$11.4 million from the sale of assets and businesses, primarily property, plant and equipment in the Netherlands and our business operations in precious metal preparations in Asia. In 2008, we sold our Fine Chemicals business and received proceeds, net of transactional costs, of \$56.5 million.

*Financing activities.* At December 31, 2010, our primary credit agreement consisted of a new \$350.0 million multi-currency senior revolving credit facility, maturing in 2015. In 2010, we issued \$250.0 million of 7.875% Senior Notes in a high yield bond offering, repurchased \$136.7 million of our 6.50% Convertible Senior Notes through a tender offer and subsequent market purchases, and repaid all outstanding term loans totaling \$231.4 million and our revolving credit line of a net \$1.7 million associated with the 2009 Amended and Restated Credit Facility. In 2009, we issued 41.1 million shares of common stock and received net proceeds of \$215.7 million. In connection with this equity offering, we converted \$100.0 million of revolving loans into new term loans and then used \$158.1 million of the equity offering proceeds to pay down new and existing term loans. In 2008, Ferro issued \$172.5 million of 6.50% Convertible Senior Notes due 2013. The proceeds from this note offering, along with available cash, including borrowings under our revolving credit facility, were used to purchase all of Ferro’s outstanding 9½% Senior Notes that would have matured in 2009.

We had net repayment to all credit facilities of \$144.3 million in 2010 and \$155.8 million in 2009, for a net increase in 2010 of \$11.5 million in our rate of borrowing. In 2008, we had net borrowings of \$64.7 million, for a net decrease in 2009 of \$220.5 million in our rate of borrowing. In 2010, we paid \$5.7 million to issue the

7.875% Senior Notes and \$4.1 million to enter into our 2010 Credit Facility. In 2009, we paid \$16.9 million to amend and enter into credit facilities. In 2008, we paid \$5.3 million to extinguish the 9% Senior Notes and \$5.6 million to issue the 6.50% Convertible Senior Notes.

We have paid no dividends on our common stock since the first quarter of 2009, when Ferro's Board of Directors declared a quarterly dividend of \$0.01 per common share. In 2008, we paid dividends on our common stock at the quarterly rate of \$0.145 per share. Dividends paid, including dividends on our preferred stock, totaled \$0.7 million in 2010, \$1.1 million in 2009, and \$26.1 million in 2008.

### *Capital Resources and Liquidity*

#### *2010 Debt Refinancing*

During August 2010, we refinanced the majority of our debt structure. The refinancing allowed us to extend debt maturities, negotiate less restrictive debt covenants and reduce debt costs. We used the proceeds from a high yield debt offering, as well as proceeds from a new credit facility, to repurchase some of our convertible senior notes, repay the term loans and revolver under our prior credit facility, terminate and settle our interest rate swap agreements, and pay fees and expenses associated with the refinancing. The refinancing included the following activities:

- Issued \$250 million of 7.875% Senior Notes in a high yield bond offering,
- Entered into a new \$350 million revolving credit agreement, the 2010 Credit Facility,
- Repurchased \$100.5 million of our 6.50% Convertible Senior Notes, which were tendered pursuant to a tender offer initiated in conjunction with the debt refinancing,
- Repaid all outstanding term loans associated with the 2009 Amended and Restated Credit Facility,
- Repaid all amounts outstanding under the revolving credit line associated with the 2009 Amended and Restated Credit Facility, and
- Terminated the interest rate swap agreements that effectively fixed the interest rate on a portion of the term loans then outstanding under the 2009 Amended and Restated Credit Facility.

As a result of these refinancing activities, we recognized losses on extinguishment of debt of \$19.3 million. In addition, we incurred \$6.8 million in miscellaneous expense, which was associated with the settlement of the interest rate swap agreements. We also recognized \$2.3 million in interest expense related to the write-off of unamortized debt issuance costs. Debt issuance costs of \$9.9 million related to the new debt instruments were deferred and will be recognized as interest expense over the life of the debt obligations.

Major debt instruments that were outstanding during 2010 are described in additional detail below.

#### *7.875% Senior Notes*

In 2010, we issued \$250 million of 7.875% Senior Notes due 2018 (the "Senior Notes"). We used portions of the proceeds from the offering to repay all of the remaining term loans and revolving borrowings outstanding under a credit facility originally entered into in 2006 and as amended and restated through November 2009 (the "2009

Amended and Restated Credit Facility”). We also used portions of the proceeds from the offering to repurchase the 6.50% Convertible Senior Notes (the “Convertible Notes”) that were tendered pursuant to a related tender offer. The Senior Notes were issued at par and bear interest at a rate of 7.875% per year, payable semi-annually in arrears on February 15 and August 15 of each year, beginning February 15, 2011. The Senior Notes mature on August 15, 2018, and are unsecured. At December 31, 2010, we were in compliance with the covenants under the Senior Notes’ indenture.

#### *6.50% Convertible Senior Notes*

In 2008, Ferro issued \$172.5 million of 6.50% Convertible Senior Notes due 2013 (the “Convertible Notes”). The Convertible Notes bear interest at a rate of 6.5% per year, payable semi-annually in arrears on February 15 and August 15 of each year. The Convertible Notes mature on August 15, 2013. In 2010, we commenced a cash tender offer to purchase all of our Convertible Notes, and we purchased \$100.5 million of the Convertible Notes, which were tendered pursuant to the offer. Later in 2010, we purchased an additional \$36.2 million of the Convertible Notes on the open market. In connection with these transactions, we recognized losses on extinguishment of debt of \$13.1 million, consisting of unamortized debt issuance costs and the difference between the carrying value and the fair value of these notes. The principal amount outstanding was \$35.8 million at December 31, 2010. We separately account for the liability and equity components of the Convertible Notes in a manner that will reflect our nonconvertible debt borrowing rate when interest cost is recognized in subsequent periods. The effective interest rate on the liability component is 9.5%. At December 31, 2010, we were in compliance with the covenants under the Convertible Notes’ indenture.

#### *2009 Amended and Restated Credit Facility*

Our 2009 Amended and Restated Credit Facility included a senior term loan facility and a senior revolving credit facility. In 2010, we made early principal payments of \$83.6 million on our outstanding term loans and wrote off \$2.3 million of related unamortized debt issuance costs to interest expense. Subsequently in 2010, we amended the 2009 Amended and Restated Credit Facility and paid the remaining \$147.8 million on our outstanding term loans and the remaining \$75.5 million on our outstanding revolving borrowings. As a result of changes in the creditors, we treated the amendment as an extinguishment of the 2009 Amended and Restated Credit Facility and recognized losses on extinguishment of debt of \$9.9 million, consisting of unamortized debt issuance costs related to this facility.

#### *2010 Credit Facility*

In 2010, we entered into the Third Amended and Restated Credit Agreement with a group of lenders for a five-year, \$350 million multi-currency senior revolving credit facility (the “2010 Credit Facility”). At December 31, 2010, there were no borrowings under this facility. At December 31, 2010, we had \$342.8 million available, after reductions for standby letters of credit secured by this facility. The interest rate under the 2010 Credit Facility is the sum of (A) either (1) LIBOR or (2) the higher of the Federal Funds Rate plus 0.5%, the Prime Rate, or LIBOR plus 1.0% and (B) a variable margin based on the Company’s leverage.

The 2010 Credit Facility matures on August 24, 2015, and is secured by substantially all of Ferro’s assets, generally including 100% of the shares of the parent company’s domestic subsidiaries and 65% of the shares of the foreign subsidiaries directly owned by the parent company, but excluding trade receivables legally sold pursuant to our accounts receivable sales programs.

We are subject to a number of covenants under our 2010 Credit Facility. The covenants include requirements for a fixed charge coverage ratio greater than 1.35 to 1.00 and a leverage ratio less than 3.50 to 1.00 on the last day of any fiscal quarter and calculated using the last four fiscal quarters. In the fixed charge ratio, the numerator consists

of earnings before interest, tax, depreciation and amortization, and special charges, less capital expenditures, and the denominator is the sum of interest expense paid in cash, scheduled principal payments, and restricted payments consisting of dividends and any stock buy backs. In the leverage ratio, the numerator is total debt, which consists of borrowing and letters of credit outstanding on the 2010 Credit Facility and our international facilities, the principal amount outstanding on our senior notes and convertible notes, capital lease obligations, and amounts outstanding on our U.S. and international receivables sales programs, and the denominator is the sum of earnings before interest, tax, depreciation and amortization, and special charges. Our ability to meet these covenants is primarily driven by our net income before interest, income taxes, depreciation and amortization; our total debt; and our interest payments. Our total debt is primarily driven by cash flow items, including net income before amortization, depreciation, and other noncash charges; our capital expenditures; requirements for deposits from participants in our precious metals consignment program; our customers' ability to make payments for purchases and the timing of such payments; and our ability to manage inventory and other working capital items. Our interest payments are driven by our debt level, external fees, and interest rates, primarily the Prime Rate and LIBOR. At December 31, 2010, we were in compliance with the covenants of the 2010 Credit Facility.

Our ability to pay common stock dividends is limited by certain covenants in our 2010 Credit Facility and the bond indenture governing the Senior Notes. The covenant in our 2010 Credit Facility is the more limiting of the two covenants and limits our ability to make restricted payments, which include, but are not limited to, common stock dividends and the repurchase of equity interests. We are not permitted to make restricted payments in excess of \$30 million dollars in any calendar year. However, if we make less than \$30 million of restricted payments in any calendar year, the unused amount can be carried over for restricted payments in future years, provided that the maximum amount of restricted payments in any calendar year cannot exceed \$60 million.

#### *Domestic Receivable Sales Program*

We have an asset securitization program for substantially all of Ferro's U.S. trade accounts receivable. This program accelerates cash collections at favorable financing costs and helps us manage the Company's liquidity requirements. In June 2010, we extended the maturity of our \$50 million facility through May 2011.

We legally sell these trade accounts receivable to Ferro Finance Corporation ("FFC"), which finances its acquisition of trade receivable assets by selling undivided variable percentage interests in the receivables to certain purchasers under the program. Advances by purchasers are secured by, and repaid through collections on, the receivables owned by FFC. FFC and the purchasers have no recourse to Ferro's other assets for failure of payment of the receivables as a result of the lack of creditworthiness or financial inability to pay of the related obligor.

FFC is a wholly-owned, consolidated subsidiary. At December 31, 2010, Ferro's consolidated balance sheet included outstanding trade accounts receivable legally transferred to FFC of \$85.3 million. While there were no advances by purchasers for interests in those receivables at December 31, 2010, the average advances during 2010 were \$23.9 million. The need for advances under the asset securitization program varies throughout the year as liquidity needs change. After reductions for non-qualifying receivables, we had \$50.0 million of additional borrowings available under the program at December 31, 2010.

#### *Off Balance Sheet Arrangements*

*International Receivable Sales Programs.* We maintain several international programs to sell trade accounts receivable. At December 31, 2010, the commitments supporting these programs, which can be withdrawn at any time, totaled \$30.1 million, the amount of outstanding receivables sold under these programs was \$6.8 million, and Ferro had received net proceeds under these programs of \$3.4 million for outstanding receivables. Based on available and qualifying receivables, there was no additional availability under these programs at December 31, 2010.

*Consignment and Customer Arrangements for Precious Metals.* We use precious metals, primarily silver, in the production of some of our products. We obtain most precious metals from financial institutions under consignment agreements (generally referred to as our precious metals consignment program). The financial institutions retain ownership of the precious metals and charge us fees based on the amounts we consign. These fees were \$5.3 million for 2010. At December 31, 2010, we had on hand \$205.7 million of precious metals, measured at fair value, owned by participants in our precious metals consignment program. We also process precious metals owned by our customers.

The consignment agreements under our precious metals program involve short-term commitments that typically mature within 30 to 90 days of each transaction and are typically renewed on an ongoing basis. As a result, the Company relies on the continued willingness of financial institutions to participate in these arrangements to maintain this source of liquidity. Beginning in 2009, several participants in our precious metals consignment program renewed their requirement for us to deliver cash collateral to secure our obligations arising under the consignment agreements. At December 31, 2010, Ferro had delivered \$28.1 million in cash collateral to induce those financial institutions to participate in Ferro's precious metals consignment program at the amounts requested. We may be required to furnish additional cash collateral in the future based on our financial partners' requirements or our amounts of consigned precious metals.

*Bank Guarantees and Standby Letters of Credit.* At December 31, 2010, the Company and its subsidiaries had bank guarantees and standby letters of credit issued by financial institutions that totaled \$12.2 million. These agreements primarily relate to Ferro's insurance programs, foreign energy purchase contracts and foreign tax payments.

#### *Other Financing Arrangements*

We maintain other lines of credit to provide global flexibility for Ferro's short-term liquidity requirements. These facilities are uncommitted lines for our international operations and totaled \$12.9 million at December 31, 2010. We had \$9.3 million of additional borrowings available under these lines at December 31, 2010.

#### *Liquidity Requirements*

Our liquidity requirements primarily include debt service, purchase commitments, labor costs, working capital requirements, restructuring expenditures, capital investments, precious metals cash collateral requirements, and postretirement obligations. We expect to meet these requirements in the long term through cash provided by operating activities and availability under existing credit facilities or other financing arrangements. Cash flows from operating activities are primarily driven by earnings before noncash charges and changes in working capital needs. In 2010, cash flows from operating activities were sufficient to fund our investing activities, primarily capital expenditures for property, plant and equipment. We had additional borrowing capacity of \$402.1 million at December 31, 2010, and \$202.4 million at December 31, 2009, available under various credit facilities, primarily our revolving credit facility. We have taken a variety of actions to enhance liquidity, including restructuring activities and suspension of dividend payments on our common stock.

Our level of debt, debt service requirements, and ability to access credit markets could have important consequences to our business operations and uses of cash flows. Uncertainties in the global capital markets have not prohibited us from accessing the capital markets. In 2010, we extended our asset securitization facility, issued 7.875% Senior Notes, which mature in 2018, and entered into the 2010 Credit Facility, which matures in 2015.

We may from time to time seek to retire or repurchase our outstanding debt through open market purchases, privately negotiated transactions or otherwise. Such repurchases, if any, will depend on prevailing market

conditions, our liquidity requirements, contractual restrictions, and other factors. The amounts involved may be material.

Difficulties experienced in global capital markets could affect the ability or willingness of counterparties to perform under our various lines of credit, receivable sales programs, forward contracts, and precious metal program. These counterparties are major, reputable, multinational institutions, all having investment-grade credit ratings, except for one, which is not rated. Accordingly, we do not anticipate counterparty default. However, an interruption in access to external financing could adversely affect our business prospects and financial condition.

We assess on an ongoing basis our portfolio of businesses, as well as our financial and capital structure, to ensure that we have sufficient capital and liquidity to meet our strategic objectives. As part of this process, from time to time we evaluate the possible divestiture of businesses that are not critical to our core strategic objectives and, where appropriate, pursue the sale of such businesses. We also evaluate and pursue acquisition opportunities that we believe will enhance our strategic position. Generally, we publicly announce divestiture and acquisition transactions only when we have entered into definitive agreements relating to those transactions.

The Company's aggregate amount of contractual obligations for the next five years and thereafter is set forth below:

	2011	2012	2013	2014	2015	Thereafter	Totals
	(Dollars in thousands)						
Loans payable	\$ 709	\$ —	\$ —	\$ —	\$ —	\$ —	\$ 709
Long-term debt(1)	3,349	2,111	36,968	1,092	1,101	254,514	299,135
Interest(2)	22,017	22,017	22,017	19,688	19,688	59,062	164,489
Operating lease obligations	13,345	8,990	6,080	5,205	4,967	13,087	51,674
Purchase commitments(3)	19,136	3,008	1,920	1,788	1,341	—	27,193
Taxes(4)	8,823	—	—	—	—	—	8,823
Retirement and other postemployment benefits(5)	40,800	46,300	—	—	—	—	87,100
	<u>\$ 108,179</u>	<u>\$ 82,426</u>	<u>\$ 66,985</u>	<u>\$ 27,773</u>	<u>\$ 27,097</u>	<u>\$ 326,663</u>	<u>\$ 639,123</u>

- (1) Long-term debt excludes unamortized discounts on the Convertible Notes and imputed interest and executory costs on capitalized lease obligations.
- (2) Interest represents only contractual payments for fixed-rate debt.
- (3) Purchased commitments are non-cancelable contractual obligations for raw materials and energy.
- (4) We have not projected payments past 2011 due to uncertainties in estimating the amount and period of any payments.
- (5) The funding amounts are based on the minimum contributions required under our various plans and applicable regulations in each respective country plus a planned one-time payment of \$4.9 million in 2011 to improve the funding of a non-U.S. pension plan. We have not projected contributions past 2012 due to uncertainties regarding the assumptions involved in estimating future required contributions.

### ***Critical Accounting Policies***

When we prepare our consolidated financial statements we are required to make estimates and assumptions that affect the amounts we report in the consolidated financial statements and footnotes. We consider the policies discussed below to be more critical than other policies because their application requires our most subjective or complex judgments. These estimates and judgments arise because of the inherent uncertainty in predicting future events. Management has discussed the development, selection and disclosure of these policies with the Audit Committee of the Board of Directors.



### *Revenue Recognition*

We recognize sales typically when we ship goods to our customers and when all of the following criteria are met:

- Persuasive evidence of an arrangement exists;
- The selling price is fixed and determinable;
- Collection is reasonably assured; and
- Title and risk of loss has passed to our customers.

In order to ensure the revenue recognition in the proper period, we review material sales contracts for proper cut-off based upon the business practices and legal requirements of each country. For sales of products containing precious metals, we report revenues gross along with their corresponding cost of sales to arrive at gross profit. We record revenues this way because we act as the principal in the transactions we enter into and take title and the risks and rewards of ownership of the inventory we process, although the timing of when we take title to the inventory during the production process may vary.

### *Restructuring and Cost Reduction Programs*

Between 2006 and 2010, we developed and initiated several restructuring programs across a number of our business segments with the objectives of leveraging our global scale, realigning and lowering our cost structure, and optimizing capacity utilization. The programs are primarily associated with North America, Europe and Asia-Pacific. Management continues to evaluate our businesses, and therefore, there may be supplemental provisions for new plan initiatives, as well as changes in estimates to amounts previously recorded, as payments are made or actions are completed.

Restructuring charges include both termination benefits and asset writedowns. We estimate accruals for termination benefits based on various factors including length of service, contract provisions, local legal requirements, projected final service dates, and salary levels. We also analyze the carrying value of long-lived assets and record estimated accelerated depreciation through the anticipated end of the useful life of the assets affected by the restructuring or record an asset impairment. In all likelihood, this accelerated depreciation will result in reducing the net book value of those assets to zero at the date operations cease. While we believe that changes to our estimates are unlikely, the accuracy of our estimates depends on the successful completion of numerous actions. Delays in moving continuing operations to other facilities or increased cash outlays will increase our restructuring costs to such an extent that it could have a material impact on the Company's results of operations, financial position, or cash flows. Other events, such as a delay in completion of construction of new facilities, may also delay the resulting cost savings.

### *Goodwill*

While goodwill recorded on our balance sheet is no longer amortized, we review it for impairment each year using a measurement date of October 31st or more frequently in the event of an impairment indicator. We estimate the fair value of the reporting unit associated with these assets using the average of both the income approach and the market approach, which we believe provides a reasonable estimate of the reporting unit's fair value, unless facts and circumstances exist that indicate a more representative fair value. The income approach uses projected cash flows attributable to the reporting unit over its useful life and allocates certain corporate expenses to the reporting

unit in the process. We use historical results and trends and our projections of market growth, internal sales efforts, input cost movements, and cost reduction opportunities to estimate future cash flows. Using a risk-adjusted, weighted-average cost of capital, we discount the cash flow projections to the measurement date. The market approach estimates a price reasonably expected to be realized from the sale of similar businesses, including offers from potential acquirers. If the fair value of any of the units were determined to be less than its carrying value, we would proceed to the second step and obtain comparable market values or independent appraisals of its assets to determine the amount of any impairment.

The significant assumptions and ranges of assumptions we used in our impairment analysis of goodwill were as follows:

<u>Significant Assumptions</u>	<u>2010</u>	<u>2009</u>
Weighted-average cost of capital	12.0% - 13.0%	13.5% - 14.0%
Residual growth rate	3.0% - 5.0%	3.0% - 5.0%

Our estimates of fair value can be affected by a variety of factors. Reductions in actual or projected growth or profitability at our business units due to unfavorable market conditions or significant increases in previous levels of capital spending could lead to the impairment of any related goodwill. Additionally, an increase in inflation, interest rates or the risk-adjusted, weighted-average cost of capital could also lead to a reduction in the value of one or more of our business units and therefore lead to the impairment of goodwill.

We had three reporting units with goodwill balances as of our most recent measurement date. The fair values exceeded the carrying values of the respective reporting units by amounts ranging from 47% to 233% at the 2010 measurement date. There were no known material uncertainties that would have led to an indicator of impairment for 2010. While no impairment was indicated as a result of our 2010 annual test for any reporting unit that had a goodwill balance, a future potential impairment is possible for any of these reporting units if actual results should differ materially from forecasted results. Some of the factors that could negatively affect our cash flows and as a result not support the carrying values of our assets are: new environmental regulations or legal restrictions on the use of our products that would either reduce our product revenues or add substantial costs to the manufacturing process reducing operating margins; new technologies that could make our products less competitive or require substantial capital investment in new equipment; and substantial downturns in economic conditions such as those experienced in late 2008 and for most of 2009.

#### *Income Taxes*

The breadth of our operations and complexity of income tax regulations require us to assess uncertainties and make judgments in estimating the ultimate amount of income taxes we will pay. Our income tax expense, deferred tax assets and liabilities and reserves for unrecognized tax benefits reflect management's best assessment of estimated future taxes to be paid. The final income taxes we pay are based upon many factors, including existing income tax laws and regulations, negotiations with taxing authorities in various jurisdictions, outcomes of tax litigation, and resolution of disputes arising from federal, state, and international income tax audits. The resolution of these uncertainties may result in adjustments to our income tax assets and liabilities in the future.

Deferred income taxes result from differences between the financial and tax basis of our assets and liabilities and we adjust our deferred income tax assets and liabilities for changes in income tax rates and income tax laws when changes are enacted. We record valuation allowances to reduce deferred income tax assets when it is more likely than not that a tax benefit will not be realized. Significant judgment is required in evaluating the need for and the magnitude of appropriate valuation allowances against deferred income tax assets. The realization of these assets is dependent on generating future taxable income, our ability to carry back or carry forward net operating losses and credits to offset taxable income in a prior year, as well as successful implementation of various tax strategies to generate taxable income where net operating losses or credit carryforwards exist. In evaluating our

ability to realize the deferred income tax assets, we rely principally on the reversal of existing temporary differences, the availability of tax planning strategies, and forecasted taxable income using historical and projected future operating results.

We have significant operations outside the U.S. Many of these non-U.S. tax jurisdictions have statutory income tax rates that are lower than the rates in the U.S. Because we carry a majority of our debt in the U.S., we also have significant cash needs in the U.S. to service this debt. As a result, it is necessary for us to perform significant tax and treasury planning and analysis to determine the best actions to achieve the goals of meeting our U.S. cash needs, while also reducing our worldwide taxable income. In this tax and treasury planning, we consider future taxable income in the U.S. and non-U.S. jurisdictions, future cash needs in the U.S., and the timing and amount of dividend repatriations. Our ability to balance future taxable income and cash flows between the U.S. and foreign locations depends on various strategies, such as the charging of management fees for intercompany services, transfer pricing, intercompany royalties, intercompany sales of technologies and intellectual property, and choosing between allowable tax methods.

The amount of income taxes we pay is subject to ongoing audits by federal, state and foreign tax authorities. The calculation of our tax liabilities involves dealing with uncertainties in the application of complex tax laws and regulations in a multitude of jurisdictions across our global operations. Changes in tax laws and rates could also affect recorded deferred tax assets and liabilities in the future.

We recognize a tax benefit from an uncertain tax position when it is more likely than not that the position will be sustained upon examination, including resolutions of any related appeals or litigation processes, based on the technical merits. Our estimate of the potential outcome of any uncertain tax issue is subject to management's assessment of relevant risks, facts, and circumstances existing at that time. We record a liability for the difference between the benefit recognized and measured based on a more-likely than-not threshold and the tax position taken or expected to be taken on the tax return. To the extent that our assessment of such tax positions changes, the change in estimate is recorded in the period in which the determination is made. We report tax-related interest and penalties as a component of income tax expense.

#### *Derivative Financial Instruments*

We use derivative financial instruments in the normal course of business to manage our exposure to fluctuations in interest rates, foreign currency exchange rates, commodity prices, and precious metal prices. The accounting for derivative financial instruments can be complex and can require significant judgment. Generally, the derivative financial instruments that we use are not complex, and observable market-based inputs are available to measure their fair value. We do not engage in speculative transactions for trading purposes. Financial instruments, including derivative financial instruments, expose us to counterparty credit risk for non-performance. We manage our exposure to counterparty credit risk through minimum credit standards and procedures to monitor concentrations of credit risk. We enter into these derivative financial instruments with major, reputable, multinational financial institutions. Accordingly, we do not anticipate counter-party default. We continuously evaluate the effectiveness of derivative financial instruments designated as hedges to ensure that they are highly effective. In the event the hedge becomes ineffective, we discontinue hedge treatment. Except as noted below, we do not expect any changes in our risk policies or in the nature of the transactions we enter into to mitigate those risks.

Our exposure to interest rate changes arises from our debt agreements with variable market interest rates. To reduce our exposure to interest rate changes on variable-rate debt, we had entered into interest rate swap agreements. These swaps effectively converted a portion of our variable-rate debt to a fixed rate. In the third quarter of 2010, in conjunction with repayment of our remaining outstanding term loans, we settled these swaps.

We manage foreign currency risks in a wide variety of foreign currencies principally by entering into forward contracts to mitigate the impact of currency fluctuations on transactions arising from international trade. Our objective in entering into these forward contracts is to preserve the economic value of non-functional currency cash flows. Our principal foreign currency exposures relate to the Euro, the British Pound Sterling, the Japanese Yen, and the Chinese Yuan. We mark these forward contracts to fair value based on market prices for comparable contracts and recognize the resulting gains or losses as other income or expense from foreign currency transactions.

Precious metals (primarily silver, gold, platinum and palladium) represent a significant portion of raw material costs in our Electronic Materials products. We also use precious metals in our Color and Glass Performance Materials products. When we enter into a fixed price sales contract at the customer's request to establish the price for the precious metals content of the order, we also enter into a forward purchase arrangement with a precious metals supplier to completely cover the value of the precious metals content. Our current precious metal contracts are designated as normal purchase contracts, which are not marked to market.

We also purchase portions of our energy requirements, including natural gas and electricity, under fixed price contracts to reduce the volatility of cost changes. Our current energy contracts are designated as normal purchase contracts, which are not marked to market.

#### *Pension and Other Postretirement Benefits*

We sponsor defined benefit plans in the U.S. and many countries outside the U.S., and we also sponsor retiree medical benefits for a segment of our salaried and hourly work force within the U.S. The U.S. pension plans represent approximately 82% of pension plan assets, 78% of benefit obligations and 53% of net periodic pension cost.

The assumptions we use in actuarial calculations for these plans have a significant impact on benefit obligations and annual net periodic benefit costs. We meet with our actuaries annually to discuss key economic assumptions used to develop these benefit obligations and net periodic costs. In accordance with U.S. GAAP, actual results that differ from the assumptions are accumulated and amortized over future periods and, therefore, affect expense recognized and obligations recorded in future periods.

We determine the discount rate for the U.S. pension and retiree medical plans based on a bond model. Using the pension plans' projected cash flows, the bond model considers all possible bond portfolios that produce matching cash flows and selects the portfolio with the highest possible yield. These portfolios are based on bonds with a quality rating of AA or better under either Moody's Investor Services, Inc. or Standard & Poor's Rating Group, but exclude certain bonds, such as callable bonds, bonds with small amounts outstanding, and bonds with unusually high or low yields. The discount rates for the non-U.S. plans are based on a yield curve method, using AA-rated bonds applicable in respective capital markets. The duration of each plan's liabilities is used to select the rate from the yield curve corresponding to the same duration.

For the market-related value of plan assets, we use fair value, rather than a calculated value that recognizes changes in fair value in a systematic and rational manner over several years. We calculate the expected return on assets at the beginning of the year for defined benefit plans as the weighted-average of the expected return for the target allocation of the principal asset classes held by each of the plans. In determining the expected returns, we consider both historical performance and an estimate of future long-term rates of return. The Company consults with and considers the opinion of its actuaries in developing appropriate return assumptions. Our target asset allocation percentages are 30% fixed income and 70% equity investments for U.S. plans and 73% fixed income, 24% equity, and 3% other investments for non-U.S. plans. In 2010, investment returns on average plan assets were approximately 12% within U.S. plans and 10% within non-U.S. plans. Future actual pension expense will depend on future investment allocation and performance, changes in future discount rates and various other factors related to the population of participants in the Company's pension plans.

All other assumptions are reviewed periodically by our actuaries and us and may be adjusted based on current trends and expectations as well as past experience in the plans.

The following table provides the sensitivity of net annual periodic benefit costs for our pension plans, including a U.S. nonqualified retirement plan, and the retiree medical plan to a 25-basis-point decrease in both the discount rate and asset return assumption:

	<u>25- Basis-Point Decrease in Discount Rate</u>	<u>25-Basis-Point Decrease in Asset Return Assumption</u>
	(Dollars in thousands)	
U.S. pension plans	\$ 1,241	\$ 645
U.S. retiree medical plan	4	—
Non-U.S. pension plans	252	141
<b>Total</b>	<b>\$ 1,497</b>	<b>\$ 786</b>

The following table provides the rates used in the assumptions and the changes between 2010 and 2009:

	<u>2010</u>	<u>2009</u>	<u>Change</u>
Discount rate used to measure benefit cost:			
U.S. pension plans	6.20%	6.74%	(0.54)%
U.S. retiree medical plan	5.85%	6.45%	(0.60)%
Non-U.S. pension plans	5.88%	5.85%	0.03%
Discount rate used to measure benefit obligations:			
U.S. pension plans	5.85%	6.20%	(0.35)%
U.S. retiree medical plan	5.45%	5.85%	(0.40)%
Non-U.S. pension plans	5.51%	5.88%	(0.37)%
Expected return on plan assets:			
U.S. pension plans	8.50%	8.50%	—%
Non-U.S. pension plans	5.28%	5.24%	0.04%

Our overall net periodic benefit cost for all defined benefit plans decreased \$0.6 million to \$29.4 million in 2010 from \$30.0 million in 2009. In 2010, amortization of unrecognized net actuarial losses decreased by \$3.6 million, primarily because the beginning of the year unrecognized net actuarial losses decreased by \$28.1 million from the prior year. These unrecognized losses arise from differences between actual and assumed results and from changes in actuarial assumptions and are recognized in future periods. In addition, our expected return on plan asset increased by \$2.5 million due to higher asset balances largely resulting from market gains in 2009, the interest component of net periodic benefit cost decreased \$1.5 million primarily due to lower discount rates, and service costs decreased \$1.0 million as a result of various restructuring activities. These favorable effects were mostly offset by an increase of \$7.6 million in net settlement and curtailment losses, led by a settlement loss of \$12.2 million related to establishing a fully insured arrangement for benefit obligations at Rotterdam, Netherlands.

For 2011, we expect our overall net periodic benefit cost to decrease to approximately \$19 million, a decrease of \$10 million. In 2010, we recorded \$6.4 million of one-time net curtailment and settlement losses. In addition, these curtailments and settlements were the primary drivers of a \$93.0 million decrease during 2010 in our non-U.S. plans' benefit obligation. This decrease in the benefit obligation will reduce 2011 interest cost in our non-U.S. plans by \$4.5 million.

## *Inventories*

We value inventory at the lower of cost or market, with cost determined utilizing the first-in, first-out (FIFO) method. We periodically evaluate the net realizable value of inventories based primarily upon their age, but also upon assumptions of future usage in production, customer demand and market conditions. Inventories have been reduced to the lower of cost or realizable value by allowances for slow moving or obsolete goods. If actual circumstances are less favorable than those projected by management in its evaluation of the net realizable value of inventories, additional write-downs may be required. Slow moving, excess or obsolete materials are specifically identified and may be physically separated from other materials, and we rework or dispose of these materials as time and manpower permit.

## *Environmental Liabilities*

Our manufacturing facilities are subject to a broad array of environmental laws and regulations in the countries in which they operate. The costs to comply with complex environmental laws and regulations are significant and will continue for the foreseeable future. We expense these recurring costs as they are incurred. While these costs may increase in the future, they are not expected to have a material impact on our financial position, liquidity or results of operations.

We also accrue for environmental remediation costs when it is probable that a liability has been incurred and we can reasonably estimate the amount. We determine the timing and amount of any liability based upon assumptions regarding future events. Inherent uncertainties exist in such evaluations primarily due to unknown conditions, changing governmental regulations and legal standards regarding liability, and evolving technologies. We adjust these liabilities periodically as remediation efforts progress or as additional technical or legal information becomes available.

## *Impact of Newly Issued Accounting Pronouncements*

Refer to Note 2 to the consolidated financial statements under Item 8 of this Annual Report on Form 10-K for a discussion of accounting standards we recently adopted or will be required to adopt.

## **Item 7A — *Quantitative and Qualitative Disclosures about Market Risk***

The primary objective of the following information is to provide forward-looking quantitative and qualitative information about our exposure to instruments that are sensitive to fluctuations in interest rates, foreign currency exchange rates, and costs of raw materials and energy.

Our exposure to interest rate risk arises from our debt portfolio. We manage this risk by controlling the mix of fixed versus variable-rate debt after considering the interest rate environment and expected future cash flows. Our objective is to limit variability in earnings, cash flows and overall borrowing costs caused by changes in interest rates, while preserving operating flexibility. To reduce our exposure to interest rate changes on variable-rate debt, we had entered into interest rate swap agreements. These swaps effectively converted a portion of our variable-rate debt to a fixed rate. In August 2010, in conjunction with repayment of our remaining outstanding term loans, we settled these swaps.

We operate internationally and enter into transactions denominated in foreign currencies. These transactions expose us to gains and losses arising from exchange rate movements between the dates foreign currencies are recorded and the dates they are settled. We manage this risk by entering into forward currency contracts that offset these gains and losses.

We are subject to cost changes with respect to our raw materials and energy purchases. We attempt to mitigate raw materials cost increases through product reformulations, price increases, and other productivity improvements. We enter into forward purchase arrangements with precious metals suppliers to completely cover the value of the

precious metals content of fixed price sales contracts. These agreements are designated as normal purchase contracts, which are not marked to market, and had purchase commitments totaling \$22.7 million at December 31, 2010. In addition, we purchase portions of our natural gas and electricity requirements under fixed price contracts to reduce the volatility of these costs. These energy contracts are designated as normal purchase contracts, which are not marked to market, and had purchase commitments totaling \$25.1 million at December 31, 2010.

The notional amounts, carrying amounts of assets (liabilities), and fair values associated with our exposure to these market risks and sensitivity analyses about potential gains (losses) resulting from hypothetical changes in market rates are presented below:

	<u>2010</u>	<u>2009</u>
	(Dollars in thousands)	
Variable-rate debt and utilization of asset securitization program:		
Change in annual interest expense from 1% change in interest rates	\$ 41	\$ 1,170
Fixed-rate debt:		
Carrying amount	283,368	161,050
Fair value	302,942	160,275
Change in fair value from 1% increase in interest rate	(15,635)	(4,814)
Change in fair value from 1% decrease in interest rate	16,759	5,000
Foreign currency forward contracts:		
Notional amount	187,291	178,922
Carrying amount and fair value	(240)	723
Change in fair value from 10% appreciation of U.S. dollar	7,735	5,571
Change in fair value from 10% depreciation of U.S. dollar	(9,454)	(6,809)
Interest rate swaps:		
Notional amount	—	150,000
Carrying amount and fair value	—	(9,516)
Change in fair value from 1% increase in interest rate	—	2,226
Change in fair value from 1% decrease in interest rate	—	(2,263)



**Item 8 — Financial Statements and Supplementary Data**

**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

To the Board of Directors and Shareholders of Ferro Corporation  
Cleveland, Ohio

We have audited the accompanying consolidated balance sheets of Ferro Corporation and subsidiaries (the “Company”) as of December 31, 2010 and 2009, and the related consolidated statements of operations, equity, and cash flows for each of the three years in the period ended December 31, 2010. Our audits also included the financial statement schedule listed in the index at Item 15. These financial statements and financial statement schedule are the responsibility of the Company’s management. Our responsibility is to express an opinion on the financial statements and financial statement schedule based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the 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 Ferro Corporation and subsidiaries as of December 31, 2010 and 2009, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2010, in conformity with accounting principles generally accepted in the United States of America. Also, in our opinion, such financial statement schedule, when considered in relation to the basic consolidated financial statements taken as a whole, presents fairly, in all material respects, the information set forth therein.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the Company’s internal control over financial reporting as of December 31, 2010, based on criteria established in *Internal Control - Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission, and our report dated February 28, 2011, expressed an unqualified opinion on the Company’s internal control over financial reporting.

/s/ Deloitte & Touche LLP

Cleveland, Ohio  
February 28, 2011

**FERRO CORPORATION AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF OPERATIONS**

	Years Ended December 31,		
	2010	2009	2008
	(In thousands, except per share amounts)		
<b>Net sales</b>	\$ 2,101,865	\$ 1,657,569	\$ 2,245,152
Cost of sales	1,643,200	1,343,297	1,841,485
Gross profit	458,665	314,272	403,667
Selling, general and administrative expenses	293,736	272,259	297,119
Restructuring and impairment charges	63,732	19,337	106,142
Other expense (income):			
Interest expense	44,568	63,918	51,290
Interest earned	(651)	(896)	(714)
Losses on extinguishment of debt	23,001	—	5,531
Foreign currency losses, net	4,724	3,827	742
Miscellaneous expense (income), net	5,814	(618)	(357)
<b>Income (loss) before income taxes</b>	23,741	(43,555)	(56,086)
Income tax expense (benefit)	16,468	(3,515)	(3,204)
<b>Income (loss) from continuing operations</b>	7,273	(40,040)	(52,882)
Income from discontinued operations, net of income taxes	—	—	5,014
(Loss) gain on disposal of discontinued operations, net of income taxes	—	(325)	9,034
<b>Net income (loss)</b>	7,273	(40,365)	(38,834)
Less: Net income attributable to noncontrolling interests	1,577	2,551	1,596
<b>Net income (loss) attributable to Ferro Corporation</b>	5,696	(42,916)	(40,430)
Dividends on preferred stock	(660)	(705)	(877)
<b>Net income (loss) attributable to Ferro Corporation common shareholders</b>	\$ 5,036	\$ (43,621)	\$ (41,307)
<b>Amounts attributable to Ferro Corporation:</b>			
Income (loss) from continuing operations, net of income tax	\$ 5,696	\$ (42,591)	\$ (54,478)
(Loss) income from discontinued operations, net of income tax	—	(325)	14,048
<b>Net income (loss) attributable to Ferro Corporation</b>	\$ 5,696	\$ (42,916)	\$ (40,430)
Weighted-average common shares outstanding	85,823	50,935	43,261
Incremental common shares attributable to convertible preferred stock, performance shares, deferred stock units, and stock options	716	—	—
Weighted-average diluted shares outstanding	86,539	50,935	43,261
<b>Per common share data</b>			
Basic earnings (loss) attributable to Ferro Corporation common shareholders:			
From continuing operations	\$ 0.06	\$ (0.85)	\$ (1.28)
From discontinued operations	—	(0.01)	0.33
	\$ 0.06	\$ (0.86)	\$ (0.95)
Diluted earnings (loss) attributable to Ferro Corporation common shareholders:			
From continuing operations	\$ 0.06	\$ (0.85)	\$ (1.28)
From discontinued operations	—	(0.01)	0.33
	\$ 0.06	\$ (0.86)	\$ (0.95)

See accompanying notes to consolidated financial statements.

**FERRO CORPORATION AND SUBSIDIARIES**  
**CONSOLIDATED BALANCE SHEETS**

	December 31,	
	2010	2009
	(Dollars in thousands)	
<b>ASSETS</b>		
<b>Current assets</b>		
Cash and cash equivalents	\$ 29,035	\$ 18,507
Accounts receivable, net	302,448	285,638
Inventories	202,067	180,700
Deposits for precious metals	28,086	112,434
Deferred income taxes	24,924	19,618
Other receivables	27,762	27,795
Other current assets	7,432	7,180
Total current assets	621,754	651,872
<b>Other assets</b>		
Property, plant and equipment, net	391,496	432,405
Goodwill	219,716	221,044
Amortizable intangible assets, net	11,869	10,610
Deferred income taxes	121,640	133,705
Other non-current assets	67,880	76,719
Total assets	\$ 1,434,355	\$ 1,526,355
<b>LIABILITIES and EQUITY</b>		
<b>Current liabilities</b>		
Loans payable and current portion of long-term debt	\$ 3,580	\$ 24,737
Accounts payable	207,770	196,038
Income taxes	8,823	7,241
Accrued payrolls	49,590	33,346
Accrued expenses and other current liabilities	75,912	59,587
Total current liabilities	345,675	320,949
<b>Other liabilities</b>		
Long-term debt, less current portion	290,971	398,720
Postretirement and pension liabilities	189,058	203,743
Deferred income taxes	2,211	1,124
Other non-current liabilities	22,833	31,897
Total liabilities	850,748	956,433
Series A convertible preferred stock (approximates redemption value)	9,427	9,427
<b>Equity</b>		
Ferro Corporation shareholders' equity:		
Common stock	93,436	93,436
Paid-in capital	323,015	331,376
Retained earnings	362,164	357,128
Accumulated other comprehensive loss	(50,949)	(60,147)
Common shares in treasury, at cost	(164,257)	(171,567)
Total Ferro Corporation shareholders' equity	563,409	550,226
Noncontrolling interests	10,771	10,269
Total equity	574,180	560,495
Total liabilities and equity	\$ 1,434,355	\$ 1,526,355

See accompanying notes to consolidated financial statements.

**FERRO CORPORATION AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF EQUITY**

	Ferro Corporation Shareholders							
	Common Shares In		Common Stock	Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Income (Loss)(a)	Non- controlling Interests	Total Equity
	Treasury Shares	Amount						
	(In thousands, except per share data)							
<b>Balances at December 31, 2007</b>	8,753	\$(202,855)	\$52,323	\$166,391	\$468,190	\$ (7,765)	\$ 9,896	\$ 486,180
Net (loss) income					(40,430)		1,596	(38,834)
Other comprehensive income (loss), net of tax:								
Foreign currency translation						(23,490)	300	(23,190)
Postretirement benefit liabilities						(65,235)	20	(65,215)
Raw material commodity swaps						713		713
Interest rate swaps						(2,973)		(2,973)
Other						(52)		(52)
<b>Total comprehensive loss</b>								(129,551)
Cash dividends(b):								
Common					(25,192)			(25,192)
Preferred					(877)			(877)
Issuance of Convertible Notes				12,409				12,409
Stock-based compensation transactions	(321)	5,331		(423)				4,908
Income tax benefits				43				43
Distributions to noncontrolling interests							(2,057)	(2,057)
Adjustment to apply FAS No. 158 as of January 1, 2008, net of tax					(505)	366		(139)
<b>Balances at December 31, 2008</b>	8,432	(197,524)	52,323	178,420	401,186	(98,436)	9,755	345,724
Net (loss) income					(42,916)		2,551	(40,365)
Other comprehensive income (loss), net of tax:								
Foreign currency translation						14,250	(2)	14,248
Postretirement benefit liabilities						21,387		21,387
Raw material commodity swaps						579		579
Interest rate swaps						2,073		2,073
<b>Total comprehensive loss</b>								(2,078)
Issuance of common stock			41,113	174,542				215,655
Cash dividends(b):								
Common					(437)			(437)
Preferred					(705)			(705)
Stock-based compensation transactions	(1,057)	25,957		(21,586)				4,371
Distributions to noncontrolling interests							(2,035)	(2,035)
<b>Balances at December 31, 2009</b>	7,375	(171,567)	93,436	331,376	357,128	(60,147)	10,269	560,495
Net income					5,696		1,577	7,273
Other comprehensive income (loss), net of tax:								
Foreign currency translation						(2,141)	170	(1,971)
Postretirement benefit liabilities						5,325	(7)	5,318
Raw material commodity swaps						(107)		(107)
Interest rate swaps						6,121		6,121
<b>Total comprehensive income</b>								16,634
Cash dividends(b):								
Preferred					(660)			(660)
Redemption of Convertible Notes				(4,925)				(4,925)
Stock-based compensation transactions	(133)	7,310		(3,436)				3,874
Distributions to noncontrolling interests							(1,238)	(1,238)
<b>Balances at December 31, 2010</b>	7,242	\$(164,257)	\$93,436	\$323,015	\$362,164	\$(50,949)	\$10,771	\$ 574,180

- (a) Accumulated translation adjustments were \$24,129, \$26,270, and \$12,020, accumulated postretirement benefit liability adjustments were \$(75,026), \$(80,351), and \$(101,738), accumulated raw material commodity swap adjustments were \$-0-, \$108, and \$(471), and accumulated interest rate swap adjustments were \$-0-, \$(6,122), and \$(8,195), at December 31, 2010, 2009, and 2008, respectively, all net of tax.
- (b) Dividends per share of common stock were \$-0- in 2010, \$0.01 in 2009, and \$0.58 in 2008. Dividends per share of convertible preferred stock were \$3.25 in 2010, 2009, and 2008.

See accompanying notes to consolidated financial statements.

**FERRO CORPORATION AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**

	Years Ended December 31,		
	2010	2009	2008
	(Dollars in thousands)		
<b>Cash flows from operating activities</b>			
Net income (loss)	\$ 7,273	\$ (40,365)	\$ (38,834)
Adjustments to reconcile net income (loss) to net cash provided by (used for) operating activities:			
Loss (gain) from discontinued operations, net of tax	—	325	(14,048)
(Gain) loss on sale of assets and businesses	(2,330)	28	2,598
Depreciation and amortization	76,936	88,138	74,595
Restructuring and impairment charges	3,174	6,486	80,556
Losses on extinguishment of debt	23,001	—	5,531
Provision for allowance for doubtful accounts	2,935	2,676	5,843
Retirement benefits	(1,630)	8,890	(15,254)
Deferred income taxes	(5,258)	(12,747)	(14,105)
Changes in current assets and liabilities, net of effects of acquisitions:			
Accounts and trade notes receivable	(24,697)	12,351	30,455
Note receivable from Ferro Finance Corporation	—	—	(46,344)
Inventories	(22,654)	76,254	(6,462)
Deposits for precious metals	84,348	(112,434)	—
Other receivables and other current assets	(890)	31,566	(23,137)
Accounts payable	12,618	(29,230)	(27,185)
Accrued expenses and other current liabilities	36,750	(17,367)	(23,898)
Other operating activities	9,289	(12,091)	(2,692)
Net cash provided by (used for) continuing operations	198,865	2,480	(12,381)
Net cash (used for) provided by discontinued operations	—	(329)	3,285
<b>Net cash provided by (used for) operating activities</b>	198,865	2,151	(9,096)
<b>Cash flows from investing activities</b>			
Capital expenditures for plant and equipment of continuing operations	(44,737)	(43,260)	(70,751)
Capital expenditures for plant and equipment of discontinued operations	—	—	(2,317)
Expenditures for other assets	—	—	(3,400)
Expenditures for acquisitions, net of cash acquired	(6,938)	—	—
Proceeds from sale of assets and businesses	18,214	483	2,360
Net proceeds from sale of discontinued operations	—	—	56,484
Other investing activities	139	123	574
<b>Net cash used for investing activities</b>	(33,322)	(42,654)	(17,050)
<b>Cash flows from financing activities</b>			
Net (repayments) borrowings under loans payable	(21,495)	15,462	3,687
Proceeds from long-term debt	632,299	903,886	1,196,674
Net proceeds from sale of common stock	—	215,655	—
Principal payments on long-term debt	(392,061)	(1,075,102)	(935,680)
Extinguishment of debt	(362,997)	—	(205,269)
Debt issue costs	(9,848)	(16,863)	(5,570)
Cash dividends	(660)	(1,142)	(26,069)
Proceeds from exercise of stock options	137	—	58
Other financing activities	(2,639)	4,729	(3,977)
<b>Net cash (used for) provided by financing activities</b>	(157,264)	46,625	23,854
Effect of exchange rate changes on cash and cash equivalents	2,249	2,194	458
<b>Increase (decrease) in cash and cash equivalents</b>	10,528	8,316	(1,834)
Cash and cash equivalents at beginning of period	18,507	10,191	12,025
<b>Cash and cash equivalents at end of period</b>	\$ 29,035	\$ 18,507	\$ 10,191
Cash paid during the period for:			
Interest	\$ 31,881	\$ 51,505	\$ 52,670
Income taxes	20,379	10,145	10,308

See accompanying notes to consolidated financial statements.

**FERRO CORPORATION AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**Years ended December 31, 2010, 2009 and 2008**

**1. Our Business**

Ferro Corporation (“Ferro,” “we,” “us” or “the Company”) produces performance materials for a broad range of manufacturers in diversified industries throughout the world. Our products are classified as performance materials, rather than commodities, because they are formulated to perform specific and important functions both in the manufacturing processes and in the finished products of our customers. We use inorganic chemical processes, polymer science and materials science to develop and produce these performance materials. Performance materials require a high degree of technical service on an individual customer basis. The value of our products stems from the results and performance they achieve in actual use. We manage our diverse businesses through seven business units that are differentiated from one another by product type. We have grouped these units by their product group below:

**Polymer and Ceramic Engineered Materials**

- Polymer Additives
- Specialty Plastics
- Pharmaceuticals
- Tile Coating Systems
- Porcelain Enamel

**Electronic, Color and Glass Materials**

- Electronic Materials
- Color and Glass Performance Materials

We produce our products primarily in the United States (“U.S.”), Europe, the Asia-Pacific region, and Latin America.

We sell our products directly to customers or through the use of agents or distributors throughout the world. Our products are sold principally in the U.S., Europe, the Asia-Pacific region, and Latin America. Our customers manufacture products to serve a variety of end markets, including building and renovation, electronics, automobiles, appliances, household furnishings, packaging, industrial products, and pharmaceuticals.

**2. Significant Accounting Policies**

***Principles of Consolidation***

Our consolidated financial statements include the accounts of the parent company and the accounts of its subsidiaries. When we consolidate our financial statements, we eliminate intercompany transactions, accounts and profits. When we exert significant influence over an investee but do not control it, we account for the investment and the investment income using the equity method. These investments are reported in the other non-current assets section of our balance sheet. When we acquire a subsidiary, its financial results are included in our consolidated financial statements from the date of the acquisition. When we dispose of a subsidiary, its financial results are included in our consolidated financial statements until the date of the disposition.

***Use of Estimates and Assumptions in the Preparation of Financial Statements***

We prepare our consolidated financial statements in conformity with United States Generally Accepted Accounting Principles, which requires us to make estimates and to use judgments and assumptions that affect the timing and amount of assets, liabilities, equity, revenues and expenses recorded and disclosed. The more significant estimates and judgments relate to revenue recognition, restructuring and cost reduction programs, goodwill, income taxes, derivative financial instruments, pension and other postretirement benefits, inventories, and environmental liabilities. Actual outcomes could differ from our estimates, resulting in changes in revenues or costs that could have a material impact on the Company’s results of operations, financial position, or cash flows.

**FERRO CORPORATION AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**Years ended December 31, 2010, 2009 and 2008 — (Continued)**

***Foreign Currency Translation***

The financial results of our operations outside of the U.S. are recorded in local currencies, which generally are also the functional currencies for financial reporting purposes. The results of operations outside of the U.S. are translated from these local currencies into U.S. dollars using the average monthly currency exchange rates. We use the average currency exchange rate for these results of operations as a reasonable approximation of the results had specific currency exchange rates been used for each individual transaction. Assets and liabilities are translated into U.S. dollars using exchange rates at the balance sheet dates, and we record the resulting foreign currency translation adjustment as a separate component of accumulated other comprehensive loss in shareholders' equity.

Foreign currency transaction gains and losses are recorded as incurred as other expense (income) in the consolidated statements of operations.

***Revenue Recognition***

We typically recognize sales when we ship goods to our customers and when all of the following criteria are met:

- Persuasive evidence of an arrangement exists;
- The selling price is fixed and determinable;
- Collection is reasonably assured; and
- Title and risk of loss has passed to our customers.

In order to ensure the revenue recognition in the proper period, we review material sales contracts for proper cut-off based upon the business practices and legal requirements of each country. For sales of all products, including those containing precious metals, we report revenues gross along with their corresponding cost of sales to arrive at gross profit. We record revenues this way because we act as the principal in the transactions we enter into and take title and the risks and rewards of ownership of the inventory we process, although the timing of when we take title to inventory during the production process may vary.

The amount of shipping and handling fees invoiced to our customers at the time our product is shipped is included in net sales. Credit memos issued to customers for sales returns, discounts allowed and sales adjustments are recorded when they are incurred as a reduction of sales. We use estimated allowances to state the related accounts receivable at their net realizable value.

Additionally, we provide certain of our customers with incentive rebate programs to promote customer loyalty and encourage greater product sales. We accrue customer rebates over the rebate periods based upon estimated attainments of the provisions in the rebate agreements using available information and record these rebate accruals as reductions of sales.

***Cost of Sales***

We include in cost of sales the purchased cost of raw materials, and labor and overhead directly associated with the production process. Cost of sales also includes shipping and handling costs, financing costs associated with precious metals, purchasing and receiving costs, depreciation and leasing costs of buildings and equipment used in production, utilities, operating parts and supplies, warehousing costs, internal transfer costs, other costs of distribution, costs of hazardous materials control and disposal, physical inventory adjustments, and obsolescence and rework costs.



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Cost of sales is initially recorded using standard costs, which are generally established at least annually to fully absorb qualifying production costs into inventory based on normal production capacity. Production variances related to volume, rework, and other production inefficiencies are expensed as incurred. We review manufacturing costs periodically to ensure that only those costs that clearly relate to production and that increase the economic utility of the related inventories are capitalized into inventory. We adjust the standard cost of inventory at the balance sheet date to actual by applying material purchase price and the appropriate production variances most recently incurred.

***Selling, General and Administrative Expenses***

Expenses for sales and administrative functions, including salaries and wages, benefits, stock-based compensation, sales commissions, bad debt expense, lease costs and depreciation related to buildings and equipment not used in production, and outside services such as legal, audit, tax, and consulting fees, are included in selling, general and administrative expenses.

Research and development expenses are expensed as incurred and are also included in selling, general and administrative expenses. Amounts expended for development or significant improvement of new or existing products, services and techniques were \$27.3 million for 2010, \$28.3 million for 2009, and \$33.6 million for 2008.

***Restructuring Programs***

We expense costs associated with exit and disposal activities designed to restructure operations and reduce ongoing costs of operations when we incur the related liabilities or when other triggering events occur. After the appropriate level of management having the authority approves the detailed restructuring plan and the appropriate criteria for recognition are met, we establish accruals for employee termination costs. The accruals are estimates that are based upon factors including statutory and union requirements, affected employees' lengths of service, contract provisions, salary level, and health care benefit choices. We also analyze the carrying value of the affected long-lived assets for impairment and reductions in their remaining estimated useful lives. In addition, we record the fair value of any new or remaining obligations when existing operating lease contracts are terminated or abandoned as a result of our exit and disposal activities.

We believe our estimates and assumptions used to calculate these restructuring provisions are appropriate, and although we do not anticipate significant changes, actual costs could differ from the estimates should we make changes in the nature or timing of the restructuring plans. The changes in costs, as a result of the eventual timing and number of employees receiving termination benefits and the final disposition or closure of the manufacturing facilities, could have a material impact on the Company's results of operations, financial position, or cash flows.

***Asset Impairment***

The Company's long-lived assets include property, plant and equipment, goodwill, and amortizable intangible assets. We review these assets for impairment whenever events or circumstances indicate that their carrying values may not be recoverable. The following are examples of such events or changes in circumstances:

- An adverse change in the business climate or market price of a long-lived asset or asset group;
- An adverse change in the extent or manner in which a long-lived asset or asset group is used or in its physical condition;
- Current operating losses for a long-lived asset or asset group combined with a history of such losses or projected or forecasted losses that demonstrate that the losses will be continuing; or

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- A current expectation that, more likely than not, a long-lived asset or asset group will be sold or otherwise disposed of significantly before the end of its previously estimated useful life.

The carrying amount of long-lived assets, including amortizable intangible assets, is not recoverable if the recorded value of the asset group exceeds the sum of the undiscounted cash flows expected to result from the use and eventual disposition of the asset group. In the event of impairment, we recognize a loss for the excess of the recorded value over fair value. The long-term nature of these assets requires the estimation of cash inflows and outflows several years into the future and only takes into consideration technological advances known at the time of review.

We review goodwill for impairment annually using a measurement date of October 31st, primarily due to the timing of our annual budgeting process, or more frequently in the event of an impairment indicator. The fair value of each reporting unit that has goodwill is estimated using the average of both the income approach and the market approach, which we believe provides a reasonable estimate of the reporting unit's fair value, unless facts or circumstances exist which indicate a more representative fair value. The income approach is a discounted cash flow model, which uses projected cash flows attributable to the reporting unit, including an allocation of certain corporate expenses based primarily on a proportional sales method. We use historical results and trends and our projections of market growth, internal sales efforts, input cost movements, and cost reduction opportunities to estimate future cash flows. Using a risk-adjusted, weighted-average cost of capital, we discount the cash flow projections to the measurement date. The market approach estimates a price reasonably expected to be realized from the sale of the reporting units based on a comparison to similar businesses. If the fair value of any of the reporting units were determined to be less than its carrying value, we would obtain comparable market values or independent appraisals of its net assets.

***Derivative Financial Instruments***

As part of our risk management activities, we employ derivative financial instruments, primarily foreign currency forward contracts, to hedge certain anticipated transactions, firm commitments, or assets and liabilities denominated in foreign currencies. We also purchase portions of our energy and precious metal requirements under fixed price forward purchase contracts designated as normal purchase contracts.

We record derivatives on our balance sheet as either assets or liabilities that are measured at fair value. For derivative instruments that are designated and qualify as hedges, the gain or loss on the derivative is reported as a component of other comprehensive income and reclassified from accumulated other comprehensive income into earnings when the hedged transaction affects earnings. The ineffective portion, if any, in the change in value of these derivatives is immediately recognized in earnings. For derivatives that are not designated as hedges, the gain or loss on the derivative is recognized in current earnings. We use derivatives only to manage well-defined risks and do not use derivatives for speculative purposes.

***Postretirement and Other Employee Benefits***

We recognize postretirement and other employee benefits as employees render the services necessary to earn those benefits. We determine defined benefit pension and other postretirement benefit costs and obligations with the assistance of actuarial calculations performed by third parties. The calculations and the resulting amounts recorded in our consolidated financial statements are affected by assumptions including the discount rate, expected long-term rate of return on plan assets, the annual rate of change in compensation for plan-eligible employees, estimated changes in costs of healthcare benefits, and other factors. We evaluate the assumptions used on an annual basis.

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***Contingencies***

We record loss contingencies when events that give rise to the loss contingencies are probable and the amounts are reasonably estimable. If a loss contingency is reasonably possible and the amount of the loss is material, we disclose the item. If only a range of possible losses can be estimated, we record the low end of the range and disclose the possible range of outcomes. However, if there is a best estimate of the amount of the loss within the range, we will record that amount. Gain contingencies are only recognized when their realization is assured beyond a reasonable doubt.

***Income Taxes***

We account for income taxes under the asset and liability method, which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been included in the financial statements. Under this method, deferred tax assets and liabilities are determined based on the differences between the financial statements and tax basis of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to reverse. The effect of a change in tax rates on deferred tax assets and liabilities is recognized in income in the period that includes the enactment date.

We record deferred tax assets to the extent we believe these assets will more likely than not be realized. In making such determination, we consider all available positive and negative evidence, including future reversals of existing taxable temporary differences, projected future taxable income, tax planning strategies, and recent financial operations.

We recognize a tax benefit from an uncertain tax position when it is more likely than not that the position will be sustained upon examination, including resolutions of any related appeals or litigation processes, based on the technical merits.

We recognize interest and penalties related to unrecognized tax benefits within the income tax expense line in the accompanying consolidated statements of operations.

***Comprehensive Income (Loss)***

Comprehensive income (loss) includes charges and credits to equity that are not the result of transactions with shareholders or noncontrolling interests. Our total comprehensive income (loss) consists of net income or loss, foreign currency translation adjustments, postretirement benefit liability adjustments, and adjustments for unrealized gains and losses on derivative instruments that are designated and qualify as hedges. The cumulative adjustments for foreign currency translation, postretirement benefit liabilities, and derivative instruments are included in accumulated other comprehensive income (loss) in our consolidated balance sheets and statements of equity.

***Cash Equivalents***

We consider all highly liquid instruments with original maturities of three months or less when purchased to be cash equivalents. These instruments are carried at cost.

***Accounts Receivable and the Allowance for Doubtful Accounts***

Ferro sells its products to customers in diversified industries throughout the world. No customer or related group of customers represents greater than 10% of net sales or accounts receivable. We perform ongoing credit evaluations of our customers and generally do not require collateral. We provide for uncollectible accounts based on

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historical experience and specific circumstances, as appropriate. Customer accounts we deem to be uncollectible or to require excessive collection costs are written off against the allowance for doubtful accounts. Historically, write-offs of uncollectible accounts have been within our expectations. When Ferro Finance Corporation (“FFC”) was consolidated in December 2008, the valuation allowance on Ferro’s note receivable from FFC was combined with the valuation allowance on accounts and trade notes receivable. Detailed information about the allowance for doubtful accounts is provided below:

	2010	2009	2008
	(Dollars in thousands)		
Allowance for doubtful accounts	\$ 11,156	\$ 10,685	\$ 11,668
Bad debt expense	2,935	2,676	4,472

***Inventories***

We value inventory at the lower of cost or market, with cost determined utilizing the first-in, first-out (FIFO) method. We periodically evaluate the net realizable value of inventories based primarily upon their age, but also upon assumptions of future usage in production, customer demand and market conditions. Inventories have been reduced to the lower of cost or realizable value by allowances for slow moving or obsolete goods. If actual circumstances are less favorable than those projected by management in its evaluation of the net realizable value of inventories, additional write-downs may be required. Slow moving, excess or obsolete materials are specifically identified and may be physically separated from other materials, and we rework or dispose of these materials as time and manpower permit.

We maintain raw material on our premises that we do not own, including precious metals consigned from financial institutions and customers, and raw materials consigned from vendors. Although we have physical possession of the goods, their value is not reflected on our balance sheet because we do not have title.

We also obtain precious metals under consignment agreements with financial institutions for periods of one year or less. These precious metals are primarily silver, gold, platinum and palladium and are used in the production of certain products for our customers. Under these arrangements, the financial institutions own the precious metals, and accordingly, we do not report these precious metals as inventory on our consolidated balance sheet although they physically are in our possession. These agreements are cancelable by either party at the end of each consignment period, however, because we have access to a number of consignment arrangements with available capacity, our consignment needs can be shifted among the other participating institutions in order to ensure our supply. In certain cases, these financial institutions require cash deposits to provide additional collateral beyond the value of the underlying precious metals. The financial institutions charge us fees for these consignment arrangements, and these fees are recorded as cost of sales.

***Property, Plant and Equipment***

We record property, plant and equipment at historical cost. In addition to the original purchased cost, including transportation, installation and taxes, we capitalize expenditures that increase the utility or useful life of existing assets. For constructed assets, we capitalize interest costs incurred during the period of construction. We expense repair and maintenance costs, including the costs of major planned overhauls of equipment, as incurred. We depreciate property, plant and equipment on a straight-line basis, generally over the following estimated useful lives of the assets:

Buildings	20 to 40 years
Machinery and equipment	5 to 15 years

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We capitalize the costs of computer software developed or obtained for internal use after the preliminary project stage has been completed and management, with the relevant authority, authorizes and commits to funding a computer software project, and it is probable that the project will be completed and the software will be used to perform the function intended. External direct costs of materials and services consumed in developing or obtaining internal-use computer software, payroll and payroll-related costs for employees who are directly associated with the project, and interest costs incurred when developing computer software for internal use are capitalized. Capitalization ceases when the project is substantially complete, generally after all substantial testing is completed. We expense training costs and data conversion costs as incurred. We amortize software on a straight-line basis over its estimated useful life, which has historically been in a range of 1 to 12 years.

***Environmental Liabilities***

As part of the production of some of our products, we handle, process, use and store hazardous materials. As part of these routine processes, we expense recurring costs associated with control and disposal of hazardous materials as they are incurred. Occasionally we are subject to ongoing, pending or threatened litigation related to the handling of these materials or other matters. If, based on available information, we believe that we have incurred a liability and we can reasonably estimate the amount, we accrue for environmental remediation and other contingent liabilities. We disclose material contingencies if the likelihood of the potential loss is reasonably possible but the amount is not reasonably estimable.

In estimating the amount to be accrued for environmental remediation, we use assumptions about:

- Remediation requirements at the contaminated site;
- The nature of the remedy;
- Existing technology;
- The outcome of discussions with regulatory agencies;
- Other potentially responsible parties at multi-party sites; and
- The number and financial viability of other potentially responsible parties.

We actively monitor the status of sites, and, as assessments and cleanups proceed, we update our assumptions and adjust our estimates as necessary. Because we are uncertain about the timing of related payments, we do not discount the estimated remediation costs.

Unanticipated government enforcement actions, differences in actual results as compared with expected remediation outcomes, changes in health, safety or environmental regulations, or testing requirements could result in higher or lower costs and changes to our estimates.

***Reclassifications***

We made reclassifications in the prior year consolidated financial statements to conform the presentation to the current year. In the statements of operations, impairment charges of \$8.2 million in 2009 and \$80.2 million in 2008 and restructuring charges of \$11.1 million in 2009 and \$25.9 million in 2008 were combined into a single caption. In the statements of cash flows, impairment charges of \$8.2 million in 2009 and \$80.2 million in 2008 and restructuring charges of \$(1.7) million in 2009 and \$0.4 million in 2008 were combined into a single caption. Also in the statements of cash flows, losses on extinguishment of debt of \$5.5 million in 2008 were reclassified from other

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operating activities. In the balance sheet, accrued payroll taxes and employee benefits of \$12.5 million at December 31, 2009, were reclassified from accrued expenses and other current liabilities to accrued payrolls.

***Recently Adopted Accounting Pronouncements***

On January 1, 2008, we adopted the measurement provisions of Financial Accounting Standards Board (“FASB”) Statement No. 158, *Employers’ Accounting for Defined Benefit Pension and Other Postretirement Plans — an amendment of FASB Statements No. 87, 88, 106, and 132(R)*, (“FAS No. 158”), which is codified primarily in *FASB Accounting Standards Codification™* (“ASC”) Topic 715, Compensation — Retirement Benefits. The measurement provisions require companies to measure defined benefit plan assets and obligations as of the annual balance sheet date. Previously, we used September 30 as the measurement date for U.S. pension and other postretirement benefits. We have elected to use the September 30, 2007, measurement of assets and benefit obligations to calculate the fiscal year 2008 expense. Expense for the gap period from September 30 to December 31, 2007, was recognized as of January 1, 2008, as a charge of \$0.5 million, net of tax, to retained earnings and a credit of \$0.4 million, net of tax, to accumulated other comprehensive income.

On January 1, 2010, we adopted FASB Accounting Standards Update (“ASU”) 2009-16, *Accounting for Transfers of Financial Assets*, (“ASU 2009-16”), which is codified in ASC Topic 860, Transfers and Servicing. This pronouncement provides guidance for derecognition of transferred financial assets. Adoption of ASU 2009-16 had no effect on our consolidated financial statements.

On January 1, 2010, we adopted ASU 2009-17, *Improvements to Financial Reporting by Enterprises Involved with Variable Interest Entities*, (“ASU 2009-17”), which is codified in ASC Topic 810, Consolidations. This pronouncement amends the consolidation guidance that applies to variable interest entities. Adoption of ASU 2009-17 did not have a material effect on our consolidated financial statements.

On January 1, 2010, we adopted most of the provisions of ASU 2010-06, *Improving Disclosures About Fair Value Measurements*, (“ASU 2010-06”), which is codified in ASC Topic 820, Fair Value Measurements, and Topic 715, Compensation — Retirement Benefits. The remaining provisions will be effective for our fiscal year that begins January 1, 2011. This pronouncement expands disclosures about fair value measurements. Adoption of ASU 2010-06 did not and will not have a material effect on our consolidated financial statements.

On December 31, 2010, we adopted ASU 2010-29, *Disclosure of Supplementary Pro Forma Information for Business Combinations*, (“ASU 2010-29”), which is codified in ASC Topic 805, Business Combinations. This pronouncement provides guidance on pro forma revenue and earnings disclosure requirements for business combinations. Adoption of ASU 2010-29 did not have a material effect on our consolidated financial statements.

***New Accounting Pronouncements Not Yet Adopted***

In October 2009, the FASB issued ASU 2009-13, *Multiple Deliverable Revenue Arrangements*, (“ASU 2009-13”), which applies to all deliverables in contractual arrangements in which a vendor will perform multiple revenue-generating activities. In April 2010, the FASB issued ASU 2010-17, *Revenue Recognition — Milestone Method*, (“ASU 2010-17”), which defines a milestone and determines when it may be appropriate to apply the milestone method of revenue recognition for research or development transactions. These pronouncements are codified in ASC Topic 605, Revenue Recognition, and will be effective for our fiscal year that begins January 1, 2011. These pronouncements may be applied prospectively or retrospectively, and early adoption is permitted. Adoption of these pronouncements on January 1, 2011, will not have a material effect on our consolidated financial statements.

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**3. Inventories**

	December 31,	
	2010	2009
(Dollars in thousands)		
Raw materials	\$ 63,856	\$ 54,481
Work in process	38,684	37,449
Finished goods	99,527	88,770
<b>Total</b>	<b>\$ 202,067</b>	<b>\$ 180,700</b>

In the production of some of our products, we use precious metals, some of which we obtain from financial institutions under consignment agreements with terms of one year or less. The financial institutions retain ownership of the precious metals and charge us fees based on the amounts we consign. These fees were \$5.3 million for 2010, \$4.3 million for 2009, and \$4.6 million in 2008 and were charged to cost of sales. We had on hand precious metals owned by participants in our precious metals program of \$205.7 million at December 31, 2010, and \$101.4 million at December 31, 2009, measured at fair value based on market prices for identical assets. In 2009, several participants in our precious metals program renewed their requirement for us to deliver cash collateral to secure our obligations arising under the consignment agreements. We had delivered \$28.1 million at December 31, 2010, and \$112.4 million at December 31, 2009, in cash collateral to induce those financial institutions to participate in our precious metals program at the amounts requested.

**4. Property, Plant and Equipment**

	December 31,	
	2010	2009
(Dollars in thousands)		
Land	\$ 31,120	\$ 41,809
Buildings	264,004	265,367
Machinery and equipment	666,118	749,913
Construction in progress	24,584	19,205
<b>Total property, plant and equipment</b>	<b>985,826</b>	<b>1,076,294</b>
<b>Total accumulated depreciation</b>	<b>(594,330)</b>	<b>(643,889)</b>
<b>Net property, plant and equipment</b>	<b>\$ 391,496</b>	<b>\$ 432,405</b>

Assets under capital leases are presented within the major classes of property, plant and equipment. Depreciation expense from continuing operations was \$60.5 million for 2010, \$64.7 million for 2009, and \$65.3 million for 2008. Noncash investing activities for capital expenditures, consisting of new capital leases during the year and unpaid capital expenditure liabilities at year end, amounted to \$11.1 million for 2010, \$6.0 million for 2009, and \$12.8 million for 2008. Capitalized interest costs related to property, plant and equipment under construction were \$1.0 million in 2010, \$1.6 million in 2009, and \$1.7 million in 2008.

In 2010, we shut down manufacturing activities and closed a number of facilities as a result of restructuring programs. The restructuring actions and plant closures indicated a possible impairment of these facilities' property, plant, and equipment. We estimated the fair value of these assets primarily based on third-party appraisals (a Level 3 measurement within the fair value hierarchy) and recorded \$12.6 million of restructuring and impairment charges, of which \$7.3 million related to our Color and Glass Performance Materials segment, \$4.5 million related to our Electronic Materials segment, and \$0.8 million related to our Performance Coatings segment.

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There was no asset impairment recorded in 2009.

In 2008, the decline in automobile sales and U.S. home construction indicated a possible impairment of the property, plant and equipment utilized in our Specialty Plastics segment. In addition, decline in operating results and reduced future sales projections indicated a possible impairment of the property, plant, and equipment at our Electronic Materials facility in Uden, Netherlands. We estimated the fair value of these assets primarily based on third-party appraisals (a Level 3 measurement within the fair value hierarchy) and recorded \$1.9 million and \$19.9 million related to our Specialty Plastics and Electronic Materials segments, respectively, of restructuring and impairment charges.

At December 31, 2010, we had assets held for sale totaling \$9.2 million and classified as other non-current assets due to the nature of the underlying assets, although we expect to sell these assets within the next twelve months. These assets are primarily land and buildings at our Toccoa, Georgia, facility; the Porcelain Enamel facility in Rotterdam, Netherlands; and the remaining portion of our Uden, Netherlands, facility.

**5. Goodwill and Other Intangible Assets**

A summary of goodwill activity follows:

	<u>2010</u>	<u>2009</u>
	(Dollars in thousands)	
Balance at beginning of year	\$ 221,044	\$ 229,665
Acquisitions	4,038	—
Write-offs	(4,237)	—
Impairments	—	(8,225)
Other adjustments	(219)	(1,325)
Currency translation adjustments	(910)	929
<b>Balance at end of year</b>	<b>\$ 219,716</b>	<b>\$ 221,044</b>



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Details and activity of goodwill by segment follow:

	Electronic Materials	Performance Coatings	Color and Glass Performance Materials	Polymer Additives	Specialty Plastics	Pharmaceuticals	Total
(Dollars in thousands)							
Balance at December 31, 2008:							
Gross goodwill	\$ 151,901	\$ 41,978	\$ 68,949	\$ 73,447	\$ 16,973	\$ 40,431	\$ 393,679
Accumulated impairment losses	—	(41,388)	—	(73,447)	(16,973)	(32,206)	(164,014)
	151,901	590	68,949	—	—	8,225	229,665
Impairment loss	—	—	—	—	—	(8,225)	(8,225)
Other adjustments	(67)	—	(1,258)	—	—	—	(1,325)
Foreign currency adjustment	141	6	782	—	—	—	929
Balance at December 31, 2009:							
Gross goodwill	151,975	41,984	68,473	73,447	16,973	40,431	393,283
Accumulated impairment losses	—	(41,388)	—	(73,447)	(16,973)	(40,431)	(172,239)
	151,975	596	68,473	—	—	—	221,044
Acquisitions		4,038					4,038
Write-offs			(4,237)				(4,237)
Other adjustments	(17)	—	(202)	—	—	—	(219)
Foreign currency adjustment	637	(22)	(1,525)	—	—	—	(910)
Balance at December 31, 2010:							
Gross goodwill	152,595	46,000	62,509	73,447	16,973	40,431	391,955
Accumulated impairment losses	—	(41,388)	—	(73,447)	(16,973)	(40,431)	(172,239)
	\$ 152,595	\$ 4,612	\$ 62,509	\$ —	\$ —	\$ —	\$ 219,716

The significant assumptions and ranges of assumptions we used in our impairment analysis of goodwill follow:

<u>Significant Assumptions</u>	<u>2010</u>	<u>2009</u>
Weighted-average cost of capital	12.0% - 13.0%	13.5% - 14.0%
Residual growth rate	3.0% - 5.0%	3.0% - 5.0%

While no impairment was indicated as a result of our 2010 annual test for any reporting unit that has goodwill balance, a future potential impairment is possible for any of these reporting units if actual results should differ materially from forecasted results. The fair values of these reporting units exceeded their respective carrying value in the range of \$89 million to \$660 million.

In 2009, an impairment of goodwill in our Pharmaceuticals business was triggered by changes made to the assumptions used to determine valuation under the market approach. We compared the carrying value of this reporting unit against its fair value, and determined that the carrying value exceeded the fair value. We then performed the step two analysis and measured the impairment to be \$8.2 million. As a result, we recorded a goodwill impairment of \$8.2 million for the Pharmaceuticals business. The amount is included in restructuring and impairment charges in the consolidated statements of operations.

In 2008, an impairment of goodwill in our Tile Coating Systems business was triggered by the cumulative negative effect on operating results of the significant downturn in the fourth quarter 2008 in the housing and

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construction markets both in the United States and Europe, which led to lower demand from our customers serving those markets. The lower demand in these markets was the triggering event for our review of impairment. The Specialty Plastics business experienced downturns in automotive, appliance and container markets, particularly in the fourth quarter of 2008. The decline in auto sales and U.S. home construction, which negatively impacted this business, and the extended recovery time forecasted in these markets triggered an impairment. As a result, at December 31, 2008, we recorded goodwill impairments of \$41.4 million for the Tile Coating Systems business and \$17.0 million for the Specialty Plastics business. The amounts were included in restructuring and impairment charges in the consolidated statements of operations.

Details of amortizable intangible assets follow:

	<u>Estimated Economic Life</u>	<u>December 31,</u>	
		<u>2010</u>	<u>2009</u>
(Dollars in thousands)			
Gross amortizable intangible assets:			
Patents	5 - 16 years	\$ 5,714	\$ 5,810
Land rights	14 - 40 years	4,885	4,787
Technological know-how and other	5 - 30 years	11,475	9,400
Total gross amortizable intangible assets		22,074	19,997
Accumulated amortization:			
Patents		(4,447)	(4,014)
Land rights		(2,125)	(1,996)
Technological know-how and other		(3,633)	(3,377)
Total accumulated amortization		(10,205)	(9,387)
Amortizable intangible assets, net		\$ 11,869	\$ 10,610

We amortize amortizable intangible assets on a straight-line basis over the estimated useful lives of the assets. Amortization expense from continuing operations related to intangible assets was \$0.9 million for 2010, \$1.1 million for 2009, and \$0.9 million for 2008. The weighted average remaining useful lives, in years, of the amortizable intangible assets are 7, 31, and 15 for patents, land rights, and technological know-how and other, respectively. Aggregate amortization expense for intangible assets is expected to be \$1.0 million annually for 2011 and 2012 and \$0.9 million annually for 2013, 2014 and 2015.

**6. Financing and Short-term and Long-term Debt**

Loans payable and current portion of long-term debt at December 31st consisted of the following:

	<u>2010</u>	<u>2009</u>
	(Dollars in thousands)	
Loans payable to banks	\$ 709	\$ 5,891
Accounts receivable asset securitization program	—	17,762
Current portion of long-term debt	2,871	1,084
Total loans payable and current portion of long-term debt	\$ 3,580	\$ 24,737

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**Loans payable to banks**

Loans payable to banks are primarily from overdraft facilities. The weighted-average interest rate on these loans was 3.5% at December 31, 2010, and 5.1% at December 31, 2009.

**Accounts receivable asset securitization program**

We have an asset securitization program for substantially all of Ferro's U.S. trade accounts receivable. We legally sell these trade accounts receivable to FFC, a wholly-owned, consolidated subsidiary. FFC finances its acquisition of trade receivable assets by selling undivided variable percentage interests in the receivables to certain purchasers under the program. Advances by the purchasers are secured by, and repaid through collections on, the receivables owned by FFC. FFC and the purchasers have no recourse to Ferro's other assets for failure of payment of the receivables as a result of the lack of creditworthiness or financial inability to pay of the related obligor. In June 2010, we extended the maturity of our \$50 million facility through May 2011.

Ferro's consolidated balance sheet includes outstanding trade accounts receivable legally transferred to FFC of \$85.3 million at December 31, 2010, and \$76.4 million at December 31, 2009. After reductions for non-qualifying receivables, additional availability under the program was \$50.0 million at December 31, 2010, and \$5.7 million at December 31, 2009. The interest rate on the accounts receivable asset securitization program was 4.75% at December 31, 2009.

The program contains operating covenants that limit FFC's ability to engage in certain activities, including borrowings, creation of liens, mergers, and investing in other companies. The program also requires FFC and Ferro to provide periodic financial statements and reports on the accounts receivable and limits our ability to make significant changes in receivable collection practices. In addition, FFC is required to maintain a minimum tangible net worth. The program is subject to customary termination events, including non-performance, deterioration in the quality of the accounts receivable pool, and cross-default provisions with Ferro's 2010 Credit Facility (described below) and other debt obligations with principal outstanding of at least \$5 million. If a termination event occurs and is not cured, the program may be terminated or a third party may be selected to act as administrator in collecting FFC's accounts receivable.

Long-term debt at December 31st consisted of the following:

	2010	2009
	(Dollars in thousands)	
7.875% Senior Notes	\$ 250,000	\$ —
6.50% Convertible Senior Notes, net of unamortized discounts	33,368	156,896
Former revolving credit facility	—	1,700
Former term loan facility	—	231,385
Capitalized lease obligations (see Note 15)	6,177	5,669
Other notes	4,297	4,154
<b>Total long-term debt</b>	<b>293,842</b>	<b>399,804</b>
<b>Current portion</b>	<b>(2,871)</b>	<b>(1,084)</b>
<b>Total long-term debt, less current portion</b>	<b>\$ 290,971</b>	<b>\$ 398,720</b>

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The annual maturities of long-term debt for each of the five years after December 31, 2010, were as follows:

	<b>(Dollars in thousands)</b>
2011	\$ 3,349
2012	2,111
2013	36,968
2014	1,092
2015	1,101
Thereafter	<u>254,514</u>
Total maturities of long-term debt	299,135
Unamortized discounts on 6.50% Convertible Senior Notes	(2,473)
Imputed interest and executory costs on capitalized lease obligations	<u>(2,820)</u>
Total long-term debt	<u>\$ 293,842</u>

**7.875% Senior Notes**

In 2010, we issued \$250 million of 7.875% Senior Notes due 2018 (the “Senior Notes”). We used portions of the proceeds from the offering to repay all of the remaining term loans and revolving borrowings outstanding under a credit facility originally entered into in 2006 and as amended and restated through November 2009 (the “2009 Amended and Restated Credit Facility”). We also used portions of the proceeds from the offering to repurchase the 6.50% Convertible Senior Notes (the “Convertible Notes”) that were tendered pursuant to a related tender offer. The Senior Notes were issued at par and bear interest at a rate of 7.875% per year, payable semi-annually in arrears on February 15 and August 15 of each year, beginning February 15, 2011.

The Senior Notes mature on August 15, 2018. We may redeem some or all of the Senior Notes beginning August 15, 2014, at prices ranging from 100% to 103.938% of the principal amount. In addition, through August 15, 2013, we may redeem up to 35% of the Senior Notes at a price equal to 107.875% of the principal amount using proceeds of certain equity offerings. We may also redeem some or all of the Senior Notes prior to August 15, 2014, at a price equal to the principal amount plus a defined applicable premium. The applicable premium on any redemption date is the greater of 1.0% of the principal amount of the note or the excess of (1) the present value at such redemption date of the redemption price of the note at August 15, 2014, plus all required interest payments due on the note through August 15, 2014, computed using a discount rate equal to the Treasury Rate as of the redemption date plus 50 basis points; over (2) the principal amount of the note.

The Senior Notes are unsecured obligations and rank equally in right of payment with any other unsecured, unsubordinated obligations. The Senior Notes contain certain affirmative and negative covenants customary for high-yield debt securities, including, without limitation, restrictions on our ability to incur additional debt, create liens, pay dividends or make other distributions or repurchase our common stock and sell assets outside the ordinary course of business. At December 31, 2010, we were in compliance with the covenants under the Senior Notes’ indenture.

**6.50% Convertible Senior Notes**

In 2008, Ferro issued \$172.5 million of 6.50% Convertible Senior Notes due 2013 (the “Convertible Notes”). The Convertible Notes bear interest at a rate of 6.5% per year, payable semi-annually in arrears on

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February 15th and August 15th of each year. The Convertible Notes mature on August 15, 2013. Under certain circumstances, holders of the Convertible Notes may convert their notes prior to maturity.

The initial base conversion rate is 30.9253, equivalent to an initial base conversion price of \$32.34 per share of our common stock. If the price of our common stock at conversion exceeds the base conversion price, the base conversion rate is increased by an additional number of shares. The base conversion rate and the additional number of shares are adjusted in certain events. Upon conversion of Convertible Notes, we will pay the conversion value in cash up to the aggregate principal amount of the Convertible Notes being converted and in shares of our common stock, for the remainder, if any. Upon a fundamental change, holders may require us to repurchase Convertible Notes for cash equal to the principal amount plus accrued and unpaid interest. The Convertible Notes are unsecured obligations and rank equally in right of payment with any other unsecured, unsubordinated obligations. At December 31, 2010, we were in compliance with the covenants under the Convertible Notes' indenture.

In 2010, we commenced a cash tender offer to purchase all of our Convertible Notes, and we purchased \$100.5 million of the Convertible Notes, which were tendered pursuant to the offer. Later in 2010, we purchased an additional \$36.2 million of the Convertible Notes on the open market. In connection with these transactions, we recognized losses on extinguishment of debt of \$13.1 million, consisting of unamortized debt issuance costs and the difference between the carrying value and the fair value of these notes. The principal amount outstanding was \$35.8 million at December 31, 2010, and \$172.5 million at December 31, 2009.

We separately account for the liability and equity components of the Convertible Notes in a manner that will reflect our nonconvertible debt borrowing rate when interest cost is recognized in subsequent periods. The effective interest rate on the liability component is 9.5%. Contractual interest was \$9.0 million in 2010, \$11.2 million in 2009 and \$4.1 million in 2008, and amortization of the liability discount was \$3.0 million in 2010, \$3.4 million in 2009 and \$1.2 million in 2008. At December 31, 2010, the remaining period over which the liability discount will be amortized was 2.6 years, the unamortized liability discount was \$2.5 million, and the carrying amount of the equity component was \$7.5 million. At December 31, 2009, the unamortized liability discount was \$15.6 million, and the carrying amount of the equity component was \$12.4 million.

***2009 Amended and Restated Credit Facility***

Our 2009 Amended and Restated Credit Facility included a senior term loan facility and a senior revolving credit facility. At December 31, 2009, we had \$191.4 million available, after reductions for standby letters of credit secured by this facility. The interest rates under the 2009 Amended and Restated Credit Facility were the sum of (A) either (1) LIBOR or (2) the higher of the Federal Funds Rate plus 0.5%, the Prime Rate, or LIBOR plus 1.0% and (B) for the revolving credit facility, a variable margin based on the Company's leverage, or for the term loan facility, a fixed margin. Borrowings of \$175 million under the term loan facility were restricted to using three-month LIBOR in determining their interest rates in connection with interest rate swap agreements that effectively fixed the interest rate on \$150 million of borrowings under the term loan facility. At December 31, 2009, the average interest rate for revolving credit borrowings was 6.3%, and the effective interest rate for term loan borrowings after adjusting for the interest rate swaps was 9.7%.

In 2010, we made early principal payments of \$83.6 million on our outstanding term loans and wrote off \$2.3 million of related unamortized debt issuance costs to interest expense. Subsequently in 2010, we amended the 2009 Amended and Restated Credit Facility and paid the remaining \$147.8 million on our outstanding term loans and the remaining \$75.5 million on our outstanding revolving borrowings. As a result of changes in the creditors, we treated the amendment as an extinguishment of the 2009 Amended and Restated Credit Facility and recognized losses on extinguishment of debt of \$9.9 million, consisting of unamortized debt issuance costs related to this facility.

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***2010 Credit Facility***

In 2010, we entered into the Third Amended and Restated Credit Agreement with a group of lenders for a five-year, \$350 million multi-currency senior revolving credit facility (the “2010 Credit Facility”). At December 31, 2010, there were no borrowings under this facility. At December 31, 2010, we had \$342.8 million available, after reductions for standby letters of credit secured by this facility. The interest rate under the 2010 Credit Facility is the sum of (A) either (1) LIBOR or (2) the higher of the Federal Funds Rate plus 0.5%, the Prime Rate, or LIBOR plus 1.0% and (B) a variable margin based on the Company’s leverage.

The 2010 Credit Facility matures on August 24, 2015, and is secured by substantially all of Ferro’s assets, generally including 100% of the shares of the parent company’s domestic subsidiaries and 65% of the shares of the foreign subsidiaries directly owned by the parent company, but excluding trade receivables legally sold pursuant to our accounts receivable sales programs.

We are subject to a number of financial covenants under our 2010 Credit Facility. The covenants include requirements for a fixed charge coverage ratio greater than 1.35 to 1.00 and a leverage ratio less than 3.50 to 1.00 on the last day of any fiscal quarter and calculated using the last four fiscal quarters. In the fixed charge ratio, the numerator consists of earnings before interest, tax, depreciation and amortization, and special charges, less capital expenditures, and the denominator is the sum of interest expense paid in cash, scheduled principal payments, and restricted payments consisting of dividends and any stock buy backs. In the leverage ratio, the numerator is total debt, which consists of borrowing and letters of credit outstanding on the 2010 Credit Facility and our international facilities, the principal amount outstanding on our senior notes and convertible notes, capitalized lease obligations, and amounts outstanding on our U.S. and international receivables sales programs, and the denominator is the sum of earnings before interest, tax, depreciation and amortization, and special charges. Our ability to meet these covenants is primarily driven by our net income before interest, income taxes, depreciation and amortization; our total debt; and our interest payments. Our total debt is primarily driven by cash flow items, including net income before amortization, depreciation, and other noncash charges; our capital expenditures; requirements for deposits from participants in our precious metals consignment program; our customers’ ability to make payments for purchases and the timing of such payments; and our ability to manage inventory and other working capital items. Our interest payments are driven by our debt level, external fees, and interest rates, primarily the Prime rate and LIBOR. At December 31, 2010, we were in compliance with the covenants of the 2010 Credit Facility.

Our ability to pay common stock dividends is limited by certain covenants in our 2010 Credit Facility and the bond indenture governing the Senior Notes. The covenant in our 2010 Credit Facility is the more limiting of the two covenants and limits our ability to make restricted payments, which include, but are not limited to, common stock dividends and the repurchase of equity interests. We are not permitted to make restricted payments in excess of \$30 million dollars in any calendar year. However, if we make less than \$30 million of restricted payments in any calendar year, the unused amount can be carried over for restricted payments in future years, provided that the maximum amount of restricted payments in any calendar year cannot exceed \$60 million.

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***International Receivables Sales Programs***

We maintain several international programs to sell trade accounts receivable to financial institutions. The commitments supporting these programs can be withdrawn at any time and totaled \$30.1 million at December 31, 2010, and \$61.1 million at December 31, 2009. The amount of outstanding receivables sold under the international programs was \$6.8 million at December 31, 2010, and \$15.2 million at December 31, 2009. Ferro had received net proceeds under the international programs of \$3.4 million at December 31, 2010, and \$10.3 million at December 31, 2009, for outstanding receivables. Based on available and qualifying receivables, there was no additional availability under these programs at December 31, 2010, or December 31, 2009. Ferro provides normal collection and administration services for the trade accounts receivable sold to certain financial institutions. Servicing fees are not material.

Activity from these programs is detailed below:

	<u>2010</u>	<u>2009</u>	<u>2008</u>
	(Dollars in thousands)		
Trade accounts receivable sold to financial institutions	\$ 91,233	\$ 112,745	\$ 232,065
Cash proceeds from financial institutions	92,528	121,350	221,509
Trade accounts receivable collected and remitted to financial institutions	12,177	34,101	73,301

***Other Financing Arrangements***

We maintain other lines of credit to provide global flexibility for Ferro's short-term liquidity requirements. These facilities are uncommitted lines for our international operations and totaled \$12.9 million at December 31, 2010, and \$10.4 million at December 31, 2009. The unused portions of these lines provided additional liquidity of \$9.3 million at December 31, 2010, and \$5.3 million at December 31, 2009.

**7. Financial Instruments**

The carrying amounts of the following assets and liabilities meeting the definition of a financial instrument approximate their fair values due to the short period to maturity of the instruments:

- Cash and cash equivalents;
- Notes receivable;
- Deposits;
- Miscellaneous receivables; and
- Short-term loans payable to banks.

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***Long-term Debt***

The following financial instruments are measured at fair value at December 31st for disclosure purposes.

	2010		2009	
	Carrying Amount	Fair Value	Carrying Amount	Fair Value
	(Dollars in thousands)			
7.875% Senior Notes	\$ 250,000	\$ 266,563	\$ —	\$ —
6.50% Convertible Senior Notes	33,368	36,379	156,896	157,191
Former revolving credit facility	—	—	1,700	1,747
Former term loan facility	—	—	231,385	237,047
Other notes	4,297	3,600	4,154	3,084

The fair values of the Senior Notes and the Convertible Notes are based on a third party's estimated bid price. The fair values of the former revolving credit facility, the former term loan facility, and the other long-term notes are based on the present value of expected future cash flows and assumptions about current interest rates and the creditworthiness of the Company that market participants would use in pricing the debt.

***Derivative Instruments***

*Interest rate swaps.* To reduce our exposure to interest rate changes on variable-rate debt, we entered into interest rate swap agreements in 2007. These swaps effectively converted \$150 million of our variable-rate term loan facility to a fixed interest rate. These swaps were designated and qualified as cash flow hedges. The fair value of these swaps was based on the present value of expected future cash flows, which reflected assumptions about current interest rates and the creditworthiness of the Company that market participants would use in pricing the swaps. The interest rate swaps were moved from Level 2 to Level 3 within the fair value hierarchy as of the beginning of the second quarter of 2009 and then back to Level 2 as of the beginning of the fourth quarter of 2009 because during only the second and third quarters of 2009 the assumption about the creditworthiness of the Company was not an observable market-based input nor an unobservable input that could be corroborated by market data for sufficiently similar financial instruments. During that period, we based our assumption about the creditworthiness of the Company on the assumption implicit in the bid price of our Convertible Notes, adjusted by us for differences between these financial instruments in their conversion, security and liquidity features. In August 2010, in conjunction with repayment of our remaining outstanding term loans, we settled these swaps and reclassified \$6.8 million from accumulated other comprehensive income to miscellaneous expense.

*Foreign currency forward contracts.* We manage foreign currency risks principally by entering into forward contracts to mitigate the impact of currency fluctuations on transactions. These forward contracts are not formally designated as hedges. The fair value of these contracts is based on market prices for comparable contracts. The notional amount of foreign currency forward contracts was \$187.3 million at December 31, 2010, and \$178.9 million at December 31, 2009.



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The following table presents the fair value of derivative instruments on our consolidated balance sheets at December 31st:

	2010	2009	Balance Sheet Location
	(Dollars in thousands)		
<b>Derivatives designated as hedging instruments:</b>			
Liability derivatives:			
Interest rate swaps	\$ —	\$ (9,516)	Other non-current liabilities
<b>Derivatives not designated as hedging instruments:</b>			
Asset derivatives:			
Foreign currency forward contracts	\$ —	\$ 899	Other receivables
Foreign currency forward contracts	1,261	—	Accrued expenses and other current liabilities
<b>Total fair value</b>	<b>\$ 1,261</b>	<b>\$ 899</b>	
Liability derivatives:			
Foreign currency forward contracts	\$ —	\$ (176)	Other receivables
Foreign currency forward contracts	(1,501)	—	Accrued expenses and other current liabilities
<b>Total fair value</b>	<b>\$ (1,501)</b>	<b>\$ (176)</b>	

The inputs to the valuation techniques used to measure fair value are classified into the following categories:

Level 1: Quoted market prices in active markets for identical assets or liabilities.

Level 2: Observable market-based inputs or unobservable inputs that are corroborated by market data.

Level 3: Unobservable inputs that are not corroborated by market data.

The carrying amount, fair value, and classification within the fair value hierarchy of these financial instruments at December 31st were as follows:

	2010				2009
	Level 1	Level 2	Level 3	Total	
	(Dollars in thousands)				
<b>Assets:</b>					
Foreign currency forward contracts, net	\$ —	\$ —	\$ —	\$ —	\$ 723
<b>Liabilities:</b>					
Interest rate swaps	\$ —	\$ —	\$ —	\$ —	\$ (9,516)
Foreign currency forward contracts, net	—	(240)	—	(240)	—
<b>Total fair value</b>	<b>\$ —</b>	<b>\$ (240)</b>	<b>\$ —</b>	<b>\$ (240)</b>	<b>\$ (9,516)</b>

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A reconciliation of the 2009 beginning and ending balances of the financial instruments in Level 3 is as follows:

	(Dollars in thousands)
Balance at December 31, 2008	\$ —
Total losses included in other comprehensive loss	(1,802)
Settlements	3,544
Transfers in and/or out of Level 3	(1,742)
Balance at December 31, 2009	\$ —

The following table presents the effect of derivative instruments on our consolidated financial performance:

	Amount of Gain (Loss) Recognized in OCI		Amount of Gain (Loss) Reclassified from AOCI into Income		Location of Gain (Loss) Reclassified from AOCI into Income
	2010	2009	2010	2009	
	(Dollars in thousands)				
<b>Derivatives in Cash Flow Hedging Relationships:</b>					
Interest rate swaps			\$ (4,885)	\$ (7,101)	Interest expense
			(6,849)	—	Miscellaneous expense
Total	\$ (2,218)	\$ (3,893)	\$ (11,734)	\$ (7,101)	

	Amount of Gain (Loss) Recognized in Income		Location of Gain (Loss) in Income
	2010	2009	
	(Dollars in thousands)		
<b>Derivatives Not Designated as Hedging Instruments:</b>			
Foreign currency forward contracts	\$ 5,553	\$ (11,833)	Foreign currency losses, net

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**8. Income Taxes**

Income tax (benefits) expenses are based on our (losses) earnings from continuing operations before income taxes as presented in the following table:

	<u>2010</u>	<u>2009</u>	<u>2008</u>
	(Dollars in thousands)		
U.S.	\$ 65,366	\$ (18,755)	\$ (12,171)
Foreign	(41,625)	(24,800)	(43,915)
<b>Total</b>	<b>\$ 23,741</b>	<b>\$ (43,555)</b>	<b>\$ (56,086)</b>

Our income tax expense (benefit) from continuing operations consists of the following components:

	<u>2010</u>	<u>2009</u>	<u>2008</u>
	(Dollars in thousands)		
<b>Current:</b>			
U.S. federal	\$ 6,388	\$ 982	\$ (2,262)
Foreign	14,964	8,403	21,713
State and local	374	(153)	580
<b>Total current</b>	<b>21,726</b>	<b>9,232</b>	<b>20,031</b>
<b>Deferred:</b>			
U.S. federal	13,693	(8,490)	(8,117)
Foreign	(11,321)	(4,592)	(15,167)
State and local	(7,630)	335	49
<b>Total deferred</b>	<b>(5,258)</b>	<b>(12,747)</b>	<b>(23,235)</b>
<b>Total income tax expense (benefit)</b>	<b>\$ 16,468</b>	<b>\$ (3,515)</b>	<b>\$ (3,204)</b>

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In addition, income tax expense (benefit) we allocated directly to Ferro Corporation shareholders' equity is detailed in the following table:

	2010	2009	2008
	(Dollars in thousands)		
Foreign currency translation adjustments	\$ 1,717	\$ 583	\$ 1,952
Postretirement benefit liability adjustments	4,553	6,453	(32,783)
Raw material commodity swap adjustments	83	285	394
Interest rate swap adjustments	3,396	1,134	(1,643)
Issuance of convertible debt	—	—	7,164
Dividends on performance shares	—	—	(43)
Stock options exercised	—	—	(3)
Other	—	—	(35)
<b>Total income tax expense (benefit) allocated to Ferro Corporation shareholders' equity</b>	<b>\$ 9,749</b>	<b>\$ 8,455</b>	<b>\$ (24,997)</b>

A reconciliation of the U.S. federal statutory income tax rate and our effective tax rate follows:

	2010	2009	2008
U.S. federal statutory income tax rate	35.0%	(35.0)%	(35.0)%
Adjustment of valuation allowances	39.0	2.9	17.4
State taxes	7.4	0.4	(0.7)
Medicare subsidy	6.1	(0.3)	(0.1)
Foreign tax rate difference	3.6	9.7	11.6
Goodwill write-offs and impairments	0.9	6.6	27.5
U.S. tax cost of foreign dividends	0.8	4.7	(10.9)
Stock options	0.1	1.4	0.7
Domestic production activities deduction	(8.7)	—	—
Net adjustment of prior year accrual	(4.6)	4.3	(4.0)
Foreign exchange on loan settlement	(4.1)	—	—
Uncertain tax positions	(3.3)	6.6	(10.2)
Research and development credit	(1.5)	(10.1)	(0.4)
ESOP dividends	(1.0)	(0.6)	(0.8)
Miscellaneous	(0.4)	1.3	(0.8)
<b>Effective tax rate</b>	<b>69.3%</b>	<b>(8.1)%</b>	<b>(5.7)%</b>

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The components of deferred tax assets and liabilities at December 31st were:

	2010	2009
	(Dollars in thousands)	
<b>Deferred tax assets:</b>		
Pension and other benefit programs	\$ 61,074	\$ 64,516
Foreign operating loss carryforwards	55,984	44,595
Foreign tax credit carryforwards	30,510	42,023
Accrued liabilities	19,223	9,984
Other credit carryforwards	11,502	14,202
Capitalized research costs	10,278	12,347
Inventories	4,011	3,625
Allowance for doubtful accounts	3,285	4,654
State operating loss carryforwards	2,632	5,011
Other	14,715	16,125
<b>Total deferred tax assets</b>	<b>213,214</b>	<b>217,082</b>
<b>Deferred tax liabilities:</b>		
Property, equipment and intangibles — depreciation and amortization	30,507	31,264
Unremitted earnings of foreign subsidiaries	2,051	3,037
Convertible debt instruments	866	5,725
Other	9,944	12,368
<b>Total deferred tax liabilities</b>	<b>43,368</b>	<b>52,394</b>
Net deferred tax assets before valuation allowance	169,846	164,688
Valuation allowance	(26,815)	(17,969)
<b>Net deferred tax assets</b>	<b>\$ 143,031</b>	<b>\$ 146,719</b>

The amounts of foreign operating loss carryforwards, foreign tax credit carryforwards, and other credit carryforwards included in the table of temporary differences are net of reserves for unrecognized tax benefits. The amounts of foreign tax credit carryforwards have been reduced by \$0.4 million related to unrealized stock option deductions.

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At December 31, 2010, we had \$2.6 million of state operating loss carryforwards and \$55.9 million of foreign operating loss carryforwards, some of which can be carried forward indefinitely and others expire in one to twenty years. At December 31, 2010, we had \$64.1 million of tax credit carryforwards, some of which can be carried forward indefinitely. These operating loss carryforwards and tax credit carryforwards expire as follows:

	<u>Operating Loss Carryforwards</u>	<u>Tax Credit Carryforwards</u>
	(Dollars in thousands)	
Expiring in:		
2011	\$ 243	\$ 25
2012-2016	12,360	36,409
2017-2021	18,326	15,159
2022-2026	665	7,538
2027-2031	271	2,520
2032-Indefinitely	26,663	2,402
<b>Total</b>	<b>\$ 58,528</b>	<b>\$ 64,053</b>

We assess the available positive and negative evidence to estimate if sufficient future taxable income will be generated to utilize the existing deferred tax assets. A significant piece of objective negative evidence evaluated by jurisdiction was the cumulative loss incurred over the three year period ended December 31, 2010. Such objective evidence limits the ability to consider other subjective evidence such as our projections for future growth.

Based on this assessment, the Company released a valuation allowance related to state and local deferred tax assets. The impact, net of Federal taxes, was \$6.6 million. At December 31, 2010, the Company has recorded a valuation allowance of \$26.8 million in order to measure only the portion of the deferred tax asset that more likely than not will be realized. The most significant items that increased the valuation allowance in 2010 primarily related to additions to deferred tax assets for current year operating losses in certain jurisdictions where it is not more likely than not that these assets will be realized.

We classified net deferred income tax assets as of December 31st as detailed in the following table:

	<u>2010</u>	<u>2009</u>
	(Dollars in thousands)	
Current assets	\$ 24,924	\$ 19,618
Non-current assets	121,640	133,705
Current liabilities	(1,322)	(5,480)
Non-current liabilities	(2,211)	(1,124)
<b>Net deferred tax assets</b>	<b>\$ 143,031</b>	<b>\$ 146,719</b>

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Activity and balances of unrecognized tax benefits are summarized below:

	2010	2009	2008
	(Dollars in thousands)		
Balance at beginning of year	\$ 36,399	\$ 34,764	\$ 52,173
Additions based on tax positions related to the current year	3,619	4,094	1,770
Additions for tax positions of prior years	78	2,064	2,774
Reductions for tax positions of prior years	(1,029)	(656)	(5,256)
Reductions as a result of expiring statutes of limitations	(3,644)	(4,199)	(11,420)
Foreign currency translation of non-U.S. dollar denominated reserves	(1,968)	1,282	(1,472)
Settlements with taxing authorities	—	(950)	(3,805)
<b>Balance at end of year</b>	<b>\$ 33,455</b>	<b>\$ 36,399</b>	<b>\$ 34,764</b>

The total amount of unrecognized tax benefits that, if recognized, would affect the effective rate was \$14.0 million at December 31, 2010, and \$16.5 million at December 31, 2009. The Company recognizes interest accrued and penalties related to unrecognized tax benefits as part of income tax expense. The Company recognized \$0.5 million of expense in 2010, \$1.3 million of benefit in 2009, and \$0.7 million of benefit in 2008 for interest, net of tax, and penalties. The Company accrued \$1.7 million at December 31, 2010, and \$1.2 million at December 31, 2009, for payment of interest, net of tax, and penalties.

We anticipate that \$7.3 million of liabilities for unrecognized tax benefits, including accrued interest and penalties, may be reversed within the next 12 months. These liabilities relate to non-U.S. tax issues and are expected to reverse due to the expiration of the applicable statute of limitations periods.

The Company conducts business globally, and, as a result, the U.S. parent company or one of its subsidiaries files income tax returns in the U.S. federal jurisdiction and various state and foreign jurisdictions. In the normal course of business, the U.S. parent company and its subsidiaries are subject to examination by taxing authorities throughout the world. With few exceptions, we are not subject to federal, state, local or non-U.S. income tax examinations for years before 2002.

At December 31, 2010, we provided \$2.9 million for deferred income taxes on \$22.7 million of undistributed earnings of foreign subsidiaries. We have not provided deferred income taxes on undistributed earnings of approximately \$95.6 million, since we intend to indefinitely reinvest the earnings.

## **9. Contingent Liabilities**

The Company and certain other companies participating in the plastics additives industry have been named as defendants in six civil indirect purchaser class action lawsuits seeking monetary damages and injunctive relief relating to alleged violations of the antitrust laws by the defendants. All of these cases contain similar allegations to direct purchaser class action lawsuits that the Company has previously settled. Although the Company decided to bring the direct purchaser actions to a close through settlement, the Company did not admit to any of the alleged violations and continues to deny any wrongdoing. Consequently, the Company intends to vigorously defend the indirect purchaser class actions, does not believe that a loss is probable, and therefore, has not recorded a liability for these class actions. The Company does not believe that the disposition of these cases will materially affect the consolidated financial position, results of operations, or cash flows of the Company.

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There are various other lawsuits and claims pending against the Company and its consolidated subsidiaries. In our opinion, the ultimate liabilities, if any, and expenses resulting from such lawsuits and claims will not materially affect the consolidated financial position, results of operations, or cash flows of the Company.

The Company had bank guarantees and standby letters of credit issued by financial institutions that totaled \$12.2 million at December 31, 2010, and \$12.3 million at December 31, 2009. These agreements primarily relate to Ferro's insurance programs, foreign energy purchase contracts and foreign tax payments. If the Company fails to perform its obligations, the guarantees and letters of credit may be drawn down by their holders, and we would be liable to the financial institutions for the amounts drawn.

The Company has a non-operating facility in Brazil that is environmentally contaminated. We have recorded an undiscounted remediation liability because we believe the liability is incurred and the amount of contingent loss is reasonably estimable. In 2010, we increased our estimate of the remediation costs based on recent third-party engineering studies. The loss associated with this facility was \$9.8 million and \$1.1 million at December 31, 2010 and 2009, respectively. The ultimate loss will depend on the extent of contamination found as the project progresses and acceptance by local authorities of remediation activities, including the time frame of monitoring involved.

On January 4, 2011, the Company received an administrative subpoena from the U.S. Department of the Treasury's Office of Foreign Assets Control ("OFAC"). OFAC has requested that the Company provide documents and information related to the possibility of direct or indirect transactions with or to a prohibited country. The Company is cooperating with OFAC in connection with the administrative subpoena. The Company cannot predict the length, scope or results of the inquiry from OFAC, or the impact, if any, on its business activities or results of operations.

**10. Retirement Benefits**

***Defined Benefit Pension Plans***

	U.S. Plans			Non-U.S. Plans		
	2010	2009	2008	2010	2009	2008
	(Dollars in thousands)					
<b>Net periodic benefit cost:</b>						
Service cost	\$ 21	\$ 24	\$ 201	\$ 3,289	\$ 4,279	\$ 5,405
Interest cost	20,545	21,083	20,705	10,122	10,664	11,503
Expected return on plan assets	(18,138)	(15,437)	(22,652)	(6,908)	(7,145)	(8,353)
Amortization of prior service cost (credit)	95	98	100	(308)	(401)	118
Net amortization and deferral	12,630	15,794	2,495	753	1,047	189
Curtailment and settlement effects	—	—	259	6,371	(606)	(747)
Special termination benefits	—	—	—	38	46	121
<b>Total net periodic benefit cost</b>	<b>\$ 15,153</b>	<b>\$ 21,562</b>	<b>\$ 1,108</b>	<b>\$ 13,357</b>	<b>\$ 7,884</b>	<b>\$ 8,236</b>
<b>Weighted-average assumptions:</b>						
Discount rate	6.20%	6.74%	6.49%	5.88%	5.85%	5.56%
Rate of compensation increase	N/A	N/A	N/A	3.42%	3.45%	3.49%
Expected return on plan assets	8.50%	8.50%	8.50%	5.28%	5.24%	5.25%

In 2010, we recorded a settlement loss of \$12.2 million related to establishing a fully insured arrangement for benefit obligations at Rotterdam, Netherlands, and a settlement loss of \$0.2 million related to the transfer of some pension obligations to another company in Germany. These losses were partially offset by settlement and



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curtailment gains of \$5.2 million related to terminations in Netherlands, France and Portugal, and a settlement gain of \$0.8 million due to the transfer of some pension obligations and related assets to a defined contribution plan in Japan. In addition, the improvement through December 2009 in the valuation of pension investments increased the amount of our expected return on plan assets and lowered the amount of amortization of our unrecognized net actuarial losses.

In 2009, we recorded a curtailment gain of \$0.5 million related to terminations in France and Mexico, and a settlement gain of \$0.1 million related to lump-sum payouts in Italy.

In 2008, we recorded settlement losses of \$0.3 million related to retirements in the U.S., settlement gains of \$0.8 million related to retirements and terminations in Mexico, Italy and Japan, a curtailment gain of \$0.1 million related to the closing of our Rotterdam, Netherlands, Porcelain Enamel manufacturing facility, a settlement loss of \$0.2 million related to a required settlement of a plan in France, and special termination benefits of \$0.1 million related to terminations in the Netherlands and Indonesia.

	U.S. Plans		Non-U.S. Plans	
	2010	2009	2010	2009
	(Dollars in thousands)			
<b>Change in benefit obligation:</b>				
Benefit obligation at beginning of year	\$ 343,151	\$ 320,539	\$ 197,086	\$ 185,064
Service cost	21	24	3,289	4,279
Interest cost	20,545	21,083	10,122	10,664
Amendments	—	—	—	(1,523)
Curtailments	—	—	(2,966)	(688)
Settlements	—	—	(98,340)	(1,372)
Special termination benefits	—	—	38	46
Plan participants' contributions	—	—	329	528
Benefits paid	(20,571)	(20,624)	(9,507)	(8,655)
Actuarial loss	17,338	22,129	14,842	1,511
Exchange rate effect	—	—	(10,793)	7,232
<b>Benefit obligation at end of year</b>	<b>\$ 360,484</b>	<b>\$ 343,151</b>	<b>\$ 104,100</b>	<b>\$ 197,086</b>
Accumulated benefit obligation at end of year	\$ 360,484	\$ 343,151	\$ 98,198	\$ 188,804
<b>Change in plan assets:</b>				
Fair value of plan assets at beginning of year	\$ 230,789	\$ 200,708	\$ 149,921	\$ 131,395
Actual return on plan assets	29,564	42,232	9,863	13,957
Employer contributions	18,155	8,473	10,441	8,155
Plan participants' contributions	—	—	329	528
Benefits paid	(20,571)	(20,624)	(9,507)	(8,655)
Effect of settlements	—	—	(97,491)	(1,372)
Exchange rate effect	—	—	(8,259)	5,913
<b>Fair value of plan assets at end of year</b>	<b>\$ 257,937</b>	<b>\$ 230,789</b>	<b>\$ 55,297</b>	<b>\$ 149,921</b>
<b>Amounts recognized in the balance sheet:</b>				
Other non-current assets	\$ —	\$ —	\$ 607	\$ 1,994
Accrued expenses and other current liabilities	(373)	(396)	(1,832)	(1,992)
Postretirement and pension liabilities	(102,174)	(111,966)	(47,578)	(47,167)
<b>Funded status</b>	<b>\$ (102,547)</b>	<b>\$ (112,362)</b>	<b>\$ (48,803)</b>	<b>\$ (47,165)</b>

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	U.S. Plans		Non-U.S. Plans	
	2010	2009	2010	2009
	(Dollars in thousands)			
<b>Weighted-average assumptions as of the measurement date:</b>				
Discount rate	5.85%	6.20%	5.51%	5.88%
Rate of compensation increase	N/A	N/A	3.44%	3.42%
<b>Pension plans with benefit obligations in excess of plan assets:</b>				
Benefit obligations	\$ 360,484	\$ 343,151	\$ 101,819	\$ 178,573
Plan assets	257,937	230,789	52,409	129,414
<b>Pension plans with accumulated benefit obligations in excess of plan assets:</b>				
Projected benefit obligations	\$ 360,484	\$ 343,151	\$ 99,261	\$ 176,048
Accumulated benefit obligations	360,484	343,151	94,151	169,768
Plan assets	257,937	230,789	49,928	126,995

Activity and balances in accumulated other comprehensive income (loss) related to defined benefit pension plans are summarized below:

	U.S. Plans		Non-U.S. Plans	
	2010	2009	2010	2009
	(Dollars in thousands)			
Balance at beginning of year	\$ (126,596)	\$ (147,153)	\$ (12,180)	\$ (18,948)
Net gain (loss) arising during the year	(5,913)	4,665	(9,830)	5,302
Prior service cost arising during the year	—	—	—	1,523
Amounts recognized as net periodic benefit costs	12,725	15,892	7,724	728
Exchange rate effects	—	—	909	(785)
<b>Balance at end of year</b>	<b>\$ (119,784)</b>	<b>\$ (126,596)</b>	<b>\$ (13,377)</b>	<b>\$ (12,180)</b>
<b>Amounts recognized in accumulated other comprehensive income (loss):</b>				
Net loss	\$ (119,608)	\$ (126,325)	\$ (14,363)	\$ (16,458)
Prior service (cost) credit	(176)	(271)	986	4,278
<b>Total</b>	<b>\$ (119,784)</b>	<b>\$ (126,596)</b>	<b>\$ (13,377)</b>	<b>\$ (12,180)</b>
<b>Estimated amounts to be amortized in 2011:</b>				
Net loss	\$ (12,938)		\$ (630)	
Prior service (cost) credit	(73)		140	
<b>Total</b>	<b>\$ (13,011)</b>		<b>\$ (490)</b>	

The overall investment objective for defined benefit pension plan assets is to achieve the highest level of investment return that is compatible with prudent investment practices, asset class risk and current and future benefit obligations of the plans. Based on the potential risks and expected returns of various asset classes, the Company establishes asset allocation ranges for major asset classes. For U.S. plans, the target allocations are 30% fixed income and 70% equity investments. For non-U.S. plans, the target allocations are 73% fixed income, 24%

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equity, and 3% other investments. The Company invests in funds and with asset managers that track broad investment indices. The equity indices generally capture the returns of the equity markets in the U.S., Europe, Japan, and Asia-Pacific and also reflect various investment styles, such as growth, value and large or small capitalization. The fixed income indices generally capture the returns of government and investment grade corporate fixed income securities in the U.S. and Europe and also reflect various durations of these securities.

We base the expected return on plan assets at the beginning of the year on the weighted-average expected return for the target asset allocations of the major asset classes held by each plan. In determining the expected return, the Company considers both historical performance and an estimate of future long-term rates of return. The Company consults with and considers the opinion of its actuaries in developing appropriate return assumptions.

The fair values of our pension plan assets at December 31, 2010, by asset category are as follows:

	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>	<u>Total</u>
	(Dollars in thousands)			
<b>U.S. plans:</b>				
Fixed income:				
Cash and cash equivalents	\$ 8,792	\$ —	\$ —	\$ 8,792
Guaranteed deposits	—	2,620	—	2,620
Mutual funds	63,758	1,353	602	65,713
Equities:				
Common stocks	117,391	—	—	117,391
Index mutual funds	—	63,421	—	63,421
<b>Total</b>	<b>\$ 189,941</b>	<b>\$ 67,394</b>	<b>\$ 602</b>	<b>\$ 257,937</b>
<b>Non-U.S. plans:</b>				
Fixed income:				
Cash and cash equivalents	\$ 2,735	\$ —	\$ —	\$ 2,735
Guaranteed deposits	—	19,584	—	19,584
Mutual funds	254	15,653	—	15,907
Other	3,065	—	—	3,065
Equities:				
Index mutual funds	386	12,486	—	12,872
Real estate	—	—	679	679
Other assets	103	—	352	455
<b>Total</b>	<b>\$ 6,543</b>	<b>\$ 47,723</b>	<b>\$ 1,031</b>	<b>\$ 55,297</b>

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The fair values of our pension plan assets at December 31, 2009, by asset category are as follows:

	Level 1	Level 2	Level 3	Total
	(Dollars in thousands)			
<b>U.S. plans:</b>				
Fixed income:				
Cash and cash equivalents	\$ 12,237	\$ —	\$ —	\$ 12,237
Guaranteed deposits	—	2,835	—	2,835
Mutual funds	57,604	1,238	547	59,389
Equities:				
Common stocks	121,443	—	—	121,443
Index mutual funds	—	34,885	—	34,885
<b>Total</b>	<b>\$ 191,284</b>	<b>\$ 38,958</b>	<b>\$ 547</b>	<b>\$ 230,789</b>
<b>Non-U.S. plans:</b>				
Fixed income:				
Cash and cash equivalents	\$ 3,642	\$ —	\$ —	\$ 3,642
Guaranteed deposits	—	25,335	—	25,335
Mutual funds	—	73,736	—	73,736
Other	2,776	—	—	2,776
Equities:				
Common stocks	83	—	—	83
Index mutual funds	—	38,398	—	38,398
Real estate	—	—	5,586	5,586
Other assets	—	—	365	365
<b>Total</b>	<b>\$ 6,501</b>	<b>\$ 137,469</b>	<b>\$ 5,951</b>	<b>\$ 149,921</b>

Level 3 assets consist primarily of real estate investments in the form of non-public mutual funds invested in non-public real estate development and investment companies. Fair market values are based on estimated capitalization factors applied to the earnings streams from portfolio properties and fee income, discounted cash flows of development projects, and estimated market values of undeveloped land, all of which are reduced by reported liabilities and appropriate taxes.

The Company's U.S. pension plans held 424,651 shares of the Company's common stock with a market value of \$6.2 million at December 31, 2010, and \$3.5 million at December 31, 2009, and received dividends from the Company's common stock of \$-0- in 2010, \$4,000 in 2009, and \$0.2 million in 2008.

We expect to contribute approximately \$21.2 million to our U.S. pension plans and \$8.3 million to our non-U.S. pension plans in 2011.

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We estimate that future pension benefit payments, which reflect expected future service, will be as follows:

	<u>U.S. Plans</u>	<u>Non-U.S. Plans</u>
	(Dollars in thousands)	
2011	\$ 21,078	\$ 4,401
2012	21,660	4,417
2013	22,141	4,971
2014	22,722	5,171
2015	23,012	5,053
2016-2020	122,265	33,112

***Postretirement Health Care and Life Insurance Benefit Plans***

	<u>2010</u>	<u>2009</u>	<u>2008</u>
	(Dollars in thousands)		
<b>Net periodic benefit cost:</b>			
Service cost	\$ —	\$ 14	\$ 64
Interest cost	2,426	2,877	2,923
Amortization of prior service cost	(1,395)	(1,748)	(1,643)
Net amortization and deferral	(171)	—	—
Curtailement and settlement effects	—	(626)	—
<b>Total net periodic benefit cost</b>	<b>\$ 860</b>	<b>\$ 517</b>	<b>\$ 1,344</b>

**Weighted-average assumptions:**

Discount rate	5.85%	6.45%	6.10%
Current trend rate for health care costs	8.10%	8.70%	9.40%
Ultimate trend rate for health care costs	4.50%	5.20%	5.20%
Year that ultimate trend rate is reached	2028	2018	2017

In 2009, we limited eligibility for retiree medical and life insurance coverage for certain union employees and recorded a curtailment gain of \$0.6 million.

A one-percentage-point change in the assumed health care cost trend rates would have the following effect:

	<u>1-Percentage- Point Increase</u>	<u>1-Percentage- Point Decrease</u>
	(Dollars in thousands)	
Effect on total of service and interest cost components	\$ 156	\$ (137)
Effect on postretirement benefit obligation	2,291	(2,015)

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	2010	2009
	(Dollars in thousands)	
<b>Change in benefit obligation:</b>		
Benefit obligation at beginning of year	\$ 43,827	\$ 47,164
Service cost	—	14
Interest cost	2,426	2,877
Amendments	200	—
Curtailments	—	(626)
Benefits paid	(3,305)	(3,425)
Actuarial (gain) loss	(5,955)	(2,177)
<b>Benefit obligation at end of year</b>	<b>\$ 37,193</b>	<b>\$ 43,827</b>
<b>Change in plan assets:</b>		
Fair value of plan assets at beginning of year	\$ —	\$ —
Employer contributions	3,305	3,425
Benefits paid	(3,305)	(3,425)
<b>Fair value of plan assets at end of year</b>	<b>\$ —</b>	<b>\$ —</b>
<b>Amounts recognized in the balance sheet:</b>		
Accrued expenses and other current liabilities	\$ (3,590)	\$ (4,616)
Postretirement and pension liabilities	(33,603)	(39,211)
<b>Funded status</b>	<b>\$ (37,193)</b>	<b>\$ (43,827)</b>
<b>Weighted-average assumptions as of December 31:</b>		
Discount rate	5.45%	5.85%
Current trend rate for health care costs	7.90%	8.00%
Ultimate trend rate for health care costs	4.50%	4.50%
Year that ultimate trend rate is reached	2028	2028

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Activity and balances in accumulated other comprehensive income (loss) related to our postretirement health care and life insurance benefit plans are summarized below:

	2010	2009
	(Dollars in thousands)	
Balance at beginning of year	\$ 10,042	\$ 9,613
Net gain arising during the year	5,955	2,177
Prior service cost arising during the year	(200)	—
Amounts recognized as net periodic benefit costs	(1,566)	(1,748)
<b>Balance at end of year</b>	<b>\$ 14,231</b>	<b>\$ 10,042</b>

**Amounts recognized in accumulated other comprehensive income (loss):**

Net gain	\$ 12,570	\$ 6,786
Prior service credit	1,661	3,256
<b>Total</b>	<b>\$ 14,231</b>	<b>\$ 10,042</b>

**Estimated amounts to be amortized in 2011:**

Net gain	\$ 639
Prior service credit	401
<b>Total</b>	<b>\$ 1,040</b>

The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 provides subsidies for certain drug costs to companies that provide coverage that is actuarially equivalent to the drug coverage under Medicare D. We estimate that future postretirement health care and life insurance benefit payments will be as follows:

	Before Medicare Subsidy	After Medicare Subsidy
	(Dollars in thousands)	
2011	\$ 3,590	\$ 3,204
2012	3,506	3,118
2013	3,397	3,010
2014	3,292	2,913
2015	3,169	2,798
2016-2020	13,899	12,268

**Other Retirement Plans**

We also have defined contribution retirement plans covering certain employees. Our contributions are determined by the terms of the plans and are limited to amounts that are deductible for income taxes. Generally, benefits under these plans vest gradually over a period of five years from date of employment. The largest plan covers U.S. salaried and most hourly employees. In this plan, the Company contributes a percentage of eligible employee basic compensation and also a percentage of employee contributions. For part of 2010 and most of 2009, contributions as a percentage of employee contributions were suspended. The expense applicable to these plans was \$7.2 million in 2010, \$4.9 million in 2009, and \$8.3 million in 2008.

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**11. Serial Convertible Preferred Stock**

We are authorized to issue up to 2,000,000 shares of serial convertible preferred stock without par value. In 1989, Ferro issued 1,520,215 shares of 7% Series A ESOP Convertible Preferred Stock ("Series A Preferred Stock") to the Trustee of the Ferro Employee Stock Ownership Plan ("ESOP") at a price of \$46.375 per share for a total consideration of \$70.5 million. All shares of the Series A Preferred Stock have been allocated to participating individual employee accounts. The Trustee may redeem the Series A Preferred Stock to provide for distributions to, loans to, or withdrawals by participants or to satisfy an investment election provided to participants. The Company can redeem any or all of the Series A Preferred Stock at any time. The redemption price is \$46.375 per preferred share plus earned but unpaid dividends as of the date of redemption. The redemption value approximates the carrying value. In addition, the Trustee can convert any or all of the Series A Preferred Stock at any time into Ferro common stock at a conversion rate of 2.5988 shares of common stock (adjusted for stock splits) per preferred share.

Each share of Series A Preferred Stock carries one vote, voting together with the common stock on most matters. The Series A Preferred Stock accrues dividends at an annual rate of 7% on shares outstanding. The dividends are cumulative from the date of issuance. To the extent the Company is legally permitted to pay dividends and the Board of Directors declares a dividend payable, Ferro pays dividends on a quarterly basis. In the case of liquidation or dissolution of the Company, the holders of the Series A Preferred Stock are entitled to receive \$46.375 per preferred share, or \$25.00 per preferred share in the event of involuntary liquidation, plus earned but unpaid dividends, before any amount is paid to holders of the Company's common stock.

At December 31, 2010 and 2009, there were 203,282 shares of Series A Preferred Stock outstanding. There were no redemptions in 2010, but 45,735 and 44,749 shares were redeemed in 2009 and 2008, respectively.

**12. Common Stock**

Our common stock has a par value of \$1 per share. At December 31, 2010 and 2009, there were 300,000,000 shares of common stock authorized and 93,435,553 shares of common stock issued. In November 2009, we issued 41,112,500 shares of common stock in an equity offering. We used portions of the net proceeds to reduce borrowings under our 2009 Amended and Restated Credit Facility and to pay fees and expenses in connection with the amendment and restatement of that facility. We did not purchase common stock on the open market in 2010, 2009 or 2008.

**13. Stock-based Compensation**

In April 2010, our shareholders approved the 2010 Long-Term Incentive Plan (the "Plan"). The Plan's purpose is to promote the Company's and the shareholders' long-term financial interests and growth by attracting, retaining and motivating high-quality executives and directors and aligning their interests with those of our shareholders. The Plan reserved 5,000,000 shares of common stock to be issued for grants of several different types of long-term incentives including stock options, stock appreciation rights, deferred stock units, restricted shares, performance shares, other common stock-based awards, and dividend equivalent rights. Unissued authorized shares or treasury stock may be issued under the Plan. Generally, Ferro has issued treasury stock to satisfy the common stock requirements of its long-term incentive plans.

Previous incentive plans authorized various types of long-term incentives. No further grants may be made under these previous plans. However, any outstanding awards or grants made under these plans will continue until the end of their specified terms.

Stock options, deferred stock units, restricted share awards, and performance shares are the only grant types currently outstanding. Stock options are discussed below. Activities in other grant types are not significant.



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**Stock Options**

*General Information*

The Compensation Committee of the Board of Directors (the "Committee") awards stock options under the Plan and generally grants stock options during regularly scheduled meetings. The exercise price of stock options granted may not be less than the per share fair market value of the Company's common stock on the date of the grant. Stock options granted and outstanding as of December 31, 2010, have a term of 10 years and vest evenly over four years on the anniversary of the grant date. The normal vesting period is used for retirement eligible employees. In the case of death, retirement or change in control, the stock options become 100% vested and exercisable.

*Stock Option Valuation Model and Method Information*

We estimate the fair value of each stock option on the date of grant using the Black-Scholes option pricing model that uses the assumptions noted in the following table. We use judgment in selecting these assumptions because they may significantly impact the timing and amount of compensation expense, and we base our judgments primarily on historical data. When appropriate, we adjust the historical data for circumstances that are not likely to occur in the future. We adjust the assumptions each year based upon new information.

The following table details the estimation methods used for differing grants of stock options:

<u>Assumption</u>	<u>Estimation Method</u>
Expected life, in years	Historical stock option exercise experience
Risk-free interest rate	Yield of U.S. Treasury Bonds with remaining life equal to expected life of the stock option
Expected volatility	Historical daily price observations of the Company's common stock over a period equal to the expected life of the stock option
Expected dividend yield	Historical dividend rate at the date of grant

The following table details the weighted-average grant-date fair value per option and the assumptions used for estimating the fair value:

	<u>2010</u>	<u>2009</u>	<u>2008</u>
Weighted-average grant-date fair value per option	\$5.64	\$0.49	\$4.25
Expected life, in years	7.2	6.8	6.8
Risk-free interest rate	1.94% - 3.12%	2.07% - 2.42%	2.67% - 3.44%
Expected volatility	69.7% - 71.6%	39.7% - 45.0%	30.5% - 36.1%
Expected dividend yield	0%	2.92% - 8.09%	2.73% - 6.99%

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*Stock Option Activity Information*

A summary of stock option activity follows:

	Number of Options	Weighted- Average Exercise Price Per Option	Weighted- Average Remaining Contractual Term (In years)	Aggregate Intrinsic Value (Dollars in thousands)
Outstanding at December 31, 2009	4,221,330	\$ 18.70		
Granted	778,600	8.21		
Exercised	(115,306)	1.37		
Forfeited or expired	(557,912)	16.04		
Outstanding at December 31, 2010	4,326,712	17.61	5.0	\$ 10,356
Exercisable at December 31, 2010	2,951,845	\$ 21.94	3.4	\$ 538
Vested or expected to vest at December 31, 2010	4,245,465	\$ 17.79	4.9	\$ 9,791

We calculated the aggregate intrinsic value in the table above by taking the total pretax difference between our common stock's closing market value per share on the last trading day of the year and the stock option exercise price for each grant and multiplying that result by the number of shares that would have been received by the option holders had they exercised all their in-the-money stock options. At December 31, 2010, there were 1,145,236 in-the-money stock options. We do not record the aggregate intrinsic value for financial accounting purposes, and the value changes daily based on the changes in the market value of our common stock.

Information related to stock options exercised follows:

	2010	2009	2008
	(Dollars in thousands)		
Proceeds from the exercise of stock options	\$ 137	\$ —	\$ 58
Intrinsic value of stock options exercised	1,169	—	7
Income tax benefit related to stock options exercised	409	—	3

Activity and balances for the Company's nonvested stock options is presented below:

	Number of Options	Weighted- Average Grant- Date Fair Value Per Option
Nonvested at December 31, 2009	1,214,040	\$ 2.77
Granted	778,600	5.64
Vested	(440,148)	3.68
Forfeited	(177,625)	3.65
Nonvested at December 31, 2010	1,374,867	3.99

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*Stock-Based Compensation Expense Information*

A summary of amounts recorded and to be recorded for stock-based compensation related to stock options follows:

	<u>2010</u>	<u>2009</u>	<u>2008</u>
	(Dollars in thousands)		
Compensation expense recorded in selling, general and administrative expenses	\$ 1,903	\$ 1,794	\$ 2,274
Deferred income tax benefits related to compensation expense	666	628	796
Total fair value of stock options vested	1,620	1,998	2,195
Unrecognized compensation cost	3,616	2,009	3,656
Expected weighted-average recognition period for unrecognized compensation, in years	2.8	1.9	2.3

***Directors' Deferred Compensation***

Separate from the Plan, the Company has established the Ferro Corporation Deferred Compensation Plan for Non-employee Directors, permitting its non-employee directors to voluntarily defer all or a portion of their compensation. The voluntarily deferred amounts are placed in individual accounts in a benefit trust known as a "rabbi trust" and invested in the Company's common stock with dividends reinvested in additional shares. All disbursements from the trust are made in the Company's common stock. The stock held in the rabbi trust is classified as treasury stock in shareholders' equity and the deferred compensation obligation that is required to be settled in shares of Company's common stock is classified as paid-in capital. The rabbi trust held 267,827 and 286,698 shares, valued at \$4.4 million and \$4.5 million, at December 31, 2010 and 2009, respectively.

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***Stock-based Compensation Transactions in Shareholders' Equity***

The stock-based compensation transactions in shareholders' equity consisted of the following:

	<u>Common Shares in Treasury</u>		<u>Paid-in Capital</u>
	<u>Shares</u>	<u>Amount</u> (In thousands)	
2008:			
Stock options	(3)	\$ 50	\$ 2,293
Deferred stock units	(33)	596	(48)
Restricted shares	(100)	1,805	(1,377)
Performance shares, net	—	25	(83)
Directors' deferred compensation	—	(664)	664
Preferred stock conversions	(185)	3,519	(1,872)
Total	(321)	\$ 5,331	\$ (423)
2009:			
Stock options	—	\$ —	\$ 1,794
Deferred stock units	(34)	835	(706)
Restricted shares	(115)	2,732	(2,251)
Performance shares, net	181	(594)	439
Directors' deferred compensation	—	(843)	843
Preferred stock conversions	(1,089)	23,827	(21,705)
Total	(1,057)	\$ 25,957	\$ (21,586)
2010:			
Stock options	(113)	\$ 2,790	\$ (749)
Deferred stock units	(34)	832	(267)
Restricted shares	(105)	4,494	(3,700)
Performance shares, net	119	(1,065)	1,539
Directors' deferred compensation	—	259	(259)
Preferred stock conversions	—	—	—
Total	(133)	\$ 7,310	\$ (3,436)

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**14. Restructuring and Cost Reduction Programs**

During 2010, we substantially completed all restructuring programs. These programs were developed and initiated across a number of our segments with the objectives of leveraging our global scale, realigning and lowering our cost structure and optimizing capacity utilization.

Total charges resulting from these activities were \$67.8 million, \$15.8 million, and \$26.8 million in 2010, 2009, and 2008, respectively, of which \$4.1 million, \$4.6 million, and \$0.9 million, respectively, were recorded in cost of sales as they relate primarily to accelerated depreciation of assets to be disposed. The remainder were reported as restructuring and impairment charges. Descriptions of these restructuring programs follow:

***European Manufacturing Restructuring Program***

In July 2006, we announced a multi-year, multi-phase program to restructure our Performance Coatings, Color and Glass Performance Materials, and Specialty Plastics segments in Europe. To date, we have substantially completed the program and the major activities are listed below.

**Color and Glass Performance Materials:**

- Manufacturing facilities in Casiglie, Italy, and Castanheira do Ribatejo, Portugal, were closed. Manufacturing capacity was transferred to Almazora, Spain, and Aveiro, Portugal.
- Manufacturing facilities in Limoges, France, and a portion of the facilities in Frankfurt, Germany, were shut down. The sites are being closed, and manufacturing capacity is being transferred to St. Dizier, France, and Frankfurt, Germany.
- Manufacturing facility in Burslem, United Kingdom, is being closed, and production will be transferred to Frankfurt, Germany, and Almazora, Spain.

**Performance Coatings:**

- Porcelain Enamel manufacturing facility in Rotterdam, Netherlands, was shut down and closed.
- Tile Coating Systems manufacturing facilities in Casiglie, Italy; Castanheira do Ribatejo, Portugal; and Nules, Spain, were closed. Manufacturing capacity was transferred to Almazora, Spain, and Aveiro, Portugal.

**Specialty Plastics:**

- Manufacturing facilities in Castanheira do Ribatejo, Portugal, and Rotterdam, Netherlands, were shut down and closed. The Rotterdam site was sold. Manufacturing capacity was transferred to Almazora, Spain.

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***Electronic Materials Restructuring Program***

In November 2006, we announced our intention to close the Niagara Falls, New York, facility, and in 2010, we announced the closure of the Uden, Netherlands, facility due to excess capacity for production of dielectric and industrial ceramic products. To date, we have substantially completed the restructuring program and the major activities are listed below.

- Manufacturing facility in Niagara Falls, New York, was closed, and the site was sold.
- Manufacturing facility in Uden, Netherlands, was shut down. A portion of the real property was sold, and the site will be closed in the first quarter of 2011.
- Certain production from Niagara Falls, New York, and Uden, Netherlands, was transferred to Penn Yan, New York, and St. Dizier, France.

***Other Restructuring Programs***

Since 2008, we have initiated a number of restructuring activities as part of a series of actions to respond to the severe economic downturn. These activities reduced our fixed cost structures in manufacturing facilities in the U.S. and in our Latin America and Asia-Pacific regions and affected Specialty Plastics, Polymer Additives, Color and Glass Performance Materials, and Performance Coatings segments. To date, we have substantially completed all these activities, and the major activities are listed below.

- Color and Glass Performance Materials and Porcelain Enamel manufacturing facilities in Moorabin and Geelong, Australia, were shut down and are being closed.
- Color and Glass Performance Materials manufacturing facility in Toccoa, Georgia, was closed. The site is recorded as an asset held for sale.
- Specialty Plastics manufacturing facility in Aldridge, United Kingdom was shut down and closed. Manufacturing capacity was transferred to Almazora, Spain.
- Polymer Additives manufacturing facility in Villa Franca, Portugal was shut down and closed. Manufacturing capacity was transferred to Fort Worth, Texas.
- Fixed costs structures in Brazil, Mexico, and Venezuela were reduced.
- Selling, general, and administration costs were reduced through position eliminations.

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We have summarized the charges associated with these restructuring programs by major type of charges below:

	<u>Employee Severance</u>	<u>Other Costs</u>	<u>Asset Impairment</u>	<u>Total</u>
	(Dollars in thousands)			
<b>Expected restructuring charges:</b>				
European manufacturing restructuring	\$ 62,766	\$ 25,832	\$ 9,901	\$ 98,499
Electronic Materials restructuring	11,139	903	19,095	31,137
Other restructuring programs	9,653	1,575	4,095	15,323
<b>Total expected restructuring charges</b>	<b>\$ 83,558</b>	<b>\$ 28,310</b>	<b>\$ 33,091</b>	<b>\$ 144,959</b>
<b>Restructuring charges incurred:</b>				
European manufacturing restructuring	\$ 12,878	\$ 5,860	\$ —	\$ 18,738
Electronic Materials restructuring	499	103	—	602
Other restructuring programs	4,813	874	910	6,597
<b>Charges incurred in 2008</b>	<b>\$ 18,190</b>	<b>\$ 6,837</b>	<b>\$ 910</b>	<b>\$ 25,937</b>
European manufacturing restructuring	\$ 7,700	\$ (408)	\$ —	\$ 7,292
Electronic Materials restructuring	402	1	—	403
Other restructuring programs	3,304	113	—	3,417
<b>Charges incurred in 2009</b>	<b>\$ 11,406</b>	<b>\$ (294)</b>	<b>\$ —</b>	<b>\$ 11,112</b>
European manufacturing restructuring	\$ 27,662	\$ 13,696	\$ 5,582	\$ 46,940
Electronic Materials restructuring	7,460	2,241	4,572	14,273
Other restructuring programs	(164)	188	2,495	2,519
<b>Charges incurred in 2010</b>	<b>\$ 34,958</b>	<b>\$ 16,125</b>	<b>\$ 12,649</b>	<b>\$ 63,732</b>
<b>Cumulative restructuring charges incurred:</b>				
European manufacturing restructuring	\$ 60,491	\$ 23,451	\$ 9,901	\$ 93,843
Electronic Materials restructuring	11,102	638	19,095	30,835
Other restructuring programs	9,653	1,115	3,405	14,173
<b>Cumulative restructuring charges incurred as of December 31, 2010</b>	<b>\$ 81,246</b>	<b>\$ 25,204</b>	<b>\$ 32,401</b>	<b>\$ 138,851</b>

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We have summarized the charges associated with the restructuring programs by segments below:

	Total Expected Charges	2010	2009	2008	Cumulative Charges To Date
		(Dollars in thousands)			
Electronic Materials	\$ 31,137	\$ 14,273	\$ 401	\$ 602	\$ 30,835
Performance Coatings	40,912	3,464	928	17,806	36,477
Color and Glass Performance Materials	55,124	31,910	9,734	3,877	53,753
Polymer Additives	1,639	—	22	1,617	1,639
Specialty Plastics	16,147	14,085	27	2,035	16,147
Pharmaceuticals	—	—	—	—	—
<b>Total Restructuring Charges</b>	<b>\$ 144,959</b>	<b>\$ 63,732</b>	<b>\$ 11,112</b>	<b>\$ 25,937</b>	<b>\$ 138,851</b>

We have summarized the activities and accruals related to our restructuring and cost reduction programs below:

	Employee Severance	Other Costs	Asset Impairment	Total
	(Dollars in thousands)			
Balance at December 31, 2007	\$ 8,381	\$ 1,560	\$ —	\$ 9,941
Restructuring charges	18,189	6,839	909	25,937
Cash payments	(24,852)	(2,466)	—	(27,318)
Non-cash items	(512)	(831)	(909)	(2,252)
Balance at December 31, 2008	1,206	5,102	—	6,308
Restructuring charges	11,406	(294)	—	11,112
Cash payments	(9,389)	(3,485)	—	(12,874)
Non-cash items	(142)	195	—	53
Balance at December 31, 2009	3,081	1,518	—	4,599
Restructuring charges	34,958	16,125	12,649	63,732
Cash payments	(36,132)	(8,109)	—	(44,241)
Non-cash items	522	(3,671)	(12,649)	(15,798)
<b>Balance at December 31, 2010</b>	<b>\$ 2,429</b>	<b>\$ 5,863</b>	<b>\$ —</b>	<b>\$ 8,292</b>

Other costs in the 2010 restructuring charges include a pension settlement loss of \$12.2 million related to Rotterdam, Netherlands.

We expect to make cash payments to settle the remaining liability for employee termination benefits and other costs primarily over the next twelve months, except where legal or contractual restrictions prevent us from doing so.

We did not incur any restructuring charges for discontinued operations in 2010, 2009 or 2008.



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**15. Leases**

Rent expense for all operating leases was \$20.7 million in 2010, \$18.3 million in 2009, and \$21.1 million in 2008. Amortization of assets recorded under capital leases is recorded as depreciation expense.

The Company has a number of capital lease arrangements relating primarily to buildings and production equipment. Assets held under capital leases and included in property, plant and equipment at December 31st follow:

	2010	2009
	(Dollars in thousands)	
Gross amounts capitalized:		
Buildings	\$ 3,100	\$ 3,100
Equipment	13,017	11,225
	16,117	14,325
Accumulated amortization:		
Buildings	(1,821)	(1,744)
Equipment	(8,689)	(8,790)
	(10,510)	(10,534)
Net assets under capital leases	\$ 5,607	\$ 3,791

At December 31, 2010, future minimum lease payments under all non-cancelable leases follow:

	Capital Leases	Operating Leases
	(Dollars in thousands)	
2011	\$ 1,868	\$ 13,345
2012	1,697	8,990
2013	792	6,080
2014	757	5,205
2015	677	4,967
Thereafter	3,206	13,087
Total minimum lease payments	8,997	\$ 51,674
Less amount representing executory costs	56	
Net minimum lease payments	8,941	
Less amount representing imputed interest	2,764	
Present value of net minimum lease payments	6,177	
Less current portion	1,390	
Long-term obligations at December 31, 2010	\$ 4,787	

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**16. Miscellaneous Expense (Income), Net**

Components of the miscellaneous expense (income), net follow:

	2010	2009	2008
	(Dollars in thousands)		
Loss for Brazil environmental contingency	\$ 9,160	\$ —	\$ —
Loss on settlement of interest rate swaps	6,848	—	—
Gain from Heraeus business combination	(8,255)	—	—
Gain on sale of business	(1,247)	—	—
Other, net	(692)	(618)	(357)
<b>Total miscellaneous expense (income), net</b>	<b>\$ 5,814</b>	<b>\$ (618)</b>	<b>\$ (357)</b>

**17. Discontinued Operations**

In the fourth quarter of 2008, we sold our Fine Chemicals business to Novolyte Technologies LP (“Novolyte”), an affiliate of Arsenal Capital Management LP. Fine Chemicals was a segment, previously included in the Other Businesses reportable segment. The sale generated gross proceeds of \$60.0 million, subject to a post-closing working capital adjustment, a pretax gain of \$16.7 million, and an after tax gain of \$9.1 million. The gain (loss) on disposal of discontinued operations also includes residual legal and environmental costs directly related to the Powder Coatings, Petroleum Additives and Specialty Ceramics businesses, which were sold in 2002 and 2003.

The gain (loss) on disposal of discontinued operations resulted in the following pre-tax losses and related income tax benefits:

	2010	2009	2008
	(Dollars in thousands)		
(Loss) gain on disposal of discontinued operations before income tax (benefit) expense	\$ —	\$ (523)	\$ 16,614
Income tax (benefit) expense	—	(198)	7,580
<b>(Loss) gain on disposal of discontinued operations, net of income tax (benefit) expense</b>	<b>\$ —</b>	<b>\$ (325)</b>	<b>\$ 9,034</b>

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The following operations of the Fine Chemicals business, which had previously been presented as a separate reporting segment, have been segregated from continuing operations and are included in discontinued operations in the Company's consolidated statements of operations. Interest expense has been allocated to discontinued operations based on the ratio of the net assets of discontinued operations to consolidated net assets before debt.

	2008 (Dollars in thousands)
Net sales	\$ 60,980
Cost of sales	47,464
Gross profit	13,516
Selling, general and administrative expenses	4,303
Other expense:	
Interest expense	1,526
Foreign currency losses, net	19
Miscellaneous expense, net	76
Income from discontinued operations before income taxes	7,592
Income tax expense	2,578
Income from discontinued operations, net of income taxes	\$ 5,014

We have continuing environmental remediation obligations that are related to these divestitures, and we had accrued \$2.9 million at December 31, 2010, and \$3.0 million at December 31, 2009, for these matters. The estimated amounts we have accrued are based on our assessment of the nature and extent of the soil and/or groundwater contamination and the remedial actions we expect to perform. In some cases, we have agreed to the required remedial actions with the relevant governmental authorities, and we have based our estimates of the costs to remediate upon those actions. Where alternative technologies exist to remediate a contaminated site, we have determined our estimates of the costs to remediate based on the technologies that we are most likely to use.

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**18. Earnings (Loss) per Share from Continuing Operations**

Details of the calculations of basic and diluted earnings (loss) per share follow:

	2010	2009	2008
	(In thousands, except per share amounts)		
<b>Basic earnings (loss) per share computation:</b>			
Net income (loss) attributable to Ferro Corporation common shareholders	\$ 5,036	\$ (43,621)	\$ (41,307)
Adjustment for loss (income) from discontinued operations	—	325	(14,048)
<b>Total</b>	<b>\$ 5,036</b>	<b>\$ (43,296)</b>	<b>\$ (55,355)</b>
Weighted-average common shares outstanding	85,823	50,935	43,261
Basic earnings (loss) per share from continuing operations attributable to Ferro Corporation common shareholders	\$ 0.06	\$ (0.85)	\$ (1.28)
<b>Diluted earnings (loss) per share computation:</b>			
Net income (loss) attributable to Ferro Corporation common shareholders	\$ 5,036	\$ (43,621)	\$ (41,307)
Adjustment for loss (income) from discontinued operations	—	325	(14,048)
Plus: Convertible preferred stock	—	—	—
<b>Total</b>	<b>\$ 5,036</b>	<b>\$ (43,296)</b>	<b>\$ (55,355)</b>
Weighted-average common shares outstanding	85,823	50,935	43,261
Assumed exercise of stock options	319	—	—
Assumed satisfaction of deferred stock unit conditions	74	—	—
Assumed satisfaction of restricted share conditions	323	—	—
Assumed conversion of convertible notes	—	—	—
Assumed conversion of convertible preferred stock	—	—	—
<b>Weighted-average diluted shares outstanding</b>	<b>86,539</b>	<b>50,935</b>	<b>43,261</b>
Diluted earnings (loss) per share from continuing operations attributable to Ferro Corporation common shareholders	\$ 0.06	\$ (0.85)	\$ (1.28)

Anti-dilutive shares were 6.8 million, 13.6 million and 13.6 million for 2010, 2009 and 2008, respectively.

**19. Business Combinations**

On April 30, 2010, Ferro Corporation and W.C. Heraeus GmbH (“Heraeus”) acquired from each other certain business lines related to decoration materials for ceramic and glass products. We acquired Heraeus’ ceramic color business, which advances our position in the ceramic colors industry, while Heraeus acquired assets related to our business operations in precious metal preparations and lustres for the decoration of glass, ceramics, porcelain, and tile. Ferro recognized a pre-tax gain of \$8.3 million consisting of a \$5.6 million gain from remeasuring to fair value the assets transferred to Heraeus and a \$6.1 million bargain purchase gain from the fair value of the net assets acquired exceeding the fair value of the consideration transferred, less a \$3.4 million write-off of related goodwill. The gain is included in miscellaneous expense (income), net.

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On December 14, 2010, Ferro Corporation acquired a business in Egypt with a newly constructed ceramic coatings plant. The new plant will allow us to more cost-effectively serve the growing tile manufacturing market in Egypt and other countries in the Middle East and North Africa.

The following table summarizes the consideration transferred and the amounts of the assets acquired and liabilities assumed at the acquisition dates of these transactions:

	(Dollars in thousands)
<b>Fair value of consideration transferred</b>	
Cash	\$ 6,938
Inventories	1,089
Property, plant and equipment	164
Amortizable intangible assets	5,417
Total	\$ 13,608
<b>Recognized amounts of identifiable assets acquired and liabilities assumed</b>	
Cash	\$ 6,856
Accounts receivable	1,399
Inventories	3,776
Property, plant and equipment	6,734
Goodwill	4,038
Amortizable intangible assets	2,156
Current liabilities	(5,003)
Noncurrent liabilities	(258)
Total	\$ 19,698

The final determination of fair values and certain asset and liability adjustments have not been finalized, but any adjustments are not expected to be material. Changes in the Company's revenues and earnings as if these business combinations had occurred on January 1, 2009, were immaterial.

## 20. Reporting for Segments

The Company has six reportable segments: Performance Coatings, Electronic Materials, Color and Glass Performance Materials, Polymer Additives, Specialty Plastics, and Pharmaceuticals. We have aggregated our Tile Coating Systems and Porcelain Enamel operating segments into one reportable segment, Performance Coatings, based on their similar economic and operating characteristics.

The accounting policies of our segments are consistent with those described in the summary of significant accounting policies found in Note 2. We measure segment income for internal reporting purposes by excluding unallocated corporate expenses, restructuring and impairment charges, other expenses (income) and income taxes. Unallocated corporate expenses consist primarily of corporate employment costs and professional services.

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We have presented net sales to external customers by segment in the table below. Sales between segments were not material.

	2010	2009	2008
	(Dollars in thousands)		
Electronic Materials	\$ 675,401	\$ 426,896	\$ 558,313
Performance Coatings	555,023	487,891	627,918
Color and Glass Performance Materials	382,155	321,750	456,644
Polymer Additives	302,352	249,510	349,902
Specialty Plastics	163,058	149,524	225,856
Pharmaceuticals	23,876	21,998	26,519
<b>Total net sales</b>	<b>\$ 2,101,865</b>	<b>\$ 1,657,569</b>	<b>\$ 2,245,152</b>

Below are each segment's income and reconciliations to income (loss) before taxes from continuing operations:

	2010	2009	2008
	(Dollars in thousands)		
Electronic Materials	\$ 132,585	\$ 45,344	\$ 52,868
Performance Coatings	39,416	29,551	36,935
Color and Glass Performance Materials	31,514	13,123	39,112
Polymer Additives	18,387	6,708	6,086
Specialty Plastics	11,348	10,164	5,385
Pharmaceuticals	814	438	3,524
<b>Total segment income</b>	<b>234,064</b>	<b>105,328</b>	<b>143,910</b>
Unallocated corporate expenses	69,135	63,315	37,362
Restructuring and impairment charges	63,732	19,337	106,142
Other expense, net	77,456	66,231	56,492
<b>Income (loss) before income taxes from continuing operations</b>	<b>\$ 23,741</b>	<b>\$ (43,555)</b>	<b>\$ (56,086)</b>

The following table details depreciation and amortization expense by segment:

	2010	2009	2008
	(Dollars in thousands)		
Electronic Materials	\$ 11,586	\$ 13,382	\$ 17,294
Performance Coatings	17,004	17,726	17,736
Color and Glass Performance Materials	7,012	6,520	8,101
Polymer Additives	10,776	10,492	10,753
Specialty Plastics	2,369	2,610	3,314
Pharmaceuticals	2,073	1,950	1,693
<b>Total segment depreciation and amortization</b>	<b>50,820</b>	<b>52,680</b>	<b>58,891</b>
Unallocated depreciation and amortization	26,116	35,458	15,704
<b>Total depreciation and amortization</b>	<b>\$ 76,936</b>	<b>\$ 88,138</b>	<b>\$ 74,595</b>

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Segment assets primarily consist of trade accounts receivable; inventories; property, plant and equipment; and intangible assets. Unallocated assets primarily include cash and cash equivalents, deposits for precious metals, deferred taxes and assets related to uncertain tax positions. Total assets at December 31st by segment are detailed below:

	2010	2009
	(Dollars in thousands)	
Electronic Materials	\$ 316,793	\$ 302,537
Performance Coatings	358,781	349,812
Color and Glass Performance Materials	256,626	254,683
Polymer Additives	117,482	118,222
Specialty Plastics	46,598	47,480
Pharmaceuticals	26,392	29,871
<b>Total segment assets</b>	<b>1,122,672</b>	<b>1,102,605</b>
Unallocated assets	311,683	423,750
<b>Total assets</b>	<b>\$ 1,434,355</b>	<b>\$ 1,526,355</b>

We have detailed each segment's expenditures for long-lived assets, including acquisitions, in the table below:

	2010	2009	2008
	(Dollars in thousands)		
Electronic Materials	\$ 9,308	\$ 4,249	\$ 18,892
Performance Coatings	19,748	11,803	29,294
Color and Glass Performance Materials	19,472	10,665	7,715
Polymer Additives	5,404	5,224	8,379
Specialty Plastics	968	685	1,989
Pharmaceuticals	860	1,830	3,645
<b>Total segment expenditures for long-lived assets</b>	<b>55,760</b>	<b>34,456</b>	<b>69,914</b>
Expenditures for long-lived assets of discontinued operations	—	—	2,317
Unallocated corporate expenditures for long-lived assets	1,905	8,804	4,237
<b>Total expenditures for long-lived assets</b>	<b>\$ 57,665</b>	<b>\$ 43,260</b>	<b>\$ 76,468</b>

We sell our products throughout the world and we attribute sales to countries based on the country where we generate the customer invoice. No single country other than the U.S. and Spain represents greater than 10% of our net sales. We have detailed net sales by geographic region in the table below:

	2010	2009	2008
	(Dollars in thousands)		
United States	\$ 1,039,457	\$ 758,048	\$ 973,717
Spain	319,711	258,485	362,370
Other international	742,697	641,036	909,065
<b>Total net sales</b>	<b>\$ 2,101,865</b>	<b>\$ 1,657,569</b>	<b>\$ 2,245,152</b>

**FERRO CORPORATION AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**Years ended December 31, 2010, 2009 and 2008 — (Continued)**

None of our operations in countries other than the U.S. and Spain owns greater than 10% of consolidated long-lived assets. We have detailed long-lived assets that consist of property, plant and equipment, goodwill, and amortizable intangible assets by geographic region at December 31st in the table below:

	2010	2009
	(Dollars in thousands)	
United States	\$ 377,158	\$ 393,571
Spain	90,845	96,475
Other international	155,078	174,013
<b>Total long-lived assets</b>	<b>\$ 623,081</b>	<b>\$ 664,059</b>

**21. Related Party Transactions**

We participate in several joint ventures that are located in Spain, Italy, South Korea and Thailand through investments in the common stock of affiliated companies. At December 31, 2010, our percentage of ownership interest in these affiliates ranged from 36% to 50%. Because we exert significant influence over these affiliates, but we do not control them, our investments have been accounted for under the equity method. Investment income from these equity-method investments, which is reported in miscellaneous expense (income), net was \$1.1 million in 2010, \$0.3 million in 2009, and \$1.2 million in 2008. The balance of our equity-method investments, which is reported in other non-current assets, was \$16.6 million at December 31, 2010, and \$16.2 million at December 31, 2009.

We had the following transactions with our equity-method investees:

	2010	2009	2008
	(Dollars in thousands)		
Sales	\$ 8,928	\$ 6,887	\$ 10,157
Purchases	5,048	3,883	5,495
Dividends and interest received	636	530	159
Commissions and royalties received	173	956	194
Commissions and royalties paid	88	86	230



**FERRO CORPORATION AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**Years ended December 31, 2010, 2009 and 2008 — (Continued)**

**22. Quarterly Data (Unaudited)**

	<u>Net Sales</u>	<u>Gross Profit</u>	<u>Net Income (Loss)</u>	<u>Net Income (Loss) Attributable to Ferro Corporation</u>	<u>Earnings (Loss) Attributable to Ferro Corporation Common Shareholders Per Common Share</u>	
					<u>Basic</u>	<u>Diluted</u>
(Dollars in thousands, except per share data)						
<b>2009</b>						
Quarter 1	\$ 357,809	\$ 55,246	\$ (19,971)	\$ (20,335)	\$ (0.46)	\$ (0.46)
Quarter 2	399,277	65,229	(11,188)	(11,808)	(0.27)	(0.27)
Quarter 3	442,089	93,169	2,845	2,117	0.04	0.04
Quarter 4	458,394	100,628	(12,051)	(12,890)	(0.19)	(0.19)
<b>Total</b>	<b>\$ 1,657,569</b>	<b>\$ 314,272</b>	<b>\$ (40,365)</b>	<b>\$ (42,916)</b>	<b>\$ (0.86)</b>	<b>\$ (0.86)</b>
<b>2010</b>						
Quarter 1	\$ 492,865	\$ 106,934	\$ (812)	\$ (68)	\$ —	\$ —
Quarter 2	543,485	122,330	7,594	7,100	0.08	0.08
Quarter 3	528,564	120,296	(2,362)	(3,345)	(0.04)	(0.04)
Quarter 4	536,951	109,105	2,853	2,009	0.02	0.02
<b>Total</b>	<b>\$ 2,101,865</b>	<b>\$ 458,665</b>	<b>\$ 7,273</b>	<b>\$ 5,696</b>	<b>\$ 0.06</b>	<b>\$ 0.06</b>

Quarterly earnings per share amounts do not always add to the full-year amounts due to the averaging of shares.

Pre-tax restructuring and impairment charges (credits) in 2009 were \$1.4 million in the first quarter, \$(0.3) million in the second quarter, \$11.0 million in the third quarter and \$7.2 million in the fourth quarter. Pre-tax restructuring and impairment charges in 2010 were \$13.3 million in the first quarter, \$21.2 million in the second quarter, \$9.6 million in the third quarter, and \$19.6 million in the fourth quarter. Pre-tax losses on extinguishment of debt in 2010 were \$19.3 million in the third quarter and \$3.7 million in the fourth quarter. Pre-tax charges for increased reserves for environmental remediation costs in 2010 were \$3.5 million in the second quarter and \$5.7 million in the fourth quarter. Pre-tax gains related to a business combination in 2010 were \$7.8 million in the second quarter and \$0.5 million in the fourth quarter. The third quarter of 2010 also included a pre-tax charge of \$6.8 million related to settlement of interest rate swaps. The fourth quarter of 2010 also included a pre-tax gain of \$1.2 million on sale of a business.

## **Item 9 — Changes in and Disagreements with Accountants on Accounting and Financial Disclosure**

None.

## **Item 9A — Controls and Procedures**

### ***Evaluation of Disclosure Controls and Procedures***

Ferro is committed to maintaining disclosure controls and procedures that are designed to ensure that information required to be disclosed in its Exchange Act reports is recorded, processed, summarized, and reported within the time periods specified in the U.S. Securities and Exchange Commission's rules and forms, and that such information is accumulated and communicated to its management, including its Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure.

The Company's management, under the supervision and with the participation of the Chief Executive Officer and the Chief Financial Officer, evaluated the effectiveness of the design and operation of the Company's disclosure controls and procedures, as defined in Exchange Act Rule 13a-15(e), as of December 31, 2010. Based on that evaluation, management concluded that the disclosure controls and procedures were effective as of December 31, 2010.

### ***Management's Annual Report on Internal Control over Financial Reporting***

The Company's management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Exchange Act Rule 13a-15(f). The Company's internal control system is a process designed by, or under the supervision of, the Company's principal executive and principal financial officers, or persons performing similar functions, and effected by the Company's board of directors, management and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with U.S. generally accepted accounting principles ("U.S. GAAP").

The Company's internal control over financial reporting includes policies and procedures that pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect transactions and dispositions of assets; provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with U.S. GAAP, and that receipts and expenditures are being made only in accordance with the authorization of its management and directors; and provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the Company's assets that could have a material effect on its consolidated financial statements.

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

Management assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2010. In making this assessment, the Company used the control criteria framework of the Committee of Sponsoring Organizations of the Treadway Commission published in its report entitled *Internal Control — Integrated Framework*. Management concluded that the Company's internal control over financial reporting was effective as of December 31, 2010.

Deloitte & Touche LLP, the independent registered public accounting firm that audited the Company's consolidated financial statements, has issued an attestation report on the Company's internal control over financial reporting as of December 31, 2010, which is included below.

**Report of Independent Registered Public Accounting Firm**

To the Board of Directors and Shareholders of Ferro Corporation  
Cleveland, Ohio

We have audited the internal control over financial reporting of Ferro Corporation and subsidiaries (the "Company") as of December 31, 2010, based on criteria established in *Internal Control — Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission. The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Annual Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed by, or under the supervision of, the company's principal executive and principal financial officers, or persons performing similar functions, and effected by the company's board of directors, management, and other personnel to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of the inherent limitations of internal control over financial reporting, including the possibility of collusion or improper management override of controls, material misstatements due to error or fraud may not be prevented or detected on a timely basis. Also, projections of any evaluation of the effectiveness of the internal control over financial reporting to future periods are subject to the risk that the controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2010, based on the criteria established in *Internal Control — Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated financial statements and financial statement schedule as of and for the year ended December 31, 2010 of the Company and our report dated February 28, 2011 expressed an unqualified opinion on those financial statements and financial statement schedule.

/s/ Deloitte & Touche LLP

Cleveland, Ohio  
February 28, 2011

***Changes in Internal Control over Financial Reporting and Other Remediation***

During the fourth quarter of 2010, there were no changes in our internal controls or in other factors that materially affected, or are reasonably likely to materially affect, our internal controls over financial reporting.

**Item 9B — *Other Information***

None.

## PART III

### Item 10 — *Directors, Executive Officers and Corporate Governance*

The information on Ferro's directors is contained under the heading "Election of Directors" of the Proxy Statement for Ferro Corporation's 2011 Annual Meeting of Shareholders and is incorporated here by reference. The information about the Audit Committee and the Audit Committee financial expert is contained under the heading "Corporate Governance — Board Committees — Audit Committee" of the Proxy Statement for Ferro Corporation's 2011 Annual Meeting of Shareholders and is incorporated here by reference. Information on Ferro's executive officers is contained under the heading "Executive Officers of the Registrant" in Part 1 of this Annual Report on Form 10-K. Section 16(a) filing information is contained under the heading "Shareholdings — Section 16(a) Beneficial Ownership Reporting Compliance" of the Proxy Statement for Ferro Corporation's 2011 Annual Meeting of Shareholders and is incorporated here by reference.

Ferro has adopted a series of policies dealing with business and ethics. These policies apply to all Ferro Directors, officers and employees. A summary of these policies may be found on Ferro's Web site and the full text of the policies is available in print, free of charge, by writing to: General Counsel, Ferro Corporation, 1000 Lakeside Avenue, Cleveland, Ohio 44114-1147, USA. Exceptions, waivers and amendments of those policies may be made, if at all, only by the Audit Committee of the Board of Directors, and, in the event any such exceptions, waivers or amendments are granted, a description of the change or event will be posted on Ferro's Web site ([www.ferro.com](http://www.ferro.com)) within four business days. Ferro maintains a worldwide hotline that allows employees throughout the world to report confidentially any detected violations of these legal and ethical conduct policies consistent with local legal requirements and subject to local legal limitations.

### Item 11 — *Executive Compensation*

The information on executive compensation is contained under the headings "Executive Compensation Discussion & Analysis" and "2010 Executive Compensation" of the Proxy Statement for Ferro Corporation's 2011 Annual Meeting of Shareholders and is incorporated here by reference.

### Item 12 — *Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters*

The information on security ownership of certain beneficial owners and management is contained under the headings "Shareholdings — Stock Ownership by Other Major Shareholders" and "Shareholdings — Stock Ownership by Director, Executive Officers and Employees" of the Proxy Statement for Ferro Corporation's 2011 Annual Meeting of Shareholders and is incorporated here by reference.

The numbers of shares issued and available for issuance under Ferro's equity compensation plans as of December 31, 2010, were as follows:

Equity Compensation Plan	Number of Shares to Be Issued on Exercise of Outstanding Options, and Other Awards	Weighted-Average Exercise Price of Outstanding Options, and Other Awards	Number of Shares Remaining Available for Future Issuance Under Equity Compensation Plans(1)
Approved by Ferro Shareholders	4,712,837 shares(2)	\$15.76	4,912,625 shares(4)
Not Approved by Ferro Shareholders	143,455 shares(3)	\$24.96	0 shares
Total	4,856,292 shares	\$15.91(5)	4,912,625 shares

(1) Excludes shares listed in the second column.

(2) Includes options and other awards issued under the Company's 2010 Long-Term Incentive Compensation Plan and prior equity compensation plans.

- (3) Includes options granted in 2001 and 2002 to the Company's former Chief Executive Officer and phantom units issued under the Company's Executive Employee Deferred Compensation Plan and Supplemental Executive Defined Contribution Plan.
- (4) Shares are only available under the 2010 Long-Term Incentive Plan and may be issued as stock options, stock appreciation rights, restricted shares, performance shares, and other common stock-based awards.
- (5) Weighted-average exercise price of outstanding options and other awards; excludes phantom units.

A description follows of the material features of each plan that was not approved by Ferro shareholders:

- *Stock Options.* On February 11, 2002 and February 9, 2001, respectively, the Board granted Mr. Ortino, the Company's former Chief Executive Officer, 155,000 and 122,000 options to purchase shares. Of this amount, options for 100,000 shares each year were granted under the 1985 Employee Stock Option Plan approved by shareholders and the remaining options were approved and granted by the Board from available treasury shares. The options granted in 2002 have an exercise price of \$25.50 and the options granted in 2001 have an exercise price of \$23.60. Both grants have maximum terms of ten years and are fully vested.
- *Executive Employee Deferred Compensation Plan.* The Executive Employee Deferred Compensation Plan allows participants to defer up to 75% of annual base salary and up to 100% of incentive cash bonus awards and cash performance share payouts. Participants may elect to have all or a portion of their deferred compensation accounts deemed to be invested in shares of Ferro Common Stock and credited with hypothetical appreciation, depreciation, and dividends. When distributions are made from this Plan in respect of such shares, the distributions are made in actual shares of Ferro Common Stock.
- *Supplemental Executive Defined Contribution Plan.* The Supplemental Executive Defined Contribution Plan allows participants to be credited annually with matching and basic pension contributions that they would have received under the Company's 401(k) plan except for the applicable IRS limitations on compensation and contributions. Contributions vest at 20% for each year of service, are deemed invested in Ferro Common Stock and earn dividends. Distributions are made in Ferro Common Stock or in cash.

#### **Item 13 — *Certain Relationships and Related Transactions, and Director Independence***

There are no relationships or transactions that are required to be reported. The information about director independence is contained under the heading "Corporate Governance — Director Independence" of the Proxy Statement for Ferro Corporation's 2011 Annual Meeting of Shareholders and is incorporated here by reference.

#### **Item 14 — *Principal Accountant Fees and Services***

The information contained under the heading "Other Independent Registered Public Accounting Firm Information — Fees" of the Proxy Statement for Ferro Corporation's 2011 Annual Meeting of Shareholders is incorporated here by reference.

## PART IV

### Item 15 — Exhibits and Financial Statement Schedules

The following documents are filed as part of this Annual Report on Form 10-K:

- (a) The consolidated financial statements of Ferro Corporation and subsidiaries contained in Part II, Item 8 of this Annual Report on Form 10-K:
  - Consolidated Statements of Operations for the years ended December 31, 2010, 2009 and 2008;
  - Consolidated Balance Sheets at December 31, 2010 and 2009;
  - Consolidated Statements of Equity for the years ended December 31, 2010, 2009 and 2008;
  - Consolidated Statements of Cash Flows for the years ended December 31, 2010, 2009 and 2008; and
  - Notes to Consolidated Financial Statements
- (b) Schedule II — Valuation and Qualifying Accounts and Reserves for the years ended December 31, 2010, 2009, and 2008, contained on page 105 of this Annual Report on Form 10-K. All other schedules have been omitted because the material is not applicable or is not required as permitted by the rules and regulations of the U.S. Securities and Exchange Commission, or the required information is included in the consolidated financial statements.
- (c) The exhibits listed in the Exhibit Index beginning on page 106 of this Annual Report on Form 10-K.

## SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this Annual Report on Form 10-K to be signed on its behalf by the undersigned, thereunto duly authorized.

### FERRO CORPORATION

By /s/ James F. Kirsch  
James F. Kirsch  
Chairman, President and Chief Executive Officer

Date: February 28, 2011

Pursuant to the requirements of the Securities Exchange Act of 1934, this Annual Report on Form 10-K has been signed below by the following persons on behalf of the Registrant and in their indicated capacities as of the 28th day of February 2011.

<u>/s/ James F. Kirsch</u> James F. Kirsch	Chairman, President and Chief Executive Officer (Principal Executive Officer)
<u>/s/ Thomas R. Miklich</u> Thomas R. Miklich	Vice President and Chief Financial Officer (Principal Financial and Accounting Officer)
<u>/s/ Richard C. Brown</u> Richard C. Brown	Director
<u>/s/ Sandra Austin Crayton</u> Sandra Austin Crayton	Director
<u>/s/ Richard J. Hipple</u> Richard J. Hipple	Director
<u>/s/ Jennie S. Hwang</u> Jennie S. Hwang	Director
<u>/s/ Gregory E. Hyland</u> Gregory E. Hyland	Director
<u>/s/ William B. Lawrence</u> William B. Lawrence	Director
<u>/s/ Timothy K. Pistell</u> Timothy K. Pistell	Director
<u>/s/ William J. Sharp</u> William J. Sharp	Director
<u>/s/ Ronald P. Vargo</u> Ronald P. Vargo	Director



**FERRO CORPORATION AND SUBSIDIARIES**  
**SCHEDULE II — VALUATION AND QUALIFYING ACCOUNTS AND RESERVES**  
**Years Ended December 31, 2010, 2009 and 2008**

	<u>Balance at Beginning of Period</u>	<u>Additions Charged (Reductions Credited) to</u>			<u>Adjustment for Differences in Exchange Rates</u>	<u>Balance at End of Period</u>
		<u>Costs and Expenses</u>	<u>Other Accounts</u>	<u>Deductions</u>		
(Dollars in thousands)						
<b>Allowance for Possible Losses on Collection of Accounts and Trade Notes Receivable:</b>						
Year ended December 31, 2010	\$10,685	2,935	—	(2,091)	(373)	\$11,156
Year ended December 31, 2009	\$11,668	2,676	—	(3,835)	176	\$10,685
Year ended December 31, 2008	\$ 6,396	4,472	3,544(1)	(2,436)	(308)	\$11,668
<b>Allowance for Possible Losses on Collection of Note Receivable from Ferro Finance Corporation:</b>						
Year ended December 31, 2010	\$ —	—	—	—	—	\$ —
Year ended December 31, 2009	\$ —	—	—	—	—	\$ —
Year ended December 31, 2008	\$ 3,015	1,371	(3,544)(1)	(842)	—	\$ —
<b>Valuation Allowance on Net Deferred Tax Assets</b>						
Year ended December 31, 2010	\$17,969	9,608	—	—	(762)	\$26,815
Year ended December 31, 2009	\$21,451	(3,683)	—	—	201	\$17,969
Year ended December 31, 2008	\$ 8,906	20,598	—	(8,053)	—	\$21,451

- (1) When Ferro Finance Corporation (“FFC”) was consolidated in December 2008, the valuation allowance on Ferro’s note receivable from FFC was combined with the valuation allowance on accounts and trade notes receivable.

## EXHIBIT INDEX

The following exhibits are filed with this report or are incorporated here by reference to a prior filing in accordance with Rule 12b-32 under the Securities and Exchange Act of 1934.

### Exhibit:

- 3 Articles of Incorporation and by-laws
  - 3.1 Eleventh Amended Articles of Incorporation of Ferro Corporation. (Reference is made to Exhibit 4.1 to Ferro Corporation's Registration Statement on Form S-3, filed March 5, 2008, which Exhibit is incorporated here by reference.)
  - 3.2 Certificate of Amendment to the Eleventh Amended Articles of Incorporation of Ferro Corporation filed December 29, 1994. (Reference is made to Exhibit 4.2 to Ferro Corporation's Registration Statement on Form S-3, filed March 5, 2008, which Exhibit is incorporated here by reference.)
  - 3.3 Certificate of Amendment to the Eleventh Amended Articles of Incorporation of Ferro Corporation filed June 23, 1998. (Reference is made to Exhibit 4.3 to Ferro Corporation's Registration Statement on Form S-3, filed March 5, 2008, which Exhibit is incorporated here by reference.)
  - 3.4 Ferro Corporation Code of Regulations. (Reference is made to Exhibit 4.4 to Ferro Corporation's Registration Statement on Form S-3, filed March 5, 2008, which Exhibit is incorporated here by reference.)
  - 3.5 Ferro Corporation Amended and Restated Code of Regulations. (Reference is made to Exhibit 3.4 to Ferro Corporation's Quarterly Report for the quarter ended September 30, 2010, which Exhibit is incorporated here by reference.)
  - 4 Instruments defining rights of security holders, including indentures
  - 4.1 Senior Indenture, dated as of March 5, 2008, by and between Ferro Corporation and U.S. Bank National Association. (Reference is made to Exhibit 4.5 to Ferro Corporation's Registration Statement on Form S-3, filed March 5, 2008, which Exhibit is incorporated here by reference.)
  - 4.2 First Supplemental Indenture, dated August 19, 2008, by and between Ferro Corporation and U.S. Bank National Association (with Form of 6.50% Convertible Senior Notes due 2013). (Reference is made to Exhibit 4.2 to Ferro Corporation's Current Report on Form 8-K, filed August 19, 2008, which Exhibit is incorporated here by reference.)
  - 4.3 Form of Indenture, by and between Ferro Corporation and Wilmington Trust FSB (Reference is made to Exhibit 4.1 to Ferro Corporation's Registration Statement on Form S-3ASR, filed July 27, 2010, which Exhibit is incorporated here by reference.)
  - 4.4 First Supplemental Indenture, dated August 24, 2010, by and between Ferro Corporation and Wilmington Trust FSB (with Form of 7.875% Senior Notes due 2018). (Reference is made to Exhibit 4.1 to Ferro Corporation's Current Report on Form 8-K, filed August 24, 2010, which Exhibit is incorporated here by reference.)
- The Company agrees, upon request, to furnish to the U.S. Securities and Exchange Commission a copy of any instrument authorizing long-term debt that does not authorize debt in excess of 10% of the total assets of the Company and its subsidiaries on a consolidated basis.
- 10 Material contracts
  - 10.1 Third Amended and Restated Credit Agreement, dated August 24, 2010, by and among Ferro Corporation, PNC Bank, National Association, as the Administrative Agent, the Collateral Agent and the Issuer, and JPMorgan Chase Bank, N.A. and Bank of America, N.A., as the Syndication Agents. (Reference is made to Exhibit 10.1 to Ferro Corporation's Current Report on Form 8-K, filed August 24, 2010, which Exhibit is incorporated here by reference.)
  - 10.2 First Amendment to Second Amended and Restated Credit Agreement, dated July 26, 2010, by and among Ferro Corporation, the several banks and other financial institutions or entities listed on the signature pages hereto as Lenders, Credit Suisse AG, Cayman Islands Branch, as Original Term Loan Administrative Agent, and PNC Bank, National Association, as New Term Loan Administrative Agent and as Revolving Loan Administrative Agent. (Reference is made to Exhibit 10.1 to Ferro Corporation's Current Report on Form 8-K, filed July 27, 2010, which Exhibit is incorporated here by reference.)

- 10.3 Second Amended and Restated Credit Agreement, dated October 26, 2009, among Ferro Corporation and certain of its subsidiaries; various financial institutions; Credit Suisse, Cayman Islands Branch; PNC Bank, National Association; National City Bank; KeyBank National Association; and Citigroup Global Markets, Inc. (Reference is made to Exhibit 10.1 to Ferro Corporation's Current Report on Form 8-K, filed October 27, 2009, which Exhibit is incorporated here by reference.)
- 10.4 Amendment and Restatement and Resignation and Appointment Agreement, dated October 26, 2009, among Ferro Corporation; the several banks and other financial institutions or entities listed on the signature pages thereto; Credit Suisse, Cayman Islands Branch; National City Bank; and PNC Bank, National Association. (Reference is made to Exhibit 10.2 to Ferro Corporation's Current Report on Form 8-K, filed October 27, 2009, which Exhibit is incorporated here by reference.)
- 10.5 First Amendment to Amended and Restated Credit Agreement and First Amendment to Pledge and Security Agreement, dated December 17, 2007, among Ferro Corporation; certain of Ferro's subsidiaries; Credit Suisse, Cayman Islands Branch, as Term Loan Administrative Agent; and National City Bank, as Revolving loan Administrative Agent; and various financial institutions as Lenders. (Reference is made to Exhibit 10.2 to Ferro Corporation's Current Report on Form 8-K, filed January 10, 2008, which Exhibit is incorporated here by reference.)
- 10.6 Amended and Restated Credit Agreement, dated June 8, 2007, among Ferro; certain of Ferro's subsidiaries; Credit Suisse, as Term Loan Administrative Agent; National City Bank, as Revolving Loan Administrative Agent and Collateral Agent; KeyBank National Association, as Documentation Agent; Citigroup Global Markets, Inc., as Syndication Agent; and various financial institutions as Lenders. (Reference is made to Exhibit 10.3 to Ferro Corporation's Current Report on Form 8-K, filed June 11, 2007, which Exhibit is incorporated here by reference.)
- 10.7 Purchase Agreement, dated June 2, 2009, among Ferro Corporation, Ferro Color & Glass Corporation, and Ferro Pfanstiehl Laboratories, Inc. (Reference is made to Exhibit 10.1 to Ferro Corporation's Current Report on Form 8-K, filed June 3, 2009, which Exhibit is incorporated here by reference.)
- 10.8 Purchase and Contribution Agreement, dated June 2, 2009, between Ferro Corporation and Ferro Finance Corporation. (Reference is made to Exhibit 10.2 to Ferro Corporation's Current Report on Form 8-K, filed June 3, 2009, which Exhibit is incorporated here by reference.)
- 10.9 Receivables Purchase Agreement, dated June 2, 2009, among Ferro Finance Corporation, Ferro Corporation, certain purchasers from time to time party thereto and Wachovia Bank, National Association. (Reference is made to Exhibit 10.3 to Ferro Corporation's Current Report on Form 8-K, filed June 3, 2009, which Exhibit is incorporated here by reference.)
- 10.10 Amendment No. 1 to Receivables Purchase Agreement, dated February 3, 2010, among Ferro Finance Corporation, Ferro Corporation, as initial Collection Agent, and Wachovia Bank, National Association, as Purchaser and in its capacity as Agent for the Purchasers. (Reference is made to Exhibit 10.1 to Ferro Corporation's Quarterly Report on Form 10-Q, for the quarter ended June 30, 2010, which Exhibit is incorporated here by reference.)
- 10.11 Amendment No. 2 to Receivables Purchase Agreement, dated May 1, 2010, among Ferro Finance Corporation, Ferro Corporation, as initial Collection Agent, Wells Fargo Bank, N.A., as Purchaser and in its capacity as Agent for the Purchasers. (Reference is made to Exhibit 10.2 to Ferro Corporation's Current Report on Form 8-K, filed June 2, 2010, which Exhibit is incorporated here by reference.)
- 10.12 Amendment No. 3 to Receivables Purchase Agreement, dated June 1, 2010, among Ferro Finance Corporation, Ferro Corporation, as initial Collection Agent, Wells Fargo Bank, N.A., as Purchaser and in its capacity as Agent for the Purchasers. (Reference is made to Exhibit 10.1 to Ferro Corporation's Current Report on Form 8-K, filed June 2, 2010, which Exhibit is incorporated here by reference.)
- 10.13 Ferro Corporation Employee Stock Option Plan. (Reference is made to Exhibit 10.1 to Ferro Corporation's Annual Report on Form 10-K for the year ended December 31, 2006, which Exhibit is incorporated here by reference.)\*
- 10.14 Ferro Corporation 2003 Long-Term Incentive Compensation Plan. (Reference is made to Exhibit 10.16 to Ferro Corporation's Annual Report on Form 10-K for the year ended December 31, 2008, which Exhibit is incorporated here by reference.)\*
- 10.15 Form of Terms of Incentive Stock Option Award Grants under the Ferro Corporation 2003 Long-Term Incentive Compensation Plan. (Reference is made to Exhibit 10.17 to Ferro Corporation's Annual Report on Form 10-K for the year ended December 31, 2008, which Exhibit is incorporated here by reference.)\*

- 10.16 Form of Terms of Performance Share Awards under the Ferro Corporation 2003 Long-Term Incentive Compensation Plan. (Reference is made to Exhibit 10.18 to Ferro Corporation's Annual Report on Form 10-K for the year ended December 31, 2008, which Exhibit is incorporated here by reference.)\*
- 10.17 Ferro Corporation 2006 Long-Term Incentive Plan. (Reference is made to Exhibit 10.01 to Ferro Corporation's Current Report on Form 8-K, filed November 8, 2006, which Exhibit is incorporated here by reference.)\*
- 10.18 Form of Terms of Incentive Stock Option Award Grants under the Ferro Corporation 2006 Long-Term Incentive Compensation Plan. (Reference is made to Exhibit 10.20 to Ferro Corporation's Annual Report on Form 10-K for the year ended December 31, 2008, which Exhibit is incorporated here by reference.)\*
- 10.19 Form of Terms of Nonstatutory Stock Option Grants under the Ferro Corporation 2006 Long-Term Incentive Compensation Plan. (Reference is made to Exhibit 10.21 to Ferro Corporation's Annual Report on Form 10-K for the year ended December 31, 2008, which Exhibit is incorporated here by reference.)\*
- 10.20 Form of Terms of Performance Share Awards under the Ferro Corporation 2006 Long-Term Incentive Compensation Plan. (Reference is made to Exhibit 10.22 to Ferro Corporation's Annual Report on Form 10-K for the year ended December 31, 2008, which Exhibit is incorporated here by reference.)\*
- 10.21 Form of Terms of Restricted Share Awards under the Ferro Corporation 2006 Long-Term Incentive Compensation Plan. (Reference is made to Exhibit 10.23 to Ferro Corporation's Annual Report on Form 10-K for the year ended December 31, 2008, which Exhibit is incorporated here by reference.)\*
- 10.22 Form of Terms of Deferred Stock Unit Awards under the Ferro Corporation 2006 Long-Term Incentive Compensation Plan. (Reference is made to Exhibit 10.24 to Ferro Corporation's Annual Report on Form 10-K for the year ended December 31, 2008, which Exhibit is incorporated here by reference.)\*
- 10.23 Amendment to the Ferro Corporation Deferred Compensation Plan for Executive Employees. (Reference is made to Exhibit 10.18 to Ferro Corporation's Annual Report on Form 10-K for the year ended December 31, 2009, which Exhibit is incorporated here by reference.)\*
- 10.24 Ferro Corporation Deferred Compensation Plan for Executive Employees. (Reference is made to Exhibit 10.1 to Ferro Corporation's Current Report on Form 8-K, filed September 24, 2007, which Exhibit is incorporated here by reference.)\*
- 10.25 Ferro Corporation Deferred Compensation Plan for Non-Employee Directors. (Reference is made to Exhibit 10.2 to Ferro Corporation's Current Report on Form 8-K, filed September 24, 2007, which Exhibit is incorporated here by reference.)\*
- 10.26 Ferro Corporation Deferred Compensation Plan for Non-Employee Directors Trust Agreement. (Reference is made to Exhibit 10.11.1 to Ferro Corporation's Annual Report on Form 10-K for the year ended December 31, 2006, which Exhibit is incorporated here by reference.)\*
- 10.27 Ferro Corporation Supplemental Defined Benefit Plan for Executive Employees. (Reference is made to Exhibit 10.3 to Ferro Corporation's Current Report on Form 8-K, filed September 24, 2007, which Exhibit is incorporated here by reference.)\*
- 10.28 Amendment to the Ferro Corporation Supplemental Defined Contribution Plan for Executive Employees. (Reference is made to Exhibit 10.23 to Ferro Corporation's Annual Report on Form 10-K for the year ended December 31, 2009, which Exhibit is incorporated here by reference.)\*
- 10.29 Ferro Corporation Supplemental Defined Contribution Plan for Executive Employees. (Reference is made to Exhibit 10.4 to Ferro Corporation's Current Report on Form 8-K, filed September 24, 2007, which Exhibit is incorporated here by reference.)\*
- 10.30 Amended and Restated Employment Agreement, dated December 31, 2008, between Mr. Kirsch and Ferro Corporation. (Reference is made to Exhibit 10.3 to Ferro Corporation's Current Report on Form 8-K, filed January 7, 2009, which Exhibit is incorporated here by reference.)\*
- 10.31 Form of Indemnification Agreement. (James F. Kirsch is the only officer that is party to an indemnification agreement with Ferro Corporation.) (Reference is made to Exhibit 10.31 to Ferro Corporation's Annual Report on Form 10-K for the year ended December 31, 2008, which Exhibit is incorporated here by reference.)\*
- 10.32 Change in Control Agreement, dated January 1, 2009, between Mr. Kirsch and Ferro Corporation. (Reference is made to Exhibit 10.1 to Ferro Corporation's Current Report on Form 8-K, filed January 7, 2009, which Exhibit is incorporated here by reference.)\*

- 10.33 Form of Change in Control Agreement, dated January 1, 2009. (Mark H. Duesenberg, Ann E. Killian, James F. Kirsch, Michael J. Murry and Peter T. Thomas have entered into this form of change in control agreement.) (Reference is made to Exhibit 10.2 to Ferro Corporation's Current Report on Form 8-K, filed January 7, 2009, which Exhibit is incorporated here by reference.)\*
- 10.34 Form of Change in Control Agreement, dated as of December 22, 2010. (Thomas R. Miklich has entered into this form of change in control agreement.) (Reference is made to Exhibit 10.2 to Ferro Corporation's Current Report on Form 8-K, filed December 22, 2010, which Exhibit is incorporated here by reference.)\*
- 10.35 Ferro Corporation 2010 Long-Term Incentive Plan (Reference is made to Exhibit 10.1 to Ferro Corporation's Current Report on Form 8-K, filed May 6, 2010, which Exhibit is incorporated here by reference.)\*
- 10.36 Ferro Corporation Executive Separation Policy. (Reference is made to Exhibit 10.1 to Ferro Corporation's Current Report on Form 8-K, filed June 28, 2010, which Exhibit is incorporated here by reference.)\*
- 10.37 Separation and Release Agreement, dated as of July 14, 2010, between Sallie B. Bailey and Ferro Corporation. (Reference is made to Exhibit 10.1 to Ferro Corporation's Current Report on Form 8-K, filed July 20, 2010, which Exhibit is incorporated here by reference.)\*
- 10.38 Annual Incentive Plan (AIP) Summary Document.\*
- 12 Ratio of Earnings to Fixed Charges and Ratio of Earnings to Combined Fixed Charges and Preferred Stock Dividends.
- 21 List of Subsidiaries.
- 23.1 Consent of Independent Registered Public Accounting Firm.
- 31.1 Certification of Principal Executive Officer Pursuant to Rule 13a-14(a)/15d-14(a).
- 31.2 Certification of Principal Financial Officer Pursuant to Rule 13a-14(a)/15d-14(a).
- 32.1 Certification of Principal Executive Officer Pursuant to 18 U.S.C. 1350.
- 32.2 Certification of Principal Financial Officer Pursuant to 18 U.S.C. 1350.

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\* Indicates management contract or compensatory plan, contract or arrangement in which one or more Directors and/or executives of Ferro Corporation may be participants.



# Corporate Information

## BOARD OF DIRECTORS

Richard C. Brown <sup>(3)</sup>  
Sandra Austin Crayton <sup>(1, 2)</sup>  
Richard J. Hipple <sup>(3)</sup>  
Jennie S. Hwang, Ph.D. <sup>(1, 2)</sup>  
Gregory E. Hyland <sup>(2, 3)</sup>  
James F. Kirsch  
William B. Lawrence <sup>(2, 3)</sup>  
Timothy K. Pistell <sup>(1)</sup>  
William J. Sharp <sup>(2)</sup>  
Ronald P. Vargo <sup>(1, 3)</sup>

**Note:** Figures in parentheses indicate the committee(s) on which a director serves.

- <sup>1</sup> Audit  
<sup>2</sup> Governance & Nomination  
<sup>3</sup> Compensation

## INVESTOR CONTACT

David A. Longfellow  
Director, Investor Relations  
216-875-7155  
E-mail: investor@ferro.com

## ANNUAL MEETING

April 29, 2011  
10:00 a.m.  
Ferro Corporation  
1000 Lakeside Avenue  
Cleveland, Ohio 44114-1147

## EXECUTIVE OFFICES

Ferro Corporation  
1000 Lakeside Avenue  
Cleveland, Ohio 44114-1147  
216-641-8580

## AUTOMATIC DIVIDEND REINVESTMENT AND STOCK PURCHASE PLAN

This Plan provides an opportunity for shareholders to purchase additional shares of Ferro common stock by automatic reinvestment of dividends and by optional periodic cash payments, without paying brokerage commissions. These costs will be paid by Ferro.

The Plan is administered by Computershare.

Any questions or correspondence about the Plan should be addressed to:

Computershare  
P.O. Box 43078  
Providence, Rhode Island 02940-3078  
Toll Free: 800-622-6757 (U.S., Canada, Puerto Rico)  
Toll: 781-575-4735 (Non-U.S.)  
E-mail: web.queries@computershare.com

## BROKERAGE ACCOUNTS

To reduce communication delays that exist for some Ferro shareholders who hold their stock in brokerage accounts, the Company will send its various printed communications directly to these shareholders. If you would like to take advantage of this service, please write to:

Treasury Department  
Ferro Corporation  
1000 Lakeside Avenue  
Cleveland, Ohio 44114-1147, U.S.A.

Please indicate the number of Ferro shares owned and the name and address of the brokerage firm that administers your account.

## CERTIFICATIONS

In 2010, the Company's Chief Executive Officer provided the NYSE a certification stating that he was not aware of any violation by the Company of NYSE corporate governance listing standards. Certifications of the Chief Executive Officer and Chief Financial Officer as to the quality of the Company's public disclosures filed with the SEC are contained in Ferro's Annual Report on Form 10-K, a copy of which is included in this report.

## STOCK TRANSFER AGENT/REGISTRAR AND DIVIDEND DISBURSING AGENT

Computershare  
P.O. Box 43078  
Providence, Rhode Island 02940-3078  
Toll Free: 800-622-6757 (U.S., Canada, Puerto Rico)  
Toll: 781-575-4735 (Non-U.S.)  
E-mail: web.queries@computershare.com

## TRUSTEE 6.50% CONVERTIBLE SENIOR NOTES

US Bank Corporate Trust Services  
60 Livingston Avenue  
St. Paul, Minnesota 55107

## TRUSTEE 7.875% SENIOR NOTES

Wilmington Trust FSB  
246 Goose Lane, Suite 105  
Guilford, Connecticut 06437

## INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Deloitte & Touche LLP  
127 Public Square, Suite 3300  
Cleveland, Ohio 44114-1291

## EXCHANGE LISTING

New York Stock Exchange  
Common Stock  
Stock symbol: FOE

## FORM 10-K

Ferro Corporation's Form 10-K report filed with the Securities and Exchange Commission for the year ended December 31, 2010 is available to shareholders at no cost at the Company's Web site ([www.ferro.com](http://www.ferro.com)) or upon request.



This annual report may contain "forward-looking statements" under the Private Securities Litigation Reform Act of 1995. Forward-looking statements are subject to risks and uncertainties that could cause actual results to differ materially from those expressed in or implied in this report. Further information concerning issues that could materially affect financial performance related to forward-looking statements can be found in Ferro's Annual Report on Form 10-K, a copy of which is included in this report, and the Company's periodic filings with the SEC.



## Our Values

Our Win from Within operating tenets focus on velocity and accountability, customer centricity and operational excellence. Ferro's core values support these tenets. They are the foundation of our winning organizational culture, and apply equally to our interactions within the Company, and to our relationships with suppliers, customers and shareholders. We believe that our core values will guide us in achieving Ferro's vision.

- Trust is the foundation for our future
- Delivering on our commitments is essential to our credibility
- Customer-centric thinking is the path to growth and success
- Continuous improvement sustains operational excellence
- A winning attitude will accelerate our success



Ferro Corporation 1000 Lakeside Avenue Cleveland, Ohio 44114-1147 [www.ferro.com](http://www.ferro.com)

