

FERRO CORP
Form 10-K
March 01, 2010

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**UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549**

Form 10-K

(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, 2009
- 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)

**1000 Lakeside Avenue
Cleveland, OH**

(Address of principal executive offices)

34-0217820

(IRS Employer Identification No.)

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

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

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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, 2009, was approximately \$119,239,000.

On January 29, 2010, there were 86,060,044 shares of Ferro Corporation Common Stock, par value \$1.00 outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Proxy Statement for Ferro Corporation's 2010 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 consolidated 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:

Electronics, Color and Glass Materials Conductive metal pastes and powders, dielectrics, polishing materials, high-quality glazes, enamels, pigments, dinnerware decoration colors, and other performance materials; and

Polymer and Ceramic Engineered Materials Polymer specialty materials, 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 are involved in our customers material specification and evaluation, product design and manufacturing process characterization in order to help customers optimize the efficient and cost-effective application of our products.

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

Polymer and Ceramic Engineered Materials

Electronics, Color and Glass Materials

Polymer Additives

Electronic Materials

Specialty Plastics

Color and Glass Performance Materials

Pharmaceuticals

Tile Coating Systems(1)

Porcelain Enamel(1)

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

Financial information about our segments is included herein in Note 17 to the consolidated financial statements under Item 8 of this Annual Report on Form 10-K.

Prior to 2008, our Other Businesses segment reported the combined results of operations from Ferro's Pharmaceuticals and Fine Chemicals businesses. The Fine Chemicals business was sold during the fourth quarter of 2008, and the financial results from this business are now included in discontinued operations.

Markets and Customers

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

Appliances

Household furnishings

Automobiles

Industrial products

Building and renovation

Packaging

Electronics

Pharmaceuticals

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 films in products such as solar cells and other electronic components. Still other products are added to other ingredients during our customers' manufacturing processes to provide desirable properties to the 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, multi-layer capacitors, 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 2009, 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.

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During 2009, abrupt reductions in customer demand resulting from the global economic downturn had a significant negative effect on sales and profits. As a result, we did not experience our normal seasonal pattern of quarterly changes in sales and operating results.

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)

Aluminum oxide(3)
Cobalt oxide
Nickel oxide
Zinc oxide

Polymers:(2)

Polypropylene
Polystyrene
Unsaturated polyester

Other Inorganic Materials:

Boron(3)
Feldspar(1)
Fiberglass(2)
Silica(1)
Titanium dioxide(1)(2)
Zircon(1)

Precious and Non-precious Metals:(3)

Aluminum
Bismuth
Chromium
Copper
Gold
Lithium
Palladium
Platinum
Silver
Titanium
Zinc

Other Organic Materials:(4)

Butanol
Phthalic anhydride
Soybean oil
Tallow
Toluene

(1) Primarily used by Color and Glass Performance Materials, Tile Coating Systems and Porcelain Enamel.

(2) Primarily used by Specialty Plastics.

(3) Primarily used by Electronic Materials and Color and Glass Performance Materials.

(4) 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.

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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 2009, 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 they 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 that we are in compliance with the environmental regulations to which our operations are subject and that, 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 \$2.4 million in 2009, \$2.4 million in 2008, and \$1.1 million in 2007.

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.

Expenditures for company-sponsored research and development activities for continuing operations were approximately \$28.3 million in 2009, \$33.6 million in 2008, and \$36.9 million in 2007. Expenditures for customer-sponsored research activities were not material.

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, 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 2029. 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.

Table of Contents***Employees***

At December 31, 2009, we employed 5,213 full-time employees, including 3,680 employees in our foreign consolidated subsidiaries and 1,533 in the United States (U.S.). Total employment decreased 183 in our foreign subsidiaries and 242 in the U.S. from the prior year end primarily due to our various restructuring and cost reduction programs.

Collective bargaining agreements cover approximately 18% of our U.S. workforce. Approximately 2% of the U.S. employees are affected by labor agreements that expire in 2010, and we expect to complete renewals of these agreements with no 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 produced and distributed through our consolidated subsidiaries and unconsolidated affiliates in the following countries:

Consolidated Subsidiaries:

Argentina	France	Mexico	Thailand
Australia	Germany	Netherlands	United Kingdom
Belgium	Indonesia	Portugal	Venezuela
Brazil	Italy	Spain	
China	Japan	Taiwan	

Unconsolidated Affiliates:

Italy	Spain	South Korea	Thailand
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Financial information for geographic areas is included in Note 17 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, 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

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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, which is difficult to predict. 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.

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.

We have initiated and intend to initiate 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 initiated several restructuring programs prior to and in the fourth quarter of 2009, and we intend to 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

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administer these restructuring programs in the manner contemplated, they may not produce the desired results. Accordingly, the restructuring programs that we have initiated and those that we intend to 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 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, 2009, we had approximately \$423.5 million of short-term and long-term debt with varying maturities and approximately \$124.0 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 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 5 to the consolidated financial statements under Item 8 of this Annual Report on Form 10-K.

Interest rates on some of our borrowings are variable, and our borrowing costs could be affected adversely 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, 2009, that a one percent increase in interest rates would cause interest expense to increase by approximately \$1.2 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 under Item 7A and in Note 5 to the consolidated financial statements under Item 8 of this Annual Report on Form 10-K.

We depend on reliable sources of energy and raw materials, including petroleum-based materials 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. 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 markets for our products are highly competitive and subject to intense price competition, and that 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.

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

More than 50% of our net sales during 2009 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. As a result, our operations have additional complexity from changing economic, 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. export licenses may be difficult to obtain and we may be subject to export duties or import quotas or other trade 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.

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.

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, 2009, we had \$146.7 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 7 to the consolidated financial statements under Item 8 of this Annual Report on 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.

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 5 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, 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 contain a number of restrictive covenants, including those described in more detail in Note 5 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, including a leverage ratio and a fixed charge coverage

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ratio. These covenants restrict the amount of our borrowings, reducing our flexibility to fund ongoing operations and strategic initiatives. These facilities are described in more detail in **Capital Resources and Liquidity** under Item 7 and in Note 5 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 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.

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 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.

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. The result could be lower sales, profitability and/or liquidity.

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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 18% of our U.S. workforce as of December 31, 2009), 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 9 to the consolidated financial statements under Item 8 of this Annual Report on Form 10-K.

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 at least on 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.

Our ability to use our operating loss carryforwards and other tax attributes may be subject to limitation due to significant changes in the ownership of our common stock.

As of December 31, 2009, we had gross operating loss carryforwards of approximately \$5.0 million and gross other tax attributes of approximately \$67.1 million for U.S. federal income tax purposes. Under Section 382 of the Internal Revenue Code of 1986, as amended, or the Code, if a corporation undergoes an ownership change, the corporation's ability to use its pre-change operating loss carryforwards and other tax attributes to offset its post-change income may be limited and may result in a partial or full write down of the related deferred tax assets. An ownership change is defined generally for these purposes as a greater than 50% change in ownership over a three-year period, taking into account shareholders that own 5% or more by value of our common stock. At December 31, 2009, we had reached a

43% threshold as calculated under Section 382 of the Code.

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We have a growing presence in the Asia-Pacific region where it can be difficult for a U.S.-based 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 U.S.-based company to compete on a level playing field with local competitors without engaging in conduct that would be illegal under U.S. law. 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.

We have in the past identified material weaknesses in our internal controls, and the identification of any material weaknesses in the future could affect our ability to ensure timely and reliable financial reports.

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, which is a process designed by our management 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. 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.

We conducted an assessment of our internal controls over financial reporting as of December 31, 2009 and 2008 and concluded that the internal controls over financial reporting were effective as of December 31, 2009 and 2008. Previously, we had concluded that we had material weaknesses in our internal controls as of December 31, 2007, 2006, 2005 and 2004. A material weakness is a deficiency, or combination of deficiencies, in internal control over financial reporting, such that, there is a reasonable possibility that a material misstatement of the company's annual or interim financial statements will not be prevented or detected on a timely basis.

Accordingly, while we have taken actions to address the past material weaknesses and continued activities that materially improved, or are reasonably likely to materially improve, our internal control over financial reporting, these measures may not be sufficient to ensure that our internal controls are effective in the future. If we are unable to correct future weaknesses in internal controls in a timely manner, our ability to record, process, summarize and report reliable financial information within the time periods specified in the rules and forms of the SEC will be adversely affected. This failure could materially and adversely impact our business, our financial condition and the market value of our securities.

We are a defendant in several lawsuits that could have an adverse effect on our financial condition and/or financial performance, unless they are successfully resolved.

We are routinely involved in litigation brought by suppliers, customers, employees, governmental agencies, and others. Litigation is an inherently unpredictable process and unanticipated negative outcomes are possible. The most significant pending litigation is described in Item 3 – Legal Proceedings of this Annual Report on Form 10-K.

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 therefore. Our board of directors has no obligation to declare dividends under Ohio law or our amended articles of incorporation. The restrictive covenants contained in our credit facility, as currently in effect and as amended and restated, prohibit us from paying dividends on our common stock at this time.

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 places on our ability to pay dividends.

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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 Corporation 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 17,000 sq. ft. to over 500,000 sq. ft. Plants we own with more than 250,000 sq. ft. are located in: Germany; Spain; Penn Yan, New York; and France. The locations of these principal manufacturing plants by reportable business segment are as follows:

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

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

Color and Glass Performance Materials U.S.: Washington, Pennsylvania. Outside the U.S.: Australia, Brazil, China, France, Germany, Mexico, 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.: the Netherlands and Spain.

Pharmaceuticals U.S.: Waukegan, Illinois.

Ferro's revolving credit and term loan facility, which was established in June 2006, has a security interest in the Company's and its domestic material subsidiaries' real estate.

In addition, we lease manufacturing facilities for the Performance Coatings segment in Italy; for the Electronic Materials segment in Germany, Japan, and Vista, California; for the Color and Glass Performance Materials segment

in Japan, Portugal and Italy; and for the Specialty Plastics segment in Carpentersville, Illinois. In some instances, the manufacturing facilities are used for two or more business segments. Leased facilities range in size from 23,000 sq. ft. to over 300,000 sq. ft. at a plant located in Portugal.

Item 3 *Legal Proceedings*

As previously disclosed, on May 6, 2004, the Company was named in an indirect purchaser class action in California seeking monetary damages and injunctive relief relating to alleged violations of the antitrust laws by the Company and others participating in the plastics additives industry (Competition Collision Center, LLC v. Crompton Corporation, et al., Superior Court of the State of California for the City and County of San Francisco,

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Case No. CGC-040431278); on August 4, 2005, the Company was named in another indirect purchaser class action lawsuit (In Re Indirect Purchaser, Plastic Additives Litigation, D.R. Ward Construction, et al., v. Rohm & Haas Company, et al., Case No. 2:05-CV-04157-LDD, MDL No. 1684, U.S. District Court, Eastern District of Pennsylvania); and in June 2008, the Company was named in four more indirect purchaser class action lawsuits. All of these cases contain similar allegations. The four indirect purchaser cases filed in 2008 have been transferred to the Eastern District of Pennsylvania (Defren v. Rohm & Haas Company, et al., Case No. 2:08-CV-03702-LDD (filed June 12, 2008); Zebrowski v. Rohm & Haas Company, et al., Case No. 2:08-CV-04161-LDD (filed June 23, 2008); Burg v. Rohm & Haas Company, et al., Case No. 2:08-CV-04162-LDD (filed June 30, 2008); Miller v. Rohm & Haas Company, et al., Case No. 2:08-CV-03701-LDD (filed June 18, 2008)). The Company intends to vigorously defend these six civil actions, which are all in their early stages. As a result, the Company cannot determine the outcome of these lawsuits at this time.

As previously disclosed, on December 22, 2006, the Company filed a lawsuit against the prior owner of certain (but not all) assets acquired by the Company, seeking indemnification in relation to the above indirect purchaser lawsuits, as well as the previously disclosed and settled direct purchaser class action lawsuit and lawsuit filed by PolyOne Corporation (both of which also alleged violations of the antitrust laws by the Company and others participating in the plastics additives industry). The Company sought indemnification for defense costs and other payments by the Company resulting from these cases (Ferro v. Cookson Group, et al., U.S. District Court, Northern District of Ohio, Eastern Division, Case No. 1:06CV3070). In April 2008, the U.S. District Court, Northern District of Ohio, dismissed our lawsuit, and the Company appealed the court's decision to the United States Court of Appeals for the Sixth Circuit. In November 2009, the Sixth Circuit affirmed the decision of the District Court. The Company does not intend to pursue this matter further.

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 will make quarterly 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.

Executive Officers of the Registrant

The executive officers of the Company as of March 1, 2010, 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 52
Chairman, President and Chief Executive Officer, 2006
President and Chief Executive Officer, 2005

Sallie B. Bailey 50
Vice President and Chief Financial Officer, 2007
Senior Vice President-Finance and Controller, The Timken Company, an international manufacturer of highly engineered bearings and alloy steels and provider of related products and services, 2003

Mark H. Duesenberg 48

Vice President, General Counsel & 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 & Africa, Lenovo Group Ltd., 2005

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Ann E. Killian 55

Vice President, Human Resources, 2005

Michael J. Murry 58

Vice President, Electronics, Color and Glass Materials, 2009

Vice President, Inorganic Specialties, 2006

Vice President, Performance Coatings, 2005

Peter T. Thomas 54

Vice President, Polymer and Ceramic Engineered Materials, 2009

Vice President, Organic Specialties, 2006

Vice President, Pharmaceuticals and Fine Chemicals and Polymer Additives, 2004

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Our common stock is listed on the New York Stock Exchange under the ticker symbol FOE. At January 29, 2010, we had 1,497 shareholders of record for our common stock. The closing price of the common stock on January 29, 2010, was \$7.76 per share.

The chart below compares Ferro's cumulative total shareholder return for the five years ended December 31, 2009, 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, 2004.

**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 2009 and 2008 were as follows:

	2009			2008		
	High	Low	Dividends	High	Low	Dividends
First Quarter	\$ 7.77	\$ 0.81	\$ 0.01	\$ 20.65	\$ 13.77	\$ 0.145
Second Quarter	6.00	1.33	0.00	21.10	13.52	0.145
Third Quarter	10.46	1.95	0.00	24.13	17.28	0.145
Fourth Quarter	8.98	5.40	0.00	20.97	5.54	0.145

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.

Our senior credit facility prohibits us from paying dividends 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.

On August 6, 2009, we filed a shelf registration statement on Form S-3 (SEC File No. 333-161136) for the sale of securities in one or more offerings with an aggregate initial offering price of \$300 million. In November 2009, the Company issued 41,112,500 shares of common stock under this shelf registration statement and received net

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proceeds of \$215.7 million. From the net proceeds, the Company paid \$7.5 million in fees and expenses related to the amendment and restatement of our 2009 Amended and Restated Credit Facility and repaid \$158.1 million of outstanding term loans. The Company will use the remaining proceeds to pay the costs associated with its restructuring programs and strategic initiatives.

We did not repurchase any of our common stock during the fourth quarter of 2009.

Item 6 Selected Financial Data

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

	2009	2008	2007	2006	2005
	(Dollars in thousands, except per share data)				
Net sales	\$ 1,657,569	\$ 2,245,152	\$ 2,147,904	\$ 1,987,606	\$ 1,833,064
(Loss) income from continuing operations	(40,040)	(52,882)	(97,502)	17,181	17,462
Basic (loss) earnings per share from continuing operations attributable to Ferro Corporation common shareholders	(0.85)	(1.28)	(2.34)	0.33	0.33
Diluted (loss) earnings per share from continuing operations attributable to Ferro Corporation common shareholders	(0.85)	(1.28)	(2.34)	0.33	0.33
Cash dividends declared per common share	0.01	0.58	0.58	0.58	0.58
Total assets	1,526,355	1,544,117	1,638,260	1,741,602	1,676,598
Long-term debt, including current portion, and redeemable preferred stock	409,231	577,290	538,758	601,765	568,325

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 15 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 through the course of 2009. The year began with a sharp decline in customer demand that resulted from the worldwide economic downturn and difficult credit markets. Demand gradually improved after the first quarter as customers reduced their inventory destocking and as end-market demand began to recover.

Net sales in 2009 declined by 26% from 2008. The decline in sales compared with 2008 was greater during the first half of the year, driven by reduced demand in most end-market applications including automobiles, construction, electronics and appliances. Quarterly sales improved sequentially during 2009 and by the fourth quarter sales were higher than in the prior-year period when demand began to be adversely affected by worldwide economic issues. For the full year, sales declined in each segment and in all regions.

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Beyond the fundamental customer demand for our products, the factors that influenced 2009 results included the following:

Cost and expense reduction initiatives. These initiatives included restructuring actions that consolidated manufacturing facilities and reduced employee positions. The actions resulted in restructuring and other charges, and also contributed to lower operating costs and expenses.

Reduced impairment of goodwill and other assets.

Increased interest expense. Interest expense increased due to higher interest rates and increased borrowing levels, including borrowing to satisfy requirements for cash collateral related to precious metal consignment agreements. Borrowing levels were reduced in November as a result of using a portion of the proceeds from an equity offering to reduce debt.

Gross margin declined in 2009, compared with 2008, driven by the decline in sales. Primarily because of our cost reduction efforts, gross margin percentage increased compared with the prior-year period. Cost reductions included staffing reductions, plant closures, benefit reductions and unpaid furloughs for certain salaried employees.

Selling, general and administrative (SG&A) expense declined during the year. The decline was primarily due to expense reduction efforts that resulted in lower staffing levels and reductions in spending in response to our reduced sales levels. An increase in pension expense partially offset the effects of the expense reduction actions.

We recorded an \$8.2 million impairment of goodwill related to our Pharmaceuticals business during 2009. The impairment was triggered by changes made to the assumptions used to determine valuation under the market approach. The impairment charge recorded in 2009 was substantially smaller than the charge for goodwill and asset impairments in 2008.

Restructuring charges were recorded during 2009, primarily related to manufacturing rationalization activities in Europe and other cost reduction activities. Restructuring charges were lower than in the prior-year period.

Interest expense increased during 2009 compared with the prior-year period primarily as a result of higher interest rates and higher average borrowing levels. As a result of an amendment to our credit facilities that was signed in March 2009, the interest rate on our term loans and revolving credit borrowings increased, contributing to the higher interest expense. The requirement to provide cash collateral for precious metal leases was a major contributor to our increased borrowing levels.

In November 2009, we sold common stock in an equity offering. The net proceeds from the offering were used to reduce debt and will be used to fund future restructuring actions and strategic growth initiatives.

We recorded a loss from continuing operations in 2009. The loss was due to a decline in gross profit resulting from reduced sales driven by the worldwide economic downturn, as well as restructuring charges, impairment charges, and increased interest expense. Lower selling, general and administrative expense, compared with the prior-year period, helped to reduce the loss from continuing operations.

During 2008, we sold our Fine Chemicals business. 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 for all periods presented.

Outlook

General economic conditions around the world deteriorated sharply in late 2008 and early 2009. As a result, demand for our products declined. During 2009, particularly in the second half of the year, there was modest improvement in demand, however our sales and manufacturing volumes continue to be less than they were prior to the economic downturn. During 2009, our customers reduced their inventories, including inventories of our products, which contributed to the decline in demand for our products. It appears that customers' inventories have stabilized, and inventory destocking largely has been completed. In aggregate, demand for our products has improved since the first quarter of 2009 and is expected to improve modestly in future quarters. However, economic conditions are expected to remain challenging, and there likely will be disparities in the timing and rate of recovery of different regions and end markets we serve.

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We expect to continue to record charges associated with our current and future restructuring programs, including the restructuring efforts funded by our 2009 equity offering. The restructuring programs are intended to further rationalize our manufacturing operations in Europe, align our worldwide operations to reduced customer demand, and lower our selling, general and administrative expense.

Factors that could adversely affect our future financial performance are contained within Risk Factors included under Item 1A.

Results of Operations

Comparison of the years ended December 31, 2009 and 2008

	2009	2008	\$ Change	% Change
	(Dollars in thousands, except per share data)			
Net sales	\$ 1,657,569	\$ 2,245,152	\$ (587,583)	(26.2)%
Cost of sales	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)%
Impairment charges	8,225	80,205	(71,980)	(89.7)%
Restructuring charges	11,112	25,937	(14,825)	(57.2)%
Other expense (income):				
Interest expense	63,918	51,290	12,628	24.6%
Interest earned	(896)	(714)	(182)	25.5%
Loss on extinguishment of debt		5,531	(5,531)	(100.0)%
Foreign currency losses, net	3,827	742	3,085	415.8%
Miscellaneous income, net	(618)	(357)	(261)	73.1%
Loss before income taxes	(43,555)	(56,086)	12,531	(22.3)%
Income tax benefit	(3,515)	(3,204)	(311)	9.7%
Loss from continuing operations	(40,040)	(52,882)	12,842	(24.3)%
Income from discontinued operations, net of income taxes		5,014	(5,014)	(100.0)%
(Loss) gain on disposal of discontinued operations, net of income taxes	(325)	9,034	(9,359)	(103.6)%
Net loss	\$ (40,365)	\$ (38,834)	\$ (1,531)	3.9%
Diluted loss per share attributable to Ferro Corporation common shareholders	\$ (0.86)	\$ (0.95)	\$ 0.09	(9.5)%

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

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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) expense declined by \$24.9 million in 2009 compared with 2008. SG&A expense was 16.4 percent of sales in 2009 compared with 13.2 percent of sales in 2008 due to lower sales. SG&A expense 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 expense in 2009 included charges of approximately \$12.2 million primarily related to expense reduction initiatives. The 2008 SG&A expense 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 impairment charges of \$8.2 million during 2009 related to a reduction in goodwill associated with our Pharmaceuticals business. The impairment was triggered by changes made to the assumptions used to determine valuation under the market approach.

Restructuring charges declined to \$11.1 million in 2009 from \$25.9 million in 2008. The 2009 restructuring charges were primarily related to manufacturing rationalization activities in our European manufacturing operations and other cost-reduction actions.

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 fees and discounts. Interest expense in 2009 included a required \$3.2 million write-off of unamortized credit facility fees triggered by debt repayments. A primary driver of the increased borrowing levels in 2009 was a requirement to provide cash collateral for precious metal leases. As of December 31, 2009, we had \$112.4 million of cash on deposit as collateral for precious metals.

During 2008, we refinanced our 91/8% 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 following items had the most significant impact on the difference between our statutory U.S. federal income tax rate of 35% and our effective tax rate:

2009

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A \$4.2 million (9.7%) decrease resulting from rate differences between non-U.S. and U.S. jurisdictions.

A \$2.9 million (6.6%) decrease resulting from goodwill impairment not recognized for tax purposes.

A \$2.9 million (6.6%) decrease resulting from a decrease in the reserves for uncertain tax positions.

A \$4.4 million (10.1%) increase resulting from U.S. credits for increasing research activities.

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2008

A \$15.4 million (27.5%) decrease resulting from goodwill impairment with only a partial tax benefit.

A \$9.8 million (17.4%) decrease resulting from an increase to valuation allowances due to a determination that it is more likely than not that certain deferred tax assets will not be realized.

A \$6.5 million (11.6%) decrease resulting from rate differences between non-U.S. and U.S. jurisdictions.

A \$6.1 million (10.9%) increase resulting from a favorable tax impact on foreign dividends.

A \$5.7 million (10.2%) 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 expense 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)			
Segment Sales				
Performance Coatings	\$ 487,891	\$ 627,918	\$ (140,027)	(22.3)%
Electronic Materials	426,896	558,313	(131,417)	(23.5)%
Color & 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)%
Total segment sales	\$ 1,657,569	\$ 2,245,152	\$ (587,583)	(26.2)%
Segment Operating Income				
Performance Coatings	\$ 29,551	\$ 36,935	\$ (7,384)	(20.0)%
Electronic Materials	45,344	52,868	(7,524)	(14.2)%
Color & 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)%
Total segment operating income	\$ 105,328	\$ 143,910	\$ (38,582)	(26.8)%

Performance Coatings Segment Results. Sales declined in Performance Coatings primarily due to reduced sales volumes of tile coatings. The decline in 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 expense of \$18 million as a result of staffing reductions and expense reduction initiatives.

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 generally passed through to customers with minimal gross profit contribution. 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 expense. The decline in gross profit was primarily due to the negative effects of lower sales

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volumes. The decline in SG&A expense was due to expense reduction initiatives, including staffing reductions and control of discretionary spending.

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 expense. The decline in gross profit was primarily due to the negative effects of lower sales volumes. The reduction in SG&A expense 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 expense 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 expense 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 expense 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 expense 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 expense. 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 the Fine Chemicals business in 2008.

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

Sales of products shipped from all regions declined as a result of the worldwide economic downturn in 2009. In 2009, sales 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.

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	2008	2007	\$ Change	% Change
	(Dollars in thousands, except per share data)			
Net sales	\$ 2,245,152	\$ 2,147,904	\$ 97,248	4.5%
Cost of sales	1,841,485	1,745,445	96,040	5.5%
Gross profit	403,667	402,459	1,208	0.3%
Gross margin percentage	18.0%	18.7%		
Selling, general and administrative expenses	297,119	314,878	(17,759)	(5.6)%
Impairment charges	80,205	128,737	(48,532)	(37.7)%
Restructuring charges	25,937	16,852	9,085	53.9%
Other expense (income):				
Interest expense	51,290	57,837	(6,547)	(11.3)%
Interest earned	(714)	(1,505)	791	(52.6)%
Loss on extinguishment of debt	5,531		5,531	
Foreign currency losses, net	742	1,254	(512)	(40.8)%
Loss (gain) on sale of businesses		1,348	(1,348)	(100.0)%
Miscellaneous income, net	(357)	(1,488)	1,131	(76.0)%
Loss before income taxes	(56,086)	(115,454)	59,368	(51.4)%
Income tax benefit	(3,204)	(17,952)	14,748	(82.2)%
Loss from continuing operations	(52,882)	(97,502)	44,620	(45.8)%
Income from discontinued operations, net of income taxes	5,014	5,312	(298)	(5.6)%
Gain (loss) on disposal of discontinued operations, net of income taxes	9,034	(225)	9,259	(4,115.1)%
Net loss	\$ (38,834)	\$ (92,415)	\$ 53,581	(58.0)%
Diluted loss per share attributable to Ferro Corporation common shareholders	\$ (0.95)	\$ (2.23)	\$ 1.28	(57.4)%

Net sales grew by 4.5% in 2008, driven by improved product prices and favorable changes in foreign currency exchange rates. The increase in product prices and improved product mix increased sales by approximately 5 percentage points, including higher sales of precious metals, which are generally passed through to customers with minimal contribution to gross profit. Changes in exchange rates contributed approximately 3.5 percentage points to the rate of growth in sales. Lower sales volume, particularly in the last three months of the year, partially offset the positive effects of product pricing and exchange rate changes. Lower sales volume, in aggregate across all our businesses, reduced net sales by approximately 4 percentage points. Net sales increased in all regions.

Gross profit was nearly flat in 2008 compared with 2007 as increased net sales were offset by an increase in the cost of sales. As a result, gross margin percentage declined during the year. Gross profit was reduced by \$3.1 million in 2008 as a result of charges for asset write-offs and costs associated with our manufacturing rationalization programs. Gross profit was also reduced by costs of approximately \$3.3 million to clean up an accidental discharge of product

into the wastewater treatment facility at our Bridgeport, New Jersey, manufacturing location. Gross profit percentage was negatively impacted by higher raw materials costs, including costs of precious metals. Precious metal costs generally are passed through to customers with minimal gross profit contribution. Gross profit was reduced by \$7.9 million in 2007, primarily related to accelerated depreciation and other costs associated with our manufacturing rationalization programs.

Selling, general and administrative (SG&A) expenses declined by \$17.8 million in 2008. SG&A expense as a percent of sales declined to 13.2% of sales in 2008 from 14.7% of sales in 2007. SG&A expense declined primarily as a result of expense reduction efforts during the last three months of the year that were taken in response

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to slowing economic conditions and reduced sales. SG&A expenses in 2008 included net charges of \$3.9 million primarily related to charges for corporate development activities, asset write-offs and employee severance expenses, partially offset by benefits from litigation settlements and insurance proceeds. SG&A expense in 2007 included charges of \$12.2 million primarily related to litigation settlements and corporate development activities.

Impairment charges of \$58.4 million related to goodwill and \$21.8 million 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 were recorded in 2008. The goodwill impairment of \$41.4 million in the Tile Coating Systems business was triggered by lower forecasted cash flows resulting from the negative effect on operating results of the significant downturn in demand in U.S. and European housing and construction markets during the fourth quarter of 2008. The goodwill impairment of \$17.0 million and asset impairment of \$1.9 million in the Specialty Plastics business was the result of the downturn in demand from automotive, appliance and container applications, primarily driven by reduced demand in the fourth quarter of 2008. The decline in auto sales and U.S. home construction negatively impacted the business and the extended time forecasted for recovery in these markets and triggered an indicator of impairment. In addition, the 2008 impairment charge included a \$19.9 million impairment of property, plant and equipment in our Electronic Materials facility in Uden, Netherlands. The impairment was the result of a decline in the operating results and reduced future sales projections for our dielectric material products that are produced in the Uden facility. During 2007, an impairment charge of \$105.7 million related to goodwill and \$23.0 million related to long-lived assets was recorded in our Polymer Additives and Pharmaceuticals businesses.

Restructuring charges of \$25.9 million were recorded in 2008, primarily associated with the rationalization of our manufacturing operations in the Performance Coatings and Color and Glass Performance Materials segments, and other restructuring activities to reduce costs and expenses throughout all of our businesses. Restructuring charges of \$16.9 million in 2007 were primarily related to manufacturing rationalization activities in the Performance Coatings, Color and Glass Performance Materials, and Electronic Materials segments.

Interest expense declined in 2008 as a result of lower interest rates on our borrowings, partially offset by higher average borrowing levels. During 2007, a \$2.0 million write-off of unamortized fees associated with an unused portion of our term loan arrangements was included in our interest expense. During 2008, we refinanced our 91/8% 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 during the year.

Net foreign currency transaction losses were \$0.7 million in 2008, compared with \$1.3 million in 2007. 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. The carrying values of these contracts are adjusted to market value and the resulting gains or losses are charged to income or expense in the period.

Miscellaneous income, net decreased in 2008 primarily as a result of an increased provision for an environmental contingency in Latin America related to a previously closed manufacturing site, a loss on forward contracts in the current period, and lower gains on the disposal of assets. The decreased income was partially offset by benefits related primarily to reductions of accruals for contingencies.

During 2008, we recognized a tax benefit of \$3.2 million, or 5.7% of the loss before income taxes, compared to a benefit of \$18.0 million, or 15.5% of the loss before income taxes in 2007. The following items had the most significant impact on the difference between our statutory U.S. federal income tax rate of 35% and our effective tax rate:

2008

A \$15.4 million (27.5%) decrease resulting from goodwill impairment with only a partial tax benefit.

A \$9.8 million (17.4%) decrease resulting from an increase to valuation allowances due to a determination that it is more likely than not that certain deferred tax assets will not be realized.

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A \$6.5 million (11.6%) decrease resulting from rate differences between non-U.S. and U.S. jurisdictions.

A \$6.1 million (10.9%) increase resulting from a favorable tax impact on foreign dividends.

A \$5.7 million (10.2%) increase resulting from a decrease in the reserves for uncertain tax positions.

2007

A \$12.3 million (10.6%) decrease resulting from goodwill impairment not recognized for tax purposes.

A \$7.0 million (6.1%) decrease resulting from an unfavorable tax impact on foreign dividends.

A \$4.6 million (4.0%) decrease resulting from an increase to valuation allowances due to a determination that it is more likely than not that certain deferred tax assets will not be realized.

The 2008 loss from continuing operations was reduced from the loss recorded in 2007 as a result of lower impairment charges, reduced SG&A expense and lower interest expense. Partially offsetting these reduced expenses were higher restructuring charges in 2008 compared with 2007.

During 2008, we sold the Fine Chemicals business that was previously part of our Other Businesses segment. Primarily as a result of that sale, we recorded a gain of \$9.0 million, net of taxes, on the disposal of discontinued operations.

	2008	2007	\$ Change	% Change
	(Dollars in thousands)			
Segment Sales				
Performance Coatings	\$ 627,918	\$ 609,285	\$ 18,633	3.1%
Electronic Materials	558,313	469,885	88,428	18.8%
Color & Glass Performance Materials	456,644	445,709	10,935	2.5%
Polymer Additives	349,902	334,492	15,410	4.6%
Specialty Plastics	225,856	261,956	(36,100)	(13.8)%
Pharmaceuticals	26,519	26,577	(58)	(0.2)%
Total segment sales	\$ 2,245,152	\$ 2,147,904	\$ 97,248	4.5%
Segment Operating Income				
Performance Coatings	\$ 36,935	\$ 37,965	\$ (1,030)	(2.7)%
Electronic Materials	52,868	32,785	20,083	61.3%
Color & Glass Performance Materials	39,112	48,222	(9,110)	(18.9)%
Polymer Additives	6,086	10,755	(4,669)	(43.4)%
Specialty Plastics	5,385	15,116	(9,731)	(64.4)%
Pharmaceuticals	3,524	1,947	1,577	81.0%
Total segment operating income	\$ 143,910	\$ 146,790	\$ (2,880)	(2.0)%

Performance Coatings Segment Results. Sales increased in Performance Coatings as a result of growth in sales of tile products, which offset a decline in sales of porcelain enamel products. The primary drivers of the overall increase were favorable changes in foreign currency exchange rates which contributed approximately \$27 million to sales. In addition, increased product prices added approximately \$6.2 million to sales for the year. Partially offsetting these factors was a decline in volume, in our porcelain enamel products. In total, changes in volume in tile and porcelain enamel products decreased sales by approximately \$15 million. Sales increased in Europe, Latin America and Asia, and declined in the United States. Operating income declined primarily as a result of a \$1.2 million increase in selling, general and administrative (SG&A) expense. Gross profit was nearly flat as a result of increased product selling prices that were largely offset by higher raw material costs and the negative effects of lower manufacturing volumes.

Electronic Materials Segment Results. Sales grew in Electronic Materials as a result of improved customer demand for our advanced materials products, particularly conductive pastes used in the manufacture of solar cells,

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and our surface finishing products. Higher costs for precious metals, which generally are passed through to our customers with minimal gross profit contribution, contributed approximately \$70 million of the increased segment sales for the year. Changes in foreign currency exchange rates contributed approximately \$15 million to the sales increase. Sales grew primarily as a result of higher product shipments from our manufacturing facilities in the United States, although much of this product volume is used by customers in other regions. Operating income increased as a result of increased sales volume of higher-margin products, increased product pricing and manufacturing productivity improvements partially offset by higher raw material costs. Together, these changes resulted in a \$23 million increase in gross profit. The increase in gross profit was partially offset by an increase of approximately \$3.4 million in SG&A expense resulting primarily from growth in the business.

Color and Glass Performance Materials Segment Results. Sales increased in Color and Glass Performance Materials as a result of changes in foreign currency exchange rates, which increased sales by approximately \$22 million, and improved product pricing, which increased sales by approximately \$11 million. Partially offsetting this growth was lower sales volume, which reduced sales by approximately \$22 million. Net sales increased in all regions, led by increased sales in Europe. Operating income declined compared with the prior year as a result of lower sales volumes and higher raw material costs, partially offset by higher product pricing, leading to a \$9.5 million decrease in gross profit. This decline was partially offset by a \$0.4 million decline in SG&A expense.

Polymer Additives Segment Results. Sales increased in Polymer Additives primarily as a result of increased product prices which contributed approximately \$24 million to the sales growth. In addition, changes in foreign currency exchange rates increased sales by approximately \$6.4 million. These positive contributions to sales were partially offset by lower sales volumes which reduced sales by approximately \$16 million. Sales increased in the United States, Europe and Asia-Pacific. Operating income declined, primarily as a result of higher raw material costs and lower sales volumes, partially offset by higher product pricing. These changes led to a decline in gross profit of \$5.8 million. During 2008, the business incurred costs of approximately \$3.3 million to clean up an accidental discharge of product into the wastewater treatment facility at our Bridgeport, New Jersey, manufacturing plant. Reductions in SG&A expense offset a portion of these increased costs.

Specialty Plastics Segment Results. Sales declined in Specialty Plastics as a result of lower sales volume, partially offset by higher product pricing and changes in foreign currency exchange rates. Reduced volume reduced sales by approximately \$62 million. Product pricing and mix improvements of approximately \$21 million and changes in exchange rates of approximately \$5.4 million partially offset the sales decline. Sales were lower in the United States and Europe as a result of weak customer demand. Operating income declined due to lower sales volume and higher raw material costs that were not fully offset by higher product prices. These changes reduced gross profit by approximately \$13 million. The effect of the reduced gross profit on operating profit was moderated by a decline of approximately \$3.7 million in SG&A expense.

Pharmaceuticals Segment Results. Sales were nearly flat in Pharmaceuticals compared with the prior year. Operating profit improved primarily due to lower SG&A expense of approximately \$1.4 million. Improved manufacturing efficiency, partially offset by a less favorable combination of sales volume and product mix, resulted in an increase of approximately \$0.2 million in gross profit. 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 the Fine Chemicals business during 2008.

2008	2007	\$ Change	% Change
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(Dollars in thousands)

Geographic Revenues

United States	\$ 973,717	\$ 900,146	\$ 73,571	8.2%
International	1,271,435	1,247,758	23,677	1.9%
Total geographic revenues	\$ 2,245,152	\$ 2,147,904	\$ 97,248	4.5%

Sales of products shipped from the United States increased primarily driven by higher shipments of Electronic Materials products from our U.S. manufacturing facilities. U.S. sales of Polymer Additive products also increased. The sales increase was partially offset by lower U.S. sales of our Specialty Plastics and Performance Coatings

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products. Sales of products shipped from international regions increased slightly, driven primarily by increased sales of tile products in our Performance Coatings business. 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, 2009, 2008 and 2007

	2009	2008	2007
	(Dollars in thousands)		
Net cash provided by (used for) operating activities	\$ 2,151	\$ (9,096)	\$ 144,579
Net cash used for investing activities	(42,654)	(17,050)	(62,033)
Net cash provided by (used for) financing activities	46,625	23,854	(88,717)
Effect of exchange rate changes on cash	2,194	458	1,211
Increase (decrease) in cash and cash equivalents	\$ 8,316	\$ (1,834)	\$ (4,960)

Operating activities. 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 program.

Cash flows from operating activities decreased \$153.7 million from 2007 to 2008 primarily as a result of the absence of a return of cash deposits related to our precious metals consignment program, a decrease in accounts payable, and the absence of cash inflows from inventory reductions. Cash flows from operations in 2008 also included cash payments of \$27.3 million used for restructuring programs, an increase of \$14.7 million from 2007. Prior to 2008, FFC, a wholly-owned subsidiary, was a qualified special purpose entity and therefore unconsolidated. In 2008, in connection with an amendment of our U.S. asset securitization program, FFC ceased to be a qualified special purpose entity and was included in our consolidated balance sheet. The consolidation of FFC was a noncash event and, therefore, is not reflected in our cash flows. Upon consolidation of FFC, accounts receivable increased \$105.9 million, the note receivable from FFC decreased \$75.9 million and other non-current assets decreased \$30.0 million, with no change in cash.

Investing activities. Capital expenditures decreased \$29.8 million from 2008 to 2009 and increased \$5.4 million from 2007 to 2008. The primary reasons for the 2008 increase in 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, projects related to our manufacturing rationalization programs in the United States and Europe, and investments to support current and anticipated sales growth. In 2009, 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 2008, we sold our Fine Chemicals business and received proceeds, net of transactional costs, of \$56.5 million.

Financing activities. At December 31, 2009, our primary credit agreement consisted of a \$200.0 million multi-currency senior revolving credit facility and a senior term loan facility with an outstanding principal balance of \$231.4 million, both with maturities in 2012. 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 9 1/8% Senior Notes that would have matured in 2009.

In 2009, we had net repayments to all credit facilities of \$155.8 million, while 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 2007, we had net repayments of \$69.0 million to credit facilities, for a net increase in 2008 of \$133.7 million in our rate of borrowing. In 2009, we paid \$16.9 million to amend and enter into credit facilities. In 2008, we paid \$5.3 million to extinguish

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the 9 1/8% Senior Notes and \$5.6 million to issue the 6.50% Convertible Senior Notes. In 2007, we paid \$1.8 million to amend credit facilities.

In the first quarter of 2009, Ferro's Board of Directors declared a quarterly dividend of \$0.01 per common share. We paid no dividends on our common stock for the remaining quarters of 2009. In 2008 and 2007, 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 \$1.1 million in 2009, \$26.1 million in 2008, and \$26.1 million in 2007.

Capital Resources and Liquidity

Common Stock

In November 2009, we sold 41,112,500 shares of common stock and received \$215.7 million of net proceeds. We used portions of the net proceeds to reduce borrowings under our revolving credit and term loan facilities and to pay fees and expenses in connection with the amendment and restatement of those facilities.

6.50% Convertible Senior Notes

In August 2008, Ferro issued \$172.5 million of 6.50% Convertible Senior Notes due 2013 (the *Convertible Notes*). The proceeds from the offering, along with available cash, including borrowings under Ferro's revolving credit facility, were used to purchase all of Ferro's outstanding 9 1/8% Senior 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, beginning on February 15, 2009. The Convertible Notes mature on August 15, 2013. 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, 2009, we were in compliance with the covenants under the Convertible Notes indentures.

Revolving Credit and Term Loan Facility

In 2006, we entered into an agreement with a group of lenders for a \$700 million credit facility, consisting of a multi-currency senior revolving credit facility and a senior term loan facility, which replaced a former revolving credit facility that would have expired later that year. In 2007, we cancelled the unused portion of the term loan facility and amended the credit facility (the *2007 Amended Credit Facility*) primarily to increase the size of the revolving credit facility, reduce interest rates, and increase operating flexibility.

In March 2009, we amended the 2007 Amended Credit Facility (the *2009 Amended Credit Facility*) primarily to provide additional operating flexibility. The primary effects of the 2009 Amended Credit Facility were to:

- Increase the interest rates and commitment fees payable thereunder pursuant to a grid structure based on our leverage ratio,

- Increase the maximum permitted quarterly leverage ratio and decrease the minimum permitted quarterly fixed charge coverage ratio,

- Add a minimum cumulative EBITDA requirement for each quarter in 2009,

- Restrict the Company's ability to engage in acquisitions and make investments,

Limit the amount of cash and cash equivalent collateral the Company is permitted to deliver to participants in our precious metals program to secure our obligations arising under the precious metals consignment agreements,

Require additional financial reporting by the Company to the lenders,

Increase the amount of the annual excess cash flow required to be used to repay term loans,

Require application of the net proceeds of certain dispositions, but excluding the first \$20 million of such net proceeds, to be applied to repay debt outstanding under the revolving credit facility and term loans and to

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permanently reduce availability under the revolving loan facility on a dollar for dollar basis, provided that we are not required to reduce the commitments under the revolving credit facility to below \$150 million,

Eliminate our ability to request an increase of \$50 million in the revolving credit facility,

Add provisions governing the obligations of the Company and the lenders if one or more lenders under the revolving credit facility fails to satisfy its funding obligations or otherwise becomes a defaulting lender, and

Restrict our ability to make payments with respect to our capital securities. The 2009 Amended Credit Facility prohibits us from paying dividends on our common stock.

On October 26, 2009, we amended and restated our 2009 Amended Credit Facility (the 2009 Amended and Restated Credit Facility). The amendment and restatement became effective November 6, 2009, upon the closing of our offering of common stock. The primary effects of the 2009 Amended and Restated Credit Facility were to:

Extend the maturity of the revolving commitments through June 6, 2012,

Allow conversion of \$100 million of revolving loans into new term loans that also mature on June 6, 2012,

Require application of the proceeds in excess of \$50 million from the equity offering, net of equity issuance and facility amendment fees and costs, to repay outstanding term loans (as a result, we repaid \$79.0 million of existing term loans and \$79.0 million of new term loans),

Modify the maximum permitted leverage ratio,

Modify the minimum permitted fixed charge coverage ratio,

Delete the minimum EBITDA covenant, which was added in the 2009 Amended Credit Facility,

Delete the additional financial reporting by the Company to the lenders, which was added in the 2009 Amended Credit Facility,

Modify our obligations to apply the net proceeds of dispositions to repay outstanding revolving and term loans,

Step down the portion of the annual excess cash flow required to be used to repay outstanding loans depending on the leverage ratio,

Increase the amount of indebtedness our foreign subsidiaries may incur based on the leverage ratio,

Allow payment of dividends to holders of Series A preferred shares,

Eliminate the cap on the amount of cash we may deliver to secure our obligations arising under our precious metals program, and

Limit the amount of cash or cash equivalents we may hold.

The 2009 Amended and Restated Credit Facility currently includes a \$200.0 million revolving credit facility, which matures in 2012. At December 31, 2009, we had borrowed \$1.7 million of the revolver and had \$191.4 million available, after reductions for standby letters of credit secured by this facility. At December 31, 2008, we had

borrowed \$111.8 million of the revolver and had \$180.0 million available. Borrowings under our revolver declined due to the conversion of \$100 million of revolving loans into new term loans and use of proceeds from our equity offering to pay down debt. These reductions were partially offset by the result of our decision, as discussed below, to cash collateralize certain precious metals consignment agreements.

At December 31, 2009, the 2009 Amended and Restated Credit Facility also included a term loan facility with an outstanding principal balance of \$231.4 million, which matures in 2012. The Company is required to make principal payments to the term loan investors of \$68.4 million, \$71.0 million, and \$92.0 million in January, April and June 2012, respectively. In addition, each April we may be required to make an additional principal payment. The amount of this additional payment is dependent on the Company's leverage and certain cash flow metrics. Any additional payment that is required reduces, on a dollar-for-dollar basis, the principal amount due in the last three

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payments beginning with the earliest payment. We were not required to make an additional principal payment in April 2009 and will not be required to make an additional payment in April 2010.

We are subject to a number of restrictive covenants under our revolving credit and term loan facilities, 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. This risk is described in more detail in *Risk Factors* under Item 1A of this Annual Report on Form 10-K. At December 31, 2009, we were in compliance with the covenants of the 2009 Amended and Restated Credit Facility.

These covenants are negotiated with the group of lenders. The covenants include requirements for a minimum fixed charge coverage ratio and a maximum leverage ratio. Definitions of the covenants and our required performance can be found in our 2009 Amended and Restated Credit Facility, which was filed as Exhibit 10.1 to our Current Report on Form 8-K dated October 26, 2009. 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 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 debt level, external fees, and interest rates, primarily prime and LIBOR.

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 2009, we replaced the prior program with a new program that expires in June 2010 and reduced the program's size from \$75 million to \$50 million.

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 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. FFC is a wholly-owned subsidiary, which until December 2008 was a qualified special purpose entity (QSPE) and, therefore, was not consolidated. In December 2008, FFC ceased to meet the requirements of a QSPE and is included in our consolidated financial statements. As a result, this program is now accounted for as an on balance sheet arrangement.

At December 31, 2009, Ferro's consolidated balance sheet includes outstanding trade accounts receivable legally transferred to FFC of \$76.4 million and short-term debt from advances by the purchasers for their interests in those receivables of \$17.8 million. After reductions for non-qualifying receivables, we had \$5.7 million of additional borrowings available under the program at December 31, 2009.

Off Balance Sheet Arrangements

International Receivable Sales Programs. We maintain several international programs to sell trade accounts receivable. At December 31, 2009, the commitments supporting these programs, which can be withdrawn at any time, totaled \$61.1 million, the amount of outstanding receivables sold under these programs was \$15.2 million, and Ferro had received net proceeds under these programs of \$10.3 million for outstanding receivables. Based on available and qualifying receivables, there was no additional availability under these programs at December 31, 2009.

Consignment and Customer Arrangements for Precious Metals. In the production of some of our products, we use precious metals, primarily silver for Electronic Materials products and gold for Color and Glass Performance Materials products. We obtain most precious metals from financial institutions under consignment agreements (generally referred to as our precious metals program). The financial institutions retain ownership of the precious metals and charge us fees based on the amounts we consign. These fees were \$4.3 million for 2009. At

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December 31, 2009, we had on hand \$101.4 million of precious metals, measured at fair value, owned by participants in our precious metals program. We also process precious metals owned by our customers.

The consignment agreements involve short-term commitments that typically mature within 30 to 180 days of each transaction and are typically renewed on an ongoing basis. As a result, the Company relies on the continued wi